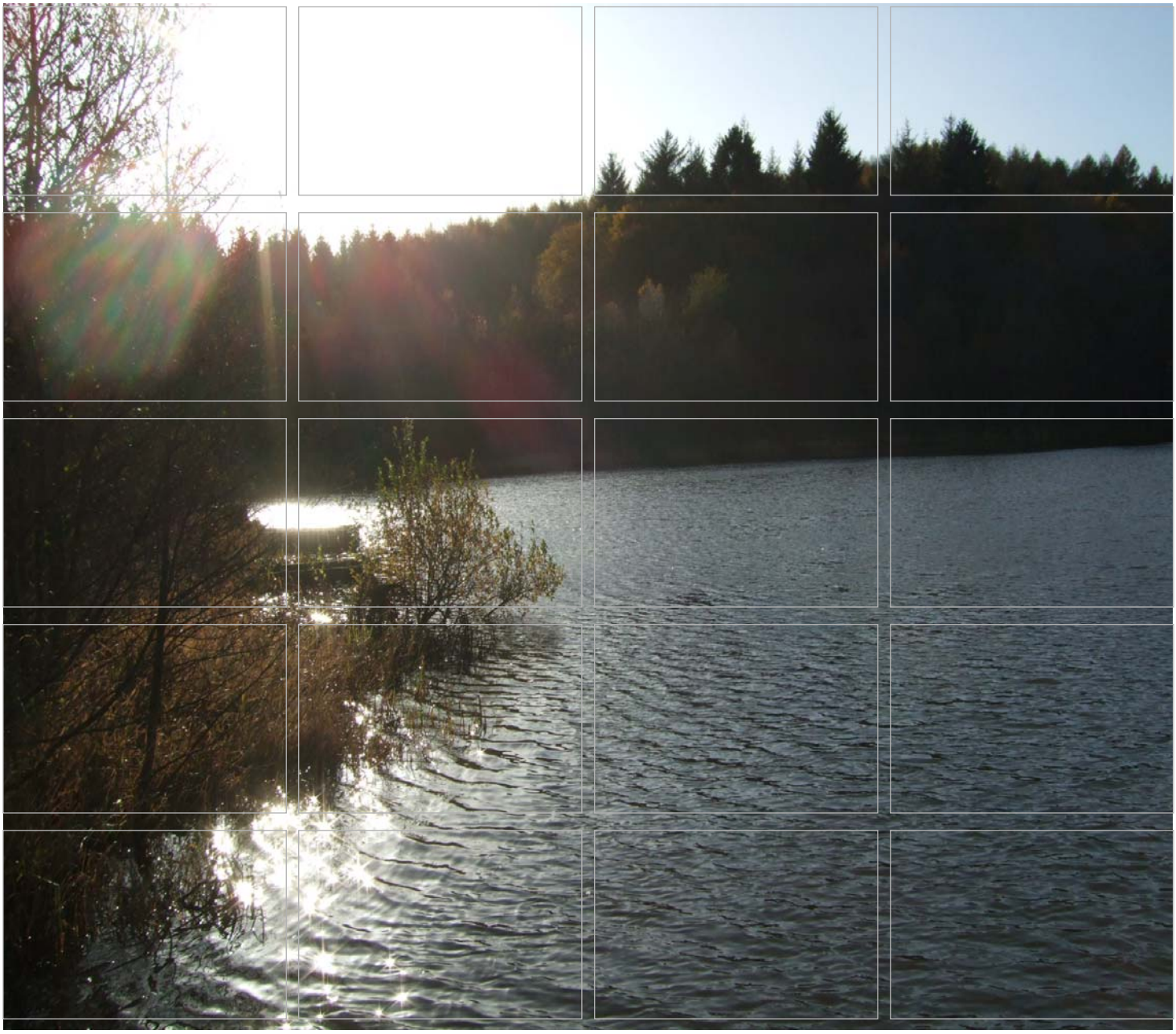

Cinderford Northern Quarter Area Action Plan

Sustainability Appraisal Report

Draft for Consultation

Forest of Dean District Council

October 2009

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Forest of Dean District Council

Cinderford Northern Quarter Area Action Plan

Reference 0093004

Sustainability Appraisal Report
Draft for Consultation

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For and on behalf of
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Approved by: Bruce Davidson

Signed: 

Position: Partner

Date: 14 October 2009

CONTENTS

1 THE SUSTAINABILITY APPRAISAL OF THE DRAFT AAP FOR THE REGENERATION OF CINDERFORD NORTHERN QUARTER

This Chapter provides an introduction to the Sustainability Appraisal Report (SAR), and the structure of the document. Subsequent chapters elaborate upon the process and outcomes of the Sustainability Appraisal (SEA/SA). The reader is directed to the signposting tables included within this Chapter, as a means to identify where the requirements of the SEA Directive and SEA/SA Guidance are located within this report.

1.2 INTRODUCTION

Forest of Dean District Council is developing an Area Action Plan (AAP) and Masterplan for the regeneration of Cinderford Northern Quarter. A Sustainability Appraisal has been carried out, in order to fulfil legislative requirements and help decision-makers develop an AAP which has thoroughly considered the sustainability of its policy direction, options and chosen interventions, pre-empting potential negative impacts and exploring opportunities to enhance the beneficial impacts of its preferred policy route.

This report comprises the Sustainability Appraisal Report (SAR), a key output of the Sustainability Appraisal process (hereafter also referred to as the "Appraisal" or "SEA/SA"). As will be explained in the body of this Report, Sustainability Appraisal is a process driven in part by compliance with European and English law(1)(2) and also by best practice. It incorporates both the process of SEA, and its principal output, the Environmental Report, seeking to augment this with thorough and effective integration of all aspects of sustainability.

This Report also notes the key findings of the Habitats Regulations Screening Assessment exercise and Appraisal of Flood Risk, undertaken to inform the drafting of the AAP and Masterplan, and this Appraisal.

1.3 THIS REPORT

The purpose of this report is to guide the reader through the process of the Appraisal and to summarise key findings which have emerged from this. Sustainability Appraisal is more than an 'output' or 'report'; it is a *process* and decision-making tool which enables the AAP drafting team to make informed decisions and optimal choices for progressing sustainability. Throughout this Report, therefore, the reader is directed to both the process and approach which underpinned the Appraisal, as well as the ultimate findings of the Appraisal itself.

(1) The SEA Directive: 2001/42/EC on the Assessment of the Effects of Certain Plans and Programmes on the Environment.
(2) Town and Country Planning Act, 2004

Following a period of public consultation on the Appraisal and its findings, a Post Adoption Statement will be produced, detailing how the Appraisal has influenced the drafting of the AAP and Masterplan. Further explanation of both this and the wider Appraisal process is outlined in *Chapter 3* of this report.

1.4 STRUCTURE OF THIS REPORT

The Structure of the Report is as follows:

- *Chapter 2* provides a brief **overview of the AAP and its primary objectives**. Also included is an overview of the AAP Options which were put forward for consideration during the development of the AAP, ultimately leading to the selection of the Preferred Option (1) which forms the basis of the AAP itself. The Report is intended to be read in conjunction with the AAP; however for the purpose of aiding understanding, a short synopsis of the AAP is included. It is important to reflect that the Appraisal informed the drafting of the AAP, as well as ultimately summarising the assessment of the version put forward for consultation.

- *Chapter 3* details the **process of undertaking the Sustainability Appraisal**, outlining the key stages of approach and key outputs derived from this. Whilst the Appraisal process may appear as a series of stages, it is in reality a dynamic and iterative process, with key stages being revisited as appropriate in light of new evidence or understanding. Also included within this Chapter is a summary of the key evidence base which informed the selection of the Preferred Option, the drafting of the AAP and the Appraisal itself.

- *Chapter 4* provides an overview of one of the key stages in the Appraisal process - the **review of the strategic context for the AAP**. This addresses the analysis that was undertaken of the policies, plans and programmes within which context the AAP will sit. The importance of this stage arises from the need to ensure that the AAP aligns with wider policy objectives and to address any potential conflicts that may be identified. In this way, the AAP can maximise the benefit it creates through integrated delivery with wider plans and policies.

- *Chapter 5* provides a **review of current conditions within Cinderford**, the Forest of Dean, Gloucestershire and the South West region, against which the AAP will be delivered. This summarises the range of factors, from economic, social and environmental, which will influence the effect of the AAP in terms of sustainability.

(1) The Preferred Option (2009) denotes the Option developed for this planning (and masterplanning) process. It is recognised that options development and review processes have previously occurred. For the purpose of this Report, however, the term 'Preferred Option' denoted the Option developed specifically for this AAP and Masterplan.

- *Chapter 6* presents two key elements - firstly, the **overview of key sustainability issues** which have emerged from the review the Appraisal Framework and secondly, the **Appraisal Framework** which emerges from the discussion of key issues and challenges. The Appraisal Framework is a set of key sustainability objectives established for the AAP, presented in the form of questions which are asked of the AAP and Masterplan. The Framework evaluates the AAP with regard to how it will deliver upon the sustainability challenge.

- *Chapter 7* presents the **findings of the Appraisal** of the AAP and Masterplan and the Preliminary Options considered during its development.

- *Chapter 8* sets out **recommendations** relating to implementation, proposed mitigation and enhancement measures, and monitoring.

The Report is supported by the following annexes:

- *Annex A:* Provides a detailed overview of the policies, plans and programmes analysed during the course of the Appraisal; the summary of this Annex is provided in *Chapter 4*.

- *Annex B:* Provides a detailed overview of the baseline conditions reviewed to inform the identification of key sustainability issues for the Appraisal to consider. The summary of this Annex is provided in *Chapter 5*.

- *Annex C:* Provides details of the Habitats Regulations Screening Assessment, carried out in accordance with the Habitats Directive. A summary of this Annex is provided in Chapter 7.

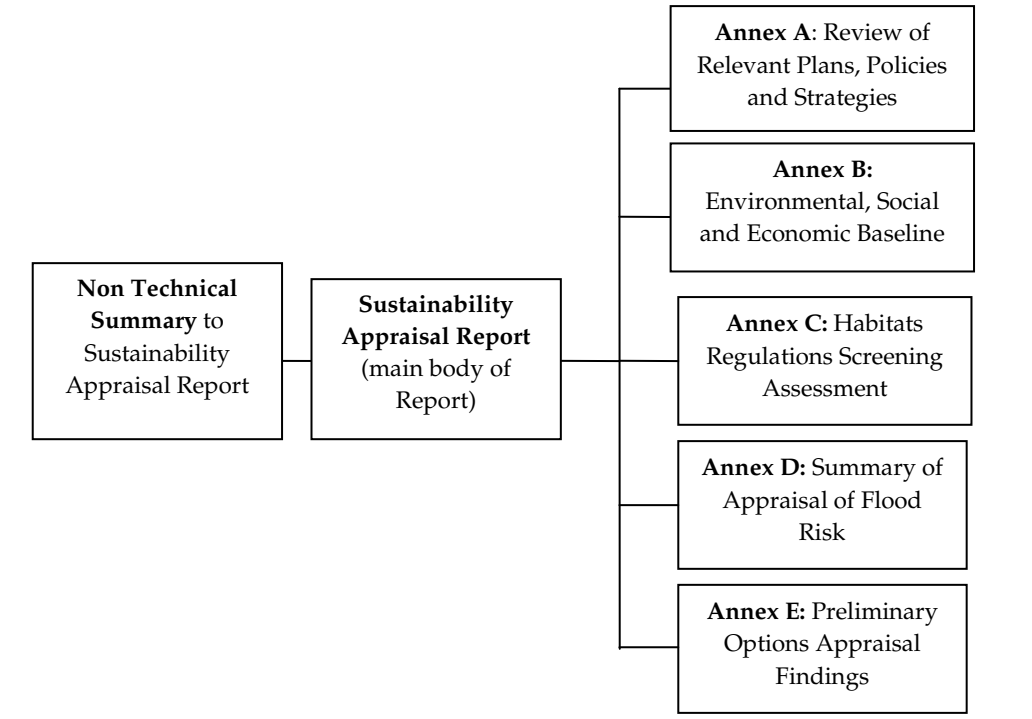
- *Annex D*: Provides a summary of the Appraisal of Flood Risk carried out to support the development of the AAP and Masterplan. An overview summary of this Annex is provided in Chapter 7.

- *Annex E*: Presents the Detailed Findings of the Preliminary Options Appraisal.

The report is also accompanied by a separate Non-Technical Summary (NTS).

For clarity, the seven components of the Sustainability Appraisal, and how they fit together, is illustrated below in *Figure 1.1*.

Figure 1.1 Report Components



1.5 *SIGNPOSTING THE REQUIREMENTS OF THE SEA DIRECTIVE AND THE WAY IN WHICH THESE HAVE BEEN ADDRESSED THROUGH THE ASSESSMENT PROCESS*

Under the SEA Directive and Regulations, there are specific requirements for what information must be provided in the SEA Environmental Report. in order that "the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and geographical scope of the plan or programme, are identified, described and evaluated." This Sustainability Appraisal comprises such a report, for the Area Action Plan (AAP) for the regeneration of Cinderford Northern Quarter.

The table below identifies where the required information is provided on this report, enabling the reader to understand how the requirements and components of an SEA have been addressed through the Appraisal process. Whilst the components of the Report are in compliance with the requirements of SA/SEA, the Report seeks to progress beyond normal practice, to relay to the reader the assumptions, practice and approach which forms the Appraisal process.

Table 1.1 Summary of Requirements of SEA Directive

SEA Directive Requirement	**Where this information is provided**
An outline of the contents and main objectives of the plan or programme.	Chapter 2
Relationship of the plan with other relevant plans and programmes.	Chapter 4 & *Annex A*
The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme.	Chapter 5 & *Annex B*
The environmental characteristics of areas likely to be significantly affected.	Chapter 5 & *Annex B*
Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC.	Chapter 5, *Annex B* & *Annex C*
The environmental protection objectives, established at international, Community or national level, which are relevant to the plan or programme and the way those objectives and any environmental, considerations have been taken into account during its preparation.	*Annex B*
The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors (1).	Chapter 5, 6 & 7
The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme.	Chapter 7 & 8
An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information.	Chapter 2 & 7 and *Annex E*
A description of measures envisaged concerning monitoring in accordance with Art. 10.	Chapter 8
A non-technical summary of the information provided under the above headings	See separate NTS document

(1) These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects.

2 THE AAP FOR THE REGENERATION OF CINDERFORD NORTHERN QUARTER

This Chapter provides an overview of the Area Action Plan (AAP) and Masterplan for the regeneration of Cinderford Northern Quarter, explaining its purpose and key outcomes which arise from it. Background context is provided to the AAP, enabling the reader to understand the process undertaken and options considered during its development, and a brief account of its scope. The reader is directed to the accompanying Draft AAP for further details.

2.2 BACKGROUND TO THE AAP

Cinderford has been identified by the Homes and Communities Agency (HCA), previously English Partnerships, as a priority regeneration area for the south west of England under its National Coalfields Programme. This has resulted in the formation of the Cinderford Regeneration Board (CRB) to lead the regeneration, and the appointment by the Forest of Dean District Council (FDDC) of a Regeneration Manager to report to the CRB.

The District-wide Local Plan was adopted in November 2005 and sets out policies and proposals to guide development in the Forest of Dean up to 2011. While this sets a broad strategic context for the Northern Quarter and allocates development sites, it does not provide detailed site specific guidance in relation to urban design, landscape, environmental, transport, delivery and phasing. In December 2008, therefore, the CRB published the Cinderford Business Plan, which is a 10 year action plan for the regeneration of the town.

This Sustainability Appraisal is concerned with the next step, which is to take the business case for the Northern Quarter from the Business Plan and translate it into a Masterplan and an AAP. The AAP will form part of the Local Development Framework (LDF) for the Forest of Dean District Council. The purpose of the AAP is to provide an appropriate context for the regeneration of the Northern Quarter. Once adopted, the AAP will be used to guide an outline planning application and the outline planning applications for the Northern Quarter site.

2.3 THE AAP: PURPOSE AND OBJECTIVES

The AAP sets out the plans for future development within the Northern Quarter of Cinderford, with the Preferred Option having been developed following the consideration of a number of Preliminary Options. The Preferred Option provides the basis for the Masterplan, which is being developed for the Northern Quarter. The AAP and Masterplan will sit within the FoDDC Local Development Framework (LDF) and the Council's Local

Development Documents (LDDs) and will contain a list of policies specific to the Northern Quarter area which will be used to judge applications which come forward for the site.

The AAP aims to facilitate the integration of the Northern Quarter area with the Statutory Forest, Steam Mills and Newtown residential areas, Steam Mills Lake, green spaces and town centre facilities, considering the ways in which sustainability can be embedded within the regeneration of the Cinderford area. The plans for a mixed use development within the area include provision of a hotel, office space and a potential education hub, along with accommodation for innovation / enterprise businesses, residential accommodation and a multi-purpose community leisure facility. The residential accommodation will provide a mix of unit types and tenures and will include up to 40% affordable housing provision.

There will also be provision of safe pedestrian and cycling linkages, as well as improved highways access and the development of public transport facilities to enable easy access between the site and the surrounding areas and facilities. The AAP seeks to promote exemplar standards of energy efficiency and sustainability, with the development aiming to reach Level 4 of the Code for Sustainable Homes (CSH) for residential development in 2010, and subsequent attainment of Level 5 and Level 6 in accordance with Government policy.

Given the area's rich natural surroundings, the development is seeking to sensitively integrate with the physical environment and outside spaces will be managed in a way which promotes opportunities for nature conservation.

The central objectives of the Draft AAP and Masterplan were developed in response to the preliminary findings of the Appraisal, and align with the Sustainability Objectives against which the Preferred Option and Masterplan have been assessed within this SA, as set out in *Section 6.3.3*.

The objectives of the Draft AAP and Masterplan are as follows:

1. To promote high standards of sustainable design including climate change adaptation and mitigation and renewable energy provision;
2. To realise the site's potential as a local amenity centre for surrounding communities;
3. To unlock the development potential of the site through the development of a new spine road which will enhance the accessibility of the Northern Quarter and Cinderford;
4. To achieve sustainable transport patterns through improved accessibility for pedestrians, cyclists and buses;
5. To facilitate the regeneration of the Northern Quarter through the development of an educational facility;
6. To ensure that development respects the area's important landscape, habitats and cultural heritage;
7. To protect and enhance the biodiversity value of the Northern Quarter;

8. To deliver an appropriate balance of employment, residential, community and leisure uses across the site;
9. To promote a wide range of leisure activities in the Northern Quarter to promote access to the forest;
10. To ensure that the development is carefully integrated with Steam Mills, New Town and Cinderford Town Centre in terms of amenities and physical connections; and
11. To ensure that the plan is deliverable and has a broad base of support.

2.3.2 Evidence Base

Key to the identification of Options, and ultimately the selection of the Preferred Option, has been the series of independent studies and reports, undertaken on behalf of FoDDC and HCA. These reports have provided a strong evidence base for the Appraisal, enabling a full understanding of the implications of the various Options, from an economic, social and environmental perspective.

The key reports and documents used to inform the development and Appraisal of the AAP Preferred Option (and constituent Masterplan) are shown below in Box 2.1.

Box 2.1 Evidence Base

Evidence base
Cinderford Business Plan (2007)
Transport Options Assessment (2009)
Transport Strategy (2009)
Baseline Report (2009)
Cinderford Regeneration Site Ecological Appraisal Report (2009)
Market Review (2009)
Screening against Habitats Regulations (2009) – see *Annex C*Strategic Flood Risk Assessment, Cinderford, Level 2 (2009)
Appraisal of Flood Risk (2009) – see *Annex D*
Consultation Report (2009)Mining Legacy Assessment (2009)
Heritage and Archaeological Study (2009)
Strategic Feasibility of Renewable Energy (2009)

Other documents
SA Scoping Report (2009)
Sustainability Appraisal (2009)
Sustainable Development Framework (2009)
Masterplan and Design Code (2009)

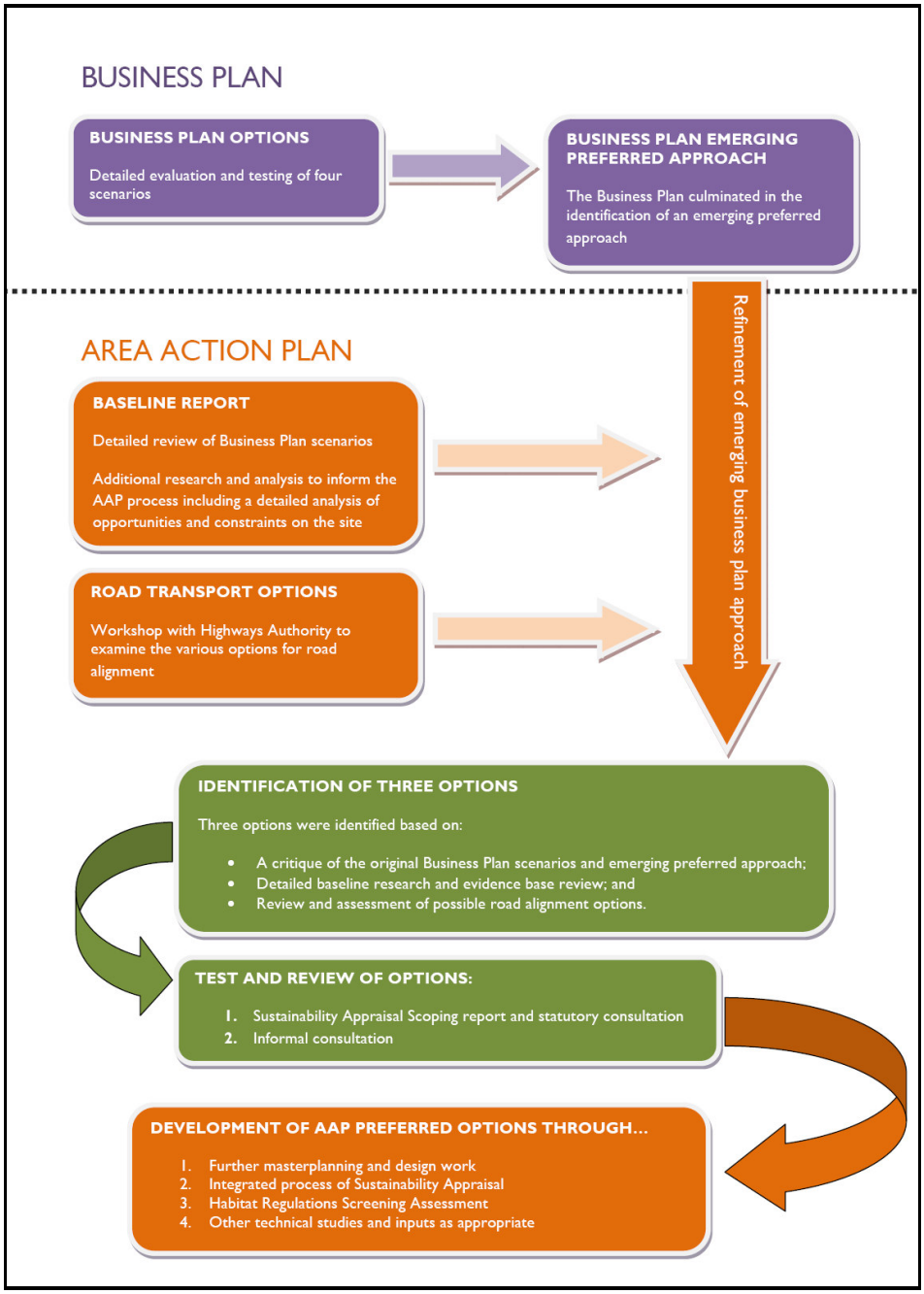
2.3.3 Development of Options for the Appraisal and Drafting of the AAP & Masterplan

Taking the Business Plan preferred option as a starting point, the AAP drafting team prepared three further variants on this approach (the 'Preliminary Options') through a process of informal consultation in May 2009 (as detailed in *Section 3.6*). These Preliminary Options detailed differing

visions of what the mixed use development could comprise, and take into account flood and wider constraints mapping. Further detail on these Options and their assessment is provided in Chapter 7.

Figure 2.1 provides a summary of the process of developing the Options, through which the AAP Preferred Option emerged.

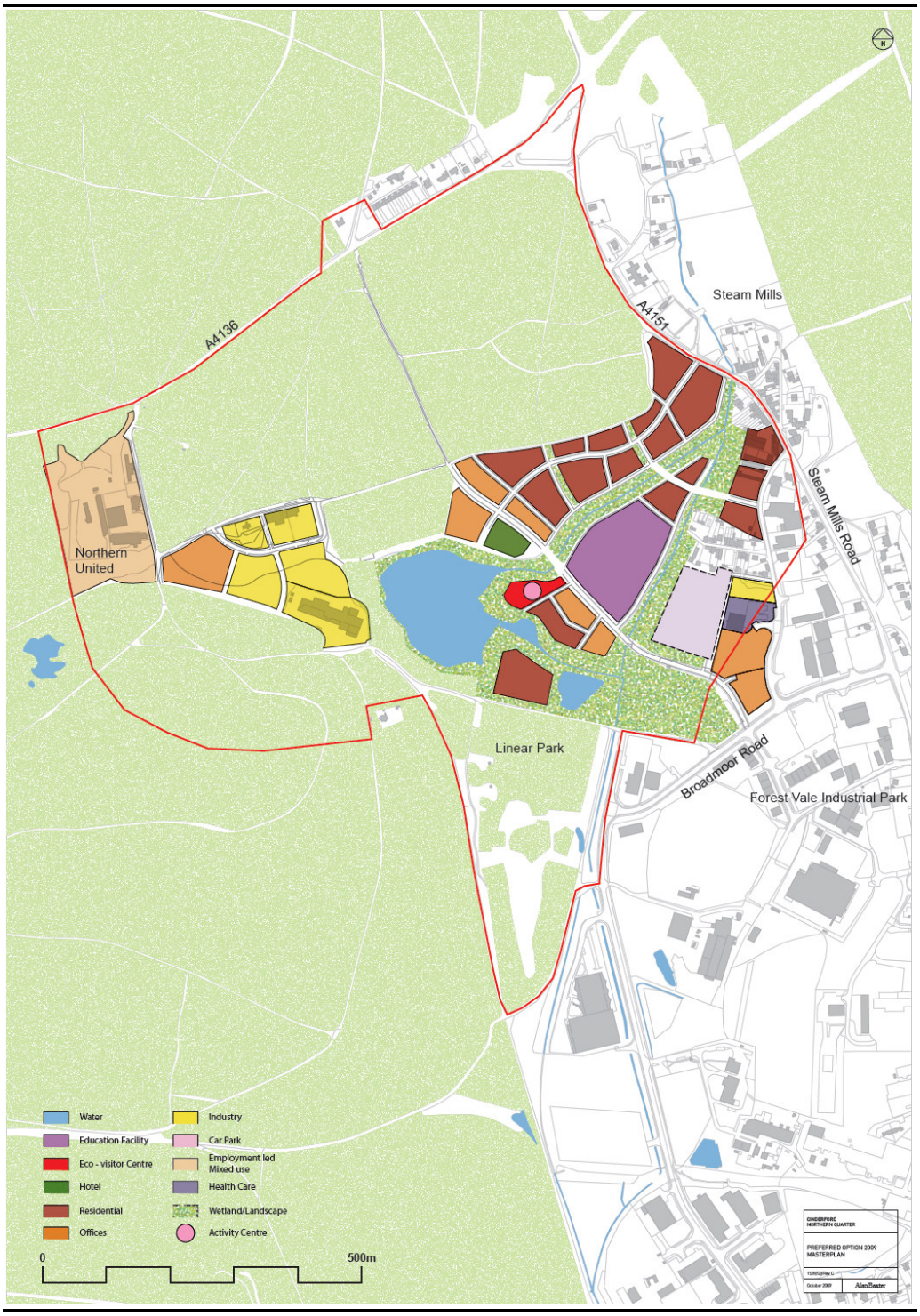
Figure 2.1 Options Development Process



2.4 *THE AAP AND MASTERPLAN: THE PREFERRED OPTION*

Following the assessment of Options, and subsequent refinements, the Preferred Option emerged and is encapsulated within the Draft AAP and Masterplan. A visualisation of the Preferred Option is shown in Box 2.2 below.

Box 2.2 The Preferred Option



3 THE SUSTAINABILITY APPRAISAL PROCESS

This Chapter provides a brief overview of the Sustainability Appraisal process and methodology. It aims to give the reader an understanding of the components and over view of the key stages of undertaking the Assessment. It also provides details of the consultation process undertaken to inform the Assessment process.

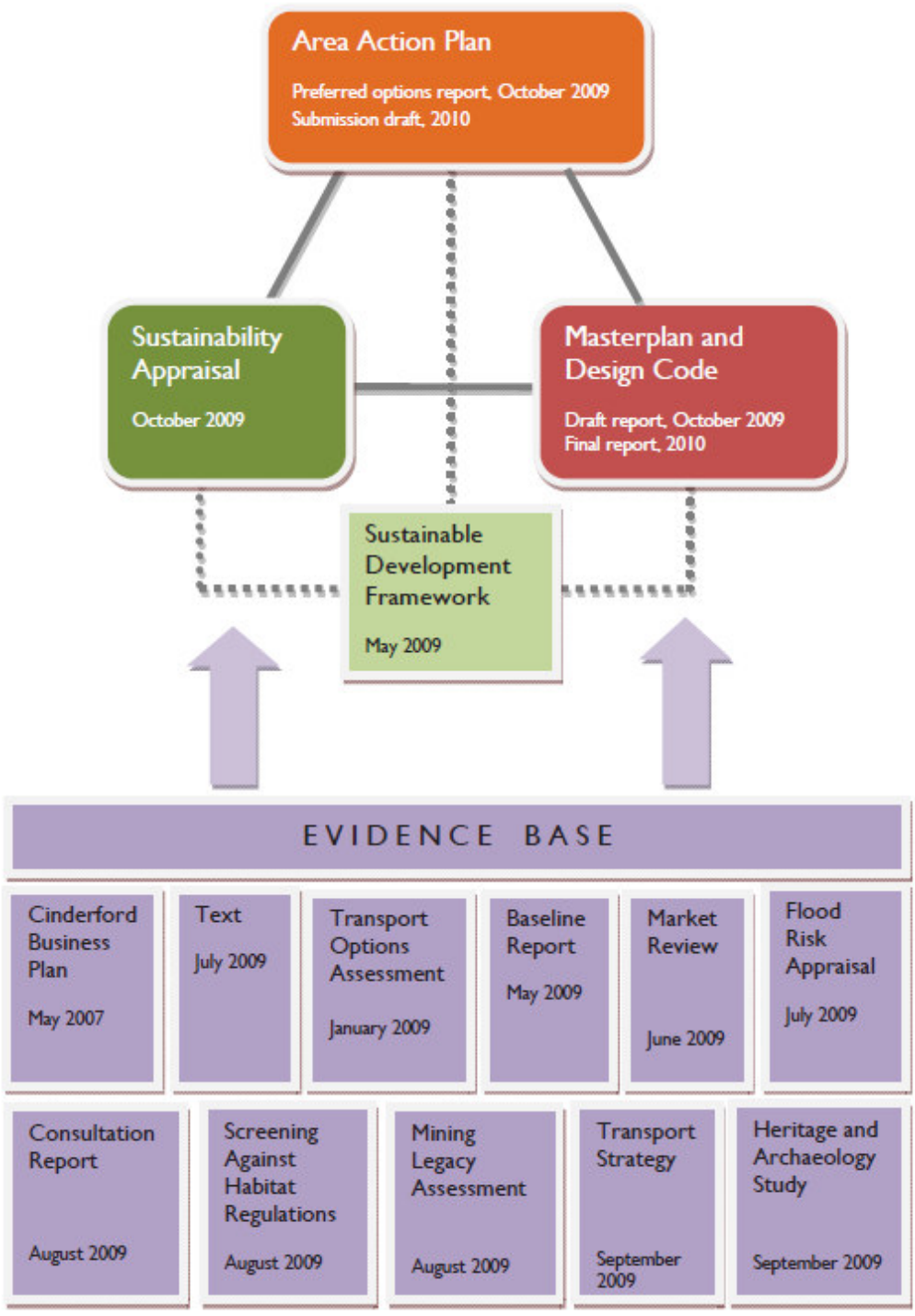
3.1 INTRODUCTION

A Sustainability Appraisal is an assessment process which seeks to predict and assess the economic, social and environmental effects which are likely to arise from a strategy, plan or programme – in this case the AAP and its Masterplan for the regeneration of Cinderford Northern Quarter. The Appraisal integrates a statutory assessment process called Strategic Environmental Assessment (SEA) and incorporates this within a broader context of sustainability focused objectives.

The Appraisal is, therefore, a process as well as an 'output'. For an Appraisal to be effective and really '*add value*', it must have the opportunity to *inform* the Strategy drafting process, i.e. it must influence how a Strategy is created *and* what the Strategy ultimately says. This Report details the process by which this 'influencing' has occurred to date, in the case of the AAP, noting that the Report and its consultation will also form part of this process of informing the AAP.

Figure 3.1 shows how the Sustainability Appraisal links in with the AAP and Masterplan preparation process, and sets out the evidence base used to inform the Sustainability Appraisal and masterplanning process.

Figure 3.1 How the Sustainability Appraisal fits in with the Wider Process



Upon completion of the consultation period and consideration of consultation responses, a Post Adoption Statement will also be produced to summarise how the Appraisal has influenced the development of the AAP.

The following Section provides a more thorough overview of the process of 'Appraising' and the specifics of how this particular Appraisal has been undertaken.

3.1.1 The Requirement for SA/SEA

SEA is a process inscribed in European law by Directive 2001/42/EC: 'On the assessment of the effects of certain plans and programmes on the environment'. SEA is defined by the 'SEA Directive' as:

'an important tool for integrating environmental considerations into the preparation and adoption of certain plans and programmes which are likely to have significant effects on the environment…because it ensures that such effects of implementing plans and programmes are taken into account during their preparation and before their adoption'.

The SEA Directive was approved by the European Parliament in 2001 and was incorporated into law on 20 July 2004 through The Environmental Assessment of Plans and Programmes Regulations (the 'SEA Regulations').

For the purposes of the Appraisal of the AAP, the SEA has been undertaken within the wider context of an SA, thereby covering economic, social and environmental issues in an integrated way. It is important to understand that this approach to thoroughly 'integrating' economic, social, environmental and resource issues is what gives 'Sustainability Appraisal' its value. The different aims and requirements of these two processes can be summarised as follows:

- *Strategic Environmental Assessment* (SEA) is a process for assessing and mitigating the likely significant effects on the **environment** of specific plans and programmes; as described above, this is a requirement under EU *Directive 2001/42*, which is transposed into law through the *Environmental Assessment of Plans and Programmes Regulations 2004.*

- *Sustainability Appraisal* (SA) is a process which focuses not only on the **environment**, but also on **economic** and **social** considerations. SA is only mandatory for certain plans and programmes, but is now regarded as good practice, integral to the development of policy, plans and programmes which are, or can contribute to, sustainable decision making. It provides a way of identifying whether plans, programmes, strategies and policies promote sustainable development and realise opportunities for ensuring the delivery of sustainable outcomes. It is, therefore, integral to the process of better decision-making and joined up policy making at all levels of governance.

This integrated assessment methodology has therefore been called 'SA/SEA' to indicate that:

- the assessment follows and is fully compliant with the requirements of the SEA Directive; and
- the assessment goes beyond the scope of SEA to include social, health and economic issues in a similar way; this being compliant with current best practice.

In order to comply with the requirements of the *Environmental Assessment of Plans and Programmes Regulations 2004*, and best practice guidance on the SA, the SA/SEA has been undertaken as follows:

- the findings of the SA/SEA are published in a Sustainability Appraisal Report (SAR - incorporating an SEA Environmental Report) which sets out the significant effects of the Draft Plan;
- consultation has been undertaken on the Draft Plan and the SAR;
- the results of consultation have been taken into account in decision-making relating to the adoption of the Strategy; and
- information on how the results of the SA/SEA have been taken into account will be made publicly available.

3.1.2 Mitigation

The SAR allows decision-makers, Consultation Bodies (detailed in *Section 3.6*), the public and other stakeholders to understand the nature of the Appraisal which has been conducted into the AAP, and the predicted significant sustainability impacts of the Preferred Option. Key to this is the identification of measures that will be implemented to prevent, reduce and offset any significant adverse effects and enhance potential beneficial impacts. The Appraisal is deliberately undertaken in advance of the AAP being finalised, to ensure stakeholders have the opportunity to input.

3.2 KEY STAGES IN THE SUSTAINABILITY APPRAISAL PROCESS

Sustainability Appraisal Guidance recommends that the SEA/SA process should comprise the following key tasks:

- Preparation of an SA/SEA Scoping Report;
- Developing an SA Framework (incorporated within the Scoping Report);
- Consultation with the Statutory Consultation Bodies;
- Cumulative Effects Assessment (within this report); and
- Preparation of an SA Report (including SEA Environmental Report) (this report).

To achieve this, the key stages involved in the SA/SEA process (as per Guidance and the SEA Directive) are as follows:

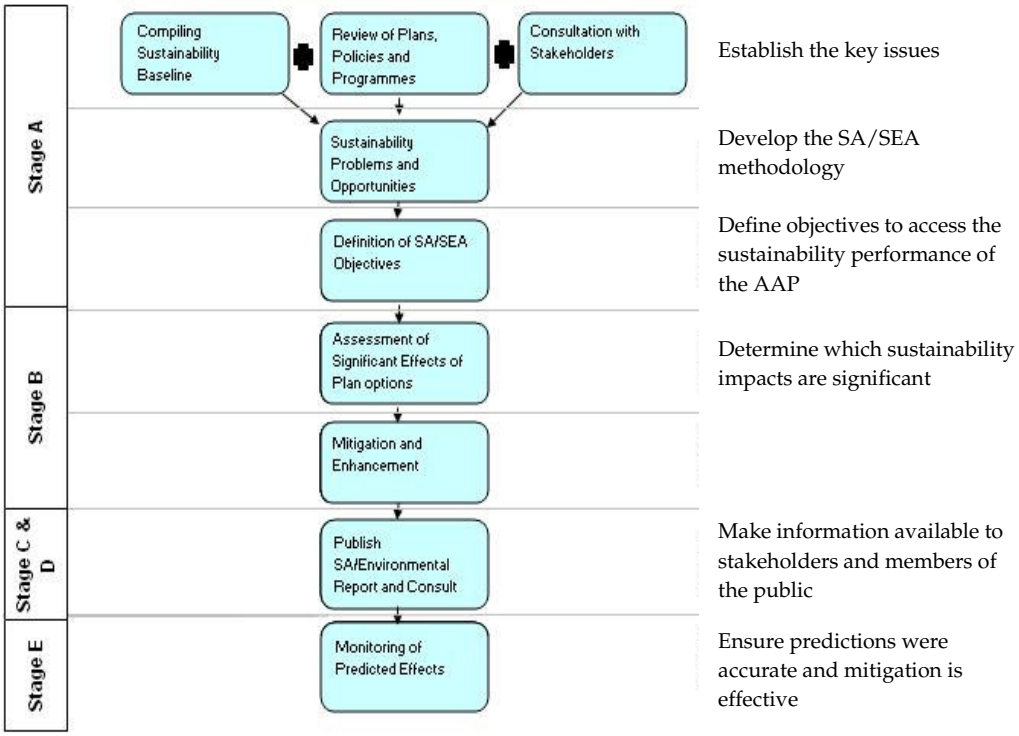
- **Stage A**: Setting the context and objectives, establishing the baseline and deciding on the scope;
- **Stage B:** Developing and refining alternatives and assessing effects;

- **Stage C**: Preparing the Sustainability Appraisal/Environmental Report;
- **Stage D**: Consulting on the draft plan or programme and the Sustainability Appraisal/Environmental Report; and
- **Stage E:** Monitoring implementation of the plan or programme

These stages are intended to flow chronologically but it is important to note that during the course of the Sustainability Appraisal, a review of previous stages is undertaken as appropriate, for example, where new plans, policies or programmes emerge, these are fed into the review of such documentation conducted as part of the Scoping Stage.

Figure 3.2 outlines the broad process, and the subsequent Sections summarise how these have been undertaken to date.

Figure 3.2 The Flow of Stages in the Sustainability Appraisal Process



3.3 OVERVIEW OF DELIVERY OF KEY PROCESS STAGES

3.3.1 Stage A

As outlined above in *Figure 3.2*, Stage A of the Sustainability Appraisal process focuses on the scoping of baseline conditions within the impacted area, the review of relevant plans and programmes, and the identification of key sustainability issues and opportunities which arise from the AAP and its future application.

To produce the *Scoping Report* the following tasks were carried out:

- Identification of key relevant plans, policies, programmes and strategies which link to and inform the assessment of the AAP and Masterplan. Details of this overview are presented in *Chapter 4* and *Annex A.*

- Collation of available data to illustrate baseline conditions/trends and identification of particular sustainability issues and opportunities to be considered during the development of the AAP and Masterplan. Details of this overview are presented in *Chapter 5* and *Annex B.*

- Drawing together the findings of the policy review and baseline assessment to determine the scope of, and methodology for, the Appraisal, and to develop the objectives for the Sustainability Appraisal as set out in the Sustainability Appraisal Framework. These objectives have been informed by the review of plans and programmes and the review of baseline conditions, and are shown here in *Chapter 8.*

- Addressing the comments received on the Scoping Report, which was put out for consultation to the Statutory Consultees in June 2009. These comments have been taken into consideration with respect to the updating of baseline and Strategy conditions, and the assessment of findings themselves.

The Scoping Report was issued to the Environment Agency (EA), English Heritage (EH) and Natural England (NE).

Feedback received from these organisations has been used to inform the assessment and listing of recommendations for implementation. This is detailed in *Section 3.6.1*.

3.3.2 Stage B

Following consultation on the Scoping Report, the full assessment process was initiated. In summary, the assessment process has involved appraising a number of potential layout Options put forward during the development of the AAP ands Masterplan. An extensive assessment of each Option was undertaken, taking account of the research undertaken to date. The Appraisal has considered enhancement and mitigation measures in the form of key issues and recommendations for implementation – which it considers pertinent to the successful delivery of the AAP, and maximisation of their sustainability benefits.

3.3.3 Stages C and D

This report is being published in compliance with the SEA Directive. It represents a key output of the Appraisal process and is put forward for six weeks consultation from 19th October 2009.

3.3.4 *Wider Assessment*

Concurrent to the undertaking of this Sustainability Appraisal, a Habitats Regulation Screening Assessment and Appraisal of Flood Risk have been conducted and have been used to inform the Draft AAP. The findings of these assessments have been used to inform the assessment of Options and predicted effects of the AAP.

3.4 *APPRAISAL PROCESS*

Formal and informal Appraisal has been used to inform the review and drafting of the AAP. The ongoing discussion and review process has comprised the following:

- Ongoing meetings between the AAP team (ABA, UP & ERM) and the client (FoDDC & HCA);
- Provision of – and input to commissioning of – survey and assessment work to inform the development of the AAP Preferred Option;
- Review and assessment of Options identified by the FoDDC & HCA for the AAP, noting the implications this has for maximising the sustainability of what can be achieved;
- Ongoing reviews of AAP drafts and the evidence base informing its development; and
- Engagement with statutory and wider non-statutory stakeholders (ongoing).

3.5 *HOW THE APPRAISAL PROCESS HAS INFORMED THE DEVELOPMENT OF THE AAP PREFERRED OPTION*

The Sustainability Appraisal has directly influenced the development of the Preferred Option and provides a number of recommendations for the onward implementation of the Preferred Option through the planning process. Sustainability has been a major focus for the AAP from the outset, commencing with the preparation of The Sustainable Development Framework (published in May 2009). This set out key sustainability objectives for the AAP and Masterplan (both at a strategic and site specific level) and provided the basis for the review of aspects such as the road alignment and onward development of the business plan options.

During the AAP/Masterplan Options development process the Sustainability Appraisal provided an interim review of the three Options presented at informal consultation. This assessment was based on the framework presented in the SA scoping report. In addition, the scoping process provided the opportunity to engage with statutory consultees in relation to the scheme and the assessment framework being developed. The outcome of this process

was fed back to the AAP/masterplanning team to inform the development of the Preferred Option. Thereafter, the ongoing Appraisal has provided feedback to the AAP/masterplanning team in an iterative process, to ensure that a robust and comprehensive scheme has been delivered and that potential opportunities have been identified for future development.

The iteration of the AAP and Masterplan in conjunction with the Appraisal process has been achieved through a number of mechanisms. In particular, there have been workshops and communications between the SA and masterplanning team, in which assessment findings were discussed and incorporated within the evolving plan. In addition, a member of the SA team has attended client meetings to interact with the design process and relay outcomes of the appraisal process to key stakeholders. This has assisted in facilitating a balanced discussion of the opportunities and constraints presented by the site itself and the various Masterplan Options. The sustainability context was also a key part of the wider consultation process, at which representatives of the Sustainability Appraisal team facilitated a broader understanding of the sustainability objectives and assessment process and gained stakeholder comment and feedback assist the design process.

3.6 CONSULTATION

Engagement with stakeholders has taken place throughout the duration of the AAP development and Appraisal process, in line with best practice. It is important to note, however, that the process is ongoing and there remain opportunities for stakeholders to continue to influence the finalisation of the AAP and Masterplan, not least through the formal Consultation period which this Report and the Draft AAP and Masterplan are subject to. Engagement commenced with discussion with the Consultation Bodies (English Heritage, Natural England and the Environment Agency) in regard to the Scoping Report, and engagement with both statutory consultees and non-statutory consultees, including the public, has continued throughout the Appraisal. A summary of responses received from statutory and non-statutory consultees is provided below.

3.6.1 Statutory Consultee Responses to the Scoping Report

Responses to the Scoping Report were received from the Environment Agency and Natural England, and have been addressed to ensure that the SEA/SA provides a robust and comprehensive assessment of the sustainability issues relating to the AAP Options.

A summary of the statutory consultee comments and how they have been addressed in this report is provided below in Table 3.1.

Table 3.1 Statutory Consultee Responses

Consultee Comment (summary)	Response
Environment Agency	
There needs to be an independent section for contaminated land and groundwater.	Independent section for contaminated land now included in *Annex A, Annex B* and *Section 4* A thorough site investigation of the study area (in accordance with CLR11) will be undertaken at the time of application for planning permission.
Request for additional indicators to be included; • Groundwater vulnerability maps; • Number of sites remediated in district; and • The area in ha of remediated land.	Data from the groundwater vulnerability maps has been included. Data on the number of remediated sites/area of remediated land are not all publically available and so this data is difficult to accurately obtain and then incorporate. Publically available data regarding the location of boreholes and site investigations in the area is available from the British Geological Society.
Request for additional objectives to be included: • Contaminated land is restored and returned to beneficial use; and • Fewer pollution incidents impacting on air, land and water.	Objectives have been added, noting that it will not be possible to quantify the relative number of pollution incidents prior to and post-AAP, therefore a qualitative assessment will be carried out against this objective, as agreed with the EA.
Need for more information on the low water flow situation in the Cinderford Brook (classified as over-abstracted) and how this will be tackled through new developments. Need to look at water flow problems in the area, The potential impact of this on wildlife and potential opportunities to overcome or deal with this issue. Issues of water quality also need to be covered.	Low flow issues are discussed in *Section 2.4*, And an objective has been added to the framework to cover issues relating to water quality, noting that this issue will primarily be addressed through EIA assessment at the Masterplanning and future design stages.
Importance of high level Code for Sustainable Homes.	Importance of this noted within Report and included as a framework objective
Incorporation of SUDS systems into new development	Importance of this noted within Report and included as a framework objective
Need to incorporate level 2 SFRA into SA including ensuring design and mitigation takes account of climate change. Also, need to mention opportunities to further reduce existing flood risk within Cinderford (design and flood management storage)	Level 2 SFRA has been carried out as part of the assessment, and summarised within this report. Additional recommended mitigation measures are also put forward in this report.
Need to include more strategies and policies on material assets	Additional strategies have been included
Consideration of commercial and industrial waste should be added	Further details have been provided relating to Commercial and Industrial Waste, and information updated as more has become available.
Clarification wanted on which objectives are identified as SA objectives	Sustainability objectives detailed in column on right hand side
Natural England	

Consultee Comment (summary)	Response
Population, Health & Wellbeing: NE recommends the inclusion of more information around the use of spatial planning to resolve some of the issues raised in the baseline data. References to the Designing Out Crime Association and sustainable construction policies and indicators are recommended.	Information and additional policies included. The AAP addresses this more broadly in the context of spatial planning; Designing Out Crime and the importance of sustainable management of the delivery of the AAP and Masterplan are also noted.
Health Baseline Data: NE recommends inclusion of additional health and wellbeing datasets such as those available from the National Obesity Observatory and the South West Public health Observatory.	Additional information sources included within *Annex B* and the Review of Issues.
Transport: NE suggests that there should be a table specific to transport. NE wishes to see an overview of the rights of way provision e.g. Gloucestershire Rights of Way and countryside access Improvement Plan 2006-2011.	Transport policies remain integrated throughout sections of the Annexes. A specific objective on the need for sustainable transport provision and facilitating more sustainable travel patterns has also been included.
Landscape character: NE recommends the inclusion in the baseline data of information generated as part of the Countryside quality Counts project.	Information included within the baseline.
Biodiversity: NE recommends the following central objective be added: "Create, protect, enhance, restore and connect habitats, species and sites of Biodiversity or geological interest through appropriate planning". The connectivity of habitats is vital to their integrity, and the survival of their populations, particularly for bats and so 'connect' is of vital significance.	Objective included within the Appraisal Framework. The SEA/SA recognises the importance of habitat connectivity as a means of protecting and enhancing biodiversity within the immediate and surrounding area.
Severn Estuary SPA/Ramsar/SSSI/pSAC: NE raises the importance of the River Wye SAC. Also, the Severn Estuary is a Natura 2000 site and any policy or development that may impact upon a Natura 2000 site is subject to European Habitat Regulations Assessment.	A Habitats Regulations Screening Assessment has been undertaken and the findings have been used to inform this Appraisal and recommendations section.
Green Infrastructure: NE recommends that Green Infrastructure be a material consideration of all development sites.	Information has been included regarding this and also taken into consideration within the assessment and recommendations section.

3.6.2 Public Consultation

In order to ensure that the views of local people are taken into consideration during the development of the AAP Preferred Option, a programme of public consultation has been undertaken in addition to the statutory consultation previously alluded to.

In May 2009 the Cinderford Northern Quarter AAP consultant team conducted a series of consultation events in Cinderford. The events were designed to engage key stakeholders and members of the local community in order to inform the development of the AAP Preferred Option.

Full details of the consultation process and outcomes are provided in the Cinderford Northern Quarter Masterplan and Area Action Plan Consultation Report (August 2009). A summary of key activities and key sustainability issues raised is provided in Box 3.1 below and Table 3.2 Key Sustainability Issues Raised and AAP Response.

Box 3.1 Key Consultation Activities and Summary of Key Issues Raised and AAP response

Public Consultation Activities Undertaken:

- Officers and members' briefing (held at FoDDC offices)
- Steam Mills drop-in consultation
- Market stall consultation
- Stakeholder workshop (Miner's Welfare Hall, Cinderford)
- Youth conference, attended by children from 7 schools
- Questionnaires distributed over the course of the consultation period

Key Sustainability Issues Raised:

- Concern at the number of Heavy Goods Vehicles (HGVs) using Steam Mills Road (nuisance to residents)
- Flooding of houses around the river and the need to deal with this issue before constructing any new homes there
- Desire for use of local builders in the construction of new development
- Need for high quality affordable homes
- Importance of protecting local wildlife habitats from new development
- Need for high quality new buildings and to protect against the loss of existing local character, including historic sites.
- Concern that future uses would detract from the quality of the area, particularly restaurants and fast-food outlets
- Need for an appropriate mix of uses, rather than large industrial buildings or housing estates.
- considerable support for promotion of tourism (infrastructure) within the area
- Improvements to public realm quality
- Need for improved community safety (including road safety) and cohesion

Table 3.2 Key Sustainability Issues Raised and AAP Response

Stakeholder Sustainability Issues Raised	Response in the AAP Preferred Option 2009
Concern at the number of Heavy Goods Vehicles (HGVs) using Steam Mills Road (nuisance to residents)	The preferred option provides a new spine road between the A4136 and Broadmoor Road. This will provide an alternative access route to Cinderford and remove traffic from Steam Mills Road.
Flooding of houses around the river and the need to deal with this issue before constructing any new homes there	Flooding concerns have been central to the development of the AAP so as to maintain the viable flood plain and mitigate the potential impacts of development (see Appraisal of Flood Risk).

Stakeholder Sustainability Issues Raised	Response in the AAP Preferred Option 2009
Desire for use of local builders in the construction of new development	Local procurement and the use of local materials are encouraged through the AAP and the development of a sustainable procurement strategy is recommended.
Need for high quality affordable homes	Up to 40% of affordable homes will be provided in residential plots and all residential properties will be developed to code for Sustainable Homes Level 4.
Importance of protecting local wildlife habitats from new development	Green corridors have been introduced throughout the masterplan along with a landscape and biodiversity strategy. The AAP identifies that species mitigation measures will be required in developing the site and the Habitats Regulations Screening Assessment has considered the potential impacts on wider European designated sites.
Need for high quality new buildings and to protect against the loss of existing local character, including historic sites.	A heritage assessment has been undertaken for the site and the outcomes of this process have been integrated into AAP policy. In addition, it is hoped that the location of the site will help establish a stronger identity for Cinderford, since the site will provide a 'stepping stone' to the town centre, and create a new gateway for the town
Concern that future uses would detract from the quality of the area, particularly restaurants and fast-food outlets	It is not the intention of the masterplan to introduce fast food chains and it is hoped that any Cafes and restaurants will be associated with out uses on site such as the Hotel (high quality) and eco/visitor centre
Need for an appropriate mix of uses, rather than large industrial buildings or housing estates.	The mix of uses across the site has been developed to provide a balance between employment and residential needs along with the effective integration of other uses such as education and health.
considerable support for promotion of tourism (infrastructure) within the area	The introduction and central location of the eco-visitor centre and activity centre has been will assist the growth of tourism in the area and the network of cycleways across the site linking to national trails will improve connectivity.
Improvements to public realm quality	The quality of the public realm expected is identified in the Design codes supporting the masterplan

Stakeholder Sustainability Issues Raised	Response in the AAP Preferred Option 2009
Need for improved community safety (including road safety) and cohesion	It is intended that the new spine road will alleviate existing road safety concerns around Steam Mills and the primary School and the infrastructure and pedestrian/cycle network across the site responds to this comment.

The issues raised have been used to inform the Appraisal, reflected in both the narrative of the assessment and in the recommendations outlined in *Chapter 9*.

3.6.3 Consultation Going Forward

Formal consultation will now take place during the six week consultation period on the Draft Sustainability Appraisal Report.

3.7 POST-ADOPTION STATEMENT

After the findings of the six week consultation period have been considered, a summary statement of the Appraisal process and its influence on the drafting or development of the AAP will be produced. This is an important element of the Sustainability Appraisal process and a requirement under the SEA Regulations.

4 STRATEGIC REVIEW OF POLICIES, PLANS AND PROGRAMMES

This Chapter sets the policy context for the Sustainability Appraisal, considering a review of the national, regional, local and area policies, plans and programmes and sustainability objectives that might influence or set a context for the AAP. A full review of the policies, plans and programmes is provided in Appendix A.

4.2 INTRODUCTION

Integral to the Appraisal process is a clear understanding of how the AAP will comply with existing and forthcoming policies, plans and programmes within the local and national context, and beyond. This is essential in order to identify any potential conflicts that may exist between policies, but also to identify opportunities to exploit through collective or in-combination delivery of the AAP with specific wider plans, policies and programmes. A review of the wider strategic context was undertaken to inform the Scoping Report and has been revised in this Sustainability Appraisal Report. This Chapter, therefore, identifies and summarises the relevant plans, policies and programmes, and their respective sustainability objectives, such that this can usefully inform the Appraisal of the AAP and its Masterplan.

4.3 REVIEW OF PLANS: SUSTAINABLE DEVELOPMENT

4.3.1 *Plans considered*

- UK Government's Sustainable Development (SD) Strategy 'Securing the Future'
- 'One future - Different Paths - The UK's Shared Framework for Sustainable Development'
- 'Sustainable Development Framework indicators'
- Planning Policy Statement 1 (PPS1)
- South West Sustainable Development Framework
- The South West Plan
- The Regional Economic Strategy
- Gloucestershire's Sustainable Community Strategy 2007-17
- Sustainable Community Plan for the Forest of Dean 2008-2020
- Forest of Dean Sustainability Appraisal
- Cinderford Business Plan

4.3.2 *Implications for the AAP*

The planned regeneration of Cinderford interacts with all of the overarching sustainability objectives promoted and progressed by the strategies, frameworks, statements and plans outlined in this Chapter. This Appraisal

aims to assess the resource, environmental and social effects of the Draft AAP Options in an integrated manner.

The Draft AAP will play a key role in firstly determining how the industrial legacy of Cinderford is regenerated and secondly in the future opportunities available for residents of Cinderford. Regeneration in Cinderford will also have a significant impact on the Forest of Dean and larger South West region.

Securing value for money should be integral – with 'value' taken in its wider sense to include the environmental and social value of decisions. Thus, funding streams and procurement for the regeneration works should be focused to encourage practice with positive environmental, social and economic effects (such as new employment opportunities in growth sectors).

Regional and local strategies for the area aim at reducing the ecological footprint of the areas, in particular focusing on the need to address climate change at the local level and operate low carbon economies. The Draft AAP & Masterplan needs to ensure that these objectives are met through a wide variety of means (e.g. buildings, infrastructure and public transport).

4.4 REVIEW OF PLANS: ECONOMY

4.4.1 Plans considered

- EU European Employment Strategy – EES (2005)
- A Government Action Plan for Small Business
- South West Regional Economic Strategy 2006:2015

4.4.2 Implications for the AAP

The direct financial cost of implementing the Draft AAP will be an important consideration in selecting the preferred approaches to regeneration. Drivers and incentives exist in a number of areas to reduce costs or promote alternative Options. However, the effects of decisions made regarding implementation of the Draft AAP are much broader than simply the direct financial costs (to the public and private sector) of regeneration works. Indirect impacts upon the wider economy (e.g. job creation) will be an integral element of the assessment of the 'cost' of the Draft AAP Options.

The Draft AAP provides economic opportunities for Cinderford, the Forest of Dean and the wider South West region. The South West Regional Economic Strategy seeks to promote successful and competitive businesses and an effective and confident region. The Draft AAP will have a role in progressing these objectives through the appropriate targeting of infrastructure and development.

4.5 REVIEW OF PLANS: POPULATION, HEALTH AND WELL-BEING

4.5.1 Plans considered

- EU Directive 2002/49/EC relating to the assessment and management of environmental noise - The Environmental Noise Directive (EU, 2002)
- Forest of Dean District Council Disability Equality Scheme 2006:2009
- Designing Out Crime Association (forum for Crime Prevention)

4.5.2 Implications for the AAP

Regeneration of Cinderford will have impacts upon the heath and wellbeing of the population, through the direct effects of improved services, facilities, infrastructure and transport, i.e. key determinants of heath and wellbeing. There will also be opportunities for education and career opportunities and development once implementation has occurred. It is important that disabled people are equally catered for in the regeneration works. In line with the EU Directive, it will be important to monitor noise levels during the regeneration works to prevent adverse impact on well-being. Increased service levels are likely to result in a larger population for the area.

4.6 REVIEW OF PLANS: CLIMATIC FACTORS

4.6.1 Plans considered

- Stern Review on the economics of climate change (2006)
- Kyoto Protocol on Climate Change (UN, 1997)
- EU Directive to promote Electricity from Renewable Energy (2001/77/EEC)
- EU Emissions Trading scheme (2005)
- Climate Change: The UK Programme (2001)
- Our Energy Future – 'Creating a Low Carbon Economy' - UK white paper on energy (2003)
- Climate Change – The UK Programme: Tomorrow's Climate Today Challenge (DEFRA 2006)
- Code for Sustainable Homes and BREEAM/CABE's Inclusion by Design & Building for Life standard

4.6.2 Implications for the AAP

The process of regeneration interacts with climate change in multiple ways. Firstly, through the development process itself which involves operation of machinery, building materials and their transport and secondly in terms of the site layout and transport provision for the completed scheme. Throughout the implementation of the Draft AAP, efforts must be made to ensure that the regeneration process results in minimum CO_2 emissions and that the completed development allows for the operation of a low carbon economy, through following the *Code for Sustainable Homes* and *BREEAM* requirements

in building and in the provision of an adequate public transport network. Opportunities for the use and creation of renewable energy should also be sought throughout the project timeframe.

The Draft AAP will have a key role in reducing emissions which contribute to climate change associated with the regeneration works and then operation of Cinderford in the South West region.

4.7 *REVIEW OF PLANS: MATERIAL ASSETS*

4.7.1 *Plans considered*

- Waste Framework Directive 2006/12/EC (as amended by Directive 2008/98/EC)
- EU Waste to Landfill Directive (99/31/EC)
- The Site Waste Management Plans Regulations 2008 (Statutory Instrument 2008 no.314 Environment Protection, England)
- EU Directive on the Incineration of Waste (2000/76/EC)
- Waste Electrical and Electronic Equipment (WEEE) Directive 2006
- End of Life Vehicles Directive (2000/53/EC)
- Taking sustainable use of resources forward: A Thematic Strategy on the prevention and recycling of waste (COM(2005) 666)
- DEFRA Waste Strategy for England 2007
- Waste Management (England and Wales) Regulations 2006
- Sustainable Construction Strategy
- Planning Policy Statement 10: Planning for Sustainable Waste Management
- The Landfill (England and Wales) Regulations 2002
- Clean Neighbourhoods and Environment Act 2005
- European Commission White Paper on the European Transport Policy (EC, 2001)
- Johannesburg Renewable Energy Coalition – JREC (2002)
- UK Fuel Poverty Strategy (2001)
- Code for Sustainable Homes and BREEAM/CABE's Inclusion by Design & Building for Life standard
- Forest of Dean District Council Procurement Strategy 2009:2012
- Forest of Dean District Council Anti-Poverty Strategy 1995

4.7.2 *Implications for the AAP*

The Draft AAP interact with the legislation and strategies outlined in the table above in a number of ways. Inevitably waste will be produced both during regeneration works and also once works are completed. In accordance with the plans above, waste produced should firstly be minimised and then should be managed in as sustainable way as possible, aiming to reduce the volume disposed of at landfill. Post-regeneration, opportunities for residents and businesses to manage the waste they produce in a sustainable way must be provided and integrated into the AAP. As highlighted in PPS10, waste should

be considered as a resource. Active management of waste should see it pushed up the 'waste hierarchy', with disposal as the last resort. Increasing amounts of waste should be diverted from landfill through increasing recycling, re-use and recovery materials.

The Draft AAP should consider the implications of the various Options for the delivery of renewable energy. They also interact with transport policy as the different Options affect the transportation requirements for the site. They also consider the need to reduce unnecessary transport mileage (by reducing road construction/total road length) in order both to reduce emissions and to reduce the negative impacts on the environment.

4.8 REVIEW OF PLANS: AIR QUALITY

4.8.1 Plans considered

- Clean Air for Europe (CAFE) (2001)
- Convention on Long Range Transboundary Air Pollution (1979)
- The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (DEFRA 2007)

4.8.2 Implications for the AAP

The Draft AAP should aim to incorporate practicable measures to reduce pollution to air resulting from the regeneration works and future use of the site. Although it is not possible to make quantitative predictions regarding changes in Air Quality in Cinderford or the Forest of Dean region resulting from the implementation of different Options, the implications for air quality of the various Options (such as the extent and timescale of emissions resulting from different Options) are considered as part of this SA. This should include consideration not just of the direct air emissions resulting from industrial activity in the regenerated Cinderford area but also the emissions likely to result from areas such as associated transportation.

4.9 REVIEW OF PLANS: BIODIVERSITY AND GEODIVERSITY

4.9.1 Plans considered

- Ramsar Convention on wetlands of international importance especially as waterfowl habitat (1971)
- Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979)
- Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979)
- The Convention on Biological Diversity, Rio de Janeiro (1992)
- EU Directive on the Conservation of Wild Birds (79/409/EEC)
- EU Habitats Directive (92/43/EEC)
- EU Biodiversity Strategy (EU, 1998)

- Natural Environment and Rural Communities Act (UK) (2006)
- Wildlife and Countryside Act 1981 (as amended) (UK)
- UK Biodiversity Action Plan (Defra, 1994)
- Conservation (Natural Habitats) Regulations 1994
- Conservation (Natural Habitats, &c) (Amendment) Regulations 2007
- Natural England's Green Infrastructure network
- Gloucestershire Nature Map, March 2008

4.9.2 Implications for the AAP

The Draft AAP must include a detailed study into the impacts of regeneration works on biodiversity in the area. This should be informed by the Habitats Screening Report, the key findings of which have been subsumed within this Report.

Development of land interacts with biodiversity in a number of ways, for example:

- Land take and land use for new buildings and developments, with resulting impacts on habitats and species;
- The impact of emissions (to air, land or water) from development works and industrial/manufacturing activities on habitats and species; and
- Indirect impacts on biodiversity resulting from changes in demand for raw materials during development and also during use of the site.

4.10 REVIEW OF PLANS: WATER AND FLOOD RISK

4.10.1 Plans considered

- Directive on the assessment and management of flood risks (2007/60/EC)
- EU Nitrates Directive (91/676/EEC)
- EU Directive Establishing a Framework for the Community Action in the Field of Water Policy (2000/60/EC) – The Water Framework Directive
- EU Freshwater Directive 78/659/EEC
- Water resources for the future: a water resources strategy for England and Wales (2001)
- Water for People and the Environment – developing a water resources strategy for England and Wales (2007)
- A Better Environment, Healthier Fisheries: Better Fisheries for our nations 2006-2011 (EA, 2006)
- Severn River Basin District Significant Water Management Issues (Environment Agency, 2007)
- Water Framework Directive (2000/60/EC)
- Groundwater Directive (80/68/EEC)
- Groundwater Daughter Directive (2006/118/EC)
- Environmental Liability Directive (2004/35/EC)
- Environmental Permitting Regulations (2007)

4.10.2 Implications for the AAP

A distinct Appraisal of Flood Risk has been undertaken and has informed the Draft AAP and Masterplan. Any development work interacts with water quality (including groundwater quality), water resources and flood risk, primarily through land take and land use for new development and the nature of emissions to water resulting from development activities and new industrial activities.

4.11 REVIEW OF PLANS: CULTURAL HERITAGE

4.11.1 Plans considered

- UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage (1972)
- The Charter for the Conservation of Historic Towns and Urban Areas (1987)
- Charter for the Protection of and Management of Archaeological Heritage (1990)
- The Florence Charter (1981)
- Traffic Management in Historic Areas (Cadw, 2003)

4.11.2 Implications for the AAP

The Draft AAP must consider the potential impacts on sites of specific cultural heritage or archaeological significance. Impacts are site specific and therefore vary between Options. Regeneration interacts with cultural heritage primarily through land take and land use for building works and the potential impact on visual amenity.

4.12 REVIEW OF PLANS: LANDSCAPE

4.12.1 Plans considered

- World Heritage Convention (UNESCO 1972)
- European Landscape Convention (Council of Europe, 2000)
- Countryside and Rights of Way Act (CRoW) (ODPM, 2000)
- Gloucestershire Rights of Way & Countryside Access Improvement Plan 2006-2011 (Gloucestershire County Council, 2006)
- National Park Management Plans Guidance (CCW, 2007)

4.12.2 Implications for the AAP

The Draft AAP must consider the potential impacts of development on the landscape of both Cinderford and the wider Forest of Dean area. Regeneration interacts with landscape primarily through land take; therefore land use for buildings varies between Options.

4.13 REVIEW OF PLANS: SOILS

4.13.1 Plans considered

- EU Thematic Strategy on Soil Protection 2006
- Soil 'A Precious Resource' (Environment Agency 2007)

4.13.2 Implications for the AAP

The Draft AAP must consider the potential impacts of development on the soil in both Cinderford and the wider Forest of Dean area. The management of waste is one area in which development can affect soils, as well as through land take and land use for buildings and roads.

4.14 REVIEW OF PLANS: CONTAMINATED LAND AND GROUNDWATER

4.14.1 Plans considered

- The Environmental Protection Act, 1990
- Planning Policy Statement 23: Planning and Pollution Control (PPS23).
- The Model Procedures for the Management of Land Contamination (CLR11), Defra and Environment Agency (2004).
- The Definition of Waste: Development Code of Practice (CL:AIRE, 2008)

4.14.2 Implications for the AAP

The Draft AAP should consider the historical land uses of the site and therefore the likelihood that contaminated land and groundwater may be present at the site. Such contamination may require remedial works to be carried out prior to regeneration or, alternatively, land use planning that takes into account the location of contaminated land, at the masterplanning stage. Regeneration works will need to ensure that they do not result in any activities causing further pollution to either soil or groundwater at the site.

4.13 SUMMARY

This Chapter has explored a range of key strategies, plans and programmes which are pertinent to consider when assessing the various options for the AAP. The diversity of strategies, plans and programmes reflects the broad influence and impact which development has across environmental, economic and social aspects. Understanding how the AAP links with and responds to the existing and forthcoming strategies, plans and programmes (summarised in this Chapter and detailed in *Annex A*) is important in ensuring a robust evaluation of the benefits and dis-benefits of the various Options.

Key issues which are considered and reflected upon in this Appraisal can be summarised as follows:

- Securing the Future – UK Government Sustainable Development Strategy provides a strong vision and agenda for progressing sustainability. The

AAP adheres to this Strategy due to the strong focus on environmental links within the Northern Quarter site and due to the priorities of the AAP which include resource protection, climate change and sustainable communities.

- The Cinderford Business Plan is a 10 year action plan to improve the quality of life of the people in Cinderford. Cinderford was identified for this plan owing to its potential to accommodate a range of facilities and land uses. The document indicates the key priorities for the development of Cinderford. As part of the Business Plan process, detailed consultation was undertaken on four Options which led to a preferred option.
- The South West Regional Economic Strategy seeks to promote successful and competitive businesses and an effective and confident region. The Draft AAP has an important role in advancing these objectives through the appropriate targeting of infrastructure and development.
- The UK's climate change programme sets out the Government's approach and commitments to the challenge of climate change. The Draft AAP will play a key role in reducing emissions which contribute to climate change associated with the both the development works themselves and then the operation and functioning of Cinderford as a town in the South West region.
- New buildings, both residential and industrial will follow the standards and principles detailed in the Code for Sustainable Homes and BREEAM. These codes and standards promote sustainable construction including the wider opportunities of place making and designing buildings and places for people and biodiversity.
- Within the Cinderford area, there are a number of sites designated under the EU Habitats Directive (92/43/EEC) and UK Biodiversity Action Plan (Defra, 1994). Whilst potential impacts from regeneration will vary according to the chosen Masterplan Option, appropriate mitigation will be required to minimise such impacts.
- The Directive on the assessment and management of flood risks (2007/60/EC) requires that adequate and coordinated measures are undertaken to reduce the risks from flooding.
- Definition and management of any contaminated land and groundwater, found to be present on the site will be carried out under Part IIA of the Environmental Protection Act (1990) and The Model Procedures for the Management of Contaminated Land (CLR11).

Links exist to a much broader range of policy for the South West region and also the UK as a whole. These inter-relationships are important in demonstrating the alignment of the AAP with the broader policy context, and are detailed in *Annex A*.

5 DATA ON BASELINE CONDITIONS & IDENTIFICATION OF KEY SUSTAINABILITY CHALLENGES AND OPPORTUNITIES

This Chapter considers the current baseline conditions in the area, and identifies key issues that are likely to affect, or be affected by, delivery of the AAP. It also sets out how these conditions are likely to change over the lifetime of the AAP. More comprehensive detail of the baseline conditions are provided in Appendix B.

5.2 INTRODUCTION

A key component of an SA/SEA Assessment is the provision of baseline data on the social, economic and environmental conditions of relevance to the plan being assessed. The purpose of this baseline is to highlight what the key issues in the context of the AAP are and, therefore, to identify the key sustainable development issues relating to the AAP. The Appraisal draws upon data available from a wide range of sources, including data collected and analysed by agencies shown in *Box 5.1.*

Box 5.1 Sources of Baseline Data

- British Geological Survey
- Census 2001
- Cinderford Northern Quarter Baseline Report
- DEFRA
- English Heritage
- Entec Ecological Appraisal Report
- Forest of Dean District Council
- Forestry Commission
- Gloucestershire County Council
- Health & Safety Executive
- Joint Nature Conservation Committee
- Natural England
- Office of National Statistics
- Ordnance Survey
- The Coal Authority
- The Countryside Agency
- The Environment Agency
- South West of England Regional Development Agency
- South West Observatory
- Stockholm Environment Institute
- UK Government

5.3 ABOUT THE BASELINE DATA

The data represents available, up to date, information which provides an accurate snapshot of the current status of key sustainable development issues within the region. It also allows a view to be formed on how the baseline may develop in the future, in the absence of the Draft AAP.

The information presented within this Report is intended to provide the reader with a brief summary of key headline issues and is not intended to be all-encompassing with respect to the detail included.

An overview of the key baseline issues is shown in *Table 5.2*.

Table 5.2 Summary of Baseline Conditions

Issue	Commentary
Environment	
Air Quality	Whilst there is one entry on the Pollution Hazard Inventory to the south of the site for air pollution, air quality within the area is generally good and it is important that the AAP/Masterplan does not negatively impact upon this; and where possible, promotes opportunities for enhancement.
Biodiversity and Geodiversity	The Forest of Dean comprises a mixture of habitats, in particular extensive areas of coniferous plantations and deciduous woodlands. Parts of the Forest have an industrial legacy. Multiple nature conservation designations are present within 10 km of the site, including the River Wye SAC and Severn Estuary is Natura 2000 site: within these; a number of protected species are present.
Birds	Schedule 1, Annex I, Red List and uncommon breeding bird species have been identified using the site. It is important the AAP/Masterplan provides adequate protection, and where possible, enhancement of such sites.
Climatic Factors	CO_2 emissions estimates have been calculated for the South West region, totalling 42,360 kt CO_2, which results in emissions per capita of 8.27t capita (South West Observatory, Environmental data, CO_2 2005 & 2006 data - www.swenvo.org.uk). The promotion of public transport and more sustainable forms of transport patterns, energy efficiency, renewable energy use, amongst other measures, provide opportunities to reduce emissions within the area.
Cultural Heritage and Historic Environment	The Forest of Dean has an industrial legacy including coal mining and railways. Cinderford town developed rapidly at this time. Whilst, Cinderford does not contain any conservation areas, there are some listed buildings and archaeological sites. It is important the AAP/Masterplan seeks to sensitively integrate such assets within the proposed development.
Ecological Footprint	An ecological footprint has been estimated for the South West region for 2004. This is 5.42 global hectares (gha) per capita. This compares to the UK average for 2004, which is 5.30gha/capita (South West Observatory, Environmental data, Ecological Footprint data - www.swenvo.org.uk). By promoting sustainable development, the AAP/Masterplan can

Issue	Commentary
	facilitate a reduction in the area's Ecological Footprint.
Landscape	The Forest of Dean was once heavily forested and then gradually the forest turned into agriculture. The site is located on the northern edge of Cinderford. Previously, Cinderford and the surrounding areas supported several large collieries. There are also clay extraction pits associated with brickworks. The area's cultural heritage and landscape has been an active feature for consideration in developing the AAP/Masterplan, providing integration between current and envisaged development.
Contaminated Land and Groundwater	Potential contaminated land constraints have been identified, based on a desk review of historic land uses in the Northern Quarter area, since coal mining activities took place between the late 19th and mid 20th century. The main activities took place in the central region near the current brickworks and in the western region near the Northern United site. The potential therefore exists for heavy metals, VOCs, SVOCs and petroleum hydrocarbons to exist in the vicinity of the former collieries. A number of old mine shafts in the central and southern parts of the site are also considered as potential contamination sources.
River Quality	The most recent river quality data is available from 2007 at Bilson Green to the south of the site, where a 'B' classification (good) was awarded. It is important the AAP/Masterplan does not negatively impact upon river quality and where possible, seeks to enhance this.
Waste	<u>Commercial & Industrial Waste</u> Efforts are required to reduce the landfilling of commercial and industrial waste through new targets and further consideration of restricting the landfilling of biodegradable wastes or recyclable materials. <u>Municipal waste</u> Cinderford is located within a two tier authority area. The Forest of Dean District Council (FoDDC) acts as the waste collection authority while Gloucestershire County Council (GCC) acts as the waste disposal authority. The FoDDC will be responsible for the municipal waste collection arrangements for the Northern Quarter Masterplan Area while GCC will be responsible for treating and disposing of the waste. For the South-West region in 2007/08, 59% was sent to landfill, 41% was recycled or composted and 0.1% was incinerated with Energy from Waste (EfW) and 0.1% was incinerated without EfW. More sustainable forms of waste management are an important consideration in terms of both infrastructural provision and in encouraging behavioural change amongst the businesses and the public. This has been

Issue	Commentary
	an important consideration for the development of the AAP/Masterplan.
Water and Flood Risk	The Cinderford Brook is the primary watercourse in the vicinity of the Cinderford Regeneration site, being classed as a 'main river' south of Cinderford, where it flows 12 km south east to its confluence with the River Severn. The River Severn floodplain does not influence the site or its immediate surrounds directly. The two Local Plan housing sites, Cinderford 9 and 5 are within the 1:100 year floodplain. A stage 2 flood risk assessment has been undertaken and used to inform the development of the AAP/Masterplan and this assessment.
Economic	
Employment	The economic activity rate for the Forest of Dean is 80.2% (2006-2007) and the employment rate for the Forest of Dean is 75.0% (2006-2007). Unemployment is above national/county averages with a rate of 4.4% for the Forest of Dean (2006-2007). Promoting and facilitating economic development is a clear priority for the AAP/Masterplan.
Benefit dependency & Workless Households	Statistics for the Forest of Dean show that 12% of people of working age claim a key benefit, and 6% of the Forest of Dean population receive incapacity benefit. As above, it is a clear priority in stimulating regeneration that employment is maintained and generated, thereby reducing worklessness and some elements of benefit dependency. Wider improvements in terms of access to health, leisure and sporting facilities/opportunities, should also be beneficial in this respect.
Social	
Accessibility	Cinderford is the only town within the boundary of the Forest of Dean. Closure of the railways has resulted in increased dependency on cars and access to the M5 is also poor. The nearest train stations are at Lydney (15 km) and Gloucester (25 km). It is important that the AAP/Masterplan seeks to promote accessibility within and beyond the area, with respect to physical, social and economic connectivity.
Active Community Participation	There are a number of communities within and beyond the Northern Quarter; the opportunity existing for greater engagement between such communities and across the area as a whole. The AAP/Masterplan provides an opportunity to enhance cohesion and active participation as a whole.
Crime	Forest of Dean statistics for crime detail that the two crimes with the highest offence rates are 'violence against the person' (920 offences) and 'criminal damage including arson' (1009 offences) for the 2007-2008. Designing out crime and enhancing general safety and wellbeing have been considered through

Issue	Commentary
	the development of the AAP.
Education	The 2001 census found that less than 10% of Cinderford ward's population held a degree or higher qualification and over 60% had no qualifications or only Level 1 qualifications (GCSE, NVQ etc). No post-16 education is available in Cinderford. Educational provision is obviously a key determinant in enhancing skills and opportunities for residents. Enhancing access to such provision will facilitate a more skilled future workforce and provide for enhanced future quality of life more broadly.
Health	The number of people in the Forest of Dean classified to be of 'good health' was 54,358 (April 2001). Enhancing health and wellbeing more broadly, through both access to direct services and facilities, will provide for a better quality of life for residents, and this has been an active consideration for the AAP/Masterplan.
Housing	The Cinderford ward has the lowest levels of owner–occupation in the district, below 36%. Household deprivation (up to 60%) is significantly higher than the county/national average (29/35%) (Cinderford Northern Quarter Baseline Report). The AAP/Masterplan actively address the need for affordable housing within the area, this providing the opportunity to increase owner-occupation and enhance quality of life for residents.
Population	The Forest of Dean has a population of around 80,000. Net population growth for the district between 1991-2006 was 7.8%, consistent with growth rates across the county/nationally (Cinderford Northern Quarter Baseline Report). Retaining and sustainably increasing population in the area is a recognised need and one which regeneration can actively contribute to. The AAP/Masterplan provides, therefore, a tangible means of enhancing the image and attractiveness of the area, both for current and potential residents.

The full review of baseline data is provided in *Annex B* to this Report.

5.4 SUMMARY

This review of baseline conditions highlights the key issues which are relevant to the context of sustainability and identifies the key sustainable development issues relating to the AAP. In order to draw an accurate baseline, information and data was obtained from a wide range of sources, in particular the Baseline Report produced as part of this process.

The Baseline shows that the Cinderford area, within the Forest of Dean, contains a mixture of habitats and extensive forested area. There are also multiple conservation designations within the area and protected bird species. The area has a strong cultural/industrial legacy and contains a number of listed buildings and archaeological sites. In terms of contaminated land, a desk study has identified a number of areas of potentially contaminated land resulting from either current or historical land uses.

The unemployment rate for the Forest of Dean is 4.4% which is above the national and county average. 12% of the working age population are also claiming a key benefit. Cinderford suffers from poor accessibility, being the only town in the forest which has poor access to the M5 motorway and no longer has a railway line.

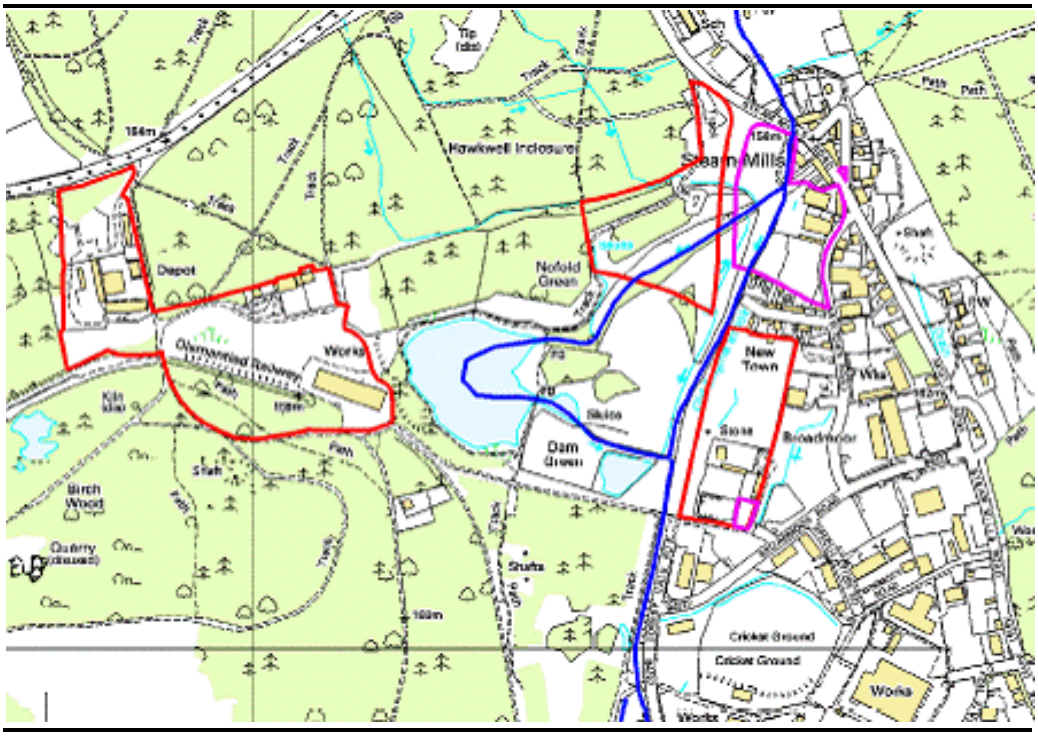
Availability of education is also limited in Cinderford with less than 10% of the population of Cinderford ward holding a degree or higher education and over 60% having no formal education or only Level 1 qualifications (GCSE or NVQ). Levels of house owner occupation, at less than 36%, are the lowest in the district. Household deprivation levels at 60% are also significantly higher than the national/county average (35%).

5.4.1 Predicted Situation over the Lifetime of the AAP in the Absence of the AAP ("do-minimum" scenario)

The Northern Quarter area is currently used and maintained as an area of open space with recreational access, and much of the site is identified as part of the Linear Park (a non–statutory key wildlife site). There are current light industrial uses in and around the Northern United site (Forest Brick and Tile, Overbury Garage and Bells Waste). It is anticipated that, should the Northern Quarter AAP not proceed, these uses would remain subject to continued viability. The management of the site for nature conservation in accordance with its Key Wildlife Site status would as identified by Gloucestershire Wildlife Trust *"rely on the goodwill of the owners for their conservation management"*. On this basis, it is anticipated that the ongoing management of the site would be sufficient to maintain community access the open space and to manage the forest in accordance with the requirements of the Forestry Commission.

It is also recognised that there are a number of existing local plan allocations within the AAP boundary identified in *Box 5.2*. These are not committed development and as such may not occur, or would occur as piecemeal development of certain areas of the site.

Box 5.2 ***Existing Local Plan Allocations***



Key: Pink line – area designated for housing, Red line – area designated for employment.

In light of the above it is considered that following trends may occur in a do-nothing scenario:

- The Northern Quarter is likely to continue to provide a site of biodiversity interest with a limited management regime;
- Informal recreational use of the site would remain and the angling club would continue to utilise the lake;
- Piecemeal development of employment and some residential elements could occur over time;
- There would be no change in the flood and water regime on site, unless piecemeal development occurred, the nature of which would be unknown;
- The main access to Cinderford would remain on the Steam Mills road via the Nailbridge junction and there would be little if any demand for change to the public transport system.
- The Northern United buildings would continue to decline, unless developed separately - in which case the nature of such development would be unknown and may create an isolated employment area of little benefit to Cinderford;
- Levels of employment opportunity within Cinderford would remain unchanged and current increased levels of unemployment would remain and potentially decline with less motivation for inward investment;
- The social infrastructure of Cinderford would remain unchanged and potential decline due to lack of inward investment to the area;
- Affordable housing needs to address the amount of housing deprivation would not be accounted for in this location; and
- Outward commuter movements for key services (such as education) would remain.

6 KEY SUSTAINABILITY ISSUES AND THE SUSTAINABILITY APPRAISAL FRAMEWORK

This Chapter identifies the key sustainability issues arising from the policy and baseline review, and sets out the basis on which the Sustainability Appraisal Framework has been developed and used to assess the sustainability performance of the Draft AAP. It also describes the process for prediction and evaluation of effects arising from the AAP.

6.1 INTRODUCTION

The Sustainability Appraisal is guided by a set of sustainability objectives which establish the criteria for assessing the AAP. These objectives address all key aspects of sustainability, ensuring that the assessment considers the range of potential effects of the AAP across economic, social and environmental considerations.

The previous chapters have identified the current and future baseline conditions and policy context which has informed the development of the AAP and from this emerges the key sustainability issues and opportunities, summarised in *Section 6.2* below. The set of sustainability objectives - outlined in the Appraisal Framework – reflects the nature of baseline conditions, wider policy context, and the nature of the Strategy itself.

6.2 KEY SUSTAINABILITY ISSUES

The following is intended to provide a summary of the key sustainability issues and opportunities which emerge from the Draft AAP, as informed by the review of plans and policies and baseline data.

6.2.1 *Broad Sustainability/Material Assets*

Sustainability, Material Assets & Social Fabric	
Broad Sustainability/Material Assets	
Challenges:	Collective Opportunities:
• How to ensure that the Draft AAP/Masterplan is workable and will enable Cinderford and Gloucestershire County Council to meet sustainability, carbon and ecological footprint objectives; • How to address the needs of Local Authorities in meeting challenging targets and how best to address disparate Local Authority geographical and socio-economic contexts; and • How to engage with private, public and third sectors to maximise the benefits of the overall regeneration programme, assign clear responsibility and motivate engagement in this context from the public in particular, and generally enhance management in an integrated manner.	• The wider opportunity for Cinderford to be recognised as an emerging centre of excellence in sustainable development and be branded as such; • To enhance the quality of life for current and future residents; • To promote sustainable construction by encouraging use of local materials in constructing new buildings. Cinderford has two brickworks, a large quarry and a number of companies using local timber from the Forest of Dean in their products. Linked to this, the potential to provide a showcase for using local products and therefore minimising transport costs; • The potential to reduce the volume of waste created during development works and ensure that this waste is disposed of through means other than landfill, therefore reducing the dependence on this disposal option; • To contribute towards enhanced accessibility of services and facilities particularly amongst those with reduced mobility and lack of car ownership.

6.2.2 *Social Fabric: Public Participation*

Sustainability, Material Assets & Social Fabric	
Social Fabric: Public Participation	
Challenges:	Collective Opportunities:
• How to address aspects of social and physical severance within and across the area, including the lack of connectivity between some communities in the area; • How to select the location and scale of housing, commercial and community facilities that are accessible to communities in terms of proximity; • How to create buy-in and ownership of the development amongst communities; • How to create a vision that aligns with the aspirations of communities and consistent with best practice sustainability.	• To enhance connectivity between communities; • To engage communities and wider stakeholders in an inclusive, development process; • To create greater understanding of the challenge of progressing sustainability and the role which communities can assume in this; • To create behavioural change commensurate with more sustainable forms of consumption; • To engender a sense of empowerment amongst members of the public in the collective response to progressing sustainability within and beyond Cinderford

6.2.3 *Landscape, Biodiversity, Cultural Heritage & Historic Environment*

Landscape, Biodiversity, Cultural Heritage & Historic Environment	
Challenges:	Collective Opportunities:
• How to protect and enhance the distinctive character, visual identity and industrial heritage of Cinderford and the Forest of Dean landscapes including ensuring forest designations are adhered to whilst regenerating the Northern Quarter of Cinderford and integrating development within the landscape setting; • Ensuring designated landscapes and areas/biodiversity are adequately protected when considering the location of new facilities and services (including transportation of materials to and from locations); and • How to prioritise the use of brownfield sites for the siting of new facilities.	• To promote and contribute to national, regional and local targets with respect to brownfield land use and more sustainable use of land resources generally; • To design new buildings that respect local styles and use local materials which integrate into their landscape setting; • To encourage commercial operations in line with this policy and ensure investment occurs in line with broader sustainability criteria generally, for example, advocacy of green procurement and supply chain management; • To protect the integrity of designated and non-designated sites of ecological and biodiversity value. Planning conditions for the protection of newts are attached to the brick works clay extraction site and Gloucestershire County Council consent is required to extract or store clay at the brickworks site; and • To protect and enhance landscapes of cultural and historic importance in line with local, regional and national policy and also enhance biodiversity, potentially developing a check list to ensure that biodiversity is protected.

6.2.4 *Resource Use: Soil (Including Contaminated and Derelict Land) and Groundwater*

Resource Use: Soil (Including Contaminated and Derelict Land) and Groundwater	
Challenges:	Collective Opportunities:
• How to ensure that contaminated land and groundwater is successfully remediated, and brought into beneficial use, thereby removing potential risks to human health and groundwater; • How to ensure that soil resources and vulnerable soilscapes are adequately protected in the deployment of new facilities; and the refurbishment or redeployment of existing facilities; how to exploit the opportunities for soil resource protection which such technologies can bring; • How to protect against the potential for	• To allow contaminated land to be put back into useful land uses; • To use formerly contaminated land instead of using alternative greenfield sites; • To ensure that the Masterplan for the site is tailored according to the locations of contaminated land (e.g. with less sensitive land uses on formerly contaminated areas, for example).

Resource Use: Soil (Including Contaminated and Derelict Land) and Groundwater	
emissions to soil arising from the development that will occur; and • How to address particular sources of waste such as agricultural or construction waste and the potential for adverse emissions to soil.	

6.2.5 *Water Resources*

Water Resources	
Challenges:	Collective Opportunities:
• How to protect areas prone to flood risk in the siting of new facilities including how to best use flood risk assessments, where appropriate, to inform the selection of sites for development as well as ensuring that existing flood risk sources and pathways do not pose an unacceptable threat to Cinderford residents; • How to ensure that design and mitigation takes account of climate change; • How to alleviate the current low flow situation in the Cinderford Brook; • How to make sure that flood risk is not exacerbated elsewhere by the development; • How to treat wastewater generated by the new development; and • How to ensure that new buildings and facilities employ sustainable water consumption (e.g. SUDS) but also do not pose a threat to groundwater or surface water quality.	• To reduce runoff and potential flood risk through sustainable strategic planning and soil resource management; • To further reduce existing flood risk within Cinderford through careful design and incorporating flood management features (e.g. providing betterment on floodplain storage); • The opportunity to maintain a constant flow in Cinderford Brook resulting in improved water quality and biodiversity; • To enhance the quality of the water environment including wetland resources for wildlife; • The chance to use SUDS at the college and other development locations at the site to create this constant flow rate; • The potential to use water from the existing wet clay mining pits in the area for non-potable water uses; • The opportunity to divert waste water from the site and possibly other water users in the area to the works at Blakeney (via new sewerage infrastructure); and • Through promoting waste minimisation during the demolition and construction works, it may be possible to reduce the waste going to landfill, thereby reducing the potential leachate emissions to surface and groundwater.

6.2.6 *Climatic Factors and Air Quality*

Climatic Factors and Air Quality	
Challenges:	Collective Opportunities:
• How to maximise the contribution which the regeneration of Cinderford can make to the South-West and UK's targets for GHG emission reduction; • How to balance the immediate costs of	• The opportunities for generation of renewable energy through micro-generation means such as PV, solar heating, geothermal and wind; • The opportunities to integrate a district

Climatic Factors and Air Quality	
investment in low carbon technologies and infrastructure in the short term against longer-term sustainability and climate change gains; and • How to facilitate the level of engagement required in the absence of a full/adequate understanding and sometimes sceptic public over climatic change • How to minimise impact to air arising from the increased need for transportation in and around Cinderford • To reduce traffic build up on specific routes and localised impacts to air; • How to mitigate against the need for access by private transport i.e. car and recognising the challenge posed for areas with low car ownership. • How to ensure that emissions to air are monitored and mitigated against with respect to transportation of construction and waste materials during both development works and also once the regeneration is complete and new industries are operating in Cinderford.	heat and power network from a centralised renewable source; • To ensure that new buildings constructed as part of the Draft AAP/Masterplan achieve the energy efficiency standards outlined in the Code for Sustainable Homes, and incorporate sustainably manufactured and sourced materials; and • To enhance access to, and use of, public transport, walking and cycling and reduce reliance upon private transport use

6.2.7 *Population, health and well-being*

Population, health and well-being	
Challenges:	Collective Opportunities:
• The need to retain and where possible, grow, the population within the local area; mitigating against outward migration and the detrimental impact this has on local communities; • The need to maintain a good standard of living, access to services and opportunities and general quality of life for residents; • The need to provide affordable housing; • The need to address crime and fear of crime within the local area.	• To successfully join up the new development with Steam Mills and Newtown and make good use of existing facilities; • To improve access to the Forest, providing opportunities for improved health and wellbeing; • To maximise employment and access to services and facilities (amongst others) and the beneficial impact this has upon health and wellbeing; and • Combating poverty and giving those on low incomes the opportunity to play a more active role in decisions that affect their lives.

6.2.8 *Economy*

Economy	
Challenges:	Collective Opportunities:
• To address the need for training and/or up skilling amongst some sections of the community, in line with projected employment need and potential drivers for economic development; • To address aspects of poor accessibility within and into Cinderford and the need for improvement to major transport routes; and • The need to protect the interests of businesses currently operating in the area and enhance the attractiveness of the area to potential investors.	• To offer an attractive and secure environment in which to invest, thereby increasing investment in Cinderford; • To increase infrastructure and services in line with business and wider need; • To offer new sources of employment and training, of particular benefit to areas with high socio-economic deprivation; • The opportunity to increase access to Cinderford by public transport in particular; • To promote local procurement and training/upskilling and employment of local people; and • Providing an impetus to the environmental technology sector; can R&D departments and stakeholders such as Universities be usefully engaged in this context?

6.3 *THE APPRAISAL FRAMEWORK*

6.3.1 *Overview*

An Appraisal Framework for the Sustainability Appraisal of the Draft AAP for Cinderford Northern Quarter has been developed. This Section sets out the Sustainability Appraisal key objectives making up this framework, which emanate from previous thinking on the key issues and challenges facing Cinderford in this context, and the wider review of the strategic context and baseline conditions which has informed this.

6.3.2 *Purpose of Appraisal Objectives*

Appraisal objectives provide a statement of what is intended by specifying a desired direction towards promoting sustainability in this context. The objectives are intended to provide clear measures against which the sustainability impacts of a given option can be assessed, and form the criteria for assessment. In defining the Appraisal objectives, however, it is important to recognise their distinction from, and relationship with, the overall objectives of the AAP.

6.3.3 Framework Structure

The Framework is structured in accordance with guidance presented within the SEA Directive. This should enable the reader to understand where the key topics derive from and what key issues are addressed within.

The structure of the Framework is as follows:

- **Overarching (core) objectives**: these articulate the key aim(s) for the respective area/topic.
- **'Secondary' appraisal questions:** these have been developed to supplement the core objectives. Some of the core objectives are self-explanatory and highly relevant to the AAP, and these can act as stand-alone appraisal questions. Most objectives, however, are generic and do not, on their own, provide a suitable basis for appraising the AAP. Therefore, secondary questions have been developed to address more detailed issues that:
  - are particularly relevant to the AAP in terms of **'deliverability'** (i.e. the AAP can be expected to deliver the issue) and/or **'influence'** (i.e. the AAP can be expected to have a major influence, or impact, on the issue); and
  - reflect the objectives and targets from other relevant plans and strategies.

The overarching and secondary objectives which make up the Appraisal Framework are set out in Table 6.1 below. The Table also indicates how the assessment objectives reflect the AAP and Masterplan objectives listed in *Section 2.3*.

Table 6.1 The Assessment Framework: Overarching and Secondary Assessment Objectives

Sustainability Objectives	
1) Environmental and Resource Sustainability	
1a) To Protect and Enhance the Physical and Built Environment	
Secondary Objective	**AAP / Masterplan Objectives**
To ensure sensitive integration of the development within the wider Cinderford area to maximise sustainability for the town and its surrounding area	1, 6, 10
To ensure the development does not involve building in areas at risk of flooding or contribute to flooding elsewhere.	1
To protect and enhance water resources within and surrounding Cinderford	6
To improve the current low flow situation in Cinderford Brook and in doing so improve water quality and biodiversity.	6, 7
To investigate opportunities to further reduce existing flood risk within Cinderford	1

Sustainability Objectives	
To promote sustainable procurement of both materials and personnel through construction and operation of the development	1
To reduce the carbon footprint of the development, and its wider area, through design, delivery and operation	1
To develop new residential building to Code for Sustainable Homes Level 4 (by 2010 and increasing with Government policy thereafter); non residential Buildings to achieve at least BREEAM excellent or relevant equivalent.	1, 8
To integrate sustainable waste management facilities and services within the development, to the benefit of it and Cinderford more broadly	1,7
To support the improvement of contaminated and derelict land and reduce the impact of unstable land.	1
To ensure contaminated and derelict land is restored and returned to beneficial use.	1
To reduce the potential of pollutant emissions impacting on land, through implementing and monitoring the use of best practice environmental management techniques.	6, 7
To protect and enhance air quality	6, 7
1b) Designated & Non-Designated Ecological Sites: Biodiversity	
To protect and enhance designated and non-designated sites within and adjacent to the development, and across Cinderford	6, 7
To ensure that the development contributes to the protection of the wider wildlife interest of the district, especially strengthening of links between 'wild' areas to better enable adaptation to climate change	1, 6, 7
1c) To Promote More Sustainable Forms of Transport Provision	
To promote sustainable access into and out of the area	3, 4
To promote more sustainable patterns of travel and modes of transport, such as the use of public transport, walking and cycling	4, 9
To enhance sustainable transport infrastructure	4
To help reduce the need to travel, such as by ensuring that people can live closer to their work and by improving local access to services	2
To promote economic patterns that avoid unnecessary dependence on long-distance trade and travel	2
To reduce the distance to, and/or ease of accessing, schools, shops, places of work and recreation	2, 4, 9
2) Economic Sustainability	
To promote/help facilitate economic sustainability within the area	8
To enhance infrastructure and services, to support local businesses	2, 3, 8
To promote sustainable business practice within Cinderford	4, 6
To enhance the attractiveness of Cinderford as a place for business investment	3

Sustainability Objectives	
To diversify the range of employment opportunities within Cinderford	8
To enhance access to employment and up-skilling opportunities	3, 4, 8
To promote integration of educational and skills training in line with identified need	5, 8
To help increase the number of people who stay in/visit the area	3
To promote sustainable tourism initiatives in the Forest of Dean (such as walking/cycling tourism)	4, 6, 9
3) Social Sustainability	
3a) To Promote Sustainability Skills and Learning	
To promote and facilitate awareness raising and understanding of sustainability	5, 6
To promote access to education and vocational skills training	3, 4, 5
3b) To promote social integration	
To promote social connectivity and integration between and across communities in Cinderford and the area	2, 9, 10
To enhance the health and wellbeing of residents and workers within Cinderford	2, 4, 5, 6, 8, 9
To enhance access to social, leisure and sporting facilities in and surrounding Cinderford, including the Forest, for all	2, 4, 8, 9
To enhance access to social, leisure and sporting facilities in and surrounding Cinderford, including the Forest, for all	8, 10
3c) To Promote Equality of Opportunity	
To meet identified housing need, in particular, the provision of affordable housing	8
To promote equality of opportunity and access for all within Cinderford	3, 4
To ensure physical and social access to infrastructure, services and opportunities.	2, 3, 8
3d) To Protect and Enhance the Historical and Cultural Identity of the Area	
To protect and enhance local identity and heritage within and across Cinderford	6
To ensure that the social and cultural heritage of the area is maintained through development works	6
To support the protection of culturally and historically significant assets and qualities. Not just designated sites and buildings, but also locally valued features and landmarks	6

6.4 PREDICTION AND EVALUATION OF EFFECTS

The Appraisal Framework provides a basis for assessing the likely significant effects of the AAP and its alternatives using the objectives set out within the framework. This Appraisal identifies the changes to the environmental, social and economic baseline (where available) that are predicted from the AAP.

Predictions are not necessarily made in quantitative terms, but do identify whether the AAP is performing positively or negatively against the objective in question (with reference to baseline conditions where appropriate). This enables assessment of whether the AAP is likely to promote or hinder the

achievement of key sustainability objectives. The types of impacts taken into account in the appraisal are:

• **Direct impacts**	impacts that are a direct result of a Plan
• **Indirect impacts**	impacts that may be 'knock-on' effects of direct impacts
• **Cumulative impacts**	impacts that accrue over time and space as a result of a number of developments or activities
• **Irreversible impacts**	impacts that result in the permanent loss of the character, distinctiveness, diversity or reproductive capacity of an environment
• **Synergistic impacts**	impacts that are of greater significance than the sum of their constituents
• **Residual impacts**	impacts that will remain present post mitigation

6.4.1 Nature of Impacts

The Assessment describes the extent to which the AAP meets the objectives within the Sustainability Framework categories. Only those predicted impacts which are deemed to be 'significant' in nature are noted within the Assessment. These impacts are described using the range and various types of impacts as outlined in the SEA Directive and associated Regulations, as identified below.

Positive and negative impacts:	Impacts which will be beneficial or harmful to the receptors they affect. Account will be taken as to whether impacts are positive or negative.
Direct impacts:	Impacts that are a direct result of a development.
Indirect or secondary impacts:	Impacts that may be 'knock-on' effects of direct impacts.
Cumulative impacts:	Impacts that accrue over time and space as a result of a number of developments or activities.
Permanent or long term impacts:	Impacts that result in the irreversible loss of the character, distinctiveness, diversity or reproductive capacity of an environment.
Medium, short term and temporary impacts:	Impacts that are neither permanent or long term, and affect the character, distinctiveness, diversity or reproductive capacity of an environment for a limited time only.
Synergistic impacts:	Impacts that arise due to the combined effects of two of more impacts, but which are of greater significance than the sum of the individual impact significances.

The assessment of the AAP and Masterplan through the Assessment Framework is primarily qualitative, based on the performance of the AAP against each of the primary and secondary objectives, in term of the range of impacts described above.

6.4.2 *Magnitude of Impacts*

While the SEA Regulations do not define the term significant, a definition which is frequently used in impact assessments is that a significant impact is one which should be taken into account in the decision making process. The Appraisal has taken into account how the Preliminary Options and the Preferred Option will affect the baseline environmental conditions and the consequences of any changes in terms of meeting the assessment objectives.

The significant effects of the Options have been reported on the basis of strong positive to strong negative, as described in Table 6.2. All impacts which are greater than neutral or uncertain are taken to be significant, through different impacts have different levels of significance.

In determining the significance of impacts in the IIA, account has been taken of the criteria set out in Annex II of the SEA Directive including the scale or magnitude of change, the value and vulnerability of receptors affected and the probability, duration, frequency and reversibility of the effects.

Table 6.2 Terms used in the Assessment

Nature and Scale/severity of Significant Impact	Colour Code	Description
Strong positive		A **positive** impact which is likely to result in **moderate to major** benefits.
Positive		A **positive** impact which is likely to result in **minor to moderate** benefits.
Neutral		An impact where **no** change from the current situation is expected.
Uncertain		An impact where there is **insufficient information** to determine if it will be positive or negative.
Negative		A **negative/adverse** impact which is likely to result in **minor to moderate** disbenefits.
Strong negative		A **negative/adverse** impact which is likely to result in **moderate to major** disbenefits.

6.5 *SIGNPOSTING WHERE SEA DIRECTIVE TOPICS ARE ADDRESSED IN THE ASSESSMENT*

It is a requirement of the SEA Directive that a number of topics are addressed in the Assessment. Table 6.3 sets out where in this Report these topics are addressed, within the policy review, review of baseline conditions and in the assessment itself.

Table 6.3 Signposting: Where SEA Directive Topics are Addressed

SEA Directive Topic	Coverage in Strategic Review of Policies, Plans and Programmes	Coverage in Review of Baseline Conditions	Key Appraisal Framework Objectives which Address the Issue (Chapter 7)
Biodiversity	Biodiversity and Geodiversity	Biodiversity and Geodiversity, Birds, Ecological Footprint.	• To protect and enhance designated and non-designated sites within and adjacent to the development, and across Cinderford • To ensure that the development contributes to the protection of the wider wildlife interest of the district, especially strengthening of links between 'wild' areas to increase adaptation to climate change
Population	Population, health and well-being	Cultural Heritage and Historic Environment, Employment, Benefit dependency, Accessibility, Education, Health, Housing.	• To enhance the health and wellbeing of residents and workers within Cinderford • To promote integration between communities within and surrounding Cinderford
Human health	Economy, Population, health and well-being	Employment, Benefit dependency, Accessibility, Education, Health, Housing.	• To promote civic engagement amongst the population of Cinderford and surrounding area • To enhance the health and wellbeing of residents and workers within Cinderford • To promote access to education and vocational skills training • To promote/help facilitate economic sustainability within the area • To enhance infrastructure and services, to support local businesses • To diversify the range of employment opportunities within Cinderford • To enhance the attractiveness of Cinderford as a place for business investment
Fauna	Biodiversity and Geodiversity	Biodiversity and Geodiversity, Birds, Ecological Footprint.	• To protect and enhance designated and non-designated sites within and adjacent to the development, and across Cinderford • To ensure that the development contributes to the protection of the wider wildlife interest of the district, especially strengthening of links between 'wild' areas to increase adaptation to climate change

SEA Directive Topic	Coverage in Strategic Review of Policies, Plans and Programmes	Coverage in Review of Baseline Conditions	Key Appraisal Framework Objectives which Address the Issue (Chapter 7)
Flora	Biodiversity and Geodiversity	Biodiversity and Geodiversity, Ecological Footprint.	• To protect and enhance designated and non-designated sites within and adjacent to the development, and across Cinderford • To ensure that the development contributes to the protection of the wider wildlife interest of the district, especially strengthening of links between 'wild' areas to increase adaptation to climate change
Soil	Landscape and Soil Resources	Landscape, Contaminated and Derelict Land and Groundwater, Waste.	• To support the improvement of contaminated and derelict land and reduce the impact of unstable land. • To ensure contaminated and derelict land is restored and returned to beneficial use. • To reduce the potential of pollutant emissions impacting on air, land and water, through implementing and monitoring the use of best practice environmental management techniques. • To reduce the potential of pollutant emissions impacting on air, land and water, through implementing and monitoring the use of best practice environmental management techniques.
Water	Water and Flood Risk	River Quality, Contaminated and Derelict Land and Groundwater, Flood Risk, Waste.	• To ensure the development does not involve building in areas at risk of flooding or contribute to flooding elsewhere. • To protect and enhance water resources within and surrounding the development of Cinderford • To improve the current low flow situation in Cinderford Brook and in doing so improving water quality and biodiversity. • To investigate opportunities to further reduce existing flood risk within Cinderford • To reduce the potential of pollutant emissions impacting on air, land and water, through implementing and monitoring the use of best practice environmental management techniques.
Air	Air Quality	Air, Waste.	• To reduce the potential of pollutant emissions impacting on air, land and water, through implementing and monitoring the use of best practice environmental management techniques.

SEA Directive Topic	Coverage in Strategic Review of Policies, Plans and Programmes	Coverage in Review of Baseline Conditions	Key Appraisal Framework Objectives which Address the Issue (Chapter 7)
Climatic factors	Climatic Factors	Climate Factors, Waste.	• To reduce the carbon footprint of the development, and its wider area, through design, delivery and operation • To encourage the use of renewable energy where appropriate

6.6 PRESENTATION OF FINDINGS

Having devised an Appraisal Framework which reflects the key sustainability challenges and opportunities facing Cinderford in the context of regeneration, the actual Appraisal of the Options was undertaken. The detailed findings are set out in Chapter 7 and issues surrounding implementation further explored in Chapter 8.

This Chapter firstly sets out the findings of the Appraisal of Preliminary Options, and justification for the development of the Preferred Option. It then sets out the findings of the Appraisal of the Preferred Option, and identifies the predicted significant impacts in terms of sustainability of the Draft AAP.

7.2 INTRODUCTION

This Section of the report sets out the key findings of the Appraisal of alternatives (hereafter referred to as Options) which emerged during the course of the development of the AAP, including the Preferred Option embodied in the current Masterplan. It is structured to enable the Reader to understand how the Options emerged and informed the drafting of the AAP, including the selection of the Preferred Option which ultimately forms the basis of the AAP.

The Section provides, therefore, a description of the Options considered, the assessment and ratings of these Options against the Appraisal Framework and the broader analysis which informed this Assessment. Ultimately the Section summarises the Assessment and why the Draft AAP has adopted the Preferred Option.

As noted before, it is important to reflect that the Appraisal process helped inform the selection of the Preferred Option, and more broadly the explicit and implicit objectives and direction which the AAP embodies eg. seeking to contribute to sustainable regeneration. The appraisal is not, therefore, a static assessment of AAP Options already formed, but an interactive process, informing the Draft AAP's evolution to date.

7.3 ASSESSING STRATEGY OPTIONS OR ALTERNATIVES

The Appraisal is required to take into account the process by which 'reasonable alternatives', hereafter referred to as 'Options' have been considered, and how these have affected the development of the AAP and Masterplan. This Section explores the considerations and assessment which has informed the development of these Options and ultimately the Preferred Option in the form of the AAP and Masterplan.

7.3.1 *Development of Options for the Appraisal and Drafting of the AAP & Masterplan*

Taking the Business Plan preferred option as a starting point, the AAP drafting team prepared three further variants on this approach (the

'Preliminary Options') through a process of informal consultation in May 2009 (as detailed in *Section 3.6*). These Preliminary Options detailed differing visions of what the mixed use development could comprise, and take into account flood and wider constraints mapping. The Options were as follows:

- **Option 1: New Civic Spine for Cinderford**
- **Option 2: Campus at the Centre for employment and housing**
- **Option 3: A distinctive local community**

Visualisations of each of these three Preliminary Options are presented in Box 7.1, Box 7.2 and Box 7.3 below.

Box 7.1 Preliminary Option 1

Summary

1. New civic spine to Cinderford with the college / activity centre, hotel and offices located on a new road connecting to Cinderford Town Centre.

2. College / activity centre set close to the lake and related to landscape. The college will have an open campus character with green spaces and water bodies between the buildings, offering spectacular views.

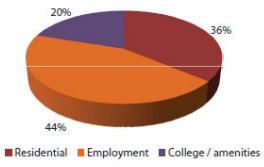
3. Hotel located at the northern gateway to Cinderford.

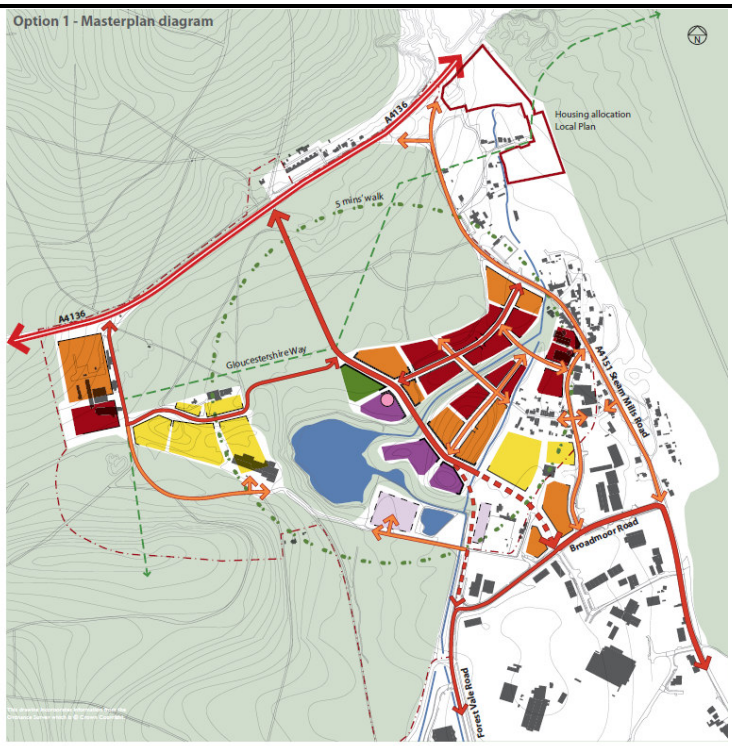
4. Steam Mills and New Town revitalised with new business spaces and housing connecting through to new civic spine.

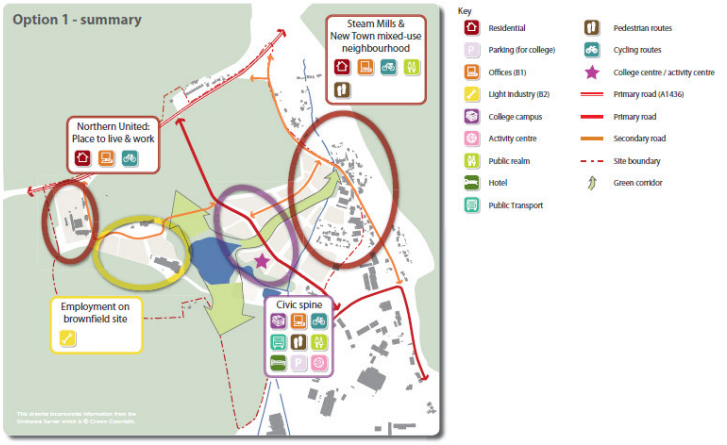
5. The Northern United site will provide opportunities for high quality business space.

6. Option 1 assumes the following mix of uses:

   - 36% residential (approximately 130 dwellings);
   - 44% employment; and
   - 20% college / amenities.







Box 7.2 Preliminary Option 2

Summary

1. College / activity centre creates a central landmark for a place to live and work set in natural landscape.

2. New employment uses will be located along the spine road.

3. High quality green business uses in lake and landscape setting.

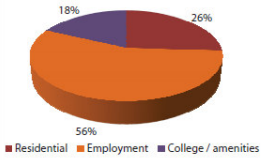
4. Steam Mills and New Town consolidated with sustainable housing, closely linked to the forest, lake, college / activity centre and business uses.

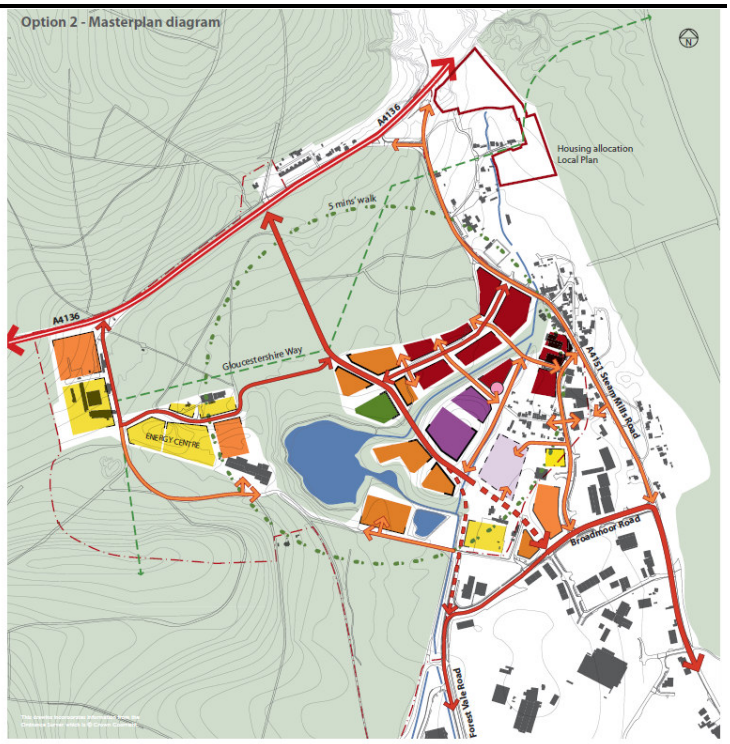
5. Hotel located by the lake.

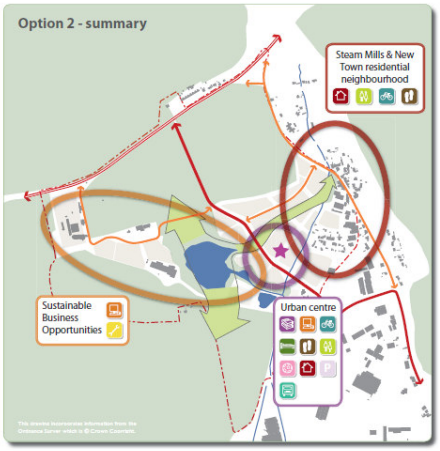
6. Character of the Northern United site retained and regenerated through sympathetic employment uses.

7. Option 2 assumes the following mix of uses:

   - 26% residential (approximately 100 dwellings);
   - 56% employment; and
   - 18% college / amenities.



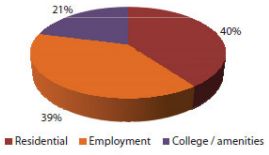


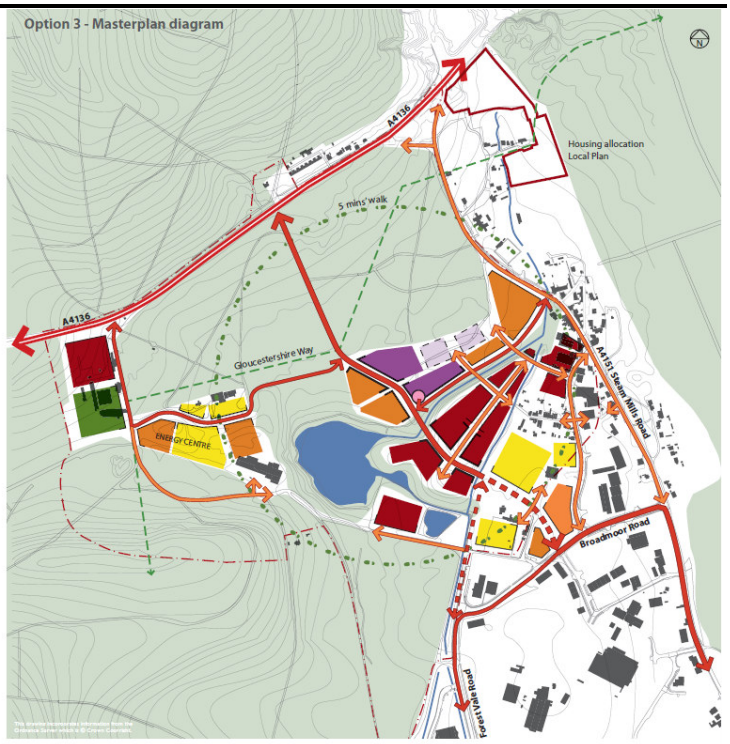


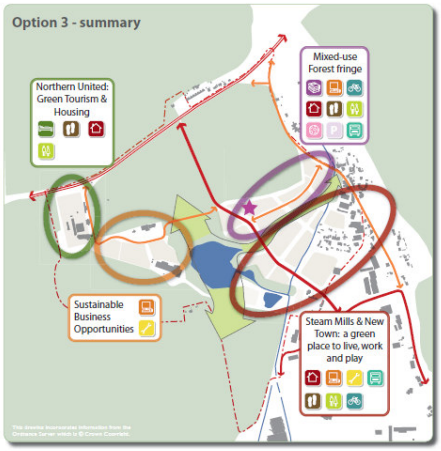
Box 7.3 Preliminary Option 3

Summary

1. College / activity centre forms a new northern gateway to Cinderford, drawing from the forest as a key asset and connecting to Steam Mills.
2. East-west link connects the Northern United site to Steam Mills and New Town via new business space, the college and housing.
3. Higher proportion of housing creates a self contained community connecting lake with Steam Mills.
4. Northern United site becomes a destination for green hotel/ tourism and exemplar sustainable housing.
5. Business space provided on selected brown field sites throughout the development.
6. Option 3 assumes the following mix of uses:
   - 40% residential (approximately 150 dwellings);
   - 39% employment; and
   - 21% college / amenities.







Options 1-3 constitute the Preliminary Options. Assessment was undertaken of these Preliminary Options and used to inform the development of the Preferred Option. The assessment process and findings are detailed in Chapter 7.

7.3.2 Preliminary Appraisal of Options

As described in the AAP and Chapter 2 of this Report, a set of three Preliminary Options were initially considered to inform the development of the AAP and Masterplan. In reviewing these Preliminary Options, the following issues were considered within the overarching context of sustainability

- Consultation feedback;
- Strategic planning priorities for the Northern Quarter;
- Flood Risk Review;
- Habitats Regulations Assessment;
- Urban design considerations; and
- Commercial market considerations.

An overview of the findings of these sources of information is presented below.

Consultation Feedback

As described in *Section 3.6*, feedback on the three Preliminary Options was gathered through a questionnaire which asked people to state their level of agreement with the different uses and activities proposed for the Masterplan area as a whole, and also to identify what they thought the best characteristics were for each Option, in terms of eight categories. As summarised below, there was strongest support for Option 2 overall, with Option 2 being preferred in seven of the eight categories as follows:

- **New homes – Option 2 preferred;**
- **College / community activity centre – Option 2 was marginally preferred;**
- **Business – Option 2 preferred;**
- **Existing communities – Option 2 preferred;**
- **Wildlife / environment – Option 2 marginally preferred;**
- **Tourism and leisure – Option 2 preferred;**
- **Transport and access – Option 3 preferred; and**
- **Northern United – Option 2 preferred.**

Strategic Planning Priorities for the Northern Quarter

Chapter 3 of the AAP sets out the strategic planning priorities for the site, and it is important that the AAP and Masterplan deliver upon these priorities. In broad terms, all three Options respond to the overarching priorities for the Northern Quarter. Option 2 was, however, considered to be the most successful in meeting the objectives for the area, particularly from a design and environmental perspective.

Of all the Options, Option 2 had the greatest proportion of employment uses. Given that the Northern Quarter represents the only significant brownfield regeneration site in the Cinderford, it is important that the Preferred Option included a significant amount of employment uses (office and light industry) to ensure that there is a critical mass of floor space to accommodate Cinderford's long term role as an employment destination.

The broad distribution of uses in Option 2 also represented the most appropriate arrangement of the site from a design and environmental perspective (discussed further below). The positioning of the educational use and the careful consolidation and integration of residential uses to the west of Steam Mills and New Town is considered to be more coherent than Options 1 and 3.

Flood Risk Review

As detailed in *Annex D*, all three Options were reviewed in relation to flood risk, noting that all Options would require further mitigation to accord with the guiding principles set for the development.

The appraisal identified that Option 2 included "More Vulnerable" residential development within an area potentially affected by flood risk and would therefore require further consideration. Conversely, however, this Option also eliminated non-permissible development from the area of highest flood risk to the east of the Old Engine Brook.

As such, Option 2 was regarded as the best option with respect to management of flood risk. It is noted that the proposed industrial development within the Flood Zone 3b to the south of the Site would have to be relocated under Option 2, which would be non-permissible under PPS25. As with all the Options, Option 2 did not wholly meet the requirements of the Guiding Principles and required development prior to being acceptable in accordance with the guiding principles set out for the site, as outlined in *Annex D* and described in detail in the Flood Risk Appraisal.

Biodiversity and Habitats Regulations

All three Options proposed interaction with the species and habitats present on the site and required effective mitigation and enhancement of the green corridors to minimise potential adverse impacts and maintain the biodiversity value of the site. Based on a comparison of the options at a local scale, there was a preference for the approach in Option 2 which proposes non residential uses in the Northern United area. This kind of activity is likely to have the lowest potential for disturbance in the form of lighting, night time noise and predation in relation to the population of Lesser Horseshoe bat roosts in this location.

There was a concern that all three Options had insufficient green corridor allocated along the west of the Old Engine Brook. Option 2 in particular identified the secondary road network in close proximity to this corridor and this would need to be addressed in future design stages.

All three options had the same number of water crossings and it would be preferred to reduce the number of crossings if possible to minimise green corridor severance.

In relation to the Habitats Regulations, it was not considered that the scale of variation between the three options would be sufficient to vary the potential impacts in relation to the European designated sites around the Northern Quarter. The key element of the Masterplan that required redress under the Habitats Regulations, in terms of identifying potential likely significant effects, was the Energy Centre (assumed to be biofueled) and increased traffic in close proximity to the designated sites and the potential to influence bat flight corridors across the site.

Urban Design Considerations

Option 2 proposed that the educational use is the main focus from a design perspective. Option 2 placed the college at the most visible, prominent, accessible and central location which reflects the key role the facility will perform in terms of the regeneration of the Northern Quarter and Cinderford as a whole. The location of the college on the larger of the two mounds allows car parking to be located in the functional floodplain just next to the college site which represents an efficient use of the lower lying land, which is not suitable for development.

Option 2 had also a stronger focus on employment compared to the other Options. The employment plots provided good views to the lake and high standards of accessibility which will contribute to the creation of high quality office locations in Cinderford to attract high quality businesses. The continuity of employment uses on the Northern United site and the development area close to the Brickworks was also perceived as a positive response to the site's industrial legacy. The remote nature of the Northern United site makes it less suitable for residential development, which would be segregated from existing communities.

The residential development is located between the employment led spine road and existing Steam Mills Village. The location creates an excellent setting for new homes with the water courses and wetlands framing it from one side and the forest from the other. The East-West alignment of the area created development plots with southern aspect and East-West orientation which maximised the benefits of solar gain.

The hotel was located to make best use of the prominent location at the spine road and the lake's setting. The hotel was also in close proximity to the college to facilitate potential links with the college curriculum.

Commercial Market Considerations.

Option 2 offered office accommodation in a prime location overlooking the lake and creates an excellent setting for this use. This approach, however, provided a small amount for residential development close to the lake, which has potential to offer premium returns. In addition, the relatively low amount of residential in this option is likely to have a negative impact upon the financial viability of the scheme, as the employment space will have lower returns compared to residential uses.

The college is well located at the main spine road, providing easier access to existing residents and to town centre retail offer, whilst the residential stitches well with the existing development of Steam Mills and has good access to the town centre.

7.3.3 Preliminary Options Appraisal Findings

This assessment of Preliminary Options was undertaken against the objectives set out in the Appraisal Framework, taking into account all of the issues discussed above, and in the overarching context of sustainable development.

The findings of this assessment are presented in a matrix of findings that enable the reader to understand the respective merits of each Option. Following this, a summation of the rationale for selecting what ultimately became the basis of the Preferred Option, is provided. This Matrix is set out in *Annex E*.

Summary of Findings and Justification for the Preferred Option

The assessment set out in *Annex E* demonstrates that all Preliminary Options create opportunities to deliver sustainability benefits. However, issues of potential negative impact remain with regard to all Options. Consultation with local people and stakeholders indicated that Option 2 was the preferred Masterplan. The diversification of land use, sensitive integration into surrounding environment, enhanced access and connectivity, as well as educational and visitor centres, all appealed to a community which had voiced its desire for these features.

Option 2 also allocated the greatest proportion of the development site for employment-related land use and it would follow, therefore, that it affords the greatest job creation potential. Further, allocating the Northern United site for industrial land use constitutes most to preserving the industrial character of that part of the site.

The assessment did, however, identify less positive aspects of Option 2, notably: scale of residential land use, ecological impacts and flood risk:

- Option 2 has the lowest proportion of residential land use, which might result in the lowest number of new residents being introduced into the area, making the lowest contribution to FoDDC housing targets.
- As noted in the summary table of the Appraisal of Flood Risk, Option 2 (as with all) had elements potentially incompatible with planning requirements, primarily in respect of the location of designated industrial units and within possible development of Flood Zone 3B.
- As with all Options, Option 2 would have potentially negative effects on habitat and biodiversity, which would require mitigation.

It was recognised that in taking Option 2 as a starting point for the Preferred Option, these key negative elements would need to be addressed. To this end, Option 2 was subject to ongoing refinement and several iterations.

7.4 ASSESSMENT OF THE PREFERRED OPTION

Following the identification of Option 2 as the basis for the Preferred Option, the option was refined and developed, to establish the Preferred Option for the AAP. *Annex E* sets out the findings of the assessment carried out for the AAP Preferred Option, against the key objectives set out in the Appraisal Framework.

Table 7.1 Sustainability Framework for Cinderford Preferred Option

Overarching objective, as set out in the Cinderford Business Plan: ***To progress Cinderford as a regional model of sustainable new development and management, and reduce the town's "carbon footprint"***	
Sustainability Objectives	**Preferred Option**
1) Environmental and Resource Sustainability	
1a) To Protect and Enhance the Physical and Built Environment	
• To ensure sensitive integration of the development within the wider Cinderford area to maximise sustainability for the town and its surrounding area	• Sensitive integration of the development within the wider area will be ensured in the following ways: • The location of the development has been chosen on the basis of a number of environmental constraints, in order to minimise the environmental impacts of the development on the surrounding area. • The development will be designed to be in keeping and in scale with the Forest, restricting building density to a range of 20 to 40 dwellings per hectare across the site (AAP Policy 11). Building densities will be dependent on the location of the residential development, with lower densities closer to the natural assets of the lake and forest fringe. This is to protect the setting of the lake from over development and to create a green transition with larger gardens and higher biodiversity value. Key views including those of the lake will be protected in the development. Higher densities can be achieved along the main movement corridor and within the existing built context of Steam Mills. Buildings will mostly be restricted to a height of 2-3 storeys with only 2 storeys permitted at the lakeside setting and 4 storeys in Forest Vale North industrial area. • The Preferred Option will encourage building design to respect traditional and local styles and materials. Residential buildings adjacent to the lake will be designed to create a 'soft' edge (AAP Policy 6), taking into account their impact on the lakeside setting. • The new residential area will have the water courses and wetlands framing it on one side and the forest on the other, enabling easy access to these natural resources and integrating the development with its surrounding area. • The proposed large car park situated on the flood plain will be planted with a dense grid of trees with parking between them (AAP Policies 10 and 19), creating a woodland/ plantation landuse character, which will help to screen the parking visually. • The Landscape and Biodiversity Strategy (AAP Policy 10) will also assume a key role in ensuring sensitive integration of the new development within the existing physical environment.

		• The former Northern United sites forms the north-western edge of the AAP area and is a key site in need of regeneration. The character of the Northern United site (a former mine) will be retained in the Preferred Option as the land use will remain commercially focused with a mix of offices, industry and some live/work residential land use (AAP Policy 6). This is positive, however, since industrial activity often gives rise to negative environmental impacts, the nature of the industrial use of this area will need to be carefully managed, ensuring that the surrounding forest and biodiversity is not adversely affected by this. • **The overall impact is assessed to be positive and minor to moderate in nature.**
• To ensure the development does not involve building in areas at risk of flooding or contribute to flooding elsewhere. • To protect and enhance water resources within and surrounding Cinderford • To improve the current low flow situation in Cinderford Brook and in doing so improve water quality and biodiversity. • To investigate opportunities to further reduce existing flood risk within Cinderford		• The assessment of potential flood risk and impact to water quality has been undertaken through the Appraisal of Flood Risk and an overview of mitigation given in AAP Policy 27. The following summarises the key points for this assessment: • The Preferred Option was derived from Option 2, which was identified as the best option with respect to management of flood risk. Whilst parts of the site fall within Flood Zones 2, 3a and 3b, the majority (including the majority of *More Vulnerable* development, specifically residential development, the hotel, educational facility and proposed health centre) lies within Flood Zone 1. With appropriate mitigation, proposed allocations represent permissible development under PPS25, however these must be water compatible and the Masterplan has been amended appropriately. Within Flood Zone 3b, the only potential proposed use is therefore that of car parking. Explanation of the specific detail of locations of *More Vulnerable* development outside of Flood Zone 1 is provided in the Appraisal of Flood Risk report. • The use of Flood Zone 3b designated land to the east of the Old Engine Brook for car parking is an appropriate *Water Compatible* use subject to key controls. The potential for planting to influence the storage capacity and flow pathways on the area of flood plain to be used for the large car park will be considered specifically during future design stages, and mitigated appropriately to ensure that adverse impacts with respect to flooding do not occur. • In terms of water extraction, it is unlikely that large volumes of water would be required during the construction process. However some water will be required and it is important that careful consideration is given to the source of water for construction and how extraction may affect low flow. • Opportunities may exist under the Preferred Option for mitigating locally increased risks introduced by channel and sluice maintenance issues and the poorly configured brook bifurcation. Minor civils works and planned maintenance schedules going forward could reduce such risks through the removal of the source or pathway by which such flooding currently occurs. Opening up the Old Engine Brook would facilitate a more constant water flow and associated water quality and biodiversity benefits. • Careful consideration of how SUDS will operate will be required with detailed consideration of issues of relating to

		geology and contamination. • **The overall impact is assessed to be positive and minor to moderate in nature, given the proactive consideration of ways to mitigate against flood risk and the refinements to the AAP and Masterplan made on the basis of this. This positive scoring is made on the proviso that the amendments are consistent with the expectations of the Environment Agency.**
• To promote sustainable procurement of both materials and personnel through construction and operation of the development		• Sustainable procurement will be promoted through the Masterplan and AAP (AAP Policies 5 and 8) and it is recommended that this is laid out in a sustainable procurement strategy. Use of local materials is also detailed within the design code. • The AAP will support community involvement through social clauses (AAP Policy 5) to promote the utilisation of local labour, training opportunities and skills throughout the AAP and Masterplan development. • **The overall impact is assessed to be positive and minor to moderate in nature. There are opportunities to strengthen this going forward, primarily in the form of a sustainable procurement policy. Note recommendations section.**

• To reduce the carbon footprint of the development, and its wider area, through design, delivery and operation		• The carbon footprint of the AAP Masterplan has been addressed through a two tiered approach:
		  • Minimising energy demand (AAP Policy 9) – buildings proposed on site will be required to achieve minimum certification standards that place an emphasis on energy demand (e.g. Code for Sustainable Homes and BREEAM); and
		  • Supply of heat and power from renewable energy technologies on the site (AAP Policy 33) - The current preferred approach is a biofuel boiler/Combined Heat and Power system for macro on-site generation, with supplementary energy building level requirements being met through technology such as small scale biomass, geothermal, solar and wind.
		• This combined approach will ensure that the AAP results in an overall reduction in demand for energy from the residential and commercial facilities on site and also supplies energy from a source of fuel that is renewable and less carbon intensive. It is recognised that the availability of consistent and sustainable fuel supply is a principal consideration when assessing the feasibility of biofuel and it is generally accepted that the emissions associated with transporting biofuel by road more than 120 km negates the CO_2 saving and emissions. This will need to be investigated further at the future design stages to identify real carbon savings.
		• **The overall impact is assessed to be positive and minor to moderate in nature. Opportunities exist to further reduce the carbon footprint of the area through enhancing public transport provision and encouraging residents and businesses to be more carbon efficient. Note recommendations section.**

• To develop new residential building to Code for Sustainable Homes Level 4 (by 2010 and increasing with Government policy thereafter); non residential Buildings to achieve at least BREEAM excellent or relevant equivalent.		• Sustainability benefits will be achieved through building certification schemes. The Preferred Option will provide new residential properties which meet Code for Sustainable Homes Level 4 (AAP Policy 9). 33.5% of the land use for the development will be residential, providing approximately 175 new homes to contribute towards the FoDDC housing targets. Non residential development will also achieve BREEAM excellent standard, reducing the energy demand of these buildings • **The overall impact is assessed to be positive and minor to moderate in nature. Opportunities exist for incremental development of CSH level as and when the housing market in the area will facilitate this.**

• To integrate sustainable waste management facilities and services within the development, to the benefit of it and Cinderford more broadly		• Sustainable waste management will be integrated within the development through the following measures (AAP Policy 32):
		  • As noted in policy 23, construction waste will be managed through Code for Sustainable Homes and BREEAM criteria to ensure provision of suitable space and separation at source of waste streams. The majority of sites within the Masterplan will be required to produce Site Waste Management Plans in accordance with the Site Waste Management Plan Regulations 2008, which apply to all construction projects exceeding £300,000 in value. Designing out waste will be an important aspect of the waste management strategy, using tools from WRAP such as Designing out Waste – A Design for Buildings.
		  • In terms of operational waste management, the AAP states that FoDDC will encourage the provision of an on-site waste facility such as an anaerobic digestion plant or a materials recovery centre. Since suitable design and mitigation measures will be encouraged to ensure that any facility does not have a negative impact in terms of visual or landscape amenity, this is expected to provide positive sustainability benefits for the area.
		  • To support the sustainable management of waste arising across the site, the potential for a shared on site central Materials Recovery Centre should be explored. As a minimum provision, during construction, it should be possible for materials to be segregated for reuse, recycling and safe disposal.
		• **The overall impact is assessed to be positive and minor to moderate in nature. Opportunities exist for encouraging more sustainable resource consumption and reuse /recycling of waste amongst both businesses and residents. Note recommendations section.**

• To support the improvement of contaminated and derelict land and reduce the impact of unstable land. • To ensure contaminated and		• Contaminated and derelict land is a key issue for the area, and one which is considered in the AAP (AAP Policy 30) and Masterplan but will also require further consideration/investigation going forward: • The development site is set upon and around former colliery works and other historic and current industrial land uses. Therefore there is potential that the planned development sites may be on contaminated land. The AAP does not provide

derelict land is restored and returned to beneficial use. • To reduce the potential of pollutant emissions impacting on land, through implementing and monitoring the use of best practice environmental management techniques.		detailed development information and therefore site investigation is not required to support the Sustainability Appraisal or planning process at this stage. However, site investigation works to identify contaminated land and groundwater will be carried out as appropriate to the proposed development footprint prior to development occurring. • The results of site investigation and risk assessment will determine the extent of remediation works required prior to development occurring. In so doing, this Option will support the improvement of contaminated land where proposed development overlaps areas of identified contaminated land. Where development occurs on formerly contaminated and derelict brownfield sites, this Option will contribute to sustainable landuse and reduce the need to develop greenfield sites. • This Option represents a change in land use, compared to the previous heavy industrial use of the site. As such, the new development is anticipated to result in lower levels of emissions to air, land and water during operation than previously occurred. Quantitative analysis of the expected emission levels will be carried out through subsequent EIA assessment, in order to identify any necessary mitigation measures that would be required in order to minimise the emissions arising through delivery of this Option. • It is recommended that the AAP should support the development of ISO14001 Environmental Management Systems for new light industrial occupiers within the Masterplan area. This will ensure that best practice measures are undertaken to reduce the impact of such business activity on the environment, and that this impact is monitored, such that pollutants emissions to air, land and water are minimised. • It is also recommended that developers should be required to have Construction Environmental Management Plans (CEMP) in place to ensure that best practice measures are also undertaken during the construction phase, to reduce the impact of construction on the environment, such that pollutants emissions to air, land and water are again minimised. • The Northern Quarter site is known to contain a number of important mineral resources including coal and fireclay. The County Council is currently preparing a Minerals Plan for Gloucestershire. The Council will require proposals to assess the level of impact on the environment in terms of habitat and biodiversity value and the level of impact on adjacent land uses (both existing and planned). Potential extraction of minerals prior to commencement of development will be undertaken where appropriate fireclay (AAP Policy 29). • **The overall impact is assessed to be positive and minor to moderate in nature, on the proviso that the requisite investigation and assessment work is undertaken and duly informs delivery of the Masterplan. Note recommendations section.**

• To protect and enhance air quality		• As noted above, it is recommended that the AAP should support the development of ISO14001 Environmental Management Systems for new light industrial occupiers within the Masterplan area. This will ensure that best practice measures are undertaken to reduce the impact of such business activity on the environment, and that this impact is monitored, such that pollutants emissions to air are minimised. • Uncertainty exists over the nature of the Energy Centre (AAP Policy 33), and the potential exists for increased, localised emissions to air through the preferred approach of a biofuel boiler. The nature and extent of such emissions will only be ascertained as and when plans for the Energy Centre are refined. • **The overall impact is therefore assessed to be uncertain.**
• To encourage the use of renewable energy where appropriate		• The AAP and Masterplan includes an energy centre, promoting sustainable energy use (AAP Policy 33). The energy centre should be located in close proximity to the prime users of the renewable energy generated at the centre (industrial buildings and new office space), thereby allowing for a range of renewable technologies and distribution networks to be considered. Opportunities for technology transfer between the energy centre and local industry as well as educational opportunities could occur as a result of this location. • **The overall impact is assessed to be positive and minor to moderate in nature, with opportunities to enhance this through possible integration of building-level renewable technologies going forward.**

Overarching objective, as set out in the Cinderford Business Plan: ***To progress Cinderford as a regional model of sustainable new development and management, and reduce the town's "carbon footprint"***	
Sustainability Objectives	**Preferred Option**
1b) Designated & Non-Designated Ecological Sites: Biodiversity	
• To protect and enhance designated and non-designated sites within and adjacent to the development, and across Cinderford	• The Preferred Option proposes interaction with the species and habitats present on the site (AAP Policies 10 and 26) and will require effective mitigation and enhancement of the green corridors to minimise potential adverse impacts and maintain the biodiversity value of the site. • The site is located within the statutory boundary of the Forest of Dean. The Preferred Option promotes development which is sensitive to the particular countryside character of the area, in line with the objectives of the Forestry Commission. Assessment of the likely impacts of development within the area on the Forest of Dean will be fully assessed in the subsequent EIA of the Masterplan and in future design stages.

- There are no nationally designated biodiversity conservation sites within the Northern Quarter site (AAP Policy 26). However, five designated Natura 2000 sites lie within a 15km radius of the AAP area. Screening for any impacts that site-proposals might have on these sites has been carried out through the Habitats Regulations Screening Assessment (Habitats Regulations Screening Statement in *Annex C*). The assessment identifies four potentially likely significant effects through a screening of the AAP. These potential effects will require more detailed information at a lower tier of the planning process (potentially through Appropriate Assessment) to be able to be adequately assess the risk and likelihood of them occurring.

- There are two Natural England Grassland Inventory Sites within the AAP boundary. It is understood that these sites have not been subject to NVQ survey by Natural England since 2000. In order to assess and mitigate potential impacts in this site (and potential for future management) detailed survey will be undertaken as part of the EIA to support the masterplan.

- The site incorporates part of the Linear Park Key Wildlife Site, this is a non statutory local designation and much of the key habitat area to the south of the site is being retained – where development is proposed within the KWS the following mitigation approaches are being progressed:

    - The lake is a key habitat area at the heart of the development. The Preferred Option will look to minimise intervention to the existing riparian habitats and will encourage reed beds, marginals and wet woodland scrub vegetation (AAP Policy 27). The brickworks are currently screened by mature trees and this screen is to be retained. These measures will help to protect and enhance this area; however assessment of the visual impact of development adjacent to the lake will be necessary at future design stages to ensure that the character of the area is not subject significant adverse effects.

    - Under the Preferred Option, the brook feeding the lake and the outlet stream will both be retained as wetland corridors that will permeate the development as 'green fingers' (AAP Policies 6 and 10), along with the Old Engine Brook. The landscaping of the green fingers will include reed beds, marginals and wet woodland scrub vegetation and will therefore make up a valuable ecological asset for the site.

    - Through the Preferred Option, a 'village green' will be developed at the northern end of the green fingers, near Steam Mills (AAP Policy 10). This area will be managed as amenity grassland and may contain small play areas, footpaths and benches, though it will retain some of the character of the green fingers connecting to it.

- **The overall impact is assessed to be negative and minor to moderate in nature. The loss of greenspace and habitats is an obvious disbenefit and whilst mitigation measures are proposed, the overall impact is an aggregate loss of biodiversity in the area. The green corridors will provide the opportunity to translocate species and provide links**

		between key habitat areas. In addition, further screening at the implementation stage will provide opportunities for mitigation and enhancement. Note recommendations section.
• To ensure that the development contributes to the protection of the wider wildlife interest of the district, especially strengthening of links between 'wild' areas to better enable adaptation to climate change		• Due to the location of the site within the Forest of Dean, there are a number of ecological constraints. Of particular note are the Lesser Horseshoe bat roost (Northern United), common reptiles and Great Crested Newts (to the south the development footprint). An ecological survey has been undertaken in order to assess the value of biodiversity within the area. At the detailed masterplan stage, a number of habitat and species protection measures will be identified to minimise and manage potential adverse effects. (AAP Policy 10) • The area contains a number of protected lesser horseshoe bats. The Preferred Option proposes largely non residential uses in the Northern United area, which is likely to have a lower potential for disturbance than primarily residential development, in terms of lighting, night time noise and predation in relation to the population of Lesser Horseshoe bat roosts in this location. However, mitigation measures will be necessary during development in order to minimise the impact on these species during construction and ensure the long term viability of the existing roost. • As the site is currently disused, the development of the area is likely to cause disruption to a number of habitats and species, primarily through change in land use, but also through operational impacts such as increased levels of external lighting, particularly at night. However, it will be possible to enhance certain areas of the site through, for example, consideration of ecology within landscaping plans associated with residential development. It will also be possible to mitigate the impacts of development in other areas. In order to monitor that such mitigation is occurring, within proposals for the site, there is the potential to develop a biodiversity checklist including things such as bird nesting, nectar rich plants and the use of green roofs to determine how effective development plans are at mitigating negative impacts and enhancing biodiversity. • Green corridors will be created at multiple locations across the site (e.g. grass or hedgerow between residential blocks or watercourses and areas of floodplain; AAP Policy 10). Such corridors will help to promote green linkages between wildlife areas surrounding the site and provide the potential for enhancement to mitigate for lost habitat area. However, future planning will need to consider in detail the way in which the corridors are protected and enhanced for biodiversity within the area. • The new access road for the development will be a tree-lined, single carriageway rather than a traffic dominated by-pass. The road is aligned through an area of high ecological sensitivity and therefore street design will include measures to reduce the severance these structures will propose for certain species (such as tunnels or above ground narrowings and green infrastructure). Formal avenue planting is proposed on the main spine route and secondary east-west connection. In addition, two tertiary routes contain a margin to create green links between the forest and green fingers. Tree species will be chosen based on their provenance, suitability for the site's growing conditions and to create a variety of character

		across different streets. • **As above, the overall impact is assessed to be negative and minor to moderate in nature. Mitigation measures proposed above will be critical in minimising potential negative impact and in better enabling adaptation to climate change.**

Overarching objective, as set out in the Cinderford Business Plan: ***To progress Cinderford as a regional model of sustainable new development and management, and reduce the town's "carbon footprint"***		
Sustainability Objectives	**Preferred Option**	
1c) To Promote More Sustainable Forms of Transport Provision		
• To promote sustainable access into and out of the area		• This Option will promote public transport routes (AAP Policies 15 and 18) and provide facilities to ensure public transport access to the key amenities such as the education facility. However, the Preferred Option is restricted in its ability to improve connections beyond the site boundary. The regeneration of Cinderford may in future lead to improved public transport, which would improve the physical connectivity between Cinderford and the wider area. However these benefits would not be achieved solely through the implementation of the AAP and Masterplan themselves and will require partnership working into the future. • The link road will enhance access in and out of the area (AAP Policy 15) and reduce traffic flows through steam Mills in particular past the primary school. It is also important to encourage a modal shift towards public transport and away from car use, to ensure access is environmentally sustainable. Opportunities to strengthen public transport provision should be sought. • **The overall impact is assessed to be positive and minor to moderate in nature. Opportunities exist to strengthen this through the enhancement of public transport services, in particular the frequency and reliability of bus services. Note recommendations section.**
• To promote more sustainable patterns of travel and modes of transport, such as the use of public transport, walking and cycling • To enhance sustainable transport infrastructure		• The Preferred Option promotes walking/cycling and public transport through a number of measures detailed within the AAP (Policies 14, 16, 17, 18 and 19), and outlined below. *Walking* • New paths and cycleways linking in with existing and proposed new walking and cycling routes will encourage sustainable use of the Forest and tourism. Fundamental to the Masterplan is the creation of pleasant, safe and walkable

		environments that ensure connectivity with existing neighbourhoods and permeate through the new site. Formal walking routes through the site will link with more informal, traffic-free paths in the landscaped and forested areas. • Most of the site is within 5 minutes walk (400m) of the Northern Quarter centre and all new homes built on the site are planned to be within 5 minutes walk of a bus stop and in close proximity to local employment, shops, schools, community, health and leisure facilities. This will provide sustainability benefits in terms of enhancing access to facilities and reducing reliance on private cars to access these. *Cycling* • The AAP (Policy 17) encourages the provision of safe, secure and sheltered cycle parking adjacent to residential units, employment sites and other community amenities as well as the provision of quality road surfacing and suitably lit roads. It states that showers, changing facilities and lockers should be provided at work places and community bike rental and bike training programmes should be established. Two connections will link the development with existing forest trails. It is also recommended that links are provided to the proposed new National Cycle Network routes. *Public transport* • Whilst Cinderford is not currently physically constrained for public transport, Nailbridge junction is constrained and difficult to use. The new spine road, accessing the Northern Quarter site and Cinderford town centre from the north via the new junction will become the principal access road. Key bus routes that currently run along Steam Mills Road will be diverted stopping at the bus hub in the Northern Quarter, adjacent to the new education and employment facilities. • The Preferred Option will promote public transport routes across the site, although as noted above, the AAP and Masterplan will provide limited direct benefits in terms of improving connections beyond the site boundary. There is the opportunity for the Northern Quarter site to act as a stepping stone for pedestrians and cyclists travelling between Cinderford and the villages of Drybrook and Ruardean to the north. Although the Preferred Option cannot itself deliver improvements to the public transport system, it recognises that the bus service itself needs to be improved, to increase the use of buses over private vehicles, and suggests a number of improvements to achieve this. • **The overall impact is assessed to be positive and minor to moderate in nature.**
• To help reduce the need to travel, such as by ensuring that people can live closer to their work and by improving local access to services		• Regeneration brings with it development of not only businesses and economic growth but also new services and an improved quality of life for residents generally. This in itself reduces the need for residents to travel beyond the area to access such services. • The location of the education facility within the development will also reduce the need for travel for residents of

• To promote economic patterns that avoid unnecessary dependence on long-distance trade and travel		Cinderford, however it is recognised that people living outside Cinderford will need to travel in to access the facility. • The AAP will provide office and industrial units within the Northern Quarter area, increasing the opportunity for employment within Cinderford. This is likely to provide some benefits in terms of reducing the need to travel for employment, for a proportion of local residents, as well as reducing the need for out-commuting. • **The overall impact is assessed to be positive and minor to moderate in nature.**
• To reduce the distance to, and/or ease of accessing, schools, shops, places of work and recreation		• The Preferred Option is a mixed-used development including residential areas, an educational facility, activity centre, office and industrial space, the potential for small retail outlets and paths and cycleways for leisure activities (AAP Policy 6). Access to these types of facilities for residents living within the new development will therefore be improved under the Preferred Option, and the distance to such facilities will also be reduced for those living in Cinderford town centre and the surrounding villages, providing a wider benefit. • Access to the educational facility from Cinderford town centre will be possible by bicycle or by using public transport since the facility is situated on the main bus route from Cinderford town centre. This will improve the number of users in Cinderford Town centre and enhance the viability of the retail offering in the town centre. In addition, as the educational facility is located on the main road, it will be easily accessible by buses along routes from outlying villages. • **The overall impact is assessed to be positive and minor to moderate in nature.**

Overarching objective, as set out in the Cinderford Business Plan: ***To progress Cinderford as a regional model of sustainable new development and management, and reduce the town's "carbon footprint"***		
Sustainability Objectives	**Preferred Option**	
2) Economic Sustainability		
• To promote/help facilitate economic sustainability within the area		• Economic sustainability will be facilitated through: • Provision of units for light industrial use in the Northern United and Forest Vale areas of the site (AAP Policy 6). These units will have a gross external floor space of between 1,000 and 10,000 sq ft; and • Creation of high quality office space, providing exemplar low carbon employment space (AAP Policy 21). Office units will have a net internal floor space of between 1,000 and 2,500 square feet. • The Market Review concluded that the employment plots will provide good views of the lake and have high standards of

		accessibility which will contribute to the creation of high quality office locations in Cinderford and therefore attract high quality businesses. However, this approach provides only a small amount for residential development close to the lake, which would potentially generate more revenue. • As also noted in the Market Review, the location of the education facility on the main spine road is likely to provide relatively easy access to existing residents and to the town centre, whilst the residential space integrates well with the existing development of Steam Mills and will enable good access to the town centre. • The Preferred Option includes a significant amount of employment space, both for offices and light industry. As noted in the AAP, this will have positive economic benefits since it will encourage economic growth within Cinderford and help to accommodate long term demands for employment space as Cinderford develops as an employment destination. • Tourism in the area will be promoted through the development of a high quality hotel within the Northern Quarter. This will help to increase cashflow into the area through increased tourist spend in the area. • The current retail spend in Cinderford is below that anticipated for a town of its size. Whilst no retail development competing with the town centre will be permitted as part of the development, there is an important role for smaller retail units integrated as part of office or residential development in order to cater for local demand. By providing these small retail space areas, the new development should assist in improving expenditure of both residents and in-commuters, within Cinderford, boosting the local economy. • The educational facility will lead to an increased number of visitors from the wider area, who will be in close proximity to the town centre, and who therefore represent potential customers for Cinderford town centre retail outlets. However, transport links between the education facility and town centre need to be considered in order to maximise accessibility of the town centre from this location. • Sustainable Procurement will be promoted through the Preferred Option (AAP Policy 5), aiming to enhance and support local industry so as to minimise the supply chain carbon footprint and maintain the economic benefit of regeneration within the area. There will be a preference toward the use of local construction materials such as brick and blue pennent sandstone which are produced through traditional industries of the area. Given the availability of construction materials and services within the local area, it is particularly important that local procurement is promoted through the AAP, Masterplan and at the outline planning stage, to maximise economic sustainability benefits arising from the scheme. • **The overall impact is assessed to be positive and moderate to major in nature.**
• To enhance infrastructure and services, to support local		• The Preferred Option provides a reasonable separation between residential and office space with business and industrial use focused to the west and residential use focused to the east. This may have positive economic benefits in terms of

businesses • To promote sustainable business practice within Cinderford • To enhance the attractiveness of Cinderford as a place for business investment		establishing a strong business area, encouraging new businesses to set up within the area. • The nature of the Northern United site lends itself to smaller businesses, and development of this area will draw on the existing light industrial uses of the brickworks and car yard, aiming to intensify employment uses while continuing the employment legacy of the site (AAP Policy 6). This part of the site will be redeveloped to include both industrial and possible residential live-work units, providing opportunities for people to both live and work at the site. • As mentioned above, it is recommended that the AAP should support the development of ISO14001 Environmental Management Systems for new light industrial occupiers within the Masterplan area. This will be of value in promoting sustainable business practice within Cinderford, and will require ongoing monitoring of environmental performance. • The office space will be the first comprehensive office development for Cinderford and as such aims to provide a step change for higher quality, low carbon employment space in the town (AAP Policy 21). It is located in prominent and accessible places along the main street, drawing on the attractive environmental setting of the lake and the forest, as well as improving the connectivity of Cinderford to the existing road network. The Preferred Option will therefore enhance the attractiveness of Cinderford as a place for business investment. • Locating the light industrial use in the employment led character areas of Northern United and Forest Vale North is also likely to help enhance the attractiveness of Cinderford as a place for business investment, since this represents an expansion of the existing light industry in Cinderford, which has a strong legacy in the town. • **The overall impact is assessed to be positive and moderate to major in nature.**
• To diversify the range of employment opportunities within Cinderford • To enhance access to employment and up-skilling opportunities • To promote integration of educational and skills training in line with identified need		• The AAP will directly contribute to diversifying the range of employment opportunities within Cinderford, since it will provide a mix of facilities, including an education facility, in an area which has historically been dominated by industrial businesses. • Access to employment opportunities will be provided through the provision of new office and business space. The Baseline Report (2009) identified that manufacturing is one of the main sources of employment in the Forest of Dean and the town needs new and diversified employment opportunities. New, high quality office space may attract different kinds of companies, potentially providing up-skilling opportunities. • Employment opportunities will be provided both through the construction and through the operational phases of the development under the AAP Preferred Option. • If the educational facility is developed as a college of higher education, it will provide an opportunity for people to

		develop their skills to a vocational level. • Locating the educational facility in close proximity to office areas will provide the potential for linkages between the two (for example providing training in the form of adult education classes for employees to increase skills or providing work experience/internship/apprenticeship opportunities for students). This will have positive social sustainability benefits by improving employment prospects for young people in the area. • The location of the hotel next to the educational facility will also allow for linkages between the two facilities, such as hospitality catering, training and facilities. There is also potential for the educational facility to develop strong links with the eco-visitor and activity centre, to promote sustainability learning. • **The overall impact is assessed to be positive and moderate to major in nature.**
• To help increase the number of people who stay/visit the area • To promote sustainable tourism initiatives in the Forest of Dean (such as walking/cycling tourism)		• The hotel will be high quality and in an attractive lakeside setting, which is likely to help enhance Cinderford as a tourist destination within the Forest of Dean. As well as being by the lake, the hotel will also have the commercial advantage of being visible from the main road. • The site is within the Forest of Dean boundary and thereby increases access to the forest, encouraging use of the forest for recreation and educational purposes. An eco-visitor and activity centre has been identified as part of the development (AAP Policy 23). This will provide visitors with information about the Forest of Dean, Cinderford and the Northern Quarter, and is therefore expected to help increase the number of visitors to the area. • As well as the provision of specific tourism facilities, visitors are expected to be attracted to the area through the wider regeneration, improvements to facilities and enhancement of retail provision within Cinderford town centre which is likely to arise as an indirect benefit of the AAP. • Whilst increased access to, and use of, the Forest will bring about a number of sustainability benefits, primarily for social reasons, the presence of an increasing number of forest users may lead to an adverse effect on the environment such as through degradation, littering and soil compaction. Management of this impact will be critical in preserving the natural environment and will be undertaken in accordance with the policies of the Forestry Commission. • **The overall impact is assessed to be positive and moderate to major in nature.**

Overarching objective, as set out in the Cinderford Business Plan: ***To progress Cinderford as a regional model of sustainable new development and management, and reduce the town's "carbon footprint"***		
Sustainability Objectives		**Preferred Option**
3) Social Sustainability		
3a) To Promote Sustainability Skills and Learning		
• To promote and facilitate awareness raising and understanding of sustainability		• The eco-visitor and activity centre will provide residents, students and visitors with information about the Forest of Dean, Cinderford and the Northern Quarter, including information on sustainable development in the area. Information on biodiversity and sustainable energy production will be provided. The introduction of an energy centre will also provide an educational opportunity within the site, and consideration of how best to maximise the educational benefits of this facility is recommended. • The new educational facility will have high environmental standards (at least BREEAM excellent) contributing to and being an exemplar of low-carbon design for the development site and the wider Forest of Dean (AAP Policy 20). • **The overall impact is assessed to be positive and minor to moderate in nature. Opportunities exist to enhance awareness through ongoing communication going forward. Note recommendations section.**
• To promote access to education and vocational skills training		• The indicative Masterplan currently makes provision for the development of a new campus facility for the Royal Forest of Dean College and this is considered to be the most appropriate education facility for the site. However, as noted in AAP Policy 20, alternative educational uses could have an equally beneficial impact on the area if the college does not come forward. • If developed as a college, educational opportunities will be provided for those 16+ in Cinderford and the surrounding areas. The college could also offer adult education classes to enable people to develop their vocational skills. • The hotel and educational facility are located within close proximity to one another, giving the potential for strong links to be made between these facilities in terms of providing training support for hospitality and catering courses, and the use of the hotel facilities for other training-related purposes. • During the outline planning stage, consideration will be given to the number of additional school places required to meet the needs of new residents (AAP Policy 25), to ensure that there is sufficient provision for them within existing schooling facilities in the area. It is important that the educational needs of the increasing population are met, and that consideration is given to school travel options. Where possible, children should be encouraged to walk or cycle to school, along safe routes.

		• **The overall impact is assessed to be positive and moderate to major in nature.**
3b) To promote social integration		
• To promote social connectivity and integration between and across communities in Cinderford and the area		• The broad distribution of uses in the Preferred Option, the positioning of the educational facility, and careful consolidation and integration of residential uses to the west of Steam Mills and New Town, represent the most coherent landuse distribution of all the Options considered, and are considered to best promote social and physical connectivity, within the site. It is recognised that there remain issues in regard to connectivity across the wider Cinderford area, and while it is beyond the scope of the AAP for the Cinderford Northern Quarter to address these directly, the AAP seeks to promote wider integration, through linking in with other sub-regional AAPs, as well as regional strategic plans. • The Preferred Option integrates different land uses together, thereby limiting the potential for community severance. The band of residential housing planned between the spine road and Steam Mills would create a relatively self-contained community, with good links to the existing town centre. This would have clear benefits in terms of developing a strong community in this area. • The Preferred Option will provide a range of direct sustainability benefits in relation to the new facilities that it provides. It is likely that there will be further sustainability benefits attenuating from the regeneration of the Northern Quarter area, such as supporting and improving the retail offer within Cinderford town centre, as a result of the increase in residents and visitors to the area. Cinderford itself will benefit the most from the new development but villages to the north of Cinderford will also derive notable benefits resulting from increased facilities in the local area. It is likely that the new facilities will attract people from these neighbouring villages into Cinderford, leading to improved social connectivity. • Establishing a new and relatively large educational facility in Cinderford will raise the profile of the town and help promote links between Cinderford and surrounding communities, since students will travel to Cinderford to use this facility. Therefore, the facility will not only benefit those in Cinderford but also those in surrounding villages. • One option for the education facility will be to relocate the Royal Forest of Dean College from Coleford, so that all facilities can be brought together onto one campus. This would be more convenient for students living in Cinderford, although students from Coleford would have to travel further to the college. However, the college will be located on the main road and bus route from Coleford providing relatively easy access. Further, the Council offices for the FoDDC are currently located in Coleford, therefore this are would retain an important public sector facility if the college were to be relocated. • **The overall impact is assessed to be positive and minor to moderate in nature.**
• To promote civic and wider		• The site benefits from a wide range of stakeholder interests (AAP Policy 4). As noted in the AAP, these stakeholders have

stakeholder engagement amongst the population of Cinderford and surrounding area		a key role to play in the implementation of proposals for the site both in terms of consultation and involvement in regeneration initiatives and projects. The AAP Preferred Option has undergone statutory consultation as part of the SEA process, however a number of key stakeholder groups have also been involved in the consultation process. This has included biodiversity/nature conservation groups, local sports clubs, the local and area councils, local interest groups, educational facilities and the police. • A number of public consultation events have also been held over the course of the AAP, including a youth conference attended by children from a number of local schools. This has been very positive in engaging local people in the planning and decision-making process. However it is recommended that civic engagement continues at the outline planning stage, in order to ensure that local views are heard and to encourage people to take ownership of their area. • **The overall impact is assessed to be positive and minor to moderate in nature. Opportunities exist to increase civic engagement in the regenerated Quarter going forward.**

• To enhance the health and wellbeing of residents and workers within Cinderford		• Under the AAP Preferred Option, a new specialist healthcare facility will be located just south of New Town (AAP Policy 6). This will provide significant health and wellbeing benefits both for residents of Cinderford and people within the wider area.
		
		• Physical health (and emotional wellbeing benefits associated with good physical health) will also be promoted amongst Cinderford residents and visitors through the provision of an activity centre and improved facilities for walking and cycling.
		
		• It is anticipated that the development will in itself promote positive well being within the area as people recognise the potential of the investment within their area
		
		• Safety and security is an important consideration within the AAP, and the following measures in particular have been included with the AAP to address this:
		
		  • In order to increase safety of residents and reduce the risk of road traffic accidents, areas of residential development have not been located along the main roads.
		
		  • The development will be accredited to 'Secured by Design' principles. It is envisaged that the design standards will be reviewed, and consultation undertaken, at each phase of the development, to ensure the development complies with the standards promoted by the HCA at that time.
		
		  • The educational facility will be located in the centre of a developed area and will therefore benefit from natural surveillance from other buildings, reducing the security risk to the educational facility.

		• Safety and security issues will need to be carefully managed in terms of access routes for people walking between the Northern United site and the educational facility/hotel areas, as the walking route will pass though an area of open space around the lake with limited natural surveillance. However, any night-time lighting provision in the lake or forest area would potentially represent a significant disturbance to habitats and species, including protected species. Careful consideration of the ways in which the two issues of safety and ecology could best be addressed in this regard will be necessary at the outline planning stage in order to ensure that the most sustainable solution is reached. • **The overall impact is assessed to be positive and minor to moderate in nature, noting that mitigation around safety and security will be key going forward. Note recommendations section.**
• To enhance access to social, leisure and sporting facilities in and surrounding Cinderford, including the Forest, for all		• An activity centre will be included within the Masterplan, as part of the eco-visitor centre, providing enhance opportunities for leisure activities amongst the residents of Cinderford and the wider area. Depending on the nature of the activities and facilities offered by the centre, it is likely to provide positive sustainability benefits in terms of both improved physical health and enhanced wellbeing. • The AAP and Masterplan will facilitate increased connectivity between settlements, thereby enhancing the social capital of the area. Regeneration will also facilitate increased investment with likely social benefits in the form of new facilities and leisure opportunities. • New walkways and cycle paths (AAP Policies 16 and 17) will provide improved access to, and opportunities for, leisure activities within the Forest. Two connections will link the development with existing forest trails. It is also recommended that links are provided to the proposed new National Cycle Network routes. • The existing angling club will remain at its current location, therefore access to this leisure opportunity will not be affected, with the potential for improved facilities. Due to the location of residential properties around the lake, there may be opportunities for further development of lakeside leisure opportunities, including lakeside paths in the area. • **The overall impact is assessed to be positive and minor to moderate in nature.**

Overarching objective, as set out in the Cinderford Business Plan: ***To progress Cinderford as a regional model of sustainable new development and management, and reduce the town's "carbon footprint"***		
Sustainability Objectives		**Preferred Option**
3c) To Promote Equality of Opportunity		
• To meet identified housing need, in particular, the provision of affordable housing		• The Preferred Option will go towards meeting the identified housing need for the area, since 33.5% of the development site will be for residential land use, providing approximately 175 residential dwellings. The residential space will be mixed, comprising flats, family houses and properties for elderly people. • By providing up to 40% affordable housing within the residential space, the Preferred Option will help to promote equalities and improve housing ownership levels. This will go towards meeting a particular need of the Cinderford ward, which has the lowest levels of owner-occupation in the district (below 36%). • Affordable housing will be provided across all residential areas identified within the Preferred Option (AAP Policy 22), rather than concentrating it in a small number of areas. This will promote equality of opportunity in terms of housing, helping to prevent the establishment of 'pockets' of deprivation within the site and problems such as crime and social exclusion associated with this. • The area also lacks high quality housing, with the available housing within Cinderford town centre at present suited to low/medium income families. The provision of higher quality housing will help to meet the existing need and also the need of incoming populations, including professionals and families moving to the area. It will be important to consider, at future design stages, the ways in which the risk of gentrification of the area will be minimised, such as through carrying out Equalities Impact Assessments at future design stages. **The overall impact is assessed to be positive and minor to moderate in nature, noting the proviso that an EqIA should be carried out going forward. Note recommendations section.**
• To promote equality of opportunity and access for all within Cinderford • To ensure physical and social access to infrastructure, services and opportunities.		• The educational facility has a key role to play in terms of providing opportunities for education for those who might otherwise struggle to find employment, including the long terms unemployed and those with special educational needs. It is critical that, through the AAP and outline planning stage, the facility addresses these needs, in order to support an increase in employment amongst local residents through the delivery of the AAP. • Consideration should also be given to the provision of employment and training opportunities for young people and the long-term unemployed, through the delivery of the AAP. • Equalities groups (women, old people and lesbian/gay/transgender people) can benefit in particular from measures to

		ensure that public safety is considered within Masterplanning and future design processes. By ensure that all development is accredited to the Secure by Design scheme, equalities groups are likely to benefit through an increased feeling of security and reduced fears of intimidation. It is recommended that all construction services are provided by members of the Considerate Constructors Scheme, to reduce the likelihood of people in the area – and equalities groups in particular – feeling intimidated by construction workers. • The location and accessibility of services is important in reducing inequalities. Consideration should be given to enabling wheelchair access for all new services and amenities, in terms of both building design and footpath access. Links between Northern United and Steam Mills should be wheelchair-accessible and clearly signed for the benefit of people with mobility and other disabilities. • The AAP and Masterplan identify the requirement to achieve Lifetime Homes for all residential properties (AAP Policy 9) and all public buildings will need to be developed in accordance with the Disability Discrimination Act 1995. This process will assist in delivering facilities and residence within the Masterplan that account for the needs of disabled people. • Accessibility of the lake for all will be improved by developing the area for residential land use. The existing angling club will remain at the lakeside setting and there could be opportunities to improve their facilities. The angling facility currently provides disabled access fishing pegs and these will be maintained within the AAP. • **The overall impact is assessed to be positive and minor to moderate in nature, noting the proviso that an EqIA should be carried out going forward. Note recommendations section.**
3d) To Protect and Enhance the Historical and Cultural Identity of the Area		
• To protect and enhance local identity and heritage within and across Cinderford	•	• The location of the site will help establish a stronger identity for Cinderford, since the site will provide a 'stepping stone' to the town centre, create a new gateway for the town and provide a strategic amenity hub. The design layout will lead to the establishment of a clear 'centre' for the community with the educational facility as a focal point for the town. While providing key facilities in prominent, visible locations may be beneficial in enhancing the identity of the area, careful consideration should be given to ensuring the development integrates sensitively with the character of the Forest of Dean. • The residential development will be located between the employment-led spine road and existing Steam Mills Village. It will therefore link these two areas, forming the centre of the new community. • The Northern Quarter site contains buildings with heritage value and sites with potential archaeological value both on the site and on its edges. The need for development proposals in the site to demonstrate an appreciation and understanding of the historic environment and heritage values associated with the site is highlighted in the Preferred Option (AAP Policy 12). By consulting relevant bodies at an early stage, and undertaking appropriate mitigation, the AAP will

		contribute to the protection of existing cultural heritage and archaeological assets within the area, which form a key part of the local identity of the area. • The AAP recognises the need to preserve the local identity of Cinderford, while enhancing services and facilities, in order to strengthen the prosperity and character of the area (AAP Policy 12). It is important that these considerations are taken forward to the outline planning stage. As discussed above, it is hoped that the location of the site will help establish a stronger identity for Cinderford, since the site will provide a 'stepping stone' to the town centre, and create a new gateway for the town. • The Northern United buildings are not listed, however they have social and cultural history value. In order to protect and enhance the local identity of the Northern United area, elements of the existing buildings will be retained in the Preferred Option, since the land use in this area will remain commercially focused with a mix of offices, industry and potential some residential live-work land use. • The overall impact is assessed to be positive and minor to moderate in nature.
• To ensure that the social and cultural heritage of the area is maintained through development works		• The Design Code provides an important mechanism in facilitating continuity of cultural and historic identity through the new development. • In order to protect the lake setting, in the Preferred Option, only residential development is planned in the area adjacent to the lake. Such development is generally better kept and maintained than office or industrial buildings and is therefore more suitable for the sensitive lakeside setting. • As noted above, the Preferred Option states that there will be a preference toward the use of local construction materials such and brick and blue pennent sandstone which are produced through traditional industries of the area. This is positive since it will help to ensure that the new development fits in with development in the wider area and makes use of local materials. • The eco-visitor and activity centre will offer an opportunity for the dissemination of cultural heritage information, and consideration should be given to the ways in which this centre can best promote awareness of the cultural heritage of the area amongst local people and visitors. • **The overall impact is assessed to be positive and minor to moderate in nature.**
• To support the protection of culturally and historically significant assets and qualities.		• The site is located within the Forest of Dean, which is the only remaining uninterrupted wooded area in the district. The Preferred Option sets out specific aims, compatible with those of the Forestry Commission, that the development will be sensitive to its particular countryside character (AAP Policies 6 and 13), with the character and design of new buildings

Not just designated sites and buildings, but also locally valued features and landmarks		reflecting the industrial heritage of the former land use of different areas of the site. • The Northern Quarter site contains buildings with heritage value and sites with potential archaeological value both on the site and on its edges, however there are no nationally or locally listed buildings, scheduled ancient monuments and designated conservation areas. As described above, the need for development proposals in the site to demonstrate an appreciation and understanding of the historic environment and heritage values associated with the site is highlighted in the AAP (AAP Policy 12). • The AAP specifies that development proposals for the site must demonstrate an appreciation and understanding of the historic environment and heritage values associated with the site. It recognises the need for early liaison with English Heritage and the FoDDC for all proposals affecting buildings identified with heritage value and liaison with archaeological specialists regarding all proposals for development on or near identified sites of archaeological interest. It also recognises that any development that could affect a site with potential archaeological value must involve full archaeological mitigation, to protect any archaeological features in the area. • The AAP seeks to protect the cultural heritage value of the Northern United site in particular, stating that consideration should be given to the retention and re-use of the Colliery buildings due to their strong links to the local history of the town and the Forest. It also states that the Miner's Memorial on the Northern United Site must be kept in-situ. • No alterations are proposed for any of the heritage buildings in Steam Mills and Newtown apart from the Haywood Engine Works, which are proposed for demolition. Careful consideration should be given to the cultural heritage impacts associated with this demolition, and whether mitigation measures are necessary. • The eco-visitor and activity centre will have a key role in raising awareness of the industrial heritage of the area, preserving and raising awareness of areas of cultural and historical significance. It is recommended that the centre should provide a flexible space for tourist information, education on the forest, local heritage and the environment, and if possible, provide space for clubs and organisations, including teaching/exhibition/storage and catering space. • **The overall impact is assessed to be neutral in nature.**

7.5 *SUMMARY OF APPRAISAL RATINGS*

A summary of the Appraisal scores is shown in Table 7.2.

Table 7.2 Summary of Appraisal Scores

Environment and Resource Sustainability	
To Protect and Enhance the Physical and Built Environment	
To ensure sensitive integration of the development within the wider Cinderford area to maximise sustainability for the town and its surrounding area	Positive
To ensure the development does not involve building in areas at risk of flooding or contribute to flooding elsewhere To protect and enhance water resources within and surrounding Cinderford To improve the current low flow situation in Cinderford Brook and in doing so improve water quality and biodiversity To investigate opportunities to further reduce existing flood risk within Cinderford	Positive
To promote sustainable procurement of both materials and personnel through construction and operation of the development To reduce the carbon footprint of the development, and its wider area, through design, delivery and operation	Positive
To develop new residential building to Code for Sustainable Homes Level 4 (by 2010 and increasing with Government policy thereafter); non residential Buildings to achieve at least BREEAM excellent or relevant equivalent. To integrate sustainable waste management facilities and services within the development, to the benefit of it and Cinderford more broadly	Positive
To support the improvement of contaminated and derelict land and reduce the impact of unstable land To ensure contaminated and derelict land is restored and returned to beneficial use. To reduce the potential of pollution incidents impacting on land, through implementing and monitoring the use of best practice environmental management techniques.	Positive
To protect and enhance air quality	Uncertain
To encourage the use of renewable energy where appropriate	Positive
Designated and Non-Designated Ecological Sites: Biodiversity	
To protect and enhance designated and non-designated sites within and adjacent to the development, and across Cinderford	Negative
To ensure that the development contributes to the protection of the wider wildlife interest of the district, especially strengthening of links between 'wild' areas to better enable adaptation to climate change	Negative
To Promote More Sustainable Forms of Transport Provision	
To promote sustainable access into and out of the area	Positive
To promote more sustainable patterns of travel and modes of transport, such as the use of public transport, walking and cycling To enhance sustainable transport infrastructure	Positive

To help reduce the need to travel, such as by ensuring that people can live closer to their work and by improving local access to services To promote economic patterns that avoid unnecessary dependence on long-distance trade and travel	Positive
To reduce the distance to, and/or ease of accessing, schools, shops, places of work and recreation	Positive
Economic Sustainability	
To promote/help facilitate economic sustainability within the area	Strong Positive
To enhance infrastructure and services, to support local businesses To promote sustainable business practice within Cinderford To enhance the attractiveness of Cinderford as a place for business investment	Strong Positive
To diversify the range of employment opportunities within Cinderford To enhance access to employment and up-skilling opportunities To promote integration of educational and skills training in line with identified need	Strong Positive
To help increase the number of people who stay/visit the area To promote sustainable tourism initiatives in the Forest of Dean (such as walking/cycling tourism)	Strong Positive
Social Sustainability	
To Promote Sustainability Skills and Learning	
To promote and facilitate awareness raising and understanding of sustainability	Positive
To promote access to education and vocational skills training	Strong Positive
To Promote Social Integration	
To promote social connectivity between and across communities in Cinderford and the wider area	Positive
To promote civic and wider stakeholder engagement amongst the population of Cinderford and surrounding area	Positive
To enhance the health and wellbeing of residents and workers within Cinderford	Positive
To enhance access to social, leisure and sporting facilities in and surrounding Cinderford, including the Forest, for all	Positive
To Promote Equality of Opportunity	
To meet identified housing need, in particular, the provision of affordable housing	Positive
To promote equality of opportunity and access for all within Cinderford To ensure physical and social access to infrastructure, services and opportunities	Positive
To Protect and Enhance the Historical and Cultural Identity of the Area	
To protect and enhance local identity and heritage within and across Cinderford	Positive
To ensure that the social and cultural heritage of the area is maintained through development works	Positive
To support the protection of culturally and historically significant assets and qualities. Not just designated sites and buildings, but also locally valued features and landmarks	Neutral

7.6 *TEMPORAL IMPACTS*

As highlighted in *Section 5.4.1*, impacts have been assessed in this Appraisal taking into consideration the lifetime of the AAP. Many projected significant impacts are unlikely to be fully felt until the AAP is being fully implemented. Impacts will typically not be fully demonstrable, therefore, within the immediate to short-term timeframes but will become increasingly evident as, for example, infrastructure, services and community engagement start to be realised.

The first, short to medium-term, benefits of the AAP will be realised when construction begins, with visible enhancement of the area and economic sustainability benefits of local construction employment and procurement of goods and services. However, a number of the benefits identified in this assessment will only be realised in the longer term, such as the socio-economic benefits associated with use of the education facility, permanent employment opportunities and improved connectivity within Cinderford.

The full benefit of the AAP will also be dependent upon delivery of the implementation measures discussed in *Section 8*, including the recommended mitigation and enhancement measures.

7.7 *CUMULATIVE IMPACTS*

Integrated delivery of the AAP and Masterplan for the Northern Quarter with other local and regional plans has the potential to give rise to significant positive cumulative impacts; recognising also the key role of other AAPs emerging from the areas surrounding the Northern Quarter. It will be important to ensure consistency of approach and objective across the Forest of Dean area. A collective strategic approach will be critical to delivering beneficial impacts which affect the wider area, notably improved public transport provision as well as wider objectives for driving improvement in areas such as housing, education, skills and welfare.

Engagement with stakeholders and their active participation at future design stages has the potential to significantly enhance projected beneficial impacts, in line with wider sustainability aspirations. The next Section explores key considerations for enhancing positive impacts and the cumulative beneficial impact of delivering the AAP as a whole.

7.8 *SUMMARY*

The AAP sets a positive framework for regeneration within the Northern Quarter and Cinderford. It addresses key social and economic needs within the area, through the provision of necessary infrastructure to allow regeneration to occur. Education, housing and commercial needs have been

prioritised, whilst recognising the environmental value of the area and the need to retain the identity of Cinderford with its close proximity and links to the Forest of Dean. The proposed development has firmly recognised the importance of local character and context, the Masterplan accommodates the known conditions of the Northern Quarter and the socio-cultural issues which the Council is conscious of the need to address, such as enhancing connectivity, accessibility and engagement. It is essential that the positive platform of engagement which characterised the development process to date, is continued.

While it is recognised that there are a number of outstanding areas to be considered during the outline planning stage, the AAP represents a positive commitment by the Forest of Dean District Council to progressing sustainability within the Cinderford area and a genuine platform for stimulating development in a sensitive and sustainable manner. Mitigation and enhancement can be provided through the implementation of the AAP and Masterplan in line with the recommendations outlined in the next Chapter, and at the outline planning stage.

8 RECOMMENDATIONS FOR IMPLEMENTATION AND MONITORING & NEXT STEPS

This Chapter summarises the performance of the AAP against the sustainability objectives set out by the Appraisal team during its development. It defines and identifies "embedded" mitigation and goes on to identify recommendations for additional mitigation and enhancement, to offset predicted disbenefits and enhance projected benefits. This Chapter also describes the importance of monitoring under the SEA Regulations and outlines the approach which has been adopted in this Appraisal, and allows the reader to understand the forthcoming stages in the Appraisal process and the role which consultation assumes within this.

8.2 INTRODUCTION

This Section addresses wider factors which will influence mitigation and implementation, including the importance of monitoring performance against the objectives of the AAP. Issues are addressed in the context of recommending how implementation of the AAP can best be achieved, including suggested approaches to maximising the effectiveness of its delivery and ultimate outcomes.

8.3 MITIGATION & ENHANCEMENT

In conjunction with identifying the likely significant effects on the environment, the SEA Directive and Regulations also require the identification of measures to prevent, offset or reduce any significant adverse effects that are anticipated to arise.

8.3.1 *Embedded Mitigation*

The primary mechanism through which mitigation has been addressed, is through the process of iterative development of the AAP and Masterplan in conjunction with stakeholders and the multidisciplinary client and consultant team. The objective of this is to ensure that mitigation is incorporated in a timely and effective manner in order to avoid negative effects as far as is practicable. This is the key means by which an Appraisal can add value, through guiding the development of the AAP and its policy interventions, maximising the sustainability of its impacts. The principal means by which this has occurred, are as follows:

- **Open public consultation on Preliminary Options to capture public opinion on what the proposed AAP and Masterplan should encapsulate;**
- **Reflecting diversification of land use in line with identified need e.g. educational facility and refining on basis of ongoing feedback;**

- **iterating and refining on basis of ongoing environmental assessment of constraints and embedding mitigation in the form of green corridors to offset loss of biodiversity elsewhere;**
- **Specifically changing Masterplan to reflect ongoing flood risk assessment;**
- **Seeking to integrate the highest sustainability standards of housing and incorporation of renewables in the form of the Energy Centre;**
- **Incorporating progressive environmental education/awareness raising initiatives, in the form of the Eco Visitor Centre ; and**
- **Seeking to address known local issues surrounding the need for enhanced connectivity and reducing severance wherever possible.**

The AAP's high level nature provides the context and direction of development in Cinderford Northern Quarter. The detailed measures necessary to deliver the policies within the AAP will be developed through ongoing masterplanning and in the design of individual projects seeking planning permission. The following Section identifies recommendations for enhancement and further mitigation to be considered at subsequent stages of the development.

8.4 FURTHER MITIGATION AND ENHANCEMENT OPPORTUNITIES

The following outlines key factors and considerations to guide implementation of the AAP and Masterplan, with the aim of maximising the beneficial impacts identified in previous analysis and any unrealised potential as well as mitigating against any negative impacts. A summary of issues raised and accompanying recommendations under the respective strands of sustainability, is presented below in Box 8.1 and discussed further below.

Box 8.1 Key Issues and Considerations

Overarching
- **Deliverability**
- **Community engagement**

Environmental Sustainability
- **Site assessment**
- **Protected habitats and species**
- **Reducing flood risk**
- **Sustainable management of the Forest**
- **The Energy Centre**

Social Sustainability
- **Education**
- **Eco-visitor and activity centre**
- **Sustainable Travel and Transport**

Economic Sustainability
- **Integrated strategic delivery**
- **Assessment of the property market**
- **Northern United area**
- **Wider development of industrial land**
- **Sustainable procurement**

8.4.1 Overarching

Deliverability

- The deliverability of the scheme, in particular, the financial feasibility of what is proposed, is a key element of facilitating sustainable development. In its broadest sense, it is better to provide a workable framework for regeneration with the potential to incremental develop, than a framework which cannot be delivered due to its lack of financial feasibility. In so far as environmental constraints refine an AAP and Masterplan, so financial considerations of what can be achieved within given funding parameters also assume a key role.
- The AAP and Masterplan have sought to balance the desire to maximise environmental, social and economic objectives within recognised financial constraints. It is important going forward that ongoing reviews are undertaken of what can be achieved, as such constraints may change. This may result in enhancement or refinement, but it is important to ensure that the ethos of a sustainable Northern Quarter is not lost.

Community Engagement

- It is recommended that ongoing engagement with the local community is undertaken to maintain the platform of dialogue which has characterised the development process to date. The use of the Council website, newsletter and wider forms of awareness raising is strongly encouraged, and future events to engage the community with respect to the Masterplan, will enhance ownership and agency, critical to the regeneration process.

8.4.2 Environmental Sustainability

Environmental Management

- It is recommended that the AAP should support the development of ISO14001 Environmental Management Systems for new light industrial occupiers within the Masterplan area. This will ensure that best practice measures are undertaken to reduce the impact of such business activity on the environment, and that this impact is monitored, such that pollutants emissions to air, land and water are minimised.

- It is also recommended that developers should employ registered Considerate Contractors who are required to have Construction Environmental Management Plans (CEMP) in place to ensure that best practice measures are also undertaken during the construction phase, to

reduce the impact of construction on the environment, such that pollutants emissions to air, land and water are again minimised.

Site Assessment

- Appropriate surveys must be carried out at the impact assessment stages of future planning process. Recognising the industrial legacy of the area, site investigation is necessary to identify areas of contaminated or unstable land and groundwater contamination, remediation and reclamation of which will be essential to any future proposed development. It is recommended that timely engagement is undertaken with key stakeholders such as the Environment Agency and the Council to ensure such investigative work and subsequent works meet expectations and contributes to efficient development.

Protected Habitats and Species

- Appropriate Assessment maybe necessary at the detailed design stage (as identified in the Habitats Regulations Screening Assessment) to ensure no likely significant effect on the surrounding European Designated sites. It is essential this is undertaken in a timely manner to ensure it effectively informs the design and planning consent process.
- Detailed landscape plans, mitigation measures and management plans will be required at the design stage. These will provide the specific detail required to maximise the benefits and minimise any negative impacts arising from the development. In particular, the impact of constructing roads and buildings across or in areas of increased sensitivity (e.g. the lake and the brook) will need to be detailed together with specific mitigation areas.

Reducing Flood Risk

- Flood risk is a key concern for the Northern Quarter, due to the location of the site. The Appraisal has highlighted the importance of ensuring that the Masterplan and detailed designs for the area which attenuate from the AAP, take due account of the recommendations within the SFRA. This will safeguard against the risk of flooding and potential disruption within the area, in particular ensuring that current and future residents are protected from the potential effects of flooding. Refinements include sensitive design of residential units, installing bunds, constructing an embankment for the new road and providing a buffer between residential units and watercourses.
- Specific flooding mitigation measures are recommended, including designing all drainage systems in accordance with the application of the

SUDS hierarchy and ensuring that sufficient storage capacity is provided (including provision for increases resulting from climate change).

- In order to ensure that the key principles of sustainable flood risk management are applied to the site development, a site specific Flood Risk Assessment will be required. During development works, appropriate environmental management and good practice pollution prevention and control measures will be implemented. A suitable maintenance plan will be developed for the site drainage systems and watercourses as well as appropriate flood awareness and emergency planning both during construction and throughout the lifetime of the development.

Sustainable Management of the Forest

- The presence of an increasing number of visitors to the Forest may lead to an adverse effect on the environment through degradation, littering and soil compaction. It is important that such impacts are carefully and pro-actively managed, ideally through the form of a Forest/Tourist Management Plan or update to existing management plans which explicitly deals with the scenario of projected regeneration and increase in visitor numbers.

The Energy Centre

- It is recognised that whilst many welcome the integration of an Energy Centre, the nature of what is planned will need to take into account ecological constraints, in particular, potential emissions to air which may impact upon designated sites. Consultation with key stakeholders such as Natural England and Environment Agency is recommended to ensure the recognised benefits of such a Centre are realised without undue adverse impact to biodiversity.

8.4.3 Social Sustainability

Education

- The need for improved education and employment in the Cinderford area is being addressed through the provision of an education facility within the AAP. However, it is critical that this facility provides opportunities for education for those who might otherwise struggle to find employment, including the long-term unemployed and those with special educational needs. Training, therefore, should be targeted at identified need, including vocational skills.

Eco-visitor and activity centre

- The eco-visitor and activity centre will have a key role in raising awareness of the industrial heritage of the area, preserving and raising awareness of areas of cultural and historical significance. It is recommended that the centre should provide a flexible space for tourist information, education on the forest, local heritage and the environment, and if possible, provide space for clubs and organisations, including teaching/exhibition/storage and catering space.

CSH & Integrating Building Level Technologies

- Opportunities exist to further CSH level attainment, as and when technological developments facilitate this. More broadly, the integrating of progressive green technological developments within buildings of both a commercial and residential nature, afford the opportunity to reduce the resource and carbon footprint of the Quarter. Ongoing review, in particular, at future design stages, is recommended.

Sustainable Travel and Transport

- Transport necessarily assumes a key role in facilitating regeneration and public transport more specifically, is central to ensuring that such development is sustainable. In this context, it is recommended that ongoing emphasis is placed upon maximising public transport provision, in particular, bus services. The frequency, reliability and routing of such services are key to maximising access for residents to sustainable travel options, and equally should facilitate more sustainable inward and outward travel for those who will potentially commute into Cinderford or visit the area, going forward.

- The AAP has reaffirmed the importance of walking and cycling, to this end, it is recommended that links are provided to the proposed new National Cycle Network routes.

- Consideration should be given to sustainable school travel plans. Where possible, children should be encouraged to walk or cycle to school, through the provision of recognised 'safe routes'.

Equalities

- As highlighted in the assessment narrative, an Equalities Impact Assessment (EqIA) should be undertaken at the outline planning stage to proactively address and maximise benefits to target groups within Cinderford. Key amongst these are older and younger people, and those

economically inactive, in particular, the long-term unemployed. Assessment should focus at both strategic level through identification of key mechanisms to tackle barriers to equality but also at the local or practical level, through identifying access and uses of Northern Quarter, as well as Cinderford as a whole.

- The EqIA provides an appropriate mechanism to proactively address the risk of gentrification within and across Cinderford. It is critical that residents are not excluded from the benefits of regeneration or unable to access housing or wider services. To this end, the retention of affordable housing and provision of a range of housing type (and cost) will be key. Equally, regeneration of the Northern Quarter should demonstrably benefit those living beyond the Quarter and not be perceived as exclusionary or even detrimental to wider Cinderford or Forest of Dean area.

- By ensure that all development is accredited to the Secure by Design scheme, equalities groups are likely to benefit through an increased feeling of security and reduced fears of intimidation.

8.4.4 Economic Sustainability

Integrated Strategic Delivery

- The AAP and Masterplan has established a positive premise for regeneration but it is recognised that there remains the opportunity to maximise the potential of what is achieved through integrated delivery across Cinderford and Forest of Dean as a whole – the cumulative benefit which can be achieved through this, far outweighing that which the AAP and Masterplan can deliver in isolation.

Assessment of the Property Market

- Leaving aside the impact of the current economic recession upon the property market, in the longer-term there remains the challenge of ensuring that residential areas are positioned to maximise their value. Key mechanisms to deliver this include maximising connectivity with the existing town centre and the provision of robust infrastructure and services to meet the needs of residents. The physical enhancement of the Northern Quarter and potential wider areas (reference to the issue below regarding potential opportunities in Forest Vale) within Cinderford will also enhance the image and attractiveness of the area for potential residents/investors and bolster property value.

- With respect to non-residential land use and its value, the diversification of land use will enhance the attractiveness of the area to potential investors. In terms of employment land uses, opportunity exists to build upon or diversify existing industrial provision in the town, as well as potentially providing some mixed office/workshop space.

Northern United Area

- The nature of the industrial use of the Northern United area will need to be carefully managed going forward, to ensure that the surrounding forest and biodiversity is not adversely affected by this. Consideration of specific industrial use, transportation and potential emissions to land, water and air, are also central to this. Given the drive to enhance the image and attractiveness of the Northern Quarter, this is also a practical necessity, to minimise potential negative impact in respect of how Northern United impacts upon the Quarter generally.

- Careful consideration at the outline planning stage is necessary to protect and enhance both the safety of users and more broadly, the ecology of the area, with regard to access routes between the Northern United site and the eastern side of the development.

Wider Development of Industrial Land

- The AAP and Masterplan have established a positive framework for regeneration of the Northern Quarter. Beyond the boundaries of the Plan and its Masterplan, however, exists industrial land in the form of Forest Vale, which has the potential to be revitalised to stimulate wider regeneration and enhance the potential of the Northern Quarter itself. It is recommended going forward that engagement with landowners explores the potential for this land south of the Northern Quarter to be subject to its own Masterplan or framework for regeneration. Potential avenues exists in the form of diversification of land use, physical enhancement of the area or even relocation of industrial uses to an alternative location within/surrounding Cinderford.

- This would offer the potential to significantly reduce the severance between North and South which primarily arises through the location/use of Forest Vale. Alternatively, or perhaps in combination, access routes could be enhanced through Forest Vale to the wider area, again reducing severance and the socio-economic consequences of this.

Sustainable Procurement

- It is recommended that a Sustainable Procurement Strategy is devised in order to oversee implementation of the Masterplan and ongoing development. This should integrate a strong local procurement

component, to maximise the benefit to local businesses and the economy, providing another mechanism to facilitate regeneration at the local level.

8.5 MONITORING DELIVERY OF THE AAP

The Strategy commits the Forest of Dean District Council to work with key stakeholders to monitor sustainability performance of the AAP. The box below details the range of indicators which it is suggested will be used to monitor performance of the AAP during its lifetime. It is important to recognise that the indicators identified to date will be subject to ongoing review and amendment.

To ensure alignment and consistency with wider indicators, indicators have been selected from Defra's *Indicators in the South West* document, supplemented by additional indicators in order to ensure the indicators reflect the full range of sustainability issues relating to the AAP. The indicators which will be used to monitor the achievement of the AAP are set out below in Box 8.2.

The South West Regional Development Agency has produced a Regional Sustainable Indicators Factsheet (March 2009). These regional indicators pull together already published statistics to enable comparisons to be made between regions and with progress nationally.

Box 8.2 Sustainable Development Indicators

Environmental indicators	• Local environment quality; • Greenhouse gas emissions; • Carbon dioxide emissions by end user; • Waste; • Bird populations; • Land use; • Emissions of air pollutants; • River quality; • Groundwater vulnerability; • Number of sites/ area remediated in district.
Economic indicators	• Economic activity; • Productivity; • Investment; • Employment and Economic Inactivity; • Access to Services; • Household income and childhood poverty; • Pensioner poverty; and • Households living in fuel poverty
Social indicators	• Demography; • Satisfaction in local area; • Active community participation; • Crime and fear of crime; • Access to education; • Educational attainment; • Access to healthcare services; • Healthy life expectancy; • Mortality rates;

- Smoking;
- Childhood obesity;
- Road accidents;
- Housing conditions;
- Homelessness; and
- Wellbeing.

The selection of indicators reflects those aspects of AAP delivery which can be qualitatively and quantitatively monitored to assess the success of AAP delivery, noting that it is not necessary to attempt to capture all aspects of benefit but instead focus on those primary areas where there is the potential to effect most impact, and benefit.

8.5.1 Responsibility for Monitoring

It is important that a monitoring framework is developed with clear delegation of responsibility for overseeing the delivery of progress. The detail of this will be finalised by the AAP team in conjunction with stakeholders, and feedback from stakeholders is welcomed in relation to this.

It is envisaged that the dialogue with key monitoring stakeholders will be continued through the development of the Masterplan and future design stages, when detailed policy interventions will be listed and specific responsibility allocated to individual and collective stakeholders.

8.6 NEXT STEPS

The findings of the consultation on the Draft AAP and this Appraisal Report will be subsequently considered and used to finalise the Appraisal and the AAP itself. Upon completion of this, a Post Adoption Statement should be produced to accompany the AAP. The purpose of this Statement, as previously noted, is to summarise how the Appraisal has influenced the drafting of the AAP and what was undertaken in respect of this.

Annex A

Review of Policies, Plans and Programmes

A 1 REVIEW OF RELEVANT POLICIES, PLANS AND PROGRAMMES AND THEIR IMPLICATIONS FOR THE DRAFT AAP & MASTERPLAN

Table 1.1 Sustainable Development

Plans and Relevant Objectives and Requirements
World Summit on Sustainable Development - Earth Summit leading to the Johannesburg Plan of Implementation (Johannesburg, 2002). The Earth Summit as it is more commonly known was a key event in reasserting the importance of addressing the global challenge of promoting sustainability. Highlighting the inextricable links between protection and enhancement of the environment, social welfare, health and wellbeing, equity and equality, within the context of sustainable economic development, the Summit posed the question to all States of how best to achieve a fairer, more sustainable world for all populations. The Implementation Plan inscribes key principles and commitments to which all States should adhere, yet the biggest challenge faced by the Summit and more broadly, the globe, is how to ensure adequate cooperation and commonality of aspiration to tackle a challenge which only collectively can be met.
EU Sustainable Development Strategy (2006) Europe has sought to demonstrate leadership in its approach to promoting greater sustainability and this Strategy sets out its further aspirations in this context. Addressing both current and future timescales, the Strategy seeks to align Member State activity behind a common set of goals and principles, requiring Member States to legislate and act in a manner which contributes to the collective European response. The challenge of sustainable development is outlined through European action on environmental protection and enhancement, social equity and cohesion, economic prosperity and international responsibility. To guide this, the Strategy enshrines key principles which Member States must seek to translate and apply within all respective national level policy, as well as their own Action Plans and Strategies for Sustainable Development. Key amongst these principles are: • Human rights; • Inter-generational equity and collectivity of purpose; • Democracy and engagement; • Governance and policy integration; • Precautionary Principle, Polluter Pays Principle and adherence to best practice.
Securing the Future – UK Government Sustainable Development Strategy (2005) The Strategy for Sustainable Development aims to enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life of future generations. The Strategy contains: • A new integrated vision building on the 1999 strategy – with stronger international and societal dimensions. • Five principles – with a more explicit focus on environmental limits. • Four agreed priorities – sustainable consumption and production, climate change, natural resource protection and sustainable communities. • A new indicator set, which is more outcome focused, with commitments to look at new indicators such as on wellbeing.
One future: different paths – UK Shared Framework for Sustainable Development (2005) This document presents a shared framework for sustainable development across the UK. The framework comprises:

- A shared understanding of sustainable development;
- A common purpose outlining what the UK is trying to achieve and the guiding principles to be followed;
- The sustainable development priorities for UK action, at home and internationally; and
- Indicators to monitor the key issues on a UK basis.

The framework is supported by separate strategies for each administration.

The Strategy intends to meet the following key aims:

- Living within environmental limits;
- Ensuring a strong, healthy and just society;
- Achieving a sustainable economy;
- Promoting good governance; and
- Using sound science responsibly.

South West Sustainable Development Framework

The South West Regional Assembly (SWRA) has an established framework for progressing sustainability guided by regional policy and by "A Sustainable Future for the South West", the Regional Sustainable Development Framework (RSDF) for the South West of England (2001). This guidance is produced by the Regional Round Table for Sustainable Development, 'Sustainability South West'. This RSDF has been updated more recently as an evolving tool, "the Sustainability Shaper". Within this, a number of sustainability operating tools are detailed:

- Develop sustainability learning and skills;
- Improve physical and mental well-being;
- Improve equality in meeting basic needs;
- Be resource wise;
- Support thriving low carbon economies;
- Reduce high carbon travel;
- Use local and ethical goods and services;
- Enhance local distinctiveness and diversity including biodiversity;
- Help everyone to join in public decision-making; and
- Take a long term approach

These principles have been set out in order to work towards the South west's Mission for Sustainability; namely that "*People in the South West of England choose to live, work and prosper within environmental limits, pursuing justice and well-being and valuing diversity and distinctiveness.*" The principles are further developed in the region through the South West Plan.

The South West Plan

Emphasises four key sustainable development policies:

- Reduce the ecological footprint of the area;
- Address the threat of climate change;
- Protect/enhance the environment and natural resources; and
- Create sustainable communities with thriving economies.

The Strategic Sustainability Appraisal of the Plan [(1)] reaffirms the importance of and outlines the likely benefits of sustainable regeneration within the South West region, although it warns of the need to guard against an increase in carbon emissions through increased reliance on car travel, citing greenhouse gas release as one of the primary negative impacts likely to be seen in

(1) http://www.southwest-ra.gov.uk/media/SWRA/RSS%20Documents/Final%20Draft/ssamainreport1.pdf

South West Area over the duration that the South West Plan is in place.

The Regional Economic Strategy

The Regional Economic Strategy (RES) for South West England 2006 - 2015 [(2)] states that regeneration of disadvantaged areas needs significant and sustained investment, and needs to be supported by implementation of sustainable transport measures.

Gloucestershire's Sustainable Community Strategy 2007-17

"Our Place: Our Future; Building a Better Gloucestershire", the Gloucestershire Conference Sustainable Community Strategy 2007-17, agrees the ten-year aims for the Gloucestershire region. Through the Strategy, Gloucestershire aims to deliver:

- **A place where the future matters (**addressing climate change, environmental protection, sustainable waste management and preserving local heritage).
- **A place where communities matter (**community involvement in shaping local services, ensuring communities *feel* safe and *are* safe, developing strong and positive relationships between people of different backgrounds and circumstances).
- **A place where everyone matters (**more deprived urban and rural communities, access to affordable homes, supporting children, young people, older people and families, improving health, encouraging independent living).
- **A place where people want to live: (**clean, pleasant towns and villages, good and accessible community facilities, improving work, play and learning opportunities, effective, accessible and affordable transport, varied cultural and creative opportunities, retaining young people).
- **A place that thrives** (flourishing businesses, sustainable levels of investment, opportunities to develop and improve work skills).

Forest of Dean District Council Corporate Plan 2008-2012

The Corporate Plan for the FoD sets out four priorities: providing value for money services that meet the needs of the community, promoting safe and thriving communities, encouraging a thriving economy, and protecting and improving the environment. The plan also identifies three key issues that will have an impact on the future of the FoD area:

Our people – population forecast to grow by around 8% by 2026 (significantly faster than for the county as a whole). Notably, the proportion of older people in the 65+ age group is set to increase by 62% by 2026.

Our economy – impact of significant development on urban centres in must consider the impact on the Forest and its economy. Need to further diversify the economy and reduce dependence on local manufacture while addressing the problem of out-commuting. Pressures on housing and infrastructure are likely; clear need to narrow the gap between affluent and most deprived communities.

Our environment – serious challenge of protecting the natural and built environment of the FoD in the face of climate change. FoD has the highest level of car ownership in the county. Kay challenges will be improving public transport, reducing car journeys and current and future waste management.

Sustainable Community Plan for the Forest of Dean 2008-2020

The Sustainable Community Plan reiterates the key issues identified in the Corporate Plan, and outlines a set of sustainability outcomes for the FoD area.

Forest of Dean Sustainability Appraisal

(2) http://download.southwestrda.org.uk/res/general/RES2006-2015.pdf

Plans and Relevant Objectives and Requirements
The FoD District Council is currently undertaking Sustainability Appraisals for the Local Development Framework. http://www.forestofdean.gov.uk/content.asp?nav=765%2C888&parent_directory_id=200 **Cinderford Business Plan** The Cinderford Business Plan (2007) sets out a ten year action plan for the town which aims to improve the quality of life of people in Cinderford and to regenerate the area. The redevelopment of the Northern Quarter landholdings is, however, identified as the key opportunity for regeneration and redevelopment in the Cinderford area, owing to its potential to accommodate a range of facilities and land use. The objectives are to make Cinderford: • A model of sustainable new development; • A more desirable and affordable place to live; • A more exciting place to work and do business; • A more fun and imaginative place to play and visit; • A more accessible place which is well connected; • A more attractive, green and sustainable environment; • A more active community with better facilities; and A more supportive and inclusive place to learn.
Implications for the Draft AAP and Masterplan The planned redevelopment of Cinderford interacts with all of the overarching sustainability objectives promoted and progressed by the strategies, frameworks, statements and plans outlined in this section. It will be important that the economic, environmental and social effects of the draft AAP and Masterplan options are assessed in an integrated manner. The draft AAP and Masterplan will play a key role in firstly determining how the industrial legacy of Cinderford is redeveloped and secondly in the future opportunities available for residents of Cinderford. Redevelopment in Cinderford town will also have a significant impact on the Forest of Dean and the larger South West region. Securing value for money should be integral – with 'value' taken in its wider sense to include the environmental and social value of decisions. Thus, funding streams and procurement for the redevelopment works should be focused to encourage practice that results in positive outcomes for environmental, social and economic impacts.

Table 1.2 Economy

Plans and Relevant Objectives and Requirements
EU European Employment Strategy – EES (2005)

Plans and Relevant Objectives and Requirements

The ambition of the European Employment Strategy (EES), which was launched at the Luxembourg Jobs Summit (November 1997), was to achieve decisive progress within five years. In 2002 an extensive evaluation of the first five years identified major challenges and issues for the future of the EES. It also highlighted the need to revamp the EES in order to align it more closely with the Lisbon goal of sustained economic growth, more and better jobs and greater social cohesion by the horizon year of 2010. New simpler guidelines were produced in 2003. The EES was renewed again in 2005 with the adoption of new guidelines. In February of 2005, the Commission presented a Communication on growth and jobs which proposed a new start for the Lisbon strategy. The new strategy was to refocus efforts on two goals: delivering a stronger, lasting growth and more and better jobs. The new strategy also included a complete revision of the EES governance in order to maximise the synergies and efficiency between national measures and Community action.

Strategic goals for the next decade:

- to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion;
- to regain the conditions for full employment and to strengthen cohesion by 2010;
- to increase the overall EU employment rate to 70%; and
- to raise the total number of women in employment from an average to more than 60% by 2010.

A Government Action Plan for Small Business

This action plan aims to build a Britain where enterprise is open to all, and small businesses get the support and the range of accessible, coherent and high quality services they need.

South West Regional Economic Strategy 2006:2015

This Strategy has been developed within the framework of the emerging Regional Spatial Strategy. The Regional Economic Strategy (RES) already defines the scope of what the RDA is going to do over the next three years. The RES strategic objectives are:

- Successful and competitive businesses;
- Strong and inclusive communities; and
- An effective and confident region.

Implications for the Draft AAP & Masterplan

The direct financial cost of implementing the draft AAP and Masterplan will be an important consideration in selecting the preferred option for redevelopment. Drivers and incentives exist in several areas which promote aspects of particular options by reducing costs or providing other incentives. The effects of decisions made regarding implementation of the draft AAP and Masterplan are much wider than simply the direct financial costs (to the public and private sector) of redevelopment works. Indirect impacts upon the wider economy (e.g. job creation, procurement of services and products) will be an integral element of the assessment of the 'cost' of the draft AAP and Masterplan options.

The draft AAP and Masterplan provides economic opportunities for Cinderford, the Forest of Dean and the wider South West region. The South West Regional Economic Strategy seeks to promote successful and competitive businesses and an effective and confident region. The draft AAP and Masterplan will be important in advancing these objectives through the appropriate targeting of infrastructure and development.

Table 1.3 Population, Health and Wellbeing

Plans and Relevant Objectives and Requirements
EU Directive 2002/49/EC relating to the assessment and management of environmental noise - The Environmental Noise Directive (EU, 2002) The Environmental Noise Directive (END) seeks to define a common approach across the European Union for avoiding, preventing or reducing on a prioritised basis the harmful effects, including annoyance, due to exposure to environmental noise. **Forest of Dean District Council Disability Equality Scheme 2006:2009** This scheme outlines how the District Council will work towards a situation that will meet the hopes and aspirations of disabled people in the District. **Designing Out Crime Association** The aim of the Association is to provide a forum for Crime Prevention Through Environmental Design (CPTED) professionals and practitioners to promote safer communities and reduce anti-social behaviour by improving the quality of life through the concept, application and practice of designing out crime.
Implications for the Draft AAP & Masterplan Redevelopment of Cinderford will have impacts upon the well being of the population, through the direct effects of improved services, facilities, infrastructure and transport. There will also be increased opportunities for education and career development once implementation has occurred. It is important that disabled people are adequately catered for in the redevelopment works. In line with the EU Environmental Noise Directive, it will be important to monitor noise levels during the redevelopment works to prevent adverse impact on human well-being. Increased service levels are likely to result in a larger population for the area.

Table 1.4 Climatic Factors

Plans and Relevant Objectives and Requirements
Stern Review on the economics of climate change (2006) This Review was announced by the Chancellor of the Exchequer in July 2005. The Review set out to provide a report to the Prime Minister and Chancellor by Autumn 2006 assessing: • The economics of moving to a low-carbon global economy, focusing on the medium to long-term perspective, and drawing implications for the timescales for action, and the choice of policies and institutions; • The potential of different approaches for adaptation to changes in the climate; and • Specific lessons for the UK, in the context of its existing climate change goals. Summary of Conclusions: • There is still time to avoid the worst impacts of climate change, if we take strong action now; • Climate change could have very serious impacts on growth and development; • The costs of stabilising the climate are significant but manageable; delay would be dangerous and much more costly; • Action on climate change is required across all countries, and it need not cap the aspirations for growth of rich or poor countries; • A range of options exists to cut emissions: strong, deliberate policy action is required to motivate their take-up; and • Climate change demands an international response, based on a shared understanding of long-term goals and agreement on frameworks for action. **Kyoto Protocol on Climate Change (UN, 1997)**

Plans and Relevant Objectives and Requirements

The Kyoto Protocol supports the United Nations Framework Convention on Climate Change which sets an overall framework for intergovernmental efforts to tackle the challenge posed by climate change.

- Article 3 contains the key obligation requiring reduction in anthropogenic CO_2 levels to at least 5% below 1990 levels by 2012.
- The UK has a target under the Kyoto Protocol to reduce its greenhouse gas emissions to 12.5% below 1990 levels by 2008-2012.
- Article 10(b-1) requires signatories to implement and publish regular plans detailing how reduction targets will be met in specific sectors.

EU Directive to promote Electricity from Renewable Energy (2001/77/EEC)

The Renewables Directive aims to promote a substantial increase in the proportion of electricity generated from renewable energy sources across the European Union by 2010. Individual Member States have all been required to take appropriate steps to encourage greater consumption of electricity from renewables, in order that the overall EU target. These national indicative targets should also be consistent with any national commitment made as part of the climate change commitments accepted by the Community under the Kyoto Protocol. Where they use waste as an energy source, Member States must comply with current Community legislation on waste management.

EU Emissions Trading scheme (2005)

In January 2005 the European Union Greenhouse Gas Emission Trading Scheme (EU ETS) commenced operation as the largest multi-country, multi-sector Greenhouse Gas emission trading scheme world-wide. The scheme is based on Directive 2003/87/EC, which entered into force on 25 October 2003. It aims to reduce greenhouse gas emissions to nationally agreed caps in a cost effective manner by applying economic principles.

Climate Change: The UK Programme (2001)

The UK's climate change programme sets out the Government's and the devolved administrations' approaches to the challenge of climate change. It explains why the climate is changing and what its effects might be. It explains the new measures the Government and the devolved administrations are introducing to reduce emissions further and achieve the UK's climate change targets and how climate change is expected to affect the UK, how the UK might need to adapt, and the action the Government and the devolved administrations have started to take to prepare for this.

The UK goal is a 20% reduction in carbon dioxide emissions below 1990 levels by 2010, and in the longer term, to cut UK carbon dioxide emissions by 60% by 2050.

Our Energy Future – 'Creating a Low Carbon Economy' - UK white paper on energy (2003)

The white paper defines a long-term strategic vision for energy policy combining our environmental, security of supply, competitiveness and social goals. The implementation of the White Paper is being taken forward via the Sustainable Energy Policy Network (SEPN).

Plans and Relevant Objectives and Requirements
Climate Change – The UK Programme: Tomorrow's Climate Today Challenge (DEFRA 2006)
The UK's climate change programme sets out the Government's and the devolved administrations' approaches to the challenge of climate change. The programme sets out the Government's commitments both at international and domestic levels to meet the challenge of climate change. It also sets out their approach to strengthening the role that individuals can play. The Tomorrow's Climate Today Challenge reinforces the UK commitment to meeting the UK's Kyoto target, moving towards the UK's national goal of 20% below 1990 levels by 2010 and putting the UK on a path towards a 60 per cent reduction in carbon dioxide emissions by 2050.
Implications for the Draft AAP & Masterplan The process of redevelopment interacts with climate change in several ways. Initially, this is through the redevelopment process itself which involves the operation of machinery, production of building materials and their transportation. Secondly, interaction occurs in terms of the site layout, accessibility of amenities and the transport scheme for the redevelopment. Throughout the implementation of the chosen draft AAP and Masterplan option, efforts must be made to ensure that the redevelopment process results in minimum CO_2 emissions and that the completed development encourages a low carbon economy. This can be achieved through following residential buildings following the *Code for Sustainable Homes Level* 4 (by 2010 and increasing with Government policy thereafter), non-residential buildings achieving at least BREEAM excellent standards or a relevant equivalent as well as the development providing an adequate public transport network. Opportunities for the use and creation of renewable energy should also be sought throughout the project timeframe. The draft AAP and Masterplan will play a key role in reducing emissions which contribute to climate change associated with the both the redevelopment works and then the functioning of Cinderford as a town in the South West region.

Table 1.5 Material Assets

Plans and Relevant Objectives and Requirements
Waste Framework Directive 2006/12/EC (as amended by Directive 2008/98/EC)
This Directive establishes the legislative framework for the handling of waste in the community, and describes major principles such as the obligation of Member States to handle waste in a way that does not have a negative impact on the environment or human health and an encouragement to Member States to apply the waste hierarchy in a practical way in accordance with the polluter-pays principle. It describes how waste prevention should be the first priority of waste management, and how re-use and material recycling should be preferred to energy from waste, where they are more ecologically beneficial options. The amendment to the Directive further strengthened the requirement for waste prevention, introducing a life-cycle approach which further reduces the environmental impacts of waste generation and strengthens its economic value.
EU Waste to Landfill Directive (99/31/EC)
The Directive aims at reducing the amount of waste landfilled; promoting recycling and recovery; establishing high standards of landfill practice across the EU, and preventing the shipping of waste from one Country to another. The objective of the Directive is to prevent or reduce as far as possible negative effects on the environment (in particular on surface water, groundwater, soil, air and human health) from the land-filling of waste, by introducing stringent technical requirements for waste and landfills.

The Directive requires the reduction of the amount of biodegradable municipal waste sent to landfill to 75% of the total generated in 1995 by 2006, 50% by 2009 and 35% by 2016.

The Site Waste Management Plans Regulations 2008 (Statutory Instrument 2008 no.314 Environment Protection, England)

New Regulations came into force April 2008 making Site waste management plans (SWMP) compulsory for all construction projects in England costing over £300,000. A SWMP records the amount and type of waste produced on a construction site and how it will be reused, recycled or disposed. The Regulations aim to increase the amount of construction waste that is recovered, re-used and recycled and improve materials resource efficiency prevent illegal waste activity by requiring that waste is disposed of appropriately, in accordance with the waste duty of care provisions

EU Directive on the Incineration of Waste (2000/76/EC)

The Directive builds upon existing requirements to prevent or reduce, as far as possible, air, water and soil pollution caused by the incineration or co-incineration of waste, as well as the resulting risk to human health. These measures include a prior authorisation requirement for incineration and co-incineration plants, and emission limits for certain pollutants released to air or to water.

Waste Electrical and Electronic Equipment (WEEE) Directive 2006

The European Union (EU) is taking measures to prevent the generation of electrical and electronic waste and to promote reuse, recycling and other forms of recovery in order to reduce the quantity of such waste to be eliminated, whilst also improving the environmental performance of economic operators involved in its management. In addition, in order to contribute to the recovery and elimination of equipment waste and the protection of human health, the EU is also taking measures to restrict the use of hazardous substances in this type of equipment.

End of Life Vehicles Directive (2000/53/EC)

The EC directive on End-of-Life vehicles (ELVs) aims to reduce, or prevent, the amount of waste produced from ELVs and increase the recovery and recycling of ELVs that do arise. The End-of-Life Vehicles Directive passed into European law in October 2000 and was due to be transposed into national law in all Member States by 21 April 2002. This was delayed (as in most other Member States), the UK is currently in the process of introducing the remaining provisions relating to producer responsibility Articles of the ELV Directive (5 and 7) and these will be transposed through the End-of-Life Vehicles (Producer Responsibility) Regulations 2005.

Articles 5 and 7 require that: -

- Owners must be able to have their complete ELVs accepted by collection systems free of charge, even when they have a negative value, from 1 January 2007 at the latest;
- Producers (vehicle manufacturers or professional importers) must pay 'all or a significant part' of the costs of take back and treatment for complete ELVs;
- Rising targets for re-use, recycling and recovery must be achieved by economic operators by January 2006 and 2015

Taking sustainable use of resources forward: A Thematic Strategy on the prevention and recycling of waste (COM(2005) 666)

This Strategy presents a review of EU waste policy, sets objectives and outlines the means by which the EU can move towards improved waste management and better regulation in EU waste law. It also builds on existing legislation and extensive stakeholder consultation, and concludes that full and effective implementation by Member States is necessary for making progress towards the goals set in the strategy.

DEFRA Waste Strategy for England 2007

This strategy builds on the previous Waste Strategy 2000 and details progress made since then but it is more ambitious than the previous strategy in addressing the key challenges for the

future through a number of additional steps.

The strategy sets out five main elements, which are to:

- incentivise efforts to reduce, re-use, recycle waste and recover energy from waste;
- reform regulation to drive the reduction of waste and diversion from landfill while reducing costs to compliant businesses and the regulator;
- target action on materials, products and sectors with the greatest scope for improving
- environmental and economic outcomes;
- stimulate investment in collection, recycling and recovery infrastructure, and markets for recovered materials that will maximise the value of materials and energy recovered; and
- improve national, regional and local governance, with a clearer performance and institutional framework to deliver better coordinated action and services on the ground.

The Strategy also sets out the way in which incentives will be used in order to meet national targets and the way in which the requirements of the Strategy will be regulated.

Waste Management (England and Wales) Regulations 2006

The Regulations extend to agricultural waste the controls that are already in place in the UK for other waste streams to comply with the Directives.

The Strategy for Sustainable Construction

The Strategy for Sustainable Construction is a joint industry and Government initiative intended to promote leadership and behavioural change, as well as delivering benefits to both the construction industry and the wider economy. It aims to realise the shared vision of sustainable construction by:

- Providing clarity to business on the Government's position by bringing together diverse regulations and initiatives relating to sustainability;
- Setting and committing to higher standards to help achieve sustainability in specific areas; and
- Making specific commitments by industry and Government to take the sustainable construction agenda forward.

Planning Policy Statement 10: Planning for Sustainable Waste Management

Planning Policy Statement 10 (PPS10) sets out the Government's policy to be taken into account by waste planning authorities and forms part of the national waste management plan.

The Landfill (England and Wales) Regulations 2002

The Landfill Regulations implement the Landfill Directive (Council Directive 1999/31/EC), which aims to prevent, or to reduce as far as possible, the negative environmental effects of landfill.

Clean Neighbourhoods and Environment Act 2005

The Clean Neighbourhoods and Environment Act deals with many of the problems affecting the quality of our local environment - which forms part of a continuum with anti-social behaviour, vandalism, disorder and levels of crime. The Act provides local authorities, parish and community councils and the Environment Agency with more effective powers and tools to tackle poor environmental quality and anti-social behaviour. In particular the Act includes sections on nuisance and abandoned vehicles, litter, graffiti, waste, noise and dogs.

European Commission White Paper on the European Transport Policy (EC, 2001)

The White Paper proposes an Action Plan aimed at bringing about substantial improvements in the quality and efficiency of transport in Europe. It also proposed a strategy designed to gradually break the link between constant transport growth and economic growth in order to reduce the pressure on the environment and prevent congestion while maintaining the EU's economic competitiveness.

Plans and Relevant Objectives and Requirements

Johannesburg Renewable Energy Coalition – JREC (2002)

The JREC is a coalition of Governments that are committed to achieving the commitments on renewable energy made at the World Summit for Sustainable Development (WSSD) which took place at Johannesburg (South-Africa) in 2002. The JREC is co-chaired by the European Commission and the Government of Morocco.

Objectives as follows:

- to commit to the promotion of renewable energy;
- to increase the use of renewable energy;
- to co-operate in the further development and promotion of renewable energy technologies;
- to adopt targets for the increase of renewable energy and to encourage others to do likewise; and
- to commit to working with others to achieve this goal, especially through partnership initiatives.

UK Fuel Poverty Strategy (2001)

The strategy identifies the main causes of fuel poverty in the UK (a combination of poor energy efficiency in homes and low incomes) and outlines its effects on quality of life and health.

The strategy aims to reduce fuel poverty especially of vulnerable members of society, such as children and the elderly.

Code for Sustainable Homes/BREEAM/CABE's Inclusion by Design & Building for Life standard

These codes and standards promote sustainable construction including the wider opportunities of place making and designing buildings and places for people and biodiversity. CABE's Building for Life standard includes an assessment process that is designed for planners of new housing developments.

Forest of Dean District Council Procurement Strategy 2009:2012

The Procurement Strategy responds to the requirements of the National Procurement Strategy for Local Government in England (2003) by helping the Council to improve 'the delivery and cost effectiveness of quality public services to citizens. Procurement is the process of obtaining supplies, services and construction works over the whole life cycle of the asset or service. The life cycle goes from the initial identification of the business need through to the end of the useful life of the asset or service, including any disposal costs.

Forest of Dean District Council Anti-Poverty Strategy 1995

The Council developed an Anti Poverty Strategy which incorporates a review of charging and debt counselling services. The Council considered the following aims as a means of combating poverty and disadvantage:

- A commitment to combating poverty and working with local people and organisations to set priorities for anti-poverty action;
- Making every effort to ensure that people on low incomes play a more active part in decisions that affect their lives; and
- Developing cross-departmental and inter-agency approaches to service planning and delivery.

Implications for the Draft AAP & Masterplan

The draft AAP and Masterplan options have several interactions with the legislation and strategies outlined in the table above. Inevitably waste will be produced both during redevelopment works and also once works are completed. In accordance with the plans detailed above, waste produced should firstly be minimised and then should be managed in a sustainable way as possible, aiming ultimately to reduce the volume disposed of at landfill. Post-regeneration, opportunities for residents and businesses to manage the waste they

Plans and Relevant Objectives and Requirements
produce in a sustainable way must be provided and integrated into the plan. As highlighted in PPS10, waste should be considered as a resource. Active management of waste should see it pushed up the 'waste hierarchy' with disposal a as the last resort. Increasing amounts of waste should be diverted from landfill through increasing recycling, re-use and recovery materials. The draft AAP and Masterplan will need to consider the implications of the various options for the delivery of renewable energy. It will also need to interact with transport policy as the different options will affect the transportation requirements for the site. Unnecessary transport mileage should be reduced by minimising road construction and total road length in order both to reduce emissions and also to reduce the negative impacts on the environment.

Table 1.6 Air Quality

Plans and Relevant Objectives and Requirements
Clean Air for Europe (CAFE) (2001) CAFE is a programme of technical analysis and policy development that underpinned the development of the Thematic Strategy on Air Pollution under the Sixth Environmental Action Programme. The major elements of the CAFE programme are: • Thematic Strategy on Air Pollution (COM(2005) 446). • Directive on Ambient Air Quality and Cleaner Air for Europe (the "CAFE" Directive) (COM (2005) 447). The CAFE Directive brought together the following instruments under one legal act: • Council Directive 96/62/EC on ambient air quality assessment and management ("Framework Directive"). • Council Directive 1999/30/EC relating to limit values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air, ("First Daughter Directive"). • Directive 2000/69/EC of the European Parliament and of the Council relating to limit values for benzene and carbon monoxide in ambient air, ("Second Daughter Directive"). • Directive 2002/3/EC of the European Parliament and of the Council relating to ozone in ambient air, ("Third Daughter Directive"). • Council Decision 97/101/EC establishing a reciprocal exchange of information and data from networks and individual stations measuring ambient air pollution within the member States, ("Exchange of Information Decision"). **Convention on Long Range Transboundary Air Pollution (1979)** The aim of the Convention is that Parties shall endeavour to limit and, as far as possible, gradually reduce and prevent air pollution including long-range transboundary air pollution. The aim of the Convention is that Parties shall endeavour to limit and, as far as possible, gradually reduce and prevent air pollution including long-range transboundary air pollution. The principles are to :

Plans and Relevant Objectives and Requirements
• protect man and his environment against air pollution. • gradually reduce and prevent air pollution including long-range transboundary air pollution. • develop policies and strategies which shall serve as a means of combating the discharge of air pollutants, taking into account efforts already made at national and international levels. • exchange of information on and review their policies, scientific activities and technical measures aimed at combating, as far as possible, the discharge of air pollutants which may have adverse effects. • consultations shall be held, upon request between companies/organisations which are actually affected by or exposed to a significant risk of long-range transboundary air pollution and the offending companies/organisations who present the risk. **The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (DEFRA 2007)** This Air Quality Strategy sets out air quality objectives and policy options to further improve air quality in the UK from today into the long term. As well as direct benefits to public health, these options are intended to provide important benefits to quality of life and help to protect our environment. The strategy objectives include: • Improved protection for SSSIs and other designated sites by strengthening the application of the current ecosystem and vegetation objectives; and • Objectives for controlling particulate matter, in particulate fine particles (known as PM 2.5), and other pollutants such as nitrogen dioxide, ozone, sulphur dioxide, carbon monoxide and lead.
Implications for the Draft AAP & Masterplan The draft AAP and Masterplan should aim to incorporate practicable measures to reduce pollution to air resulting from the redevelopment works and future use of the site. It will not be possible to make quantitative predictions regarding changes in Air Quality in Cinderford or the Forest of Dean region resulting from the implementation of different options. However, the implications for air quality of the various options (such as the extent and timescale of emissions resulting from different options) will be considered as part of the SA. This should include consideration not just of the direct air emissions resulting from industrial activity in the redeveloped Cinderford area but also the emissions likely to result from areas such as associated transportation.

Table 1.7 Biodiversity and Geodiversity

Plans and Relevant Objectives and Requirements
Ramsar Convention on wetlands of international importance especially as waterfowl habitat (1971) The Ramsar Convention provides a framework for the conservation of wetlands and their resources. 146 parties signed the convention with 1469 wetland sites, totalling 128.9 million hectares, designated for inclusion in the Ramsar List of Wetlands of International Importance. Mission Statement: "The Convention's mission is the conservation and wise use of all wetlands through local, regional and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world".

Contracting Parties make a commitment to protect the ecological character of listed sites.

Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979)

The Bonn Convention aims to improve the status of all threatened migratory species through national action and international Agreements between states within the range of particular groups of species.

Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979)

The convention aims:

- to conserve wild flora, fauna and natural habitats;
- to promote co-operation between States; and
- to give particular attention to endangered and vulnerable species, including endangered and vulnerable migratory species.

The Convention includes obligations for contracting parties to conserve wild flora and fauna and all natural habitats in general, including by taking conservation into account in regional planning policies and pollution abatement.

The Convention on Biological Diversity, Rio de Janeiro (1992)

The convention is designed to conserve biological diversity, ensure the sustainable use of this diversity and share the benefits generated by the use of genetic resources.

Each Contracting Party should (Article 6a) Integrate the conservation and sustainable use of biological diversity into relevant sectoral and cross-sectoral plans, programmes and policies.

EU Directive on the Conservation of Wild Birds (79/409/EEC)

Directive 1979 and its amending acts aims at providing long-term protection and conservation of all bird species naturally living in the wild within the European territory of the Member States (except Greenland).

Imposes duty on Member States to sustain populations of naturally occurring wild birds by sustaining areas of habitats in order to maintain populations at ecologically and scientifically sound levels.

EU Habitats Directive (92/43/EEC)

The aim of this Directive is to contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora in the European territory of the Member States to which the Treaty applies. Measures taken pursuant to this Directive are to be designed to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest.

Article 6.2: Take appropriate steps to avoid degrading or destroying natural habitats within SACs, and avoid disturbance of designated species insofar as this would result in further decline in numbers or the loss of habitat that maintains the species.

Article 6.3: Any plan or project not directly concerned with the management of a designated site (SAC/SPA), but which is likely to have a significant impact on it (individually or in combination with other projects), should undergo assessment of its implications for the conservation objectives of the site.

EU Biodiversity Strategy (EU, 1998)

The European Commission adopted a Communication on a European Biodiversity Strategy in 1998, aiming to anticipate, prevent and attack the causes of significant reduction or loss of biodiversity at the source.

Natural Environment and Rural Communities Act (UK) (2006)

The Act aims to help achieve a rich and diverse natural environment and thriving rural communities through modernised and simplified arrangements for delivering government

Plans and Relevant Objectives and Requirements
policy. Of particular note is the Biodiversity Duty in section 40 of the Act, which requires that 'every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity' **Wildlife and Countryside Act 1981 (as amended) (UK)** The Act implements the Convention on the Conservation of European Wildlife and Natural Habitats (the 'Bern Convention') and the European Union Directives on the Conservation of Wild Birds and Natural Habitats. The Act is concerned with the protection of wildlife and their habitat (countryside, national parks and designated protected areas). **UK Biodiversity Action Plan (Defra, 1994)** The UK BAP is the UK Government's response to the Convention on Biological Diversity (CBD) signed in 1992, describes the UK's biological resources, and commits a detailed plan for the protection of these resources. It contains 391 Species Action Plans, 45 Habitat Action Plans and 162 Local Biodiversity Action Plans with targeted actions. **Conservation (Natural Habitats) Regulations 1994** Transposition into UK law of the Habitats Directive 92/43/EEC and the Wild Birds Directive 79/409/EEC. **Conservation (Natural Habitats, &c) (Amendment) Regulations 2007** Updates the 1994 transposition into UK law of the Habitats Directive 92/43/EEC and the Wild Birds Directive 79/409/EEC to remove certain defences in law previously available. **Natural England's Green Infrastructure network** Green Infrastructure (GI) is defined as the network of protected sites, green spaces and linkages which provide multi-functional uses relating to ecological services, quality of life and economic value. GI should be delivered at all spatial scales from sub-regional to local neighbourhood levels. Development of a 'Network of GI' is specifically required in the Regional Spatial Strategy (GI1) and the creation of a GI plan advised. **Gloucestershire Nature Map, March 2008** Connectivity is the main analytical process driving the Gloucestershire Nature Map launched in March 2008. It highlights Strategic Nature Areas (SNAs) which are priority areas for habitat protection, restoration and connectivity. SNAs are adopted in the Regional Spatial Strategy.
Implications for the Draft AAP & Masterplan The draft AAP and Masterplan will undertake an appraisal of the redevelopment works on biodiversity in the area. It is anticipated that the impacts will vary largely with the option chosen: Redevelopment of land interacts with biodiversity in a number of ways, for example: • Land take and land use for new buildings and developments, with resulting impacts on habitats and species; • The impact of emissions (to air, land or water) from redevelopment works and industrial/manufacturing activities on habitats and species; and • Indirect impacts on biodiversity resulting from changes in demand for raw materials during redevelopment and also during use of the site.

Table 1.8 Water and Flood Risk

Plans and Relevant Objectives and Requirements
Directive on the assessment and management of flood risks (2007/60/EC) This Directive requires Member States to assess if all water courses and coast lines are at risk

from flooding, to map the flood extent and assets and humans at risk in these areas and to take adequate and coordinated measures to reduce this flood risk. This Directive also reinforces the rights of the public to access this information and to have a say in the planning process.

The purpose of the Directive is to establish a framework for the assessment and management of flood risks, aiming at the reduction of the adverse consequences for human health, the environment, cultural heritage and economic activity associated with floods in the Community.

EU Nitrates Directive (91/676/EEC)

The Directive addresses water pollution by nitrates from agriculture. It seeks to reduce or prevent the pollution of water caused by the application and storage of inorganic fertiliser and manure on farmland. It is designed both to safeguard drinking water supplies and to prevent wider ecological damage in the form of the eutrophication of freshwater and marine waters generally.

Every four years Member States shall report on polluted or likely to be polluted waters and designed vulnerable zones, and measures and actions taken to reduce the pollution from nitrates.

EU Directive Establishing a Framework for the Community Action in the Field of Water Policy (2000/60/EC) – The Water Framework Directive

Requires all Member States to achieve 'good ecological status' of inland water bodies by 2015, and limits the quantity of groundwater abstraction to that portion of overall recharge not needed by ecology.

EU Freshwater Directive 78/659/EEC

The Freshwater Directive seeks to protect freshwater bodies identified by member states as water suitable for sustaining fish populations. It requires that certain designated stretches of water (rivers, lakes or reservoirs) meet quality standards that should enable fish to live or breed in the designated water, although this will also depend on physical conditions.

Water resources for the future: a water resources strategy for England and Wales (2001)

The strategy examines the uncertainties about future water demand and availability including the potential effects of climate change and different societal values. The strategy concludes with a series of actions that will provide the right amount of water for people, agriculture, commerce and industry and an improved water-related environment.

Water for People and the Environment – developing a water resources strategy for England and Wales (2007)

Consultation document towards a Water Resources Strategy to be completed by end 2008. Vision: Abstraction of water that is environmentally and economically sustainable, providing the right amount of water for people, agriculture, commerce and industry, and an improved water-related environment.

A Better Environment, Healthier Fisheries: Better Fisheries for our nations 2006-2011 (EA, 2006)

This sets the strategy for fisheries in England and Wales. The aim is enable fisheries to play a greater role in England and Wales to encourage more people to help us protect and improve the environment and to help fishing contribute more to society.

Severn River Basin District Significant Water Management Issues (Environment Agency, 2007)

Significant water management issues identified for the Severn River Basin District are grouped in the following categories:

- alien species;
- flow problems (abstraction and other artificial flow pressures, physical modification (rivers and lakes));
- diffuse pollution from rural areas (nitrates, pesticides, phosphorous and sediment

Plans and Relevant Objectives and Requirements
(rivers and lakes)); • diffuse pollution from urban areas and transport (nitrates, pesticides, phosphorous, sediment (rivers and lakes) urban and transport pollution); • physical modification (rivers and lakes, estuaries and coasts); and • point source pollution (organic pollution, pesticides, phosphorous and sediments).
Water Framework Directive (2000/60/EC)
The Water Framework Directive (WFD) is the most substantial piece of EC water legislation to date and is designed to improve and integrate the way water bodies are managed throughout Europe. In the UK, much of the implementation work will be undertaken by competent authorities. It came into force on 22 December 2000, and was put into UK law (transposed) in 2003. Member States must aim to reach good chemical and ecological status in inland and coastal waters by 2015.
Groundwater Directive (80/68/EEC)
The Water Framework Directive (2000/60/EC) set out requirements for the European Commission to propose further laws to protect against water pollution.
Groundwater Daughter Directive (2006/118/EC)
A 'daughter directive' aimed at protecting groundwater has recently been adopted at European level, and a further daughter directive has been proposed aimed at reducing pollution of surface water (rivers, lakes, estuaries and coastal waters) by pollutants on a list of priority substances.
Environmental Liability Directive (2004/35/EC)
The Directive seeks to achieve the prevention and remedying of environmental damage - specifically, damage to habitats and species protected by EC law, and to species or habitat on a site of special scientific interest for which the site has been notified, damage to water resources, and land contamination which presents a threat to human health. It reinforces the "polluter pays" principle - making operators financially liable for threats of or actual damage.
Environmental Permitting Regulations (EPR) (2007)
These regulations combine Pollution Prevention and Control (PPC) and Waste Management Licensing (WML). If a PPC permit or a Waste Management Licence was already held, it automatically became an Environmental Permit from 6 April 2008. On 7 July 2009, the scope of the EPR was widened to include mining waste operations. The Regulations provide a single, common, risk-based framework for permitting and compliance. They introduce the possibility of a single permit and regulator for some sites, and standard permits, which are easier to get. They enable us to maintain environmental protection standards whilst reducing bureaucracy.
Implications for the Draft AAP & Masterplan The draft AAP and Masterplan will an appraisal of flood risks associated with different options and need to mitigate against potential flood risks. Therefore flood risk assessment is being carried out concurrently and will be used to inform assessment of the various options. Any redevelopment work interacts with water quality, water resources and flood risk, primarily through land take and land use for new development work. The volume and nature of emissions to water resulting from redevelopment activities and new industrial activities will also impact upon water quality.

Table 1.9 Cultural Heritage

Plans and Relevant Objectives and Requirements

Plans and Relevant Objectives and Requirements
UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage (1972) World Heritage Convention as adopted on the general conference of the United Nations Educational, Scientific and Cultural Organization meeting in Paris from 17 October to 21 November 1972 at its seventeenth session. It aims to protect and enhance the world's cultural heritage. Amongst others: • each State Party to this Convention recognizes that the duty of ensuring the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage. • to ensure that effective and active measures are taken for the protection, conservation and presentation of the cultural and natural heritage situated on its territory. **The Charter for the Conservation of Historic Towns and Urban Areas (1987)** Charter for the Conservation of Historic Towns and Urban Areas, adopted by ICOMOS in 1987. The charter concerns historic urban areas, large and small, including cities, towns and historic centres or quarters, together with their natural and man-made environments. Beyond their role as historical documents, these areas embody the values of traditional urban cultures. **Charter for the Protection of and Management of Archaeological Heritage (1990)** Charter for the Protection of and Management of Archaeological Heritage, adopted by ICOMOS in 1990. The archaeological heritage is a fragile and non-renewable cultural resource. Land use must therefore be controlled and developed in order to minimise the destruction of the archaeological heritage. **The Florence Charter (1981)** Charter for the preservation of historic gardens, adopted by ICOMOS in December 1982. **Traffic Management in Historic Areas (Cadw, 2003)** This guidance outlines ways in which traffic engineering and highway improvements can be sensitively designed in historic areas.
Implications for the Draft AAP & Masterplan Options of the draft AAP and Masterplan will need to consider the potential impacts on sites of specific cultural heritage or archaeological significance. Impacts will be site specific and will therefore vary according to the chosen option. Redevelopment interacts with cultural heritage, primarily through land take and land use for building works and the potential impact on visual amenity.

Table 1.10 Landscape

Plans and Relevant Objectives and requirements
World Heritage Convention (UNESCO 1972) The purpose of this Convention is the identification and protection of the world's cultural and natural heritage, places of 'Outstanding Universal Value'. It defines the kind of natural or cultural sites which can be considered for inscription on the World Heritage List and sets out the duties of parties in identifying potential sites and their role in protecting and preserving them. **European Landscape Convention (Council of Europe, 2000)**

Plans and Relevant Objectives and requirements

The European Landscape Convention was developed by the Council for Europe and came into force in the UK in 2007. The aims of the convention are to promote European landscape protection, management and planning and to organise European co-operation on landscape issues. Nations that sign the Convention agree to take action to raise the standing given to landscape in public policy.

The ELC sets out four general measures as follows:

- To recognise landscapes in law as an essential component of people's surroundings, an expression of the diversity of their shared cultural and natural heritage, and a foundation of their identity.
- To establish and implement landscape policies aimed at landscape protection management and planning.
- To establish procedures for participation of the general public, local and regional authorities, and other parties with an interest in the definition and implementation of landscape policies.
- To integrate landscape into its regional and town planning policies and in its cultural, environmental, agricultural, social and economic policies, as well as in any other policies with possible direct or indirect on landscape.

Countryside and Rights of Way Act (CRoW) (ODPM, 2000)

CRoW extends the public's ability to enjoy the countryside whilst also providing safeguards for landowners and occupiers. It creates a new statutory right of access to open country and registered common land, modernise the rights of way system, give greater protection to Sites of Special Scientific Interest (SSSIs), provide better management arrangements for Areas of Outstanding Natural Beauty (AONBs), and strengthen wildlife enforcement legislation. Emphasises the public's right of access to open country and common land, and gives additional protection to Sites of Special Scientific Interest (SSSI).

Gloucestershire Rights of Way and countryside access Improvement plan 2006-2011 (Gloucestershire County Council)

The Gloucestershire County Council Rights of Way and Countryside Access Improvement Plan was approved by the County Council on 22nd February 2006. It forms Appendix F of the revised Local Transport Plan (LTP2) and was submitted to the Government with the LTP. The Plan sets out the strategic framework for the improvement of rights of way and access land throughout the county for the 5 years from 2006 to 2011.

Countryside Quality Counts (CQC)

This project is developing a national indicator of how the countryside is changing. It aims to understand how and where change is occurring and most importantly, where change matters most. This information can be used to help plan future landscapes and inform change that delivers public benefits – enhancing and maintaining the character and quality of our countryside for this and future generations.

Implications for the Draft AAP & Masterplan

The draft AAP and Masterplan will need to consider the potential impacts of development on the landscape of both Cinderford and the wider Forest of Dean area. Redevelopment interacts with landscape, primarily through land take and land use for buildings and so will vary according to the chosen option. Obviously the nature of the buildings will determine the impact upon the landscape.

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Table 1.11~~12~~ Soil Resources

Plans and Relevant Objectives and Requirements

EU Thematic Strategy on Soil Protection 2006

The Thematic Strategy for Soil Protection consists of a Communication from the Commission to the other European Institutions, a proposal for a framework Directive (a European law), and an Impact Assessment. It sets out common principles for protecting soils across the EU. Within this common framework, the EU Member States will be in a position to decide how best to protect soil and how use it in a sustainable way on their own territory.

Ensuring protection and sustainable use of soil, by preventing further soil degradation and preserving its functions and by restoring degraded soils to a level of functionality consistent at least with current and intended use.

Soil ' A Precious Resource' Environment Agency 2007

The Environment Agency strategy for protecting, managing and restoring soil. As understanding of soil increases, there are signs that contamination and poor management are causing problems in England and Wales. Over the years there has been a steady loss of soil because of development and increasing signs of damage, degradation and erosion.

Implications for the Draft AAP & Masterplan

The draft AAP and Masterplan will need to consider the potential impacts of development on the soil in both Cinderford itself and in the wider Forest of Dean area. Impacts to soil will depend largely on the redevelopment work undertaken in terms of land use for buildings, infrastructure and surface covering. Soil impacts will therefore vary according to the chosen option.

Table 1.12~~11~~ Contaminated Land and Groundwater

Plans and Relevant Objectives and requirements

The Environmental Protection Act, 1990

In order to prevent pollution from emissions to air, land or water from scheduled processes the concept of integrated pollution control has been introduced. Authorisation to operate the relevant processes must be obtained from the enforcing authority which, for the more heavily polluting industries, is HM Inspectorate of Pollution. Control of pollution to air from the less heavily polluting processes is through the local authority. Regulations also place a 'duty of care' on all those involved in the management of waste, be it collecting, disposing or treating Controlled Waste which is subject to licensing.

Planning Policy Statement 23: Planning and Pollution Control (PPS23).

Planning Policy Statement 23 (PPS23) is intended to complement the pollution control framework under the Pollution Prevention and Control Act 1999 and the PPC Regulations 2000.

The Model Procedures for the Management of Land Contamination (CLR11) Defra and Environment Agency (2004).

The Model Procedures for the Management of Land Contamination, CLR 11, have been developed to provide the technical framework for applying a risk management process when dealing with land affected by contamination. The process involves identifying, making decisions on, and taking appropriate action to deal with land contamination in a way that is consistent with government policies and legislation within the UK.

The Definition of Waste: Development Code of Practice (CL:AIRE, 2008)

Plans and Relevant Objectives and requirements

The CoP answers the question of when materials are waste and when treated wastes cease to be waste. It provides a clear transparent path out of waste legislation whilst ensuring the environment and human health are protected. The CoP has been prepared in consultation with and including contributions from representatives from the development and remediation industries and the Environment Agency.
The CoP serves the following purposes:

- Provides best practice for the development industry to use when assessing:

    i. If materials are classified as waste or not and
    ii. Determining when treated waste can cease to be waste for a particular use

Provides an auditable system to demonstrate that this CoP has been adhered to on a site by site basis.

Implications for the Draft AAP & Masterplan

The draft AAP and Masterplan will need to consider the historical landuses of the site and therefore the likelihood that contaminated land and groundwater may be present at the site. Such contamination may require remedial works to be carried out prior to regeneration or alternatively, landuse planning that takes into account the location of contaminated land will be required at the masterplanning stage. Regeneration works will also need to ensure that they do not result in any activities causing further pollution to either soil or groundwater at the site.

Annex B

Environmental, Economic and Social Baseline

Note to consultees: The baseline data in this information was directly sourced from data available within the Cinderford Northern Quarter Baseline Report (Alan Baxter, March 2009), Cinderford Business Plan (Halcrow Group Limited, December 2007) and Entec Ecological Baseline Report (Entec, February 2009) as well as publically available sources of information. It is recognised that additional information will and should be included as appropriate. It is, therefore, anticipated that this Annex will continue to be updated throughout the course of the Appraisal.

The information outlined below identifies the existing and likely future state of the sustainability conditions that exist in Cinderford and the wider Forest of Dean and South West regional area. This baseline will usefully inform the direction and contents of the AAP and Masterplan, and the Sustainability Appraisal undertaken of it.

Subject: **Air**	
Summary	Baseline data was collated to inform the Cinderford Northern Quarter Baseline Report and this together with additional sources detailed below, have highlighted the following key points for consideration: • Air pollution data for the Forest of Dean area recorded the following industrial emission levels: CO2 – 10,000t – 100,000t Nitrogen oxides – 100t or less Sulphur oxides – 100t or less PM10 particulates – 10t or less Dioxins – 0.01g or less • There is one entry on the Environment Agency's Pollution Hazard Inventory, at Forest Vale Industrial Estate to the south of the site. Emissions are noted to be to air (associated with waste incineration).
Expected trend	• Potential for increase in air pollution levels or specific-industry related air pollution incidents as a result of increased industrial activity; and • Potential for increase in air pollution levels as a result of a new road link and the extra traffic that will result from increased employment and housing in Cinderford.
Influence of AAP & Masterplan	• Exploring the options of cleaner technology in the form of using renewables for power generation. • For Cinderford residents, the need to travel may be reduced as more employment opportunities are present in the town. Increased employment opportunities could also result in more people travelling into Cinderford for work, however, greater housing provision could overcome this; and • Limiting emissions from residential buildings by achieving Level 4 of the Code for Sustainable Homes (CSH) for residential development in 2010, and further to this, attainment of Level 5 and Level 6 in accordance with Government policy. Non-residential buildings should achieve BREEAM standards.
Cross reference to	Full commentary can be found in the Baseline Report: Cinderford Northern Quarter Baseline Report, March 2009, (prepared for the Forest of Dean District Council); and The Environment Agency. www.environment-agency.gov.uk/wiyby

Subject: **Biodiversity and Geodiversity**	
Summary	Baseline data was collated to inform the Cinderford Northern Quarter Baseline Report and this together with additional sources detailed below, have highlighted the following key points for consideration: *Landscape* • The landscape of the Forest is a mixture of habitats including woodland, grassland, clear fell sites, rides and wetlands; • The key characteristic of the Forest is extensive areas of coniferous plantations and deciduous woodlands; • Historic and current land uses of the site include coal mining activities, transport infrastructure and historic landfill sites which may have resulted in contaminated land; and • The method of infilling used for former mines is generally unknown and therefore voids below the surface may exist and there is a risk of collapse and sub-surface stability constraints. *Nature conservation designations* • Four sites designated of European importance for nature conservation are present within 10 km of the site. These sites include three Special Areas of Conservation (SAC) and one Special Protection Area (SPA); • Two national statutory site designations, Sites of Special Scientific Interest (SSSI) for nature conservation are present within 10 km of the site; • The Wye Valley and Forest of Dean (Bat Sites) SAC is a complex of small sites situated in the Forest of Dean, one of which is located approximately 1.5km to the NE of the site boundary; • Fourteen sites with non-statutory designations for nature conservation (referred to locally as Key Wildlife Sites) are present within 2 km of the site; • Three non-statutory sites overlap with the Masterplan area. A large part of Cinderford Linear Park extends into the southern part of the Masterplan area. Laymoor Quag Gloucestershire Wildlife Trust (GWT) Nature Reserve is located adjacent to the southern part of the Masterplan area and the Hawkwell Enclosure occurs partly within the northern part of this area. The non-statutory sites are considered to be of county importance for nature conservation; • Two areas of UK Biodiversity Action Plan (BAP) priority habitats including Lowland Dry Acid Grassland and Calcareous Grassland occur within the north western part of the site and within 500 m of the site. These are also listed on the Natural England Grassland Inventory. These are considered to be of National Importance for nature conservation; and • An area of priority UK BAP habitat, Upland Oakwood is present on the site. A further area of priority UKBAP habitat, Wet Woodland occurs which are included on the Ancient Woodland Inventory (AWI). These are considered to be of national importance for nature conservation. *Species* • The wetland habitats within the site include a lake, ponds and streams which support a variety of riparian vegetation and provide habitat suitable for protected species including birds, invertebrates, bats and otter. These habitats are considered to be of County importance for nature conservation; • A medium to large (as defined by Natural England guidance) population of great crested newts is present within the site and these are known to use a minimum of six ponds. The site is considered to be of County importance for great crested newts; • Seven bat species have been recorded from the site and therefore the site is considered to be of District to National importance for bats. It supports the greatest concentration of lesser horseshoe bat (*Rhinolophus hipposideros*) in the

	UK, totalling about 26% of the national population; • The River Wye SAC has been designated primarily for the type of watercourse it is, the vegetation present as a result and for the species present within it. However, the Old Engine Brook (the only watercourse on site) drains into the River Severn catchment and therefore there is no hydrological link between the River Wye SAC and the site; • All four common reptile species (common lizard, slow worm, grass snake and adder) have been recorded from the site which includes a range of habitat types for backing, foraging and hibernating. The site is considered to be of County importance for reptiles; • A single otter spraint was recorded on a rock adjacent to the Stream Mills Lake. The site in considered to be of local value for the otter, however as a European Protected Species and given the suitability of wetland habitats within the site, Natural England will need to be consulted on the impacts of the Masterplan; • Historical records of water vole within the Forest indicate their presence near to the Masterplan area however Entec survey findings indicate water voles are not currently present. The site is considered to be of local value for water vole; • A sett comprising two active entrances was recorded at the location of the former Bowson Colliery during the Entec survey but no further evidence of badger activity was recorded within the rest of the Masterplan area. The site is considered to be of low value for this species but the presence of the active sett will require monitoring and mitigation; • Despite the presence of suitable habitat, dormice are not currently present at the site. The site is considered to be of local importance to dormouse and their presence needs monitoring given their occurrence within the Forest; and • All the water bodies are considered to be relatively species-rich in terms of invertebrates. Of the Red Data Book and Notable species recorded, none are dependant on habitats specific to the Cinderford site. It is considered that collectively the site comprises a relatively important resource for invertebrates at the District level.
Expected trend	• Building work and development will put pressure on habitats and therefore monitoring and mitigation measures will be required to ensure that habitat is provided for species.
Influence of AAP & Masterplan	• Sites for redevelopment will take into account the location of sites of bio and geodiversity; and • It will be necessary to minimise the impact of any development work on sensitive receptors.
Cross references	**Full commentary can be found in:** Cinderford Business Plan Final Report, Halcrow, December 2007; Biodiversity Action Plans; - www.ukbap.org.uk Defra; - www.defra.gov.uk/environment/statistics Cinderford Regeneration Site Draft Ecological Appraisal Report, Entec UK Ltd December 2008 for Homes and Communities Agency; A site walk over was also undertaken by one of ERM's ecologists on 3rd December 2008; and The South West Observatory. http://www.swenvo.org.uk/data/

Subject: **Bird Populations**	
Summary	Baseline data was collated to inform the Cinderford Northern Quarter Baseline Report and this together with additional sources detailed below, have highlighted the following key points for consideration: • 79 bird species (farmland and woodland) have been identified in the South West region. In the 1994 – 2006 period, there was no percentage change in the number of species; • A single Schedule 1 species (crossbill) and Annex 1 species (nightjar) were recorded during surveys within habitat adjacent to the northern part of the site but neither were recorded using the site; • Further notable species including 6 Red Listed species, all of which are UK BAP priority and Section 41 species and 12 Amber listed species, 2 of which are UK BAP and Section 41 species; • Five breeding species considered uncommon at county level were recorded on site: tree pipit, woodcock, cuckoo, grey wagtail and redstart of which three were considered to have definitely bred within the site boundary; and • It is considered that the site is of District to County importance for a number of nationally common (but locally uncommon) breeding passerines, and possibly also for woodcock.
Expected trend	• Building work and development will put pressure on bird habitats and therefore monitoring and mitigation measures will be required to ensure that habitat is provided for bird species.
Influence of AAP & Masterplan	• Ensure that implementation of the draft AAP and Masterplan does not have a detrimental impact on bird populations; and • Encourage development works to reduce their impacts on sensitive habitats.
Cross reference	Full commentary can be found in: Entec Ecological Baseline Report (Entec, February 2009); National Biodiversity Network; www.nbn.org.uk The South West Observatory; and http://www.swenvo.org.uk/data/ Defra. http://www.defra.gov.uk/environment/statistics/wildlife/research/rwbi.htm

Subject: **Climate Factors**	
Summary	Baseline data was collated to inform the Cinderford Northern Quarter Baseline Report and this together with additional sources detailed below, have highlighted the following key points for consideration: • CO_2 emissions estimates have been calculated for the South West region, totalling 42,369 kt CO_2, which in emissions per capita equals 8.27t. This total comprises results from the following emissions sources: • Industrial & commercial – 16,691kt $CO_{2;}$ • Domestic – 12,995 kt $CO_{2;;}$ • Road transport – 11,791 kt $CO_{2;;}$ • Land use, land-use change and forestry – 892 kt $CO_{2;;}$ and • 2007 records of energy consumption, reported the average domestic consumption for the South West region to be 4991kWh.
Expected trend	• It is anticipated that with increased development, CO_2 emissions resulting from both industry and domestic users will increase. It is likely that incentives for producing renewable energy will increase therefore leading to an increase in the proportion of renewable supply.
Influence of AAP & Masterplan	• Promote the generation of renewable energy in the redevelopment works; • Discourage the adoption of energy inefficient practices and options. • Reduce the need to travel by meeting needs more locally and for where travel is necessary, provide low carbon options and facilities such as footpaths, cycle ways and public transport; and • Reduce the amount of waste produced during redevelopment works, thereby reducing the volume sent to landfill.
Cross references	Full commentary can be found in: The South West Observatory; http://www.swenvo.org.uk/data/ Department of Energy and Climate Change, Regional and local electricity consumption statistics, December 2008; National Statistics; and http://www.statistics.gov.uk/hub/index.html Defra. http://www.defra.gov.uk/environment/statistics/globatmos/galocalghg.htm

Subject: **Cultural Heritage and Historic Environment**	
Summary	Baseline data was collated to inform the Cinderford Northern Quarter Baseline Report and this together with additional sources detailed below, have highlighted the following key points for consideration: • The Forest of Dean has provided a resource for living in the area since ancient times. Evidence shows that the area was extensively mined for coal from about 8000 BC to 1965 AD; • Rapid change occurred during the industrial revolution in terms of both technology and transport links; • After the decline of the iron and coal industry and the dismantling of the railway, the Forest established itself as a centre for manufacturing and light industries; • In 1805, Cinderford was a tiny hamlet which then developed very rapidly through the 19th century as a commercial town, built around industry. Cinderford and the Forest of Dean had its heyday in the early 20th century with the expansion of local passenger railways and trams. In the 1960s, some stations including Cinderford closed and together with the closure of the colliery, this resulted in a decline in Cinderford; • Cinderford contains 4 Grade II listed buildings, all of which are churches; • There are no conservation areas in Cinderford; and • Archaeological sites have been identified within the proposed development and in the wider area, associated with the iron and coal mining activities of the 18th and 19th century. However, initial assessment concludes that these sites have no major archaeological importance and the potential for other cultural heritage sites within the proposed development area is likely to be low.
Figures/ Tables	**Archaeological sites** 

	Location 1 Modern North United Colliery 2 C19 Never Fear Colliery & lime kiln 3 C19 Churchway Colliery 4 C19 Hawkwell Tinplate Works 5 Post-mediaeval shaft of Mountpleasant Colliery 6 C19/C20 clay pit 7 Bronze Age axe head 8 C19 brick kiln 9 C19 Winning Colliery 10 Modern Hawkwell brickworks 11 Site of C19 coal shaft 12 C19 New Bowson Colliery (C16-18 material excavated) 13 C19 coal shaft 14 Post-mediaeval coal shaft 15 C19 coal shaft 16 C19 chemical works 17 C19 coal shaft 18 Post-mediaeval coal shaft 19 Post-mediaeval disused flour/steam mill 20 Post-mediaeval Haywood Engine Works and Cinderford Steam Mills A - Post-mediaeval Hawkwell Colliery and associated tramway B - Post-mediaeval Forest of Dean tramroad, inc. branch to Nofold Colliery C C19 Brain's Tramway D C19 tramway at Winning and Duck Collieries *Source: Alan Baxter Baseline Report*
Expected trend	• Due to the known locations of archaeological sites and other sites of cultural heritage, the Cinderford redevelopment project should not have an impact on existing, known sites. In addition, the potential for other cultural heritage sites within the proposed development area is thought to be low.
Influence of AAP & Masterplan	• Ensure that the implementation of the draft AAP and Masterplan does not have a detrimental impact on cultural heritage and the historic environment, through effective positioning of new development; and • Encourage redevelopment works to reduce their impacts on sensitive landscapes and habitats.
Cross references	Full commentary can be found in: Cinderford Northern Quarter Baseline Report, March 2009, (prepared for the Forest of Dean District Council);

B7 ECOLOGICAL FOOTPRINT

Subject: **Ecological Footprint**	
Summary	Baseline data was collated to inform the Cinderford Northern Quarter Baseline Report and this together with additional sources detailed below, have highlighted the following key points for consideration: • An ecological footprint has been estimated for the South West region for 2004. This is 5.42 global hectares (gha) per capita. This compares to the UK average for 2004, which is 5.30gha/capita; • A carbon footprint has also been estimated for the South West region for 2004, which is equal to 12.37tonnes CO_2/capita; and • A GHG footprint has also been calculated, which is equal to 16.70 tonnes of CO_2e/capita.
Expected trend	• One aim of the draft AAP and Masterplan is to promote the town as a regional model of sustainable new development and reduce the town's carbon footprint.
Influence of AAP & Masterplan	• Encourage sustainable living practices through providing the necessary opportunities and facilities (examples include providing employment proximal to residential areas and footpaths and cycle routes); • Raise awareness of society's ecological footprint; and • Ensure that the regenerated Cinderford does not increase ecological footprint of the area per capita.
Cross reference	The South West Observatory; http://www.swenvo.org.uk/data/ Ecological Footprint estimates generated using Version 2 of the Resources and Energy Analysis Programme (REAP). The 2004 estimates supersede the 2001 estimates generated through REAP Version 1 and previously available online at www.sei.se/reap; and Defra. http://www.encams.org/uploads/publications/leqsereport0405.asp

Subject: **Landscape**

Summary

Baseline data was collated to inform the Cinderford Northern Quarter Baseline Report and this together with additional sources detailed below, have highlighted the following key points for consideration:

- The Forest of Dean was once heavily forested with extensive, uninterrupted woodland. Large amounts of forest have been lost to agriculture and development but the protection over the Forest of Dean means that it is the only remaining uninterrupted wooded area in the district (over 110 km^2). The area of 'greenspace' measured in the Forest Dean in 2005, was 485,673m^2 (2005);
- The site is located on the north eastern edge of Cinderford. It is bordered to the north, south and west by coniferous plantation woodland and to the east by Cinderford Business Park. The site is characterised by operational brickworks, a waste sorting depot and several small industrial units, a large fishing lake and large areas of re-vegetated grassland and planted woodland habitat on land previously mined for coal; and
- Previously, Cinderford and the surrounding areas supported several large collieries of which two were located within the site, namely Bowson Colliery and Northern United (which closed in 1965). Clay extraction pits are also present as a result of the brickworks on site.

Figures/ tables:

Physical environment: land use, January 2005

		Forest of Dean 004A (Cinderford)	Forest of Dean	England
Domestic buildings	%	15.2	0.7	1.1
Non domestic buildings	%	3.2	0.3	0.7
Road	%	14.2	1.6	2.2
Domestic gardens	%	54.5	3.1	4.3
Greenspace	%	4.2	85.0	87.5
Water	%	0.0	8.4	2.6

Note: percentages will not usually sum to 100% as not all possible land uses are shown

Source: Office for National Statistics

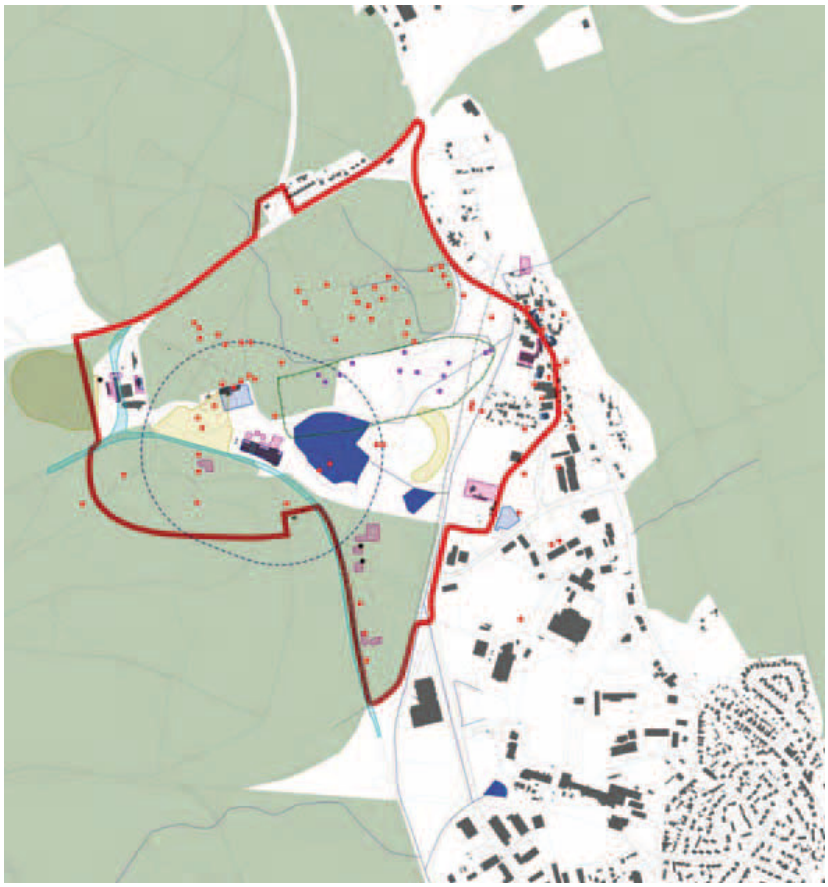
Expected trend

- The proposed redevelopment site is bordered to the north, south and west by forest plantation woodland. Careful planning of the redevelopment area will not impact upon this forested area. However, the site itself contains water bodies, re-vegetated grassland and planted woodland habitat and these areas will have to be considered in the redevelopment plans in order to minimise or mitigate the impacts arising; and
- There could be opportunities to utilise features of industrial heritage such as the clay extraction pits as part of the redevelopment planning.

Influence of AAP & Masterplan

- Ensure strategic and location decisions within the draft AAP and Masterplan take into account the needs of areas of landscape importance;
- Encourage sensitive location and promote high quality design for new developments; and
- Promote greater use of renewables with care regarding the choice of their location.

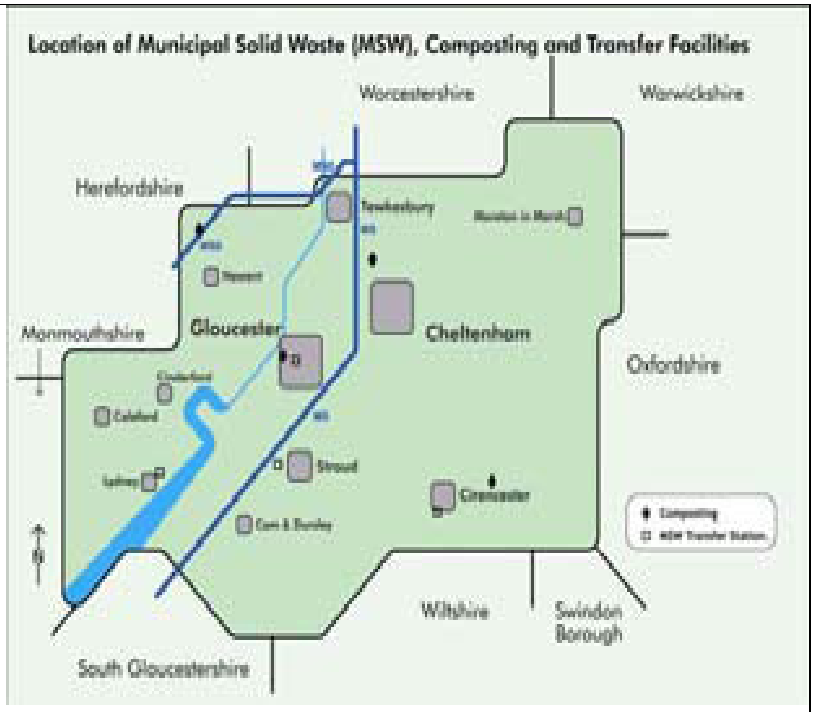
Cross references	Full commentary can be found in: Cinderford Business Plan, Final Report, December 2007; and Office for National Statistics. www.neighbourhood.statistics.gov.uk

Subject: **Contaminated Land and Groundwater**	
Summary	Baseline data was collated to inform the Cinderford Northern Quarter Baseline Report and this together with additional sources detailed below, have highlighted the following key points for consideration: • There are a number of potential contaminated land constraints based on a desk review of historic land uses at the site; • Coal mining activities took place in the area of the Masterplan from the late 19th to mid 20th century. The main mining activities took place in the central region near the current brickworks) and in the western region near Northern United. Due to these activities, there is the potential for heavy metals, VOCs, SVOCs and petroleum hydrocarbons to exist in the vicinity of the former collieries; • A number of old mine shafts in the central and southern parts of the site are also considered as potential contamination sources; • The Northern Quarter area is located on a minor aquifer of variable permeability. Although these aquifers seldom produce large quantities of water for abstraction, they are important both for local supplies and in supplying base flow to rivers. The minor aquifer comprises Coal Measures.
Figures/ tables:	Contamination and mine workings  The figure shows current land use which could result in potential contamination (light blue on the map) and historic land use which could result in potential contamination (pink on the map).

Expected trend	• Current and potential future land uses on the Northern Quarter site are less likely to result in land and groundwater contamination than the former 19th and 20th century uses of the site. This is de to the prevalence of different industries and tighter regulations, permitting and environmental monitoring;
Influence of AAP & Masterplan	• During the regeneration process, it is anticipated that site investigation works will be carried out in order to determine the extent of the land and groundwater contamination at the site; • Such investigation and subsequent risk assessment will determine the extent of land and/or groundwater remediation that is required, according to the proposed future land uses on specific parts of the Northern Quarter site; • Ideally regeneration works will redevelop former areas of contaminated land, restoring it and returning it to beneficial use. In doing so, the number of and hectarage of remediated sites in the district will increase, thereby preventing the need to develop greenfield sites; • It is anticipated that the new development will overall result in fewer pollution incidents impacting on air, land and water due firstly to the types of buildings in the new development and secondly due to the environmental management practices and procedures that will be in place both during construction and operation of the new buildings.
Cross references	• Cinderford Northern Quarter Baseline Report, March 2009, (prepared for the Forest of Dean District Council); and • Environment Agency Groundwater Vulnerability 1:100,000 map, Sheet 37, South Cotswolds

Subject: **River Quality**	
Summary	Baseline data was collated to inform the Cinderford Northern Quarter Baseline Report and this together with additional sources detailed below, have highlighted the following key points for consideration: • The most recent river quality data is available from 2007 at Bilson Green to the south of the site, where a 'B' classification (good) was awarded; • High levels of phosphates and nitrates were noted. The watercourse is classified as being at risk of not meeting WFD targets pertaining to biological quality and ecological quality is currently noted as poor (grade 4); • The Cinderford Brook has been classified as being 'Over Abstracted' indicating that existing abstraction is causing unacceptable damage to the environment at low flows; • No groundwater abstractions are noted within 1000 m of the site; • Groundwater quality presents a potential risk in the area due to the influence of industrial land uses to the east and past mining activities and discharges; and • For the South West in 2007, 87% of the river length was classified as very good or good for chemical river quality. 89% of the river length was classified as very good or good biological river quality. 43% of the river lengths were classified to have high phosphate levels and 26% of the river lengths were classified to have high nitrate levels.
Expected trend	• With increased redevelopment of the Cinderford site, it is likely that there will be an increase in abstraction from the Cinderford Brook. Monitoring and regulation of these abstractions will be required to limit the potential impact of this increased abstraction.
Influence of AAP & Masterplan	• Ensure that the redevelopment works and then operation of new buildings do not have an impact on the chemical or biological quality of the rivers in the Cinderford/Forest of Dean area; and • Encourage best practices for dealing with waste from redevelopment so as to reduce the potential impact of waste on river quality.
Cross reference	Full commentary can be found in: Environment Agency; and http://www.environment-agency.gov.uk/research/library/data/34383.aspx The South West Observatory. http://www.swenvo.org.uk/data/

Subject: **Waste**	
Summary	Baseline data was collated to inform the Cinderford Northern Quarter Baseline Report and this together with additional sources detailed below, have highlighted the following key points for consideration: • Cinderford is located within a two tier authority area. The Forest of Dean District Council (FDDC) acts as the waste collection authority while Gloucestershire County Council (GCC) acts as the waste disposal authority. The FDDC will be responsible for the municipal waste collection arrangements for the Northern Quarter Masterplan Area while GCC will be responsible for treating and disposing of the waste; • In 2006/07 Gloucestershire's households produced a total of 324 thousand tonnes (kt) of municipal waste (MSW). This is approximately 1220kg of household waste generated per household each year; • In 2007/08, the municipal waste arisings for the South-West region were 2,929kt, of which 2,644kt was from household waste; • For the South-West region in 2007/08, 59% was sent to landfill, 41% was recycled or composted and 0.1% was incinerated with Energy from Waste (EfW) and 0.1% was incinerated without EfW; • The nearest Household Recycling Centre (HRC) to the Northern Quarter Masterplan Area is located near Coleford; and • The nearest waste transfer station is located north east of Lydney and composting facilities located north of Newent and at Gloucester. It is anticipated that any waste for landfill from the Northern Quarter Masterplan Area will be transported to Gloucester.
Figures/ Tables	



Source: Waste Core Strategy, Technical Paper WDS-A Waste Data, Living Draft, September 2007, figure 2, 3 & 5.

Expected trend	• It is anticipated that the total MSW produced by Gloucestershire will increase with the growth in population and industry that is planned in the Cinderford Masterplan.; and • The increased waste produced will also require transportation to the nearest appropriate waste treatment or disposal facility.
Influence of AAP & Masterplan	• Promote sustainable waste management; • Encourage waste movement up the waste hierarchy, away from landfill; and

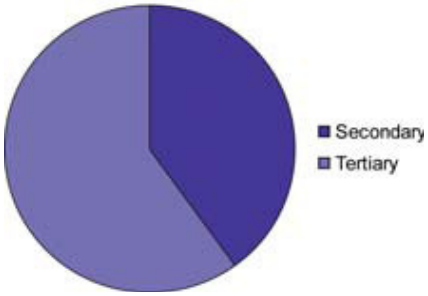
	• Promote waste minimisation both during redevelopment works and also once the new buildings (residential and commercial) are operating, for example with the provision of sufficient recycling facilities.
Cross reference	Full commentary can be found in: Forest of Dean District Local Plan Review Adopted November 2005; Forest of Dean District Council, Core Strategy Second Preferred Options March 2008; Gloucestershire Waste Local Plan 2002-2012 Adopted 2004; Gloucestershire Waste Core Strategy Preferred Options, January 2008; Waste Core Strategy, Technical Paper WCS-A Waste Data, Living Draft, September 2007; Gloucestershire Minerals and Waste Development Framework's Minerals and Waste Annual Monitoring Report 2007-08; and The South West Observatory. http://www.swenvo.org.uk/data/

Subject: **Flood Risk**	
Summary	Baseline data was collated to inform the Cinderford Northern Quarter Baseline Report and this together with additional sources detailed below, have highlighted the following key points for consideration: • The River Severn floodplain does not influence the site or its immediate surrounds directly; • The Cinderford Streams sub-catchment falls within the Severn Vale catchment area; • The CAMS for the area shows the catchment as 'over-abstracted'; • The Severn Estuary is a Natura 2000 site; • Any proposed developments could have potential negative impacts on the habitats and species within the Severn Estuary SPA/Ramsar/pSAC due to possible in-combination effect on the River Severn; • Within the Cinderford Streams Sub-Catchment, 40 commercial and 130 residential properties are noted to fall with the Flood Zone 3, over an area of 138 ha; • The greatest risk of flooding locally is considered to result from blockage or from high intensity rainfall flowing from the steep sided valleys upstream of the site; • The two Local Plan housing sites, Cinderford 9 and 5 are within the 1:100 year floodplain; • The closest Environment Agency river water quality monitoring point to the site is on the Cinderford Brook on the stretch between Bilson Green east and the footbridge at Stockwell Green. In the latest sampling in 2007, the chemical quality of the water was classified as grade 'B' or 'good'. No biological quality classification is reported. Nitrate levels were moderate (4) and phosphate levels very high (5); • The Cinderford Brook is the primary watercourse in the vicinity of the Cinderford redevelopment area, being classed as a Main River south of Cinderford, where it flows 12 km south east to its confluence with the River Severn. Old Engine Brook, which crosses the site, joins Cinderford Brook approximately 800 to 1000 m south of the southern site boundary;
Expected trend	• There is a potential for increased flooding events in the future with construction of residential and industrial properties within the 1:100 year floodplain. • It will be necessary to ensure that the development does not worsen the low flow situation in the Cinderford Brook and ideally improves it.
Influence of AAP & Masterplan	• The effects of flooding must be considered in the positioning of new buildings. There are also opportunities for flood alleviation downstream through the new development and this could be linked to amenity and biodiversity development increasing areas of open space. • Water efficiency should be encouraged both during construction and in the design and operation of new buildings. This will reduce issues of low flow and create constant flow improving water quality and biodiversity. Improvements could be realised by a variety of means; a drainage strategy for the development, the use of SUDS and achievement of Level 4 of the Code for Sustainable Homes and BREAM 'excellent' standards for non-residential buildings
Cross references	Full commentary can be found in: Cinderford Northern Quarter Baseline Report, March 2009, (prepared for the Forest of Dean District Council);

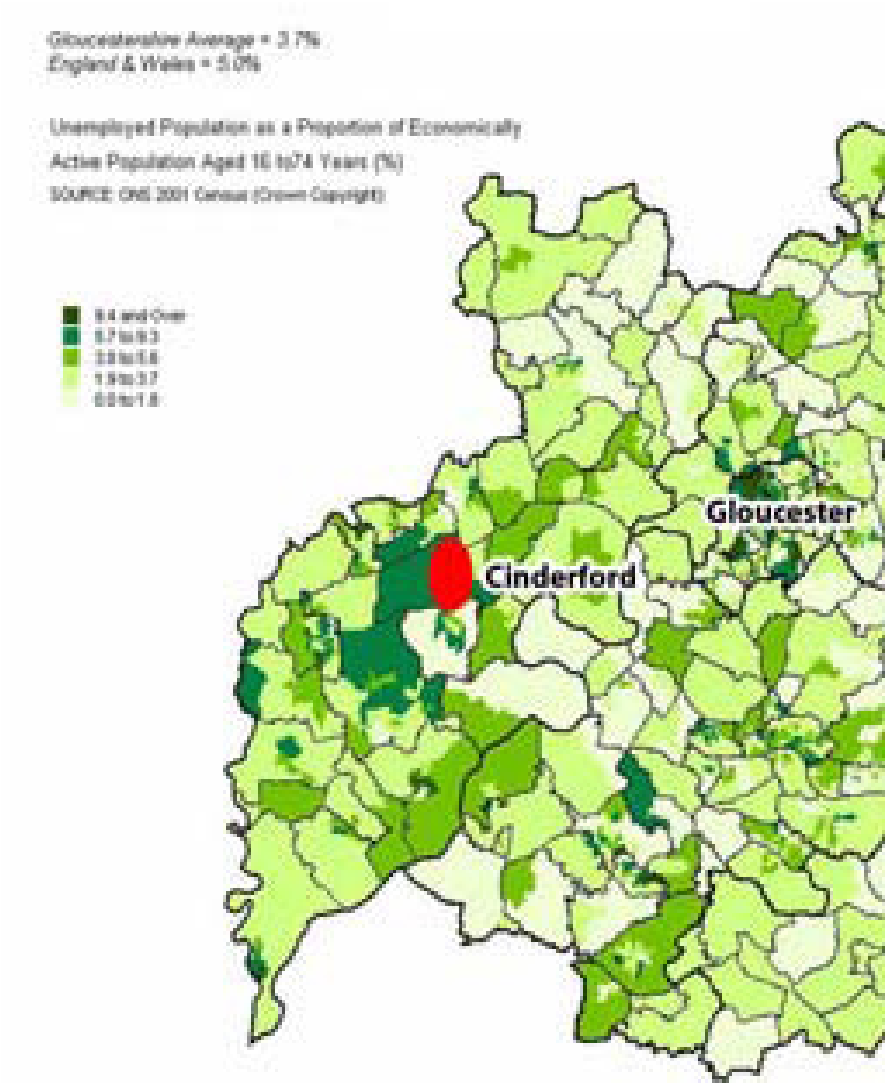
	Environment Agency; and http://www.environment-agency.gov.uk/homeandleisure/floods/default.aspx http://maps.environment-agency.gov.uk/wiyby The South West Observatory. http://www.swenvo.org.uk/data/

B13 BENEFIT DEPENDENCY

Subject: **Benefit Dependency**	
Summary	Baseline data was collated to inform the Cinderford Northern Quarter Baseline Report and this together with additional sources detailed below, have highlighted the following key points for consideration: • Statistics for the Forest of Dean for all people of working age claiming a key benefit in 2006 was 12%, which compares to the statistic for England of 14%; • 6% of the Forest of Dean population were receiving incapacity benefit in 2006, which compares to the statistic for England of 7%; • 2% of the population were claiming Job Seekers Allowance in 2007, the same percentage as for England; and • The number of Income Support claimants in the Forest of Dean in 2007 was 1,930. In the South West, the number was 141,980 and for England, the number was 1,785,215; • The number of the population claiming Housing Benefit/Council Tax benefit in the Forest of Dean in 2005 was is 5,850. In the South West, this number was 390,880 and for England, the number was 4,540,015; and • In 2006, the total number of children receiving Child Benefit was 775 and in the Forest of Dean, it was 76,990.
Expected trend	• The redevelopment plan for Cinderford aims to increase educational and employment opportunities in the area, thereby decreasing the number of people who need to claim some kinds of benefits.
Influence of AAP & Masterplan	• Promote direct job creation; • Promote local job benefits; and • Promote indirect job creation.
Cross reference	Full commentary can be found in: Office for National Statistics http://www.neighbourhood.statistics.gov.uk

Subject: **Employment**	
Summary	Baseline data was collated to inform the Cinderford Northern Quarter Baseline Report and this together with additional sources detailed below, have highlighted the following key points for consideration: • The towns surrounding Cinderford all have aspects competing with Cinderford in terms of attractive business and providing high quality jobs or amenities. This shows that Cinderford has the potential for successful redevelopment; • There is significant out-migration of young people and graduates due to poor career prospects; • The economic activity rate of the working age population for the Forest of Dean is 81.6% (2007-2008); • The employment rate for the Forest of Dean is 75.0% (2006-2007); • 40% of the working population work in manufacturing and construction (this is double the national/county averages); • 60% work in the service sector. This is significantly lower than national/county averages. There is a need to maintain traditional manufacturing strengths and skills as well as expanding in areas such as office employment; • Unemployment is above national/county averages with a rate of 4.4% for the Forest of Dean (2006-2007); • There are the lowest levels of self-employment in the district; • The existing industrial estates feature low-density, sprawling land uses, with low levels of employment; and • In addition to enhancing the quality and quantity of land supply, there is a need to rejuvenate and intensify existing employment sites, particularly on industrial sites.
Figures/ Tables	**Employment by sector**  *Source: Alan Baxter Baseline Report*

Unemployment rates
(Unemployed population as a proportion of economically active population in the 16-74 years). Gloucestershire average is 3.7%. Average for England and Wales is 5.0%).



Source: Alan Baxter Baseline Report

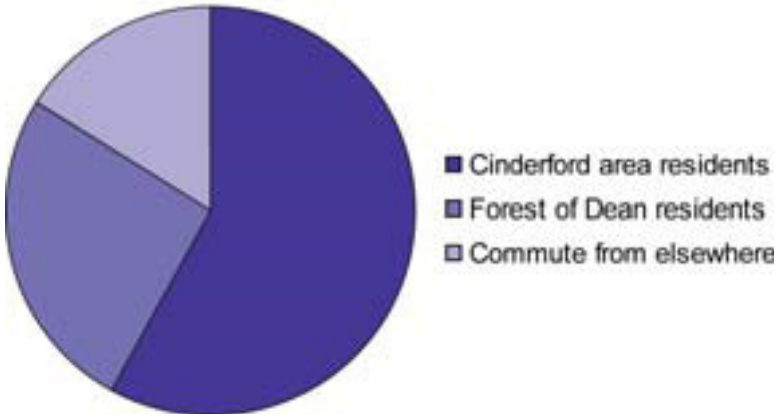
Occupations of all people in employment, April 2001

		Forest of Dean 004A (Cinderford)	Forest of Dean	England
Managers and senior officials	%	9.7	14.0	15.3
Professional occupations	%	6.4	9.0	11.2
Associate professional and technical occupations	%	10.2	12.2	13.8
Administrative and secretarial occupations	%	10.7	11.5	13.4

	Skilled trades occupations	%	16.9	15.1	11.6
	Personal service occupations	%	9.4	7.1	6.9
	Sales and customer service occupations	%	6.6	6.1	7.7
	Process; plant and machine operatives	%	16.5	12.0	8.4
	Elementary occupations	%	13.6	13.0	11.8

Source: Office for National Statistics

Expected trend	• The potential for the Cinderford to rise in importance in the local area due to the industry occurring there and the services provided; • An increase in job and career prospects which may result in greater numbers of younger people staying in Cinderford; and • A decrease in the unemployment rate as a result of an increase in the industrial and service sector.
Influence of AAP & Masterplan	• Direct employment opportunities both during redevelopment works and in the redeveloped Cinderford due to new commercial and educational activities; • Indirect employment opportunities through supply chain and procurement; • Potential for skilled and unskilled workers to be needed during redevelopment; and • Options for training and skills development especially through the provision of new educational facilities.
Cross references	Full commentary can be found in: Cinderford Northern Quarter Baseline Report, March 2009, (prepared for the Forest of Dean District Council); Office for National Statistics; http://www.neighbourhood.statistics.gov.uk The South West Observatory; and http://www.swenvo.org.uk/data/ ONS, Annual Population Survey. www.nomisweb.co.uk

Subject: **Accessibility**	
Summary	Baseline data was collated to inform the Cinderford Northern Quarter Baseline Report and this together with additional sources detailed below, have highlighted the following key points for consideration: • Cinderford is the only town within the statutory Forest of Dean boundary; • The closure of passenger railways, in some respect, cut the region off from the rest of the country and increased reliance on the private car. A significant proportion of the local population out-commute to surrounding towns and cities; • Poor access to and from the M5 is identified as a problem; • Railways and tramlines that have now been dismantled have been converted to walking and cycling trails; • Cinderford is one of the four market towns in the region, together with Coleford, Lydney and Newent; • There are two rail stations in the region (Lydney – 10 miles & Gloucester – 15 miles) but they are poorly linked to the overall network and do not offer quick or frequent services; • 4186 people work in Cinderford town, of which 58% of these people live in the town, 26% commute out of the Cinderford wider area for work; • 4300 people commute out of the Cinderford wider area for work; • 42% of the out-commuters are employed in routine or semi-routine work; • 4000 people who love outside the area commute into the Cinderford wider area for work; and • Cinderford is served by three frequent bus services leading towards Gloucester, Coleford and Lydney.
Figures/ Tables	**Residence of people working in Cinderford town**  *Source – Office of National Statistics*
Expected trend	• Potential decrease in numbers of people currently out-commuting from Cinderford due to increased employment prospects; and • Potential for increased numbers of people commuting into Cinderford due to increased employment prospects.
Influence of AAP & Masterplan	• Increased employment opportunities within Cinderford will mean less out-of-town travel to work is required; and • Increased wealth and redevelopment (through employment and incomes) may increase the number of shops and services within Cinderford.

Cross reference	Full commentary can be found in: Cinderford Northern Quarter Baseline Report (March 2009)

Subject: **Education**

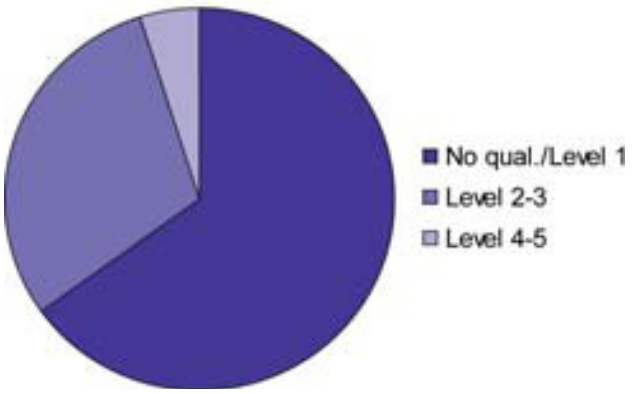
Summary

Baseline data was collated to inform the Cinderford Northern Quarter Baseline Report and this together with additional sources detailed below, have highlighted the following key points for consideration:

- The 2001 census found that less than 10% of Cinderford ward's population held a degree or higher qualification and over 60% had no qualifications or only Level 1 qualifications (GCSE, NVQ etc);
- No post-16 education is available in Cinderford; and
- The ward was in the highest 10% for deprivation in education and skills nationally.

Figures/ Tables

Qualifications held



Source: Office of National Statistics

Educational attainment

The education system is structured such that by age 16 pupils will have passed through four 'Key Stages'.

Key Stage 1 is usually assessed at age 7, and pupils are expected to have reached Level 2 or above in Reading, Writing and Maths.

Key Stage 1 assessments: pupils achieving Level 2 or above, 2006 - 2007

		Forest of Dean 004A (Cinderford)	Forest of Dean	England
Reading	%	78	86	84
Writing	%	83	83	80
Maths	%	n/a	91	90

Key Stage 2 is usually assessed at age 11, and pupils are expected to have reached Level 4 or above in English, Maths and Science.

Key Stage 2 assessments: pupils achieving Level 4 or above, 2006 - 2007

		Forest of Dean004A (Cinderford)	Forest of Dean	England
English	%	71	81	80
Maths	%	n/a	77	77
Science	%	76	89	88

By the Key Stage 3 assessments, usually at age 14, pupils are expected to have

<table>
<tr><td></td><td>reached Level 5 or above in English, Maths and Science.

Key Stage 3 assessments: pupils achieving Level 5 or above, 2006 - 2007
<table>
<tr><th></th><th></th><th>Forest of Dean 004A (Cinderford)</th><th>Forest of Dean</th><th>England</th></tr>
<tr><td>English</td><td>%</td><td>76</td><td>79</td><td>74</td></tr>
<tr><td>Maths</td><td>%</td><td>n/a</td><td>78</td><td>76</td></tr>
<tr><td>Science</td><td>%</td><td>71</td><td>77</td><td>73</td></tr>
</table>
At Key Stage 4 it is usual for pupils to take GCSEs (General Certificates of Secondary Education) or equivalent qualifications.

Pupils achieving 5 or more A*-C grade passes, including English and Maths, at GCSE or equivalent, 2006 - 2007
<table>
<tr><th></th><th></th><th>Forest of Dean 004A (Cinderford)</th><th>Forest of Dean</th><th>England</th></tr>
<tr><td>All pupils</td><td>%</td><td>27</td><td>47</td><td>46</td></tr>
<tr><td>Males</td><td>%</td><td>n/a</td><td>42</td><td>41</td></tr>
<tr><td>Females</td><td>%</td><td>n/a</td><td>52</td><td>50</td></tr>
</table></td></tr>
<tr><td>Expected trend</td><td>• Within the Cinderford redevelopment plan is a new campus for the Royal Forest of Dean College. Through this college, it is anticipated that the percentage the population with higher level qualifications will increase.</td></tr>
<tr><td>Influence of AAP & Masterplan</td><td>• Training opportunities associated with employment opportunities and within new post-16 educational facilities;
• Improving socio-economic status of families in the long term (employment and income) and therefore reducing cost barrier to education;
• Motivation to achieve standard of education in order to attain a particular employment level; and
• Promote regeneration and population movement (in-immigration of people with higher education).</td></tr>
<tr><td>Cross reference</td><td>Full commentary can be found in:

Cinderford Northern Quarter Baseline Report, March 2009, (prepared for the Forest of Dean District Council); and

Office for National Statistics.
http://www.neighbourhood.statistics.gov.uk</td></tr>
</table>

<table>
<tr><td colspan="2">Subject: Health Inequality</td></tr>
<tr><td>Summary</td><td>Baseline data was collated to inform the Cinderford Northern Quarter Baseline Report and this together with additional sources detailed below, have highlighted the following key points for consideration:

• Minor A&E units are in Lydney and in Cinderford;
• For the Forest of Dean, life expectancy at birth for males is 77.1 years and for females 82.2 years (January 2004 – December 2006);
• Obesity rate for the FoDDC are the same as the national average estimate;
• The Forest of Dean infant mortality rate is 5.9/1000 (January 2003 – December 2005); and
• The number of people in the Forest of Dean classified to be of 'good health' was 54,358 (April 2001).</td></tr>
<tr><td>Figures/ Tables</td><td>Life expectancy, 2004 - 2006
<table><tr><td></td><td></td><td>Forest of Dean</td><td>England</td></tr><tr><td>Life Expectancy at Birth, Males</td><td>Years</td><td>77.1</td><td>77.3</td></tr><tr><td>Life Expectancy at Birth, Females</td><td>Years</td><td>82.2</td><td>81.6</td></tr></table>
People's health, April 2001
<table><tr><td></td><td></td><td>Forest of Dean</td><td>England</td></tr><tr><td>Good</td><td>%</td><td>68.0</td><td>68.8</td></tr><tr><td>Fairly Good</td><td>%</td><td>23.6</td><td>22.2</td></tr><tr><td>Not Good</td><td>%</td><td>8.5</td><td>9.0</td></tr></table>
Source: modified from Office for National Statistics</td></tr>
<tr><td>Expected trend</td><td>• It is anticipated that the number of people classified to be of 'good health' is likely to increase with improved provision of safe cycling and walking routes.</td></tr>
<tr><td>Influence of AAP & Masterplan</td><td>• Improved wellbeing as people feel better living in an improved local environment;
• Increased health with the provision of footpaths and cycle ways that encourage people to incorporate regular exercise into their lifestyles; and
• Increased employment and income with associated physical and mental health benefits.</td></tr>
<tr><td>Cross reference</td><td>Full commentary can be found in:

Cinderford Northern Quarter Baseline Report, March 2009, (prepared for the Forest of Dean District Council); and

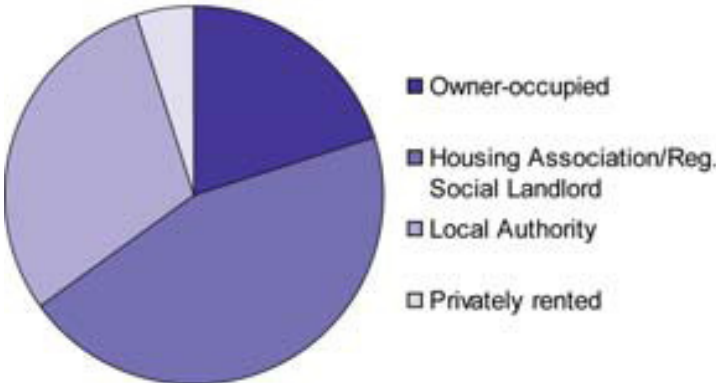
Office for National Statistics.
www.neighbourhood.statistics.gov.uk

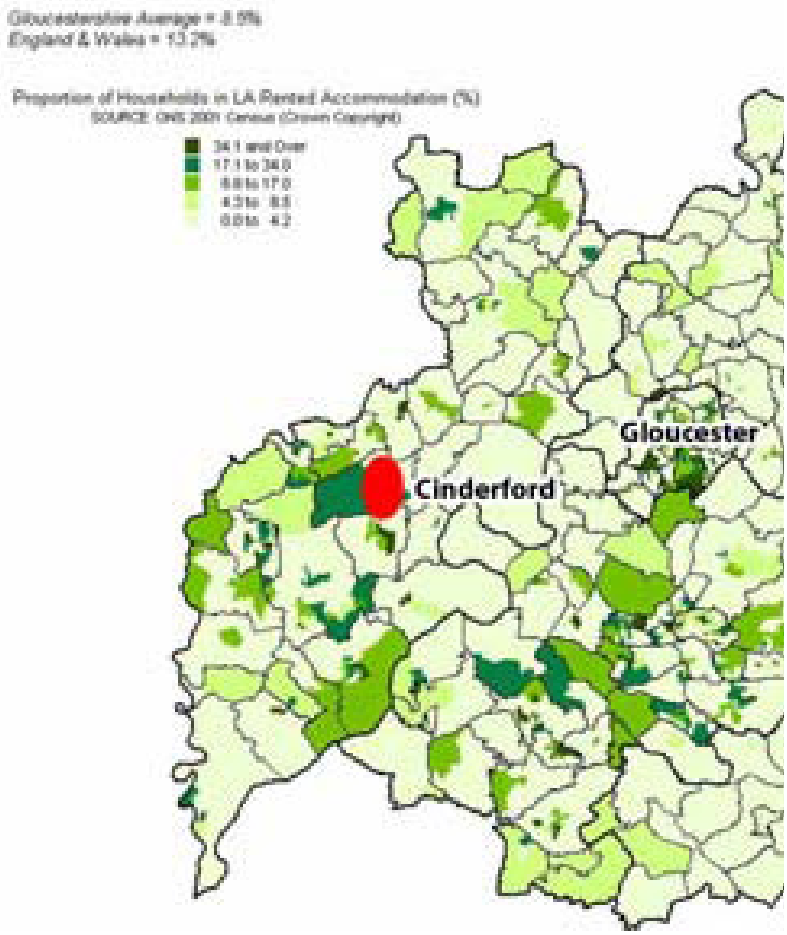
National Obesity Obervatory
www.noo.org.uk

South West Public Health Observatory</td></tr>
</table>

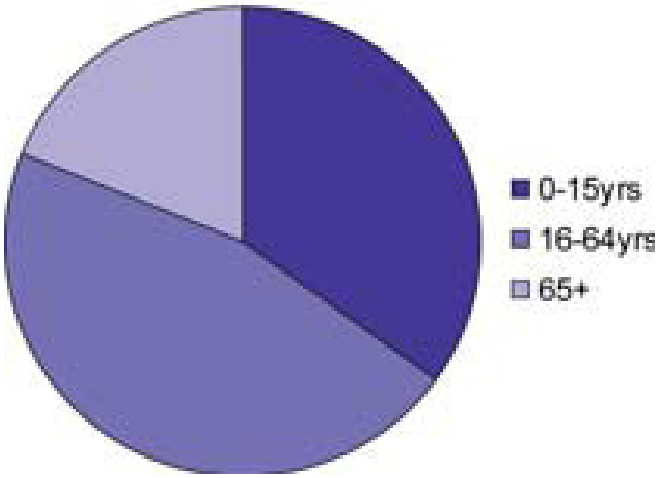
	www.swpho.nhs.uk

Subject: **Housing**

Summary	Baseline data was collated to inform the Cinderford Northern Quarter Baseline Report and this together with additional sources detailed below, have highlighted the following key points for consideration: • The Cinderford ward has the lowest levels of owner-occupation in the district, below 36%; • It also has the highest levels of housing association/social landlord tenure. • 9% of households are classed as 'overcrowded'; • Household deprivation (up to 60%) is significantly higher than the county/national average (29/35%); • Population size has increased by 6% between 1991 and 2001 with growth in the 35-44 and 45-49 age bands but the younger age bands have experienced declining or only marginal population increases. This could be due to 'pricing out' of younger groups from the housing market and the need for entry-level housing; and • The Cinderford Business plan recommends that one job be provided for each house built. To safeguard the long-term future of the town there is a need to ensure that sites come forward for housing but these are complementary to necessary employment growth in the town.
Figures/ Tables	**Housing tenure**  *Source: Office of National Statistics* **Dwellings by tenure, April 2008** Forest of Dean / England Owner occupied/private rented % 86.8 81.8 Local authority % 0.0 8.3 Registered social landlord % 12.5 9.5 Other public sector % 0.6 0.3 *Source: Office for National Statistics*

	Housing tenure (Local Authority rented) **(Proportion of households in Local Authority rented accommodation. Gloucestershire average is 8.5%. The average for England and Wales is 13.2%).**  *Source: Alan Baxter Baseline Report*
Expected trend	• One aim of the Cinderford Business Plan is to provide a mix of new housing types, deliver more affordable housing for first time buyers and low income families and make better use of existing housing stock; and • There is a growing housing need within the town and district as Cinderford has a lower level of owner occupation than the district and regional levels.
Influence of AAP & Masterplan	• Improving the local environment through providing new, well-designed housing; and • Improving opportunities for owner-occupation of housing.
Cross reference	Full commentary can be found in: Cinderford Northern Quarter Baseline Report, March 2009, (prepared for the Forest of Dean District Council); and Office for National Statistics. www.neighbourhood.statistics.gov.uk

Subject: **Population**

Summary	Baseline data was collated to inform the Cinderford Northern Quarter Baseline Report and this together with additional sources detailed below, have highlighted the following key points for consideration: • In 2006, the population of the Forest of Dean local authority was 81,741; • A very high proportion of the population is aged 0-15 compared to national levels; • There is a lower proportion of working age people compared to county or national levels; • An average proportion of the population is retired age; • There is a low average population density across the ward (less than 10 people per hectare); • Net population growth for the district between 1991- 2006 was 7.8%, consistent with growth rates across the county/nationally; • This was solely due to in-migration: the Cinderford district had the highest number of migrant worker registrations in the county during 2002 – 2003; and • The majority of migrants are Eastern European, which suggests the impact may not be long-term as these are primarily economic migrants who intend to return home within a few years.
Figures/ Tables	**Age group proportions**  *Source: Office of National Statistics* **Estimated population by broad ethnic group, mid-2006**

		Forest of Dean	England
White	%	97.6	88.7
Mixed	%	0.8	1.6
Asian or Asian British	%	0.7	5.5
Black or Black British	%	0.4	2.8
Chinese or Other	%	0.5	1.4

Source: Office for National Statistics

Expected trend	• With increased employment opportunities, the proportion of working age people in Cinderford is likely to increase
Influence of AAP & Masterplan	• It is necessary to consider the current migration patterns and demographic changes when determining the housing needs of Cinderford; and • Ensure that infrastructure planning is aligned with changing demographics.
Cross references	Full commentary can be found in: Cinderford Northern Quarter Baseline Report, March 2009, (prepared for the Forest of Dean District Council); and Office for National Statistics. www.neighbourhood.statistics.gov.uk

Annex C

Summary of Habitats Regulations Screening Assessment (HRSA)

A Habitats Regulations Screening Assessment (HRSA) of the Cinderford AAP was prepared by ERM in relation to the Northern Quarter, to determine whether the AAP will have any likely significant effects on European sites. This is a requirement under the European Habitats Directive, enacted in the UK through amendments to the Habitat Regulations (2007) [(1).] 'Likely significant effect' in this context is any effect that may reasonably be predicted as a consequence of the plans that may affect the conservation objectives of the features for which a site was designated [(2)].

The objective of the HRSA is to aid the AAP team in the early identification of potential issues relating to the site and potential links with the European sites. This will allow the requirements of the Habitats Regulations to be fully considered and feed into the AAP and future detailed design of the Masterplan as appropriate to avoid delays or disruption to the programme at a later stage.

In order to do this specific development impacts have been considered to determine whether likely significant effects on designated European sites, either alone or in combination may result from the implementation of the AAP. The assessment encompasses all of the European sites within a 15 km buffer of the AAP, as this is the furthest distance that impacts from the plan are likely to occur, for example from indirect hydrological links or from air emissions from an increase in traffic.

Whilst it is not possible at this stage to know the precise location, magnitude, timing or duration of expected impacts, generic impacts at each stage of a typical large scale development have been considered. Where applicable, a typical worst case scenario approach for the consideration of impacts has been adopted to allow for uncertainty in the development impact parameters. A risk framework is used in the HRSA to assess each of the identified likely significant effects against the conservation objectives of the relevant European sites.

Where identified impacts indicate that likely significant effects may occur on European sites from future development, or where it cannot be concluded that likely significant effects will not occur at this stage, then more detailed HRA work, known as Appropriate Assessment, is likely to be required in the future. This further detailed assessment would be used to ensure that no adverse effects on the integrity of European sites will arise from future development arising from the AAP.

It has been agreed through early consultation with Natural England that Appropriate Assessment will not be required at this stage of the planning process. However, Appropriate Assessment may be required in the future.

Four potentially likely significant effects were identified through a screening of the AAP:

1) Potential disturbance for traffic to Walmore Common and Severn Estuary;
2) Potential pollution effects from traffic on Walmore Common and Severn Estuary;
3) Potential nutrient enrichment from proposed energy centre (assuming it is bio-fuelled) on all identified designated site; and
4) Potential disturbance to bat flight lines in relation to the Wye Valley and Forest of Dean Bat sites and the Wye Valley Woodlands.

These are likely to require more detailed information to be able to adequately assess the risk and likelihood of them occurring. It may be possible through implementing mitigation measures to avoid these likely effects at a later stage and this should be made clear within the AAP.

(1) ECJ case C - 6/04, Commission of the European Communities v United Kingdom of Great Britain and Northern Ireland, 20th October 2005.

(2) Habitats Regulations Guidance Note 3. The Determination of Likely Significant Effect under The Conservation (Natural Habitats &c) Regulations 1994. English Nature, 1999.

Annex D

Summary of Appraisal of Flood Risk

D1 APPRAISAL OF FLOOD RISK

D1.1.1 Introduction

The purpose of this Section is to provide a summary of the findings of the Appraisal of Flood Risk of the Masterplan design options for the regeneration of Cinderford Northern Quarter, based on the Strategic Flood Risk Assessment (SFRA). The Appraisal involved a review of the latest Level 2 SFRA data, consideration of the guiding principles for the appraisal process, an appraisal of the options and a number of conclusions and recommendations which are summarised here.

D1.2 FLOOD ZONES

At the current time the eastern area of the site falls within Flood Zone 3b – or active floodplain. The likely reasons for this relate to the current hydraulic configuration of the Old Engine Brook and Cinderford Brook bifurcation, and a lack of capacity within the channels at various points (due both to vegetation and to actual channel volume). Re-design and re-engineering is therefore required, together with regular maintenance schedules. Such works have the potential to alleviate flood risk to the wider area, particularly properties at West Mains, which have a history of flooding. Such works may also have the potential to reduce the current footprint of the Flood Zones 2, 3a and 3b, however, the potential and extent of this can not be investigated until detailed design stage, when modelling will enable the extent of the potential for alleviation at this location to be established. As a reasonable worst case, in accordance with impact assessment protocol, the appraisal of options conducted and reported here has assumed no alteration in the footprint of current Flood Zones.

D1.3 THE EMERGING PREFERRED OPTION

The SFRA was carried out on the basis of the Emerging Preferred Option, developed following the initial appraisal of Options 1, 2 and 3 (as defined within the SFRA report). It is similar to Option 2, the best Option appraised, with a few minor alterations.

Under the Emerging Preferred Option, the majority of residential development is allocated in an area to the north west of Old Engine Brook, with additional areas to the west of Steam Mills Road (A4151), to the north and south of the lake, and between Old Engine Brook and Cinderford Brook. Office development has been allocated to the north east of the lake, in the Northern Quarter, and in the south east, by Newtown Road. Industry has mainly been allocated in the Northern Quarter, with additional areas to the east of Old Engine Brook and adjacent to Newtown Road. The college campus is in the centre of the site, between Old Engine Brook and Cinderford Brook, and an area to the east of Old Engine Brook has been allocated for car parking. Two new development types have been introduced to this Option: an

environmental education centre to the south of the lake and a health centre (proposed dialysis unit) in eastern Steam Mills. Both of these development types are classified as More Vulnerable under PPS25 Annex D.

The layout of this Option, relative to the 1:20, 1:100, 1:100 plus climate change and 1:1000 Flood Zone extents, as modelled within the Level 2 SFRA, have been included for reference as within Annex A of the SFRA report.

D1.4 MORE VULNERABLE DEVELOPMENT

As with Options 1 and 2, More Vulnerable development, specifically residential development, the hotel, college buildings and the newly proposed health centre, is largely situated in Flood Zone 1, with limited exceptions as described below. As such, and with appropriate mitigation, proposed allocations represent permissible development under PPS25. Specifically, the area to the north west of the Cinderford Brook offers good opportunities for residential development, whilst the location of the College Campus on the higher ground between Old Engine Brook and Cinderford Brook minimises potential risks.

As with Options 1, 2 and 3, the residential development located to the west of Steam Mills Road (A4151) appears to be located within Flood Zone 2 and Flood Zone 3a, with Flood Zone 3b closely adjacent, and is close to the known source and pathway of flooding introduced at the bifurcation of the Old Engine Brook and Cinderford Brook. As a More Vulnerable development type, development would only be permissible under PPS25 if the Exception Test is passed. The introduction of increased risk from the adjacent area of Flood Zone 3b, and the stream bifurcation as described above, would also require careful consideration.

Although the residential development shown to the south west of the College Campus is located within Flood Zone 1, limited areas of Flood Zone 3b are indicated in close proximity to its south western corner. The newly introduced education centre is located largely within Flood Zone 1, with a small area of Flood Zone 2. Very minor areas of Flood Zone 3a and 3b lie immediately adjacent to the centre's current northern extent.

Residential development in the Dam Green area is located within Flood Zone 1, close to areas of Flood Zones 2, 3a and 3b. Access and egress is solely from the east, and passes through an area of Flood Zone 3b. It is understood, however, that access and egress would be achievable to the west during times of flood, and as such More Vulnerable development in this area would be acceptable.

D1.5 LESS VULNERABLE DEVELOPMENT

The majority of office and industrial development is located in Flood Zone 1 and, as such, represents permissible development.

Industrial allocations to the east of Old Engine Brook and north of Broadmoor Road fall wholly within the Flood Zone 3b footprint and as such represent non-permissible development under PPS25.

D1.6 ESSENTIAL INFRASTRUCTURE

The Energy Centre, which represents Essential Infrastructure supporting the development of a light industrial / commercial platform, is located within Flood Zone 1. As such, it represents permissible development under PPS25.

D1.7 WATER COMPATIBLE

The use of Flood Zone 3b designated land to the east of the Old Engine Brook for car parking is an appropriate Water Compatible use subject to key controls.

D1.8 OPPORTUNITIES

Opportunities may exist for mitigating locally increased risks introduced by channel and sluice maintenance issues and the poorly configured brook bifurcation. Minor civils works and planned maintenance schedules going forward could reduce such risks through the removal of the source or pathway by which such flooding currently occurs. There is an opportunity to provide an emergency access / egress route eastwards from the Dam Green residential development by improving and upgrading an existing Forestry Commission track, thereby removing a potential flood related objection to this development.

It is noted that for all development adjacent to watercourses, detailed design and siting should allow for the establishment of an appropriate riparian zone buffer. Specifically this pertains to the residential development and college development adjacent to Cinderford Brook and to Old Engine Brook, and to the residential development north and south of the brook at Dam Green.

D1.9 THREATS

As with Option 2, this Option includes proposed industry development within Flood Zone 3b. Although less extensive than that proposed in Options 1 and 3, this would be non-permissible under PPS25 on account of the level of risk to the development and the potential to increase flood risk off site by its encroachment on the functional flood plain. Such development is unlikely to receive planning permission and is not, therefore, recommended for inclusion within the Masterplan's Preferred Option.

Some of the More Vulnerable development types are located in close proximity to areas of 3a and 3b. It would be advisable to alter the extents of these aspects marginally, and to ensure that access and egress points from the buildings themselves do not have the potential to be impacted by floodwaters.

D1.10 CONCLUSIONS

Results of the application of the Sequential Test for the Emerging Preferred Option are detailed in the SFRA report. Although the proposed location of More Vulnerable residential development within an area potentially affected by adjacent flood risk factors remains as in previous options, and would benefit from reconsideration, significant efforts have been made to eliminate development from the area of highest flood risk to the east of the Old Engine Brook. With regards to this proposed aspect of the development, there is little to distinguish this Option from Option 2. Whilst it shares some of the recommendations of Option 2, it is noted that the limited proposed industrial development within Flood Zone 3b to the south of the Site will have to be relocated as this would be non-permissible under PPS25.

The Emerging Preferred Option meets many of the Guiding Principles, but is not wholly compliant. Refinement of this Option is therefore recommended prior to confirmation as the Preferred Option for the Cinderford Regeneration Project.

D1.11 SUMMARY AND RECOMMENDATIONS

The Appraisal of Flood Risk conducted for the Cinderford Regeneration Project, and the application of flood risk Guiding Principles throughout the progression of the Masterplan's designs, has ensured that flood risk has been a core and integral consideration.

Whilst the appraisal demonstrates that the Emerging Preferred Option incorporates the most suitable set of aspects to reduce flood risk, out of the original Options 1, 2 and 3 (being based upon Option 2), it does require additional refinement in order to represent the Preferred Option from a flood risk perspective. In addition to refinement, a number of mitigation measures will be required in order to ensure that the potential for adverse impacts is minimised to as low as practicable levels, as described above.

The full Appraisal report details aspects of the Masterplan that require direct alteration in order to represent a flood risk Preferred Option, together with the mitigation proposed for application. Providing such alterations are made, the Appraisal of Flood Risk report recommends that the resulting Option be considered to be the Preferred Option for the Cinderford Regeneration Scheme.

Annex E

Preliminary Options Assessment Findings

Sustainability Framework for Options 1, 2 and 3

Overarching objective, as set out in the Cinderford Business Plan: ***To progress Cinderford as a regional model of sustainable new development and management, and reduce the town's "carbon footprint"***			
Sustainability Objectives	**Options Assessment**		
1) Environmental and Resource Sustainability			
1a) To Protect and Enhance the Physical and Built Environment			
• To ensure sensitive integration of the development within the wider Cinderford area to maximise sustainability for the town and its surrounding area	• Option 1 aims to provide a 'civic spine' for Cinderford, locating key development land uses - the college/activity centre, hotel and offices - on either side of a new road connecting the Northern Quarter with Cinderford Town Centre. Through providing this spine, Option 1 would contribute significantly towards improving access and creating links between the Northern Quarter and the wider area. • Option 2 has the fewest distinct areas – a clear business area and residential neighbourhood, linked by an urban centre. It therefore has the lowest potential for community severance, and would lead to the establishment of a clear 'centre' for the town. • Under Option 2, residential housing would be located primarily in the Steam Mills and New Town areas, with no housing planned for the Northern United site. This arrangement of housing would have benefits for community cohesion, locating housing development in easy walking distance of the civic centre, businesses and college/activity centre. The college also has a central and elevated location under Option 2 which would provide the potential for it to become a landmark or focal point, bringing positive benefits for the area • Option 3 moves away from having a central 'spine' for the town, and instead provides a 'mixed use forest fringe' along the northern edge of the town, between the new main road and Steam Mills Road, focusing residential development south of this (including within two areas adjacent to the lake), within Steam Mills and New Town. Option 3 is also unique in establishing Northern United as an area for Green Tourism and Housing. • The siting of the college along the northern edge of the town under Option 3 would form a new 'northern gateway' to Cinderford, and would enable the college to have good access to the forested area north of the site, as well as being relatively close to the lake. Under this Option, the college would become a focal point for the town, being within the centre of the new business area, and in close proximity to Steam Mills residential areas.		
Assessment:	Option 1 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 2 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 3 **The overall impact is assessed to be positive and minor to moderate in nature.**

• To ensure the development does not involve building in areas at risk of flooding or contribute to flooding elsewhere. • To protect and enhance water resources within and surrounding Cinderford • To improve the current low flow situation in Cinderford Brook and in doing so improve water quality and biodiversity. • To investigate opportunities to further reduce existing flood risk within Cinderford	• All Options avoid locating residential and hotel development within the south east of the development area, adjacent to Broadmoor Road, which is an area at risk of flooding. While this is beneficial in terms of protecting residents against flood risk, light industrial areas are positioned within the flood plain area and careful planning would be required to minimise the impact of flooding on these developments. • Option 2 includes "More Vulnerable" residential development within an area potentially affected by flood risk and therefore requires further consideration. However, this option also eliminates non-permissible development from the area of highest flood risk to the east of the Old Engine Brook. It is considered that this option is best with respect to management of flood risk, although it does not currently wholly meet the requirements of the Guiding Principles set out for the site.		
Assessment:	Option 1 **The overall impact is assessed to be negative and minor to moderate in nature.**	Option 2 **The overall impact is assessed to be negative and minor to moderate in nature.**	Option 3 **The overall impact is assessed to be negative and minor to moderate in nature.**
• To promote sustainable procurement of both materials and personnel through construction and operation of the development	• All three Options provide a similar opportunity to meet this objective, by developing a sustainable procurement strategy, and encouraging use of local materials, local labour, training opportunities and skills throughout AAP and masterplan development.		
Assessment:	Option 1 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 2 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 3 **The overall impact is assessed to be positive and minor to moderate in nature.**
• To reduce the carbon footprint of the development, and its wider area, through design,	• All three Options provide a similar opportunity to meet this objective, minimising energy demand eg. through building certification standards that place an emphasis on energy demand (e.g. Code for Sustainable Homes and BREEAM), and supplying heat and power from renewable energy technologies on the site.		

delivery and operation			
Assessment:	Option 1 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 2 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 3 **The overall impact is assessed to be positive and minor to moderate in nature.**
• To develop new residential building to Code for Sustainable Homes Level 4 (by 2010 and increasing with Government policy thereafter); non residential Buildings to achieve at least BREEAM excellent or relevant equivalent.	• All three Options would give rise to sustainability benefits through the use of building certification schemes, with new residential properties meeting Code for Sustainable Homes Level 4, and non residential development achieving BREEAM excellent standard, reducing the energy demand of these buildings.		
Assessment:	Option 1 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 2 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 3 **The overall impact is assessed to be positive and minor to moderate in nature.**
• To integrate sustainable waste management facilities and services within the development, to the benefit of it and Cinderford more broadly.	• All three Options would integrate sustainable waste management within the development through a waste management strategy, with construction waste managed through Code for Sustainable Homes and BREEAM criteria, and use of tools such as Site Waste Management Plans and WRAP's Designing out Waste – A Design for Buildings.		
Assessment:	Option 1 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 2 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 3 **The overall impact is assessed to be positive and minor to moderate in nature.**
• To support the improvement of contaminated and derelict land and reduce the impact of unstable land.	• All three Options would address the issue of contaminated land through a number of measures through site investigation works to identify appropriate remediation works required prior to development occurring. The change in land use under all three Options, compared to the previous heavy industrial use of the site, is anticipated to result in lower levels of emissions to air, land and water during operation than previously occurred.		

• To ensure contaminated and derelict land is restored and returned to beneficial use. • To reduce the potential of pollutant emissions impacting on land, through implementing and monitoring the use of best practice environmental management techniques.	• All three Options would support the development of ISO14001 Environmental Management Systems for new light industrial occupiers within the Masterplan area, to reduce the impact of such business activity on the environment, and ensure that this impact is monitored, minimising pollutants emissions to air, land and water.		
Assessment:	Option 1 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 2 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 3 **The overall impact is assessed to be positive and minor to moderate in nature.**
• To protect and enhance air quality	• All three Options would support the development of ISO14001 Environmental Management Systems for new light industrial occupiers within the Masterplan area, ensuring that best practice measures are undertaken to reduce and monitor the impact of such business activity on air. There is uncertainty over the nature of the Energy Centre, within all three Options, and the potential exists for increased, localised emissions to air. The nature and extent of such emissions would only be ascertained as and when plans for the Energy Centre are refined.		
Assessment:	Option 1 **The overall impact is assessed to be uncertain**	Option 2 **The overall impact is assessed to be uncertain**	Option 3 **The overall impact is assessed to be uncertain**
• To encourage the use of renewable energy where appropriate	• All three Options include an energy centre, promoting sustainable energy use. In Options 1 and 2, the energy centre is located in close proximity to the prime users of the renewable energy generated at the centre (industrial buildings and new office space), thereby allowing for a range of renewable technologies and distribution networks to be considered. • Links between the college and the Energy Centre, leading to the promotion and utilisation of renewables, are facilitated within Option 1, since these facilities are most closely located under this Option. Under Options 2 and 3, the renewable energy centre is sited further from the college therefore these benefits would not be as strongly felt.		
Assessment:	Option 1 **The overall impact is assessed to be positive and minor to moderate in nature, noting that Option 1 is slightly**	Option 2 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 3 **The overall impact is assessed to be positive and minor to moderate in nature, noting that Option 3 is slightly**

	stronger than the other two Options		**weaker than the other two Options**

Overarching objective, as set out in the Cinderford Business Plan: ***To progress Cinderford as a regional model of sustainable new development and management, and reduce the town's "carbon footprint"***			
Sustainability Objectives	**Options Assessment**		
1b) Designated & Non-Designated Ecological Sites: Biodiversity			
• To protect and enhance designated and non-designated sites within and adjacent to the development, and across Cinderford	• The scale of variation between the three options would be insufficient to vary the potential impacts in relation to the European designated sites around the Northern Quarter in relation to the Habitats Regulations. Key elements of the masterplans that will need to be assessed under the Habitats for likely significant effects are the energy centre, increased traffic in close proximity to the designated sites and the potential to influence bat flight corridors across the site. However, the review of Options from the perspective of biodiversity and habitats regulations suggests a preference for Option 2, proposing non-residential uses in the Northern United area. Option 2's approach to wildlife and the environment was also marginally preferred by stakeholders • The lake, stream and forest areas within the site are all key biodiversity sites. They are most likely to be affected by the development through a change in visual setting due to new development, risk of erosion or damage due to an increase in use by residents and visitors, and an increased risk of pollution due to new development and a change in landuse in the area. Development under any of the Options would need to consider carefully the range of environmental impacts to these resources, to minimise or mitigate against negative impacts and to preserve and enhance the resources where possible. Under Option 3, only residential development is planned in the area adjacent to the lake. Such development is finer grain and generally better kept and maintained than office or industrial buildings and is therefore most likely to preserve the character of the lakeside area. • Under Option 1, using the lakeside setting for provision of car parking for the college would potentially have a significant negative visual impact on the setting of the lake. The siting of car parking away from the lake under Option 2 would enable office buildings to be sited in this location – this would avoid the negative visual impact of car parking in this location, however the design of the office buildings would need to take into consideration the impact of the development on the lakeside setting. Under Option 3, college car parking would be provided adjacent to the forest on the Northern fringe of the site. While this would not affect the lake setting, it may have a negative impact on the visual setting of the forest edge along the northern part of the site. This impact would need to be carefully assessed under this Option.		
Assessment:	Option 1 **The overall impact is assessed to be negative and moderate to major in**	Option 2 **The overall impact is assessed to be negative and minor to moderate in**	Option 3 **The overall impact is assessed to be negative and minor to moderate in**

	nature.	**nature, noting that this Option is slightly stronger than Option 3 in terms of its sustainability performance**	**nature.**
• To ensure that the development contributes to the protection of the wider wildlife interest of the district, especially strengthening of links between 'wild' areas to better enable adaptation to climate change	• For all Options, the inclusion of green corridors would help to promote green linkages between wildlife areas surrounding the site, however detailed planning would need to consider the ways in which the corridors could best protect and enhance the wildlife and biodiversity within the area. • The use of the Northern United site for residential development in Options 1 and 3 may have negative impacts on ecology on a local scale through night-time lighting, which may cause disturbance to local fauna. These potential disadvantages would be avoided under Option 2. However, the opportunity for visual and landscaping benefits associated with residential landuse would not be realised through this Option. • Under Option 3, the establishment of the green hotel/tourism centre in Northern United has the potential to provide particular benefits in terms of biodiversity, through education and practical conservation opportunities. This could also act as a beacon within the community, highlighting and raising the profile of the importance of the rich natural resources within the area and help to promote awareness of the importance of the natural environment within the town.		
Assessment:	Option 1 **The overall impact is assessed to be negative and minor to moderate in nature, noting that this Option is slightly weaker than the other two Options.**	Option 2 **The overall impact is assessed to be negative and minor to moderate in nature.**	Option 3 **The overall impact is assessed to be negative and minor to moderate in nature.**

Overarching objective, as set out in the Cinderford Business Plan: ***To progress Cinderford as a regional model of sustainable new development and management, and reduce the town's "carbon footprint"***			
Sustainability Objectives	**Options Assessment**		
1c) To Promote More Sustainable Forms of Transport Provision			
• To promote sustainable access into and out of the area	• All three Options provide a similar opportunity to meet this objective, through promoting public transport routes across the site and providing facilities to ensure public transport access to the key amenities such as the college.		
Assessment:	Option 1 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 2 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 3 **The overall impact is assessed to be positive and minor to moderate in nature.**
• To promote more sustainable patterns of travel and modes of transport, such as the use of public transport, walking and cycling • To enhance sustainable transport infrastructure	• All three Options have the potential to promote cycling/walking provision and to promote access to the town by bus. Due consideration should be given to how best to promote these sustainable modes of transport, and to reduce use of the private car, under all Options since this is an area of high dependence on private vehicles. • Northern United is not well situated for transport connections, leading to potential problems of isolation for new residents in this area under Options 1 and 3.		
Assessment:	Option 1 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 2 **The overall impact is assessed to be positive and minor to moderate in nature, noting that Option 2 is slightly stronger than the other two Options**	Option 3 **The overall impact is assessed to be positive and minor to moderate in nature.**
• To help reduce the need to travel, such as by ensuring that people can live closer to their work and by improving local access to services • To promote economic patterns that avoid unnecessary dependence on long-distance trade and travel	• Regeneration brings with it development of not only businesses and economic growth but also new services and an improved quality of life for residents generally. This in itself reduces the need for residents to travel beyond the area to access such services. All three Options would provide office and industrial units, increasing the opportunity for employment within Cinderford. This is therefore likely to provide some benefits in terms of reducing the need to travel for employment, for a proportion of local residents, as well as reducing the need for out-commuting. • By locating the new amenities (including hotel and college) along the new main road, Options 1 and 2 would enable easy access of these key facilities by public transport (bus services), enabling use of public transport within the local area. Option 3 moves away from siting the new amenities along the new main road, and access to facilities by bus would therefore not be		

	as easy under this Option. However, good signage along roads would enable visitors to move around the site easily, and access all facilities on foot from the main road.		
Assessment:	Option 1 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 2 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 3 **The overall impact is assessed to be positive and minor to moderate in nature.**
• To reduce the distance to, and/or ease of accessing, schools, shops, places of work and recreation	• All three Options propose a mixed-used development including residential areas, a college, office and industrial space, with the potential for small retail outlets and paths and cycleways for leisure activities. Access to these types of facilities for residents living within the new development would therefore be improved under all Options, and the distance to such facilities would also be reduced for those living in Cinderford town centre and the surrounding villages, providing a wider benefit. • Option 1 provides widely-separated business space across the site allowing business and residential uses to be well-integrated. • Option 2 separates residential and work spaces by focusing business and industrial use to the west and residential use to the east. This has the advantage of providing a strong 'business focus' to the Option whilst somewhat reducing integration of residential and business use. • Option 3 would be less effective in terms of promoting access to facilities, since the new main road would not encompass new amenities. The intention is that greater access to facilities should be via pedestrian movement rather than public or private transport; Option 3's approach to transport and access was preferred by stakeholders.		
Assessment:	Option 1 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 2 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 3 **The overall impact is assessed to be positive and minor to moderate in nature.**

Overarching objective, as set out in the Cinderford Business Plan: ***To progress Cinderford as a regional model of sustainable new development and management, and reduce the town's "carbon footprint"***			
Sustainability Objectives	**Options Assessment**		
2) Economic Sustainability			
• To promote/help facilitate economic sustainability within the area	• Option 1 would provide an intermediate proportion of land for employment-related use (44%), and an intermediate proportion of residential use compared to the other Options – this may be beneficial in creating a balance between developing new business and creating new jobs and bringing new residents into the area. • Option 2 provides the greatest proportion of land for employment (56%), and therefore would have the greatest direct contribution to boosting the local economy of all the Options. However, by having the lowest proportion of residential use, there may be less of a positive impact on the economy through a reduced number of people in the area under this Option. • Option 3 provides the lowest proportion of the land area for employment (39%), and would therefore potentially make the lowest direct contribution to the local economy of all Options in terms of job creation. However this Option would bring the largest number of new residents into the area which would contribute indirectly to increasing the wealth of the area. • Under Option 1, the hotel would be sited close to the civic spine, adjacent to the lake and in close proximity to the college. This would provide economic benefits to the town through encouraging tourists and visitors to visit the town centre area, as well as facilitating close links between the hotel and college for educational purposes (supporting hospitality-based learning). Visitor access to the lake would not be notably restricted through Option 1's hotel siting. • The hotel would have a prime view of the lake under Option 2, which would be of benefit to hotel visitors. This would potentially be disadvantageous to other members of the community, if lakeside access were limited for this reason. • Under Option 3, the Hotel would be located within the Northern United area. Due to the separation of this area from the main part of the Northern Quarter, and the town centre, this is considered to be a disadvantage of this Option		
Assessment:	Option 1 **The overall impact is assessed to be positive and moderate to major in nature.**	Option 2 **The overall impact is assessed to be positive and moderate to major in nature, noting that Option 2 is the strongest of all the Options**	Option 3 **The overall impact is assessed to be positive and minor to moderate in nature.**
• To enhance infrastructure and services, to support local businesses • To promote sustainable	• Option 1 would provide new business space across the site, notably at Northern United and surrounding the new residential area at Steam Mills and New Town. Integration of business use and residential use would be fostered through this Option, enabling easy access to businesses by residents, but would not provide a strong 'business hub'. Steam Mills and New Town would also be revitalised under Option 1, with new business spaces and housing provided in these areas, which would be		

business practice within Cinderford • To enhance the attractiveness of Cinderford as a place for business investment	adjoined to the new civic spine. • Option 2 allocates the greatest proportion of the redevelopment site for employment-related landuse and would therefore be likely to provide the greatest number of jobs of all the options. Option 2 would provide more of a separation between residential and office space than Option 1, with business and industrial use focussed to the west and residential use focussed to the east. This may have positive economic benefits in terms of establishing a strong business area, encouraging new businesses to set up within the area. • Option 3 promotes integration of landuse, with business, industrial and residential use spread over the site. In addition, the focus on sustainable business opportunities under Option 3 would have significant benefits for promoting a sustainable economic growth in the area, and by encouraging green, social and ethical businesses to set up, would make Cinderford more of a beacon within the area, and would have associated benefits across all strands of sustainability. • The nature of the Northern United site lends itself to smaller businesses, and redevelopment of this area under Options 1 and 2 would draw on the existing light industrial uses of the brickworks and car yard, aiming to intensify employment uses while continuing the employment legacy of the site. Locating the light industrial use in the employment led character areas of Northern United and Forest Vale North is also likely to help enhance the attractiveness of Cinderford as a place for business investment, since this represents an expansion of the existing light industry in Cinderford, which has a strong legacy in the town. • All three Options would attract inward investment, providing the first comprehensive office development for Cinderford and creating a step change for higher quality, low carbon employment space in the town. Under Options 1 and 2 this would be located in prominent and accessible places along the main street, drawing on the attractive environmental setting of the lake and the forest, as well as improving the connectivity of Cinderford to the existing road network.		
Assessment:	Option 1 **The overall impact is assessed to be positive and moderate to major in nature.**	Option 2 **The overall impact is assessed to be positive and moderate to major in nature.**	Option 3 **The overall impact is assessed to be positive and minor to moderate in nature.**
• To diversify the range of employment opportunities within Cinderford • To enhance access to employment and up-skilling opportunities	• In all three Options, access to employment opportunities would be provided through the provision of new office and business space, and employment opportunities would be provided through both the construction and the operational phases of the redevelopment. • All three Options would directly contribute to diversifying the range of employment opportunities within Cinderford, through providing a mix of facilities, including a college, in an area which has historically been dominated by industrial businesses. As discussed above, Option 2 provides the greatest proportion of land for employment, and Option 3 the lowest, therefore Option 2 would have the greatest direct contribution to diversifying employment options, and Option 3 the least.		

• To promote integration of educational and skills training in line with identified need	• Under all three Options, the college would provide an opportunity for people to develop their skills to a vocational level. Locating the educational facility in close proximity to office areas (in all three Options) would provide the potential for linkages between the two (for example providing training in the form of adult education classes for employees to increase skills or providing work experience/internship/apprenticeship opportunities for students). This would have positive social sustainability benefits by improving employment prospects for young people in the area. • The location of the hotel next to the college in Options 1 and 2 would potentially allow strong links to be forged such as the provision of training support for hospitality and catering and the direct use of the hotel facilities for training purposes.		
Assessment:	Option 1 **The overall impact is assessed to be positive and moderate to major in nature.**	Option 2 **The overall impact is assessed to be positive and moderate to major in nature.**	Option 3 **The overall impact is assessed to be positive and moderate to major in nature.**
• To help increase the number of people who stay/visit the area • To promote sustainable tourism initiatives in the Forest of Dean (such as walking/cycling tourism)	• As well as the provision of specific tourism facilities, visitors are expected to be attracted to the area under all three Options through the wider regeneration, improvements to facilities and enhancement of retail provision within Cinderford town centre. • Under Options 1 and 2, the high quality hotel would be in an attractive lakeside setting, which is likely to help enhance Cinderford as a tourist destination within the Forest of Dean. As well as being by the lake, the hotel would also have the commercial advantage of being visible from the main road. Under Option 3, the hotel would be in a less scenic and less visible location, which would be a disadvantage of this Option. • Option 2's approach to tourism and leisure was preferred by stakeholders.		
Assessment:	Option 1 **The overall impact is assessed to be positive and moderate to major in nature.**	Option 2 **The overall impact is assessed to be positive and moderate to major in nature.**	Option 3 **The overall impact is assessed to be positive and minor to moderate in nature.**

Overarching objective, as set out in the Cinderford Business Plan: ***To progress Cinderford as a regional model of sustainable new development and management, and reduce the town's "carbon footprint"***			
Sustainability Objectives	**Options Assessment**		
3) Social Sustainability			
3a) To Promote Sustainability Skills and Learning			
• To promote and facilitate awareness raising and understanding of sustainability	• Under all three Options, the new college would have high environmental standards (at least BREEAM excellent) contributing to and being an exemplar of low-carbon design for the development site and the wider Forest of Dean. • Under Option 1, the college/activity centre would be set in a lakeside environment, having an open campus, with green spaces and bodies of water between college buildings, and views of the forest. Locating the college within such a setting would provide significant opportunity for education relating to environmental sustainability, and sustainability more generally, amongst students and visitors. The college/activity centre is not located adjacent to either the lake or the forest under Options 2 and 3 and so does not immediately benefit from either of these resources. • The college is anticipated to be a key user of energy, and would have a role to play in promoting research and use of renewable energy. The location of the college close to the Energy Centre under Option 1 would provide further benefits, enabling stronger links to develop between the facilities. • The college/activity centre is located on the northern edge of the new development under Option 3, facing the forest. This may be beneficial in promoting the use of the forest for educational purposes under this Option.		
Assessment:	Option 1 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 2 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 3 **The overall impact is assessed to be positive and minor to moderate in nature.**
• To promote access to education and vocational skills training	• Access to education would be promoted under all three Options through the provision of a college facility within the development. Depending on the nature of the college, it is likely to be highly beneficial in terms of promoting access to education and vocational skills training. • The attractive setting proposed for the college/activity centre under Option 1 (a lakeside environment with green spaces and bodies of water) would provide a good opportunity for environmental and sustainability education to be promoted and encouraged amongst both students and visitors • Under Option 1, the hotel would be located next to the college, giving the potential for strong links to be made between these facilities in terms of providing training support for hospitality and catering courses, and the use of the hotel facilities for other training-related purposes. Further, the college is located close to the lake, allowing maximum use of the lake for educational		

	purposes. • Under Option 2, the hotel would remain close to the lake but the college would be more distant from the lake. Therefore the opportunity for educational and recreational use of the lake by the college is reduced. However the college remains within walking distance of the lake under this Option, and within close proximity of the hotel, allowing the benefits of mutual interaction to be realised under Option 2 as well. • Under Option 3, the hotel would not be in close proximity to the college. This may make it more difficult to promote links between the hotel and college, although the opportunity for sustainability-related education associated with the green hotel remains positive. Furthermore, in this Option, neither the hotel nor college are sited close to the lake. This reduces the visual and educational benefits which could be realised through these facilities' use of the lake.		
Assessment:	Option 1 **The overall impact is assessed to be positive and moderate to major in nature, noting that Option 1 is the strongest of all the Options**	Option 2 **The overall impact is assessed to be positive and moderate to major in nature.**	Option 3 **The overall impact is assessed to be positive and moderate to major in nature, noting that Option 3 is the weakest of all the Options**
3b) To promote social integration			
• To promote social connectivity and integration between and across communities in Cinderford and the area	• All three Options would provide a range of direct sustainability benefits in relation to the new facilities provided. It is likely that there would be further sustainability benefits attenuating from the regeneration of the Northern Quarter area, such as supporting and improving the retail offer within Cinderford town centre, as a result of the increase in residents and visitors to the area. Cinderford itself would benefit the most from the new development but villages to the north of Cinderford would also derive notable benefits resulting from increased facilities in the local area. It is likely that the new facilities would attract people from these neighbouring villages into Cinderford, leading to improved social connectivity. • Establishing a new and relatively large college in Cinderford would raise the profile of the town and help promote links between Cinderford and surrounding communities, since students would travel to Cinderford to use this facility. Therefore, the facility would not only benefit those in Cinderford but also those in surrounding villages. • The college is central to the new development in Option 1. The central positioning of this building would assist in establishing an amenity 'hub', surrounded by residential and hotel development and serving as a clearly defined community centre, attracting people into Cinderford from the wider area and therefore promoting links between communities. • The central, elevated position of the college has potential to create a focal point for the town under Option 2, strengthening the identity of the area. However, the college would be located further from the energy centre than under Option 1, which may inhibit links between the college and energy centre. • Under Option 1, Northern United would be redeveloped to provide a combination of residential and office space. However, this site		

	is not located in close proximity to the central spine, and locating residential development in this area may give rise to some degree of community severance. Northern United is also not well situated for transport connections, which may further exacerbate potential isolation problems for new residents in this area. • From the overall site design and environmental perspective, Option 2 represents the most coherent of the Options. It distributes land uses effectively and coherently, and links these together clearly. Option 2 would establish three key land use areas, with a new urban centre linking a sustainable business location to the west and residential neighbourhood area to the east. Option 2 is thus less likely to cause community severance than the other two options. Option 2's approach to landuse at Northern United was preferred by stakeholders. • Option 3 develops a new 'northern gateway' through siting the college along the northern edge of the town, close to the forested area north of the town and to the lake. The college would be a focal point, existing within the new business area and close to the Steam Mills residential areas. The location of a 'green hotel' adjacent to residential development in Northern United would create a new identity for this area, and would promote strong links between the hotel and the adjacent residential development. However the distance of this site from the central 'hub' of the town may lead to some degree of community severance, due to isolation of this area from the central area.		
Assessment:	Option 1 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 2 **The overall impact is assessed to be positive and minor to moderate in nature, noting that Option 2 is the strongest of all the Options**	Option 3 **The overall impact is assessed to be positive and minor to moderate in nature.**
• To promote civic and wider stakeholder engagement amongst the population of Cinderford and surrounding area.	• The site benefits from a wide range of stakeholder interests, and all three Options provide an opportunity for these stakeholders to play a key role to play in the implementation of proposals for the site both in terms of consultation and involvement in regeneration and initiatives and projects.		
Assessment:	Option 1 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 2 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 3 **The overall impact is assessed to be positive and minor to moderate in nature.**
• To enhance the health and wellbeing of residents and workers within Cinderford	• By providing residential accommodation within Northern United, Options 1 and 3 may give rise to safety issues, in terms of walking between Northern United and the 'Civic spine' area. While the areas are within easy walking distance of one another, the walking route would pass through an open space around the lake with limited natural surveillance, and this could pose a risk to the personal safety of pedestrians, particularly at night. Option 2 does not provide residential accommodation within Northern United, therefore safety concerns related to pedestrians links to this site are less significant under this Option.		

	• While the lakeside setting of the college would have clear educational and wellbeing benefits for students and staff, the open access around the college under Option 1 could have disadvantages in terms of security and crime. The college is located in the centre of a developed area in Option 2 and would therefore benefit from natural surveillance from other buildings, reducing the security risk to the college under this Option. Under Option 3, it faces onto the forested area north of the site, which may again present a security risk in terms of enabling access from the northern edge with limited natural surveillance from adjacent buildings. • New residential units are not sited along the new main road under Option 1, which is advantageous in terms of road safety. • Under Option 3, housing is provided both along the new main road and directly beside the lake, which may give rise to significant safety issues, especially for children, in terms of the risk of road traffic accidents and drowning. Suitable safety measures would be necessary to manage these risks under this Option. This would however have wellbeing benefits for residents in terms of providing good views and possible leisure opportunities.		
Assessment:	Option 1 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 2 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 3 **The overall impact is assessed to be positive and minor to moderate in nature, noting that Option 3 is the weakest of all the Options**
• To enhance access to social, leisure and sporting facilities in and surrounding Cinderford, including the Forest, for all	• All three Options would facilitate increased connectivity between settlements, thereby enhancing the social capital of the area. Regeneration would also facilitate increased investment with likely social benefits in the form of new facilities and leisure opportunities. New walkways and cycle paths would provide improved access to, and opportunities for, leisure activities within the Forest.		
Assessment:	Option 1 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 2 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 3 **The overall impact is assessed to be positive and minor to moderate in nature.**

Overarching objective, as set out in the Cinderford Business Plan: ***To progress Cinderford as a regional model of sustainable new development and management, and reduce the town's "carbon footprint"***			
Sustainability Objectives	**Options Assessment**		
3c) To Promote Equality of Opportunity			
• To meet identified housing need, in particular, the provision of affordable housing	• The provision of higher quality housing in all three Options would help to meet the existing need and also the need of incoming populations, including professionals and families moving to the area. Further, all three Options would provide affordable housing, however the amount of affordable housing provided would vary between Options, according to the proportion of land used for residential development. • Option 3 provides the greatest proportion of residential development of all Options, with 40% of the land designated for residential use. It therefore makes the largest contribution of all Options towards meeting FoDDC's housing targets, and would bring the largest number of new residents into the area, which would have positive regeneration benefits. Option 1 provides 36% of land and Option 2 provides 26% of land for residential development, making Option 3 the preferred option in terms of this objective.		
Assessment:	Option 1 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 2 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 3 **The overall impact is assessed to be positive and minor to moderate in nature, noting that Option 3 is the strongest of all the Options**
• To promote equality of opportunity and access for all within Cinderford • To ensure physical and social access to infrastructure, services and opportunities	• Equality of opportunity and access would be promoted under all three Options. For example, the college has a key role to play in terms of providing opportunities for education for those who might otherwise struggle to find employment, including the long terms unemployed and those with special educational needs. Public safety measures can also benefit equalities groups (women, old people and lesbian/gay/transgender people) in particular, and Lifetime Homes for all residential properties and all public buildings would be developed in accordance with the Disability Discrimination Act 1995.		
Assessment:	Option 1 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 2 **The overall impact is assessed to be positive and minor to moderate in nature, noting that Option 3 is the strongest of all the Options**	Option 3 **The overall impact is assessed to be positive and minor to moderate in nature.**
3d) To Protect and Enhance the Historical and Cultural Identity of the Area			
• To protect and enhance local identity and heritage within and across Cinderford	• All three Options would help establish a stronger identity for Cinderford, since the location of the site would provide a 'stepping stone' to the town centre, create a new gateway for the town and provide a strategic amenity hub. They would all potentially help		

	to preserve the local identity of Cinderford, while enhancing services and facilities, in order to strengthen the prosperity and character of the area. • The college has a central and elevated location under Option 2 which would provide the potential for it to become a landmark or focal point, bringing positive benefits for the area. • Option 2 would also have the greatest benefit in terms of preserving the character and identity of the Northern United area, through providing light industrial landuse in this area. The character of the Northern United site would be retained under Option 2, as landuse would remain industrial. This may have positive sustainability benefits, provided that the industrial uses for this area were carefully managed, ensuring that the surrounding forest area is not adversely affected. • The siting of the college along the northern edge of the town under Option 3 would form a new 'northern gateway' to Cinderford, and would enable the college to have good access to the forested area north of the site, as well as being relatively close to the lake. Under this Option, the college would become a focal point for the town, being within the centre of the new business area, and in close proximity to Steam Mills residential areas. Option 3 would be unique in establishing Northern United as an area for Green Tourism and Housing.		
Assessment:	Option 1 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 2 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 3 **The overall impact is assessed to be positive and minor to moderate in nature.**
• To ensure that the social and cultural heritage of the area is maintained through development works	• In all Options there would be a preference toward the use of local construction materials such and brick and blue pennent sandstone, produced through traditional industries of the area. This would help to ensure that the new development fits in with development in the wider area and makes use of local materials. • All three Options would seek to ensure that the social and cultural heritage of the area is maintained through development works, and would be subject to a full EIA, to identify any significant cultural heritage features and necessary measures to protect these during construction and development.		
Assessment:	Option 1 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 2 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 3 **The overall impact is assessed to be positive and minor to moderate in nature.**
• To support the protection of culturally and historically significant assets and qualities. Not just designated sites and buildings, but also locally valued features and	• All three Options would set out specific aims, compatible with those of the Forestry Commission, to ensure that the development would be sensitive to its particular countryside character, with the character and design of new buildings reflecting the industrial heritage of the former land use of different areas of the site.		

landmarks			
Assessment:	Option 1 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 2 **The overall impact is assessed to be positive and minor to moderate in nature.**	Option 3 **The overall impact is assessed to be positive and minor to moderate in nature.**

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