Cinderford Northern Quarter
Habitats Regulations Screening Assessment
DRAFT FOR CONSULTATION
October 2009
Habitats Regulations Screening Assessment

Final Draft for Consultation

October 2009

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For and on behalf of
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Signed: 
Position: Partner In Charge
Date: October 2009

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# CONTENTS

1. **CINDERFORD NORTHERN QUARTER – HABITATS REGULATIONS ASSESSMENT SCREENING REPORT**

1.1 **INTRODUCTION**

1.2 **AIM OF THE REPORT**

2. **APPROACH**

3. **BASELINE**

3.1 **EUROPEAN SITES**

4. **HAZARD AND IMPACT IDENTIFICATION**

4.2 **Hazard/Sensitivity Matrix Summary**

4.3 **Identification of Likely Impacts Arising from the AAP**

5. **SCREENING ASSESSMENT**

5.1 **INTRODUCTION**

5.2 **In Combination Effects**

5.3 **Screening Assessment Table**

6. **CONCLUSIONS AND RECOMMENDATIONS**

6.1 **INTRODUCTION**

6.2 **FINDINGS**

6.3 **NEXT STEPS**
1.1 INTRODUCTION

This document has been prepared by ERM on behalf of Forest of Dean District Council (FoDDC) and the Homes and Communities Agency (HCA) in relation to the proposed regeneration site at Cinderford, hereafter referred to as the ‘Northern Quarter’ (See Figure 1). This site was identified as a priority for the South West of England under the HCA’s National Coalfields Programme.

The Northern Quarter site is included within the Cinderford Business Plan produced by the Cinderford Regeneration Board in 2007, which is a 10 year action plan for the regeneration and redevelopment of Cinderford and identifies the Northern Quarter as a new mixed use development. The Northern Quarter site brings together several sites identified in the Forest of Dean Local Plan 2005.

The next phase in the process, currently underway, is translating the business case for the Northern Quarter site into an Area Action Plan (AAP) and masterplan. The AAP will form part of the new Local Development Framework (LDF) for the Forest of Dean District Council. Once adopted, the AAP will be used to guide future planning applications in relation to the site (an outline masterplan and subsequent detailed applications are anticipated).

The Northern Quarter baseline report produced by Alan Baxter & Associates in March 2009 represents the first stage in the translation from business plan to AAP and analyses the context and the site. The Northern Quarter baseline report, together with an earlier Ecological Appraisal Report produced by Entec in 2008, highlighted the need for consideration of the potential effects of the Northern Quarter AAP on designated sites of European importance for Nature Conservation.

There is a requirement under the European Habitats Directive, enacted in the UK under the Conservation (Natural Habitats*) Regulations 1994 as amended, (the Habitats Regulations) to assess plans, for example AAPs, as well as projects in terms of their potential to effect sites of European importance for nature conservation (Natura 2000 (1) and Ramsar sites (2)), referred to as ‘European sites’ in this report. This requirement was brought in

(1) In May 1992 European Union governments adopted legislation designed to protect the most seriously threatened habitats and species across Europe. This legislation is called the Habitats Directive and complements the Birds Directive adopted in 1979. At the heart of both these Directives is the creation of a network of sites called Natura 2000. The Birds Directive requires the establishment of Special Protection Areas (SPAs) for birds. The Habitats Directive similarly requires Special Areas of Conservation (SACs) to be designated for other species, and for habitats. Together, SPAs and SACs make up the Natura 2000 series. All EU Member States contribute to the network of sites in a Europe-wide partnership from the Canaries to Crete and from Sicily to Finnish Lapland.

(2) Ramsar sites are wetland sites of international importance designated under the Ramsar Convention, signed in Ramsar, Iran, in 1971.
through amendments to the Habitat Regulations (2007) following a European court ruling (1).

To ensure compliance with the Habitats Regulations, the FoDDC and HCA have commissioned ERM to undertake a Habitats Regulations Screening Assessment (HRSA) of the Cinderford AAP. The HRSA will determine whether the AAP will have any likely significant effects on 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 approach of deferring to the lower level assessment to confirm no likely significant impacts will be in accordance with the recent Tyldesley draft guidance for Natural England on applying HRA to LDDs (2009) which states that for Planning Hierarchy Uncertainty and Relying on lower tier assessments, three tests should be applied:

A) The higher tier plan assessment cannot reasonably assess the effects on a European site in a meaningful way; whereas

B) The Habitats Regulations Assessment of the lower tier plan, which will identify more precisely the nature, scale or location of development, and thus its potential effects, will be able to change the proposal if an adverse effect on site integrity cannot be ruled out, because the lower tier plan is free to change the nature and/or scale and/or location of the proposal in order to avoid adverse effects on the integrity of any European site (e.g. it is not constrained by location specific policies in a higher tier plan); and

C) The Habitats Regulations Assessment of the plan or project at the lower tier is required as a matter of law or Government policy.

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. Due to a lack of specific development design detail at this stage, it is considered that it is not possible to carry out a meaningful assessment of likely effects at this strategic level. Therefore recommendations for the likely scope of future assessment at a lower tier of the planning process is provided within this report. This approach has been agreed through early consultation with Natural England who have agreed in writing that Appropriate Assessment will not be required at this stage of the planning process (2).

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

The project development and planning process with HRA input is set out in Box 1.1 as far as AAP Preferred Option. Should it be identified that Appropriate Assessment is required this will be completed at the relevant point in the planning process (currently considered to be outline planning) when a relevant level of detail will be available.
Box 1.1  Planning Process for the Northern Quarter

**BUSINESS PLAN**

**BUSINESS PLAN OPTIONS**
Detailed evaluation and testing of four scenarios

**BUSINESS PLAN EMERGING PREFERRED APPROACH**
The Business Plan culminated in the identification of an emerging preferred approach

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**AREA ACTION PLAN**

**BASELINE REPORT**
Detailed review of Business Plan scenarios
Additional research and analysis to inform the AAP process including a detailed analysis of opportunities and constraints on the site

**ROAD TRANSPORT OPTIONS**
Workshop with Highways Authority to examine the various options for road alignment

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**IDENTIFICATION OF THREE OPTIONS**
Three options were identified based on:
- A critique of the original Business Plan scenarios and emerging preferred approach;
- Detailed baseline research and evidence base review; and
- Review and assessment of possible road alignment options.

**TEST AND REVIEW OF OPTIONS:**
1. Sustainability Appraisal Scoping report and statutory consultation
2. Informal consultation

**DEVELOPMENT OF AAP PREFERRED OPTIONS THROUGH...**
1. Further masterplanning and design work
2. Integrated process of Sustainability Appraisal
3. Habitat Regulations Screening Assessment
4. Other technical studies and inputs as appropriate
1.2 **AIM OF THE REPORT**

FoDDC and the HCA recognise the need to consider potential effects of the Cinderford AAP on sites of European Nature Conservation interest at an early stage in the development process.

The aim of this report is to define the nature of any potential significant effects on European sites, alone or in-combination with other plans or proposals generated as a result of the AAP proposals. Based on these it sets out recommendations for assessment required at a lower tier of the planning process to meet the requirements of the Habitats Regulations.

The remainder of the report is structured as follows:

- Approach
- Baseline
- Hazard / Impact Identification
- Screening Assessment
- Conclusions and Recommendations
The objective of the document 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. ‘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 (1).

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 (Section 5.2). 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.

The approach taken to the HRSA is summarised below.

1. A review of the available data on European sites in the AAP area and a surrounding buffer of 15 km, in order to obtain the following information:
   - the locations of each European site, which are illustrated on Figure 1 in relation to the plan area;
   - an understanding of the qualifying interest features of the European sites with a focus on the types of habitats and species that they are designated for;
   - the key sensitivities of each habitat type / species; and
   - the current condition status of the sites together with current known threats (Table 3.1).

2. A description of general hazards for the European sites, linking of hazards to the key sensitivities / vulnerabilities of the qualifying interest features (Table 4.1) and the identification of specific impacts arising from the AAP for consideration within the screening assessment (Table 4.2).

3. Screening assessment (Table 5.2) of the identified impacts from the AAP on associated European sites including:

• consideration of in combination effects from relevant plans and known proposals (*Table 5.1*);
• assessment of likely magnitude and probability of the impacts occurring;
• consideration of mitigation measures; and
• conclusion of whether the impact will have a likely significant effect.

4. Summary of conclusions including findings and recommendations for further stages as necessary.
3.1 **EUROPEAN SITES**

European sites for consideration within this screening assessment have been identified in consultation with Natural England (1). The assessment encompasses all of the European sites within a 15 km buffer of the AAP (Table 3.1). This distance of buffer is used as a worst case scenario for the identification of likely effects, 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.

Five European sites were identified within the 15 km radius (in alphabetical order):

- River Wye / Afon Gwy SAC;
- Severn Estuary / Mor Hafren SPA, Ramsar and cSAC;
- Walmore Common SPA;
- Wye Valley and Forest of Dean Bat Sites / Sadleoeedd Ystlumod Dyffryn Gwy a Fforest y Ddena SAC (including component SSSI sites); and
- Wye Valley Woodlands / Coetiroedd Dyffryn Gwy SAC.

Two further distance buffers of 5 km and 10 km in addition to the outer 15 km buffer have been added to Figure 1 to allow a gradation of distance from the site boundary within the 15 km buffer. A separate Figure 2 has been produced for the Wye Valley and Forest of Dean Bat Sites SAC which specifically illustrates the location of the nine component SSSI sites in relation to the Northern Quarter site to aid the assessment of impacts on this site.

Table 3.1 provides a description of the European sites that have been taken into consideration in the HRSA. It includes the following information, explained further in the following sections.

- Conservation objectives
- Key site sensitivities
- Current condition and threats

3.1.1 **Conservation Objectives**

Conservation objectives are management targets relating to the habitat or species for which the site is designated. They are set by Natural England to ensure that the obligations of the Habitats Directive are met, particularly to ensure that there should be no deterioration or significant disturbance of the qualifying features from their condition at the time the status of the site was confirmed.

(1) ERM Meeting Minutes 3 July 2009. Tim Quinton, Natural England Officer.
formally identified. The conservation objectives are also essential in determining whether the effects of a plan or project are likely to have a significant effect (1) on the qualifying interests of the site.

### 3.1.2 Key Site Sensitivities

The key site sensitivities for each habitat type were established by reviewing information provided within the conservation objectives for each site and identifying the main sensitivities / vulnerabilities for each habitat or species.

It is recognised that designations for some of the sites are based predominantly on species rather than habitats. However, supporting habitats are also given due consideration within this assessment, as they support the species and thus underpin the conservation objectives.

Where sites are primarily designated for their faunal interest, they have been included in the category which best represents the habitat type used by the species in question, but it is recognised that these species will also utilise other habitat types.

### 3.1.3 Current Condition and Threats

Information regarding the site condition and threats to the sites’ integrity is taken from the sites conservation objectives.

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(1) Article 6.2 of the Habitats Directive.
<table>
<thead>
<tr>
<th>Natura 2000 Site</th>
<th>Distance from Northern Quarter site / general location</th>
<th>Qualifying interest (habitats and species)</th>
<th>Conservation objectives</th>
<th>Site sensitivities</th>
<th>Threats</th>
</tr>
</thead>
</table>
| Wye Valley and Forest of Dean Bat Sites SAC (142.7 ha) | Closest component SSSI Westbury Brook Ironstone Mine is approximately 1.5 km to the northeast England/Wales (Unitary Authority- Fynwy/ Monmouthshire; Gloucestershire) | Annex II species that are a primary reason for the selection of this site:  
• Lesser horseshoe bat- *Rhinolophus hipposideros*  
• Greater horseshoe bat- *Rhinolophus Ferrunequinum* | The conservation objectives for the European interest on the SSSI are to maintain*, in favourable condition, the:  
• Disused mines  
• Disused buildings  
• Woodlands  

The conservation objectives for the European interest on the SSSI are to maintain*, in favourable condition, the habitats for the population of:  
• Lesser horseshoe bat- *Rhinolophus hipposideros*  

* maintenance implies restoration if the feature is not currently in favourable condition.  

The preparation of Cave Conservation Plans will be promoted to maintain and enhance the underground environment for bats. | Mine sensitivity (habitat), changes to:  
• Humidity  
• Temperature  
• Ventilation  
• Surface woodlands  

Disused buildings (habitat):  
• Structural disturbance to roosts  
• Ventilation | Within the roost the bats are vulnerable to disturbance at critical times, structural alteration and changes in the characteristic ventilation patterns.  

The human use of the mine systems (continued mineral working and recreational caving/research). |
<table>
<thead>
<tr>
<th>Natura 2000 Site</th>
<th>Distance from Northern Quarter site / general location</th>
<th>Qualifying interest (habitats and species)</th>
<th>Conservation objectives</th>
<th>Site sensitivities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>River Wye / Afon Gwy SAC (2234.89 ha)</td>
<td>Approx 3.7 km to the west at closest point. England/Wales (Unitary Authority- Fynwy/ Monmouthshire; Gloucestershire; Herefordshire; Powys)</td>
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<td></td>
<td></td>
<td>Annex I habitats that are a primary reason for selection of this site:</td>
<td>Management plans to improve water quality issues are being implemented through improved targeting of existing and new agri-environment schemes and improvements in compliance with agricultural schemes. Management plans to improve water quality issues are being implemented through improved targeting of existing and new agri-environment schemes and improvements in compliance with agricultural schemes.</td>
<td>Site sensitivities include:</td>
<td>Changing agricultural landuses.</td>
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<td>• Water courses of plain to montane levels with the <em>Ranunculion fluitantis</em> and <em>callitricho-batrachion</em></td>
<td></td>
<td>• Water pollution</td>
<td>Water pollution through:</td>
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<td>Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site:</td>
<td>The Atlantic salmon is the focus for much of the management activity carried out on the Wye. The relatively demanding water quality and spawning substrate quality requirements of this feature mean that reduction in diffuse pollution and siltation impacts is a high priority.</td>
<td>• Siltation from agriculture</td>
<td>• Nutrient run-off and siltation.</td>
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<td></td>
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<td>• Transition mires and quaking bogs</td>
<td>Sewage treatment works on the cSAC is being addressed through the Asset Management Plan process and review under the Habitats Regulations</td>
<td>• Fertiliser run-off</td>
<td>• Synthetic pyrethroid sheep-dips.</td>
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<td>Annex II species that are a primary reason for selection of this site:</td>
<td>Loss of riparian habitat is occurring as a result of changes in agricultural land-use practices and other factors, including riverside development and the loss of alder tree-cover through disease. These impacts and concerns over water quality will be identified and actions recommended within the joint English Nature/Environment Agency/Countryside Council for Wales conservation strategy for the river.</td>
<td>• Livestock manure</td>
<td>Sewage treatment</td>
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<td>• White-clawed (or Atlantic streamed) crayfish- <em>Austroptamobius pallipes</em></td>
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<td>• Silage effluent</td>
<td>Fishing activities on the decline of salmon.</td>
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<td></td>
<td></td>
<td>• Sea lamprey- <em>Petromyzon Marinus</em></td>
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<td>• Soil erosion</td>
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<td></td>
<td></td>
<td>• Brook lamprey- <em>Lampetra planeri</em></td>
<td></td>
<td>• Trampled gateways and tracks</td>
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<td></td>
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<td>• River lamprey- <em>Lampetra fluviatilis</em></td>
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<td></td>
<td></td>
<td>• Twaitie shad- <em>Alosa fallax</em></td>
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<td></td>
<td></td>
<td>• Atlantic salmon- <em>Salmo salar</em></td>
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<td></td>
<td></td>
<td>• Bullhead- <em>Cottis gobio</em></td>
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<td></td>
<td></td>
<td>• Otter- <em>Lutra lutra</em></td>
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<td></td>
<td>Annex II species present as a qualifying feature, but not a primary reason for site selection:</td>
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<tr>
<td></td>
<td></td>
<td>• Allis Shad- <em>Alosa alosa</em></td>
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<tr>
<td>Natura 2000 Site</td>
<td>Distance from Northern Quarter site / general location</td>
<td>Qualifying interest (habitats and species)</td>
<td>Conservation objectives</td>
<td>Site sensitivities</td>
<td>Threats</td>
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</table>
| Wye Valley Woodlands / Coetiroedd Dryfryn Gwy SAC; (916.24 ha) | Approximately 5.8 km to the west at closest point. England (Unitary Authority- Fynwy/ Monmouthshire; Gloucestershire; Herefordshire) | Annex I habitats that are a primary reason for selection of this site:  
- Asperulo- Fagetum beech forests  
- Tilio- Acerion forests of slopes, screes and ravines  
- Taxus baccata woods of the British Isles | Positive management is being promoted through management plans (CCW), Site Management Statements (EN) and management agreements, and the Woodland Grant Scheme (including specialised targeting) is being encouraged where possible and appropriate to return some woods to active management. | Lack of management (particularly traditional management e.g. coppice)  
Loss of ancient semi natural stands.  
Loss of ancient woodlands.  
Atmospheric pollution (nutrient deposition and acidification).  
Development pressure. | Inappropriate management proposals which would alter the recognised woodland type.  
Threat to bat habitats through felling of woodland.  
Deer are present within wood; they browse off seedlings and saplings reducing the viable regeneration.  
Another issue for this woodland is the spread of cherry laurel, particularly through the shoots. |
| | | Annex II species present as a qualifying feature, but not a primary reason for site selection:  
- Lesser horseshoe bat- Rhinolophus hipposideros | | | |
<table>
<thead>
<tr>
<th>Natura 2000 Site</th>
<th>Distance from Northern Quarter site / general location</th>
<th>Qualifying interest (habitats and species)</th>
<th>Conservation objectives</th>
<th>Site sensitivities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walmore Common SPA and Ramsar; Gloucestershire (52.85 ha)</td>
<td>Approximately 9 km to the east</td>
<td>Annex I habitats that are a primary reason for selection of this site:  - Bewick's Swan Cygnus columbianus bewickii,</td>
<td>Management plans implemented by English Partnerships.</td>
<td>Loss of marshy grasslands due to change in water regime</td>
<td>Possible threats to site ecology.</td>
</tr>
<tr>
<td>Severn Estuary cSAC, SPA and Ramsar (73715.4 ha)</td>
<td>Approximately 9.2 km to the southeast at the closest point. South Wales/England (Unitary Authority- Bro Morgannwg/ Vale of Glamorgan; Caerdydd/ Cardiff; Casnewydd/ Newport; City of Bristol; Fynwy/ Monmouthshire; Gloucestershire; North Somerset; Somerset; South Gloucestershire)</td>
<td>Annex I habitats that are a primary reason for selection of this site:  - Estuaries  - Mudflats and sandflats not covered by seawater at low tide  - Atlantic salt meadows (Glaucopuccinellalatimaritima)</td>
<td>A management mechanism that seeks to secure sustainable management of the Severn Estuary and its wildlife interest:  - A management scheme under Regulation 34 of the Habitats Regulations in relation to the international bird interest that underpins designation as a Special Protection Area. To maintain, in favourable condition, the habitats for the population of:  - Bewick’s swan  - White fronted goose  - Wintering dunlin  - Wintering redshank  - Wintering shelduck  - Wintering gadwall  - Waterfowl</td>
<td>Soil and geology. Geomorphology and landscape.</td>
<td>Erosion of habitats and presence of high sediment loads. Large scale interface. from human activities such as:  - Building of flood defences  - industrial pollution  - Oil spills  - Tourism based activities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Annex II species that are a primary reason for selection of this site:  - Sea lamprey- Petromyzon Marinus  - River lamprey- lampetra fluviatilis  - Twaiite shad- Alosa fallax</td>
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</tbody>
</table>
HAZARD AND IMPACT IDENTIFICATION

The impact identification process involved a review of the European sites’ conservation objectives to identify key sensitivities / vulnerabilities and to link these with key hazards that could arise from development through the AAP. The below hazard/sensitivity matrix displays these links. Potential impacts from the implementation of the AAP that could have likely significant effects on the qualifying interests of the European sites are then identified.

4.1.1 Habitat Loss or Physical Damage

Physical damage caused by construction activities, operational activities, increased access or erosion.

4.1.2 Disturbance

Disturbance causes birds/mammals to deviate from their normal, preferred behaviour, and may arise due to construction and operational activities, physical access (recreational pressure) litter, noise, predatory birds.

4.1.3 Nutrient Enrichment

An addition of nutrients arising from stack emissions from combustion, traffic pollution and surface or ground water run-off from development and industry can lead to direct pollution damage, changes in vegetation, directly affecting protected habitats and species of flora, or protected species dependant upon the vegetation.

4.1.4 Smothering

Physical damage caused by the deposit of solid material from the air, generally from construction, but also operational activities.

4.1.5 Siltation

Physical damage caused by the deposit of suspended solids from water from surface or groundwater links from the construction and operation of development and industry.

4.1.6 Predation

Pests and vermin attracted to industrial sites/landfill may prey upon protected species, particularly the eggs and young of nesting birds.

4.1.7 Toxic Contamination

Emissions from activities that could be toxic or harmful to the flora and fauna of the European sites. Effects may be direct (e.g. landfill gas migration leading...
to vegetation distress) or indirect (such as heavy metal take-up by vegetation grazed).

### 4.2 HAZARD/SENSITIVITY MATRIX SUMMARY

*Table 4.1* is adapted from ‘New Integrated Pollution Control (IPC), Pollution Prevention and Control (PPC) (now Environmental Permit Permissions) under the Habitats Regulations’, Work Instruction Appendix 6 (1) the Waste Management Sensitivity Matrix, Environment Agency, 2007. The table indicates key hazards likely to affect the integrity of the qualifying features of the European sites. This has been adapted to identify likely hazards arising from the AAP and provides guidance on the likely sensitivities of qualifying habitats.

**Table 4.1 Hazard/Sensitivity Identification**

<table>
<thead>
<tr>
<th>Hazard (and the emissions or activities which may give rise to the hazard)</th>
<th>River Wye SAC</th>
<th>Severn Estuary SAC, SPA, Ramsar</th>
<th>Walmore Common SPA</th>
<th>Wye Valley &amp; Forest of Dean Bat Sites SAC</th>
<th>Wye Valley Woodlands SAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riverine habitats</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Non-migratory fish &amp; invertebrates of rivers</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Anadromous fish</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Estuarine &amp; intertidal habitats</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Estuarine birds</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Birds of lowland freshwaters &amp; their margins</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Dry woodlands</td>
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<td>Mammals of wooded habitats</td>
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<td>Mammals of riverine habitats</td>
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<tr>
<td>Habitat loss</td>
<td>✓</td>
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<td>✓</td>
<td>✓</td>
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<td>Disturbance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nutrient enrichment</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Smothering</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Siltation</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Predation (SPA/birds)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toxic contamination</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

The table indicates that of a possible 70 identified sensitivities, the European sites would be sensitive to 42 of the recognised development hazards. Whilst these hazards pose potential risks, until further necessary assessments are carried out, it is assumed that the potential for impacts arising from these hazards is high. The likely impacts arising from the AAP are discussed in Section 4.3.

---

### 4.3 Identification of Likely Impacts Arising from the AAP

*Table 4.2* lists potential impacts arising from development through the AAP associated with the identified hazards. The likelihood of these potential impacts having a significant effect on each European site is then considered.

Those considered to potentially have an adverse effect are then assessed in greater detail in *Section 5* and a final screening decision is given together with recommendations for further Appropriate Assessment. Those not considered to have a likely effect are screened out of the assessment at this stage and we do not consider that any further assessment is required under the Habitats Regulations.

**Table 4.2 Impact Identification**

<table>
<thead>
<tr>
<th>European site and summary of qualifying interests</th>
<th>Hazard identification (see Table 4.1)</th>
<th>Potential development impacts</th>
<th>Is it considered that the impact could arise from implementation of the AAP?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wye Valley and Forest of Dean Bat Sites SAC (142.7 ha) Bats</td>
<td>Disturbance – bats, Northern United roost and supporting woodland</td>
<td>Direct during construction and operation – noise, lighting, increased traffic to the potentially supporting Northern United site and associated supporting woodland habitat.</td>
<td>Potential – Whilst the European site itself is a sufficient distance from the site to make construction impacts de minimis, measures will be required to ensure the long-term viability of the potentially supporting Northern United Roost and to protect the woodland during construction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Indirect – development could interrupt flight lines for bats potentially commuting across site to hibernation or maternity sites. It is confirmed that the roost within the Northern United sub-site is a summer/maternity roost and due to the distance between sites is unlikely to directly interact with other maternity roosts designated as component SSSIs of the SAC. However there is potential for the bats to commute across the site to hibernation roosts designated as component SSSIs of the SAC which are located to the east of the</td>
<td>Potential – development could alter commuting routes of bats across the site</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>European site and summary of qualifying interests</td>
<td>Hazard identification (see Table 4.1)</td>
<td>Potential development impacts</td>
<td>Is it considered that the impact could arise from implementation of the AAP?</td>
</tr>
<tr>
<td>-------------------------------------------------</td>
<td>---------------------------------------</td>
<td>------------------------------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>• Nutrient enrichment – woodland</td>
<td>• Air Pollution - An Energy Centre is proposed within the current masterplan designs. There is potential that an energy facility could have polluting stack emissions. Particulate emissions such as nutrient nitrogen could result in successional vegetation change to the woodland, particularly if the background habitat critical loads are already in exceedance.</td>
<td>Potential – Any facility proposed at the Energy Centre is unlikely to be large and therefore give out significant stack emissions. Likely effects cannot be screened out at this stage and air quality modelling may be required to assess the likely significance of air dispersion effects when the facility type is known.</td>
<td></td>
</tr>
<tr>
<td>• Smothering – qualifying species</td>
<td>• Direct – dust arising during construction - bats</td>
<td>Potential – the European site is a sufficient distance from the Northern Quarter site to avoid potential effects on the SAC itself. Standard control measures would be implemented through the development to ensure these impacts do not arise.</td>
<td></td>
</tr>
<tr>
<td>• Toxic contamination</td>
<td>• Direct from large scale industry which produces toxic contaminants.</td>
<td>No – no large scale industry is proposed within the AAP.</td>
<td></td>
</tr>
<tr>
<td>• Habitat loss – qualifying habitats and supporting habitats</td>
<td>• Direct from construction – land take</td>
<td>No – no land take within European sites is proposed</td>
<td></td>
</tr>
<tr>
<td>• Habitat loss – riverine species</td>
<td>• Direct disturbance or loss of woodland habitats associated with the Northern United roost. but not within the European site.</td>
<td>Potential – AAP is designed to have minimal direct loss or disturbance to woodland. Control measures would need to be implemented through the development to ensure these impacts do not arise</td>
<td></td>
</tr>
</tbody>
</table>

AAP site. Therefore, the ability to maintain bat connectivity across the AAP site to the SAC hibernation roosts will be the key issue.
<table>
<thead>
<tr>
<th>European site and summary of qualifying interests</th>
<th>Hazard identification (see Table 4.1)</th>
<th>Potential development impacts</th>
<th>Is it considered that the impact could arise from implementation of the AAP?</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2234.89 ha) Watercourses /transition mires</td>
<td>• Disturbance – riverine species</td>
<td>• Direct during construction – noise, lighting, increased traffic.</td>
<td>• No – European site is a sufficient distance from the site to make such impacts de minimis.</td>
</tr>
<tr>
<td>Crayfish, riverine fish and otter</td>
<td>• Nutrient enrichment -riverine habitat</td>
<td>• Air Pollution – A renewable energy centre is proposed within the current AAP. There is potential that this will be biofuelled and as such could have polluting stack emissions. Particulate emissions such as nutrient nitrogen could result in eutrophication of riverine habitat, particularly if critical loads are already in exceedance.</td>
<td>• Potential – Any facility proposed at the renewable energy centre is unlikely to be large and therefore give out significant stack emissions. However, likely significant effects cannot be screened out at this stage and air quality modelling may be required to assess the likely significance of air dispersion effects when the facility type and fuel is known.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Air pollution from increase in traffic coming to the Northern Quarter site.</td>
<td>• No - traffic flows not likely to follow route in the proximity of the River Wye.</td>
</tr>
<tr>
<td></td>
<td>• Leachate and run off</td>
<td>• Hydrological Links – leachate and run off from the site could potentially enter European river sites through groundwater or surface water links during construction and operation.</td>
<td>• No – no direct surface water links from rivers or streams are present between the Northern Quarter site and the River Wye.</td>
</tr>
<tr>
<td></td>
<td>• Siltation – riverine species and river itself</td>
<td>• Hydrological Links – siltation could occur through connecting watercourses to the Riverine European site.</td>
<td>• No – no direct surface water links from rivers or streams are present between the Northern Quarter site and the River Wye.</td>
</tr>
<tr>
<td></td>
<td>• Toxic contamination</td>
<td>• Direct from large scale industry which produces toxic contaminants.</td>
<td>• No – no large scale industry is proposed within the AAP.</td>
</tr>
<tr>
<td></td>
<td>• Habitat loss – bird assemblage, qualifying habitats</td>
<td>• Direct from construction – land take</td>
<td>• No – no land take within European sites is proposed</td>
</tr>
<tr>
<td>European site and summary of qualifying interests</td>
<td>Hazard identification (see Table 4.1)</td>
<td>Potential development impacts</td>
<td>Is it considered that the impact could arise from implementation of the AAP?</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>--------------------------------------</td>
<td>---------------------------------</td>
<td>-----------------------------------------------------------------</td>
</tr>
<tr>
<td>Wye Valley Woodlands / Coetiroedd Dryffryn Gwy SAC; (916.24 ha)</td>
<td>Disturbance – bats</td>
<td>Direct during construction and operation – noise, lighting, increased traffic to the potentially supporting Northern United site and associated supporting woodland habitat.</td>
<td>Potential – Whilst the European site itself is a sufficient distance from the site to make construction impacts <em>de minimis</em>, measures will be required to ensure the long-term viability of the potentially supporting Northern United Roost and to protect the woodland during construction.</td>
</tr>
<tr>
<td>Woodland Bats</td>
<td></td>
<td>Indirect – development could interrupt flight lines for bats potentially commuting across site to hibernation or maternity sites. It is confirmed that the roost within the Northern United sub-site is a summer/maternity roost and due to the distance between sites is unlikely to directly interact with other maternity roosts designated as component SSSIs of the SAC. However there is potential for the bats to commute across the site to hibernation roosts designated as component SSSIs of the SAC which are located to the east of the AAP site. Therefore, the ability to maintain bat connectivity across the AAP site to the SAC hibernation roosts will be the key issue.</td>
<td>Potential – development could alter commuting routes of bats across the site</td>
</tr>
<tr>
<td></td>
<td>Nutrient enrichment -woodland</td>
<td>A renewable energy centre is proposed within the current AAP. There is potential that this will be biofuelled and as such could have polluting stack emissions. Particulate emissions such as nutrient nitrogen could result in successional vegetation change to the woodland, particularly if the background habitat critical loads are already in exceedence.</td>
<td>Potential – Any facility proposed at the Energy Centre is unlikely to be large and therefore give out significant stack emissions. Likely effects cannot be screened out at this stage and air quality modelling may be required to assess the likely significance of air dispersion effects when the facility type is known.</td>
</tr>
<tr>
<td>European site and summary of qualifying interests</td>
<td>Hazard identification (see Table 4.1)</td>
<td>Potential development impacts</td>
<td>Is it considered that the impact could arise from implementation of the AAP?</td>
</tr>
<tr>
<td>-------------------------------------------------</td>
<td>-------------------------------------</td>
<td>-------------------------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>• Smothering-qualifying species</td>
<td>• Direct – dust arising during construction - bats</td>
<td>• Potential – the European site is a sufficient distance from the Northern Quarter site to avoid potential effects on the SAC itself. Standard control measures would be implemented through the development to ensure these impacts do not arise.</td>
<td></td>
</tr>
<tr>
<td>• Toxic contamination</td>
<td>• Direct from large scale industry which produces toxic contaminants.</td>
<td>• No – no large scale industry is proposed within the AAP.</td>
<td></td>
</tr>
<tr>
<td>• Habitat loss and disturbance – qualifying habitats and supporting habitats</td>
<td>• Direct from construction within the European site – land take.</td>
<td>• No – no land take within European sites is proposed.</td>
<td></td>
</tr>
<tr>
<td>• Disturbance – bird assemblage</td>
<td>• Direct disturbance or loss of woodland habitats associated with the Northern United roost but not within the European site.</td>
<td>• No – AAP is designed to have minimal direct loss of woodland so as to be de minimis.</td>
<td></td>
</tr>
<tr>
<td>Walmore Common SPA Birds</td>
<td>• Direct during construction – noise, lighting, increased traffic</td>
<td>• No – European site is a sufficient distance from the site to make such impacts de minimis.</td>
<td></td>
</tr>
<tr>
<td>• Nutrient enrichment – wetland habitat</td>
<td>• Indirect during construction and operation – traffic travelling past a European site en route to Northern Quarter site. The key roads are the A48 which passes within 2 km of the Severn Estuary and the A48 which passes adjacent to Walmore Common SPA and Ramsar.</td>
<td>• Potential – It is considered that increases in traffic along the A48 are likely to result in impacts such as traffic noise and pollution being de minimus, however precise increases in traffic will need to be calculated and assessed before this can be screened out.</td>
<td></td>
</tr>
<tr>
<td>• Air Pollution - An Energy Centre is proposed within the current masterplan designs. There is potential that an energy facility could have polluting stack emissions. Particulate emissions such as</td>
<td>• Potential – Any facility proposed at the Energy Centre is unlikely to be large and therefore give out significant stack emissions. Likely effects cannot be</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ENVIRONMENTAL RESOURCES MANAGEMENT**
<table>
<thead>
<tr>
<th>European site and summary of qualifying interests (see Table 4.1)</th>
<th>Hazard identification</th>
<th>Potential development impacts</th>
<th>Is it considered that the impact could arise from implementation of the AAP?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Severn Estuary cSAC, SPA and Ramsar</strong> (73715.4 ha)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estuarine habitats Mudflats and saltmarsh Fish</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Smothering-qualifying species</td>
<td>• Direct – dust arising during construction - birds</td>
<td>No – the European site is a sufficient distance from the Northern Quarter site to avoid potential effects.</td>
<td></td>
</tr>
<tr>
<td>• Siltation – wetland supporting qualifying species</td>
<td>• Hydrological Links – siltation could occur through connecting watercourses</td>
<td>No – no direct surface water links from rivers or streams are present between the Northern Quarter site and Walmore Common</td>
<td></td>
</tr>
<tr>
<td>• Toxic contamination</td>
<td>• Direct from large scale industry which produces toxic contaminants.</td>
<td>No – no large scale industry is proposed within the AAP.</td>
<td></td>
</tr>
<tr>
<td>• Habitat loss – qualifying habitats</td>
<td>• Direct from construction – land take</td>
<td>No – no land take within European sites is proposed</td>
<td></td>
</tr>
<tr>
<td>Nutrient nitrogen and acid deposition could result in nutrient enrichment of the wetland habitat, particularly if the background habitat critical loads are already in exceedance.</td>
<td></td>
<td>screened out at this stage and air quality modelling may be required to assess the likely significance of air dispersion effects when the facility type is known.</td>
<td></td>
</tr>
<tr>
<td>Traffic pollution</td>
<td>• Direct during construction – noise, lighting, increased traffic</td>
<td>No – European site is a sufficient distance from the site to make such impacts <em>de minimis</em>.</td>
<td></td>
</tr>
<tr>
<td>• Indirect during construction and operation – traffic travelling past a European site en route to Northern Quarter site. The key roads are the A48 which passes within 2 km of the Severn Estuary and the A48 which passes adjacent to Walmore Common SPA and Ramsar.</td>
<td></td>
<td>Potential – It is considered that increases in traffic along the A48 are likely to result in impacts such as traffic noise and pollution being <em>de minimus</em>, however traffic increases will need to be calculated and assessed before this can be screened out.</td>
<td></td>
</tr>
<tr>
<td>• Traffic pollution</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>European site and summary of qualifying interests</td>
<td>Hazard identification (see Table 4.1)</td>
<td>Potential development impacts</td>
<td>Is it considered that the impact could arise from implementation of the AAP?</td>
</tr>
<tr>
<td>-------------------------------------------------</td>
<td>--------------------------------------</td>
<td>-------------------------------</td>
<td>---------------------------------------------------------------------</td>
</tr>
<tr>
<td>• Nutrient enrichment – saltmarsh and other estuarine habitats</td>
<td>• Air Pollution – A renewable energy centre is proposed within the current AAP. There is potential that this will be biofuelled and as such could have polluting stack emissions. Particulate emissions such as nutrient nitrogen could result in nutrient enrichment of estuarine habitat, particularly if critical loads are already in exceedance.</td>
<td>• Air pollution from potential increase in traffic during construction and operation – traffic travelling past a European site en route to Northern Quarter site. The key roads are the A48 which passes within 2 km of the Severn Estuary and the A48 which passes adjacent to Walmore Common SPA and Ramsar.</td>
<td>• Potential – Any facility proposed at the renewable energy centre is unlikely to be large and therefore give out significant stack emissions. However, Likely significant effects cannot be screened out at this stage and air quality modelling may be required to assess the likely significance of air dispersion effects when the facility type and fuel is known.</td>
</tr>
</tbody>
</table>

| • Smothering-qualifying habitats | • Direct – dust arising during construction - saltmarsh and other sensitive estuarine habitats | • Leachate and run off from the site could potentially enter European river sites through groundwater or surface water links during construction and operation. | • Potential – It is considered that increases in traffic along the A48 are likely to result in impacts such as traffic pollution being *de minimus*, however traffic increases will need to be calculated and assessed before this can be screened out. |

<p>| • Leachate and run off | • No – the European site is a sufficient distance from the Northern Quarter site to avoid potential effects. | | • No – Whilst the Old Engine Brook is within the Severn Estuary catchment, the Level 2 Strategic Flood Risk Assessment (April 2009) identifies the outfall to the Severn Estuary to be approximately 12 km from the AAP area. Potential run off from the site would be under strict control measures and therefore it is considered that effects of any remaining pollution would be very low level and have insignificant effects on the estuary. |</p>
<table>
<thead>
<tr>
<th>European site and summary of qualifying interests</th>
<th>Hazard identification (see Table 4.1)</th>
<th>Potential development impacts</th>
<th>Is it considered that the impact could arise from implementation of the AAP?</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Siltation – Estuarine species and river itself</td>
<td>• Hydrological Links – siltation could occur through connecting watercourses to the estuarine sites.</td>
<td>• No – Whilst the Old Engine Brook is within the Severn Estuary catchment, the Level 2 Strategic Flood Risk Assessment (April 2009) identifies the outfall to the Severn Estuary to be approximately 12 km from the AAP area. Potential run off from the site would be under strict control measures and therefore it is considered that effects of any siltation effects would be very low level and have insignificant effects on the estuary.</td>
<td></td>
</tr>
<tr>
<td>• Predation - birds</td>
<td>• Direct – development could provide further perches for predators or landfill could encourage predatory vermin which could affect bird assemblages.</td>
<td>• No – European site is a sufficient distance from the Northern Quarter site to avoid potential impacts.</td>
<td></td>
</tr>
<tr>
<td>• Toxic contamination</td>
<td>• Direct from large scale industry which produces toxic contaminants.</td>
<td>• No – no large scale industry is proposed within the AAP.</td>
<td></td>
</tr>
<tr>
<td>Habitat loss – bird assemblage, qualifying habitats</td>
<td>• Direct from construction – land take</td>
<td>• No – no land take within European sites is proposed</td>
<td></td>
</tr>
</tbody>
</table>
**5.1 INTRODUCTION**

This section provides further analyses of the impacts that may arise through the implementation of the AAP. In combination effects are considered in Table 5.1. The likely effects are then assessed in Table 5.2 together with a consideration of likely mitigation measures and a final screening conclusion.

**5.2 IN COMBINATION EFFECTS**

Plans and projects within the local area may have a cumulative effect and create likely significant effects when considered together with the identified impacts from the AAP. Table 5.1 lists the identified plan requiring consideration for the AAP.

**Table 5.1 In Combination Effects**

<table>
<thead>
<tr>
<th>Plan/Project</th>
<th>Proposal</th>
<th>Likely cumulative effect</th>
<th>Will this need to be considered as a possible source of likely significant effect?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transport</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adopted Gloucestershire Structure Plan (second review)</td>
<td>• Lydney</td>
<td>Major road schemes</td>
<td>Road improvements at these locations may increase traffic travelling past the Severn Estuary and Walmore Common SAC and there is potential for cumulative effects from further housing at Cinderford, Gloucester and Stroud. A traffic assessment will need to consider these effects.</td>
</tr>
<tr>
<td></td>
<td>• Cinderford</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Housing and Employment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adopted Gloucestershire Structure Plan (second review)</td>
<td>• Gloucester (including Sharpness)</td>
<td>Housing (2,410 dwellings),</td>
<td>Increased recreation pressure and traffic numbers would be the likely impact arising from further housing and employment; however it is not considered that this would cause</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gloucester, Cheltenham, Tewkesbury Joint Core Strategy</td>
<td>• Stroud</td>
<td>Housing (3,170 dwellings)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Forest of Dean (including Lydney,</td>
<td>Housing (2,230 dwellings)</td>
<td></td>
</tr>
</tbody>
</table>
Large scale development is largely precluded in the immediate area surrounding Cinderford due to the proximity of the Forest of Dean. No large scale, high impact projects such as power stations or large thermal treatment facilities are proposed within the core strategy, however if this changed in the future, this would need to be considered in conjunction with potential air pollution effects from the renewable energy centre. The cumulative effects of traffic pollution would need to be considered, particularly with regards to the Severn Estuary cSAC, SPA and Ramsar and Walmore Common SAC in combination with potential increases in traffic arising from the AAP.
The risk framework in Table 5.2 assesses each of the identified likely significant effects from Table 4.2 against the conservation objectives of the relevant European sites.

### Table 5.2 Screening Assessment Table

<table>
<thead>
<tr>
<th>Identified Impacts / Risks</th>
<th>European Sites Likely to be Impacted</th>
<th>Impact Assessment (in absence of mitigation / recommendations)</th>
<th>Screening Opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential Impacts of AAP</td>
<td>European site</td>
<td>Risk Characteristics (magnitude, duration, reversibility) (Low (L), Medium (M), high (H))</td>
<td>Probability of impact (Low (L), Medium (M), high (H))</td>
</tr>
<tr>
<td>Disturbance - traffic</td>
<td>Walmore Common and Severn Estuary</td>
<td>Magnitude – L/M Duration – Long term Reversibility - no</td>
<td>H</td>
</tr>
<tr>
<td>Pollution from traffic</td>
<td>Walmore Common and Severn Estuary</td>
<td>Magnitude – L/M Duration – Long term Reversibility - no</td>
<td>H</td>
</tr>
<tr>
<td>Nutrient Enrichment -</td>
<td>All</td>
<td>Magnitude – L/M Duration – Long term Reversibility - no</td>
<td>H</td>
</tr>
<tr>
<td>Disturbance to bat flight lines</td>
<td>River Wye and Forest of Dean Bat Sites and Wye Valley Woodlands</td>
<td>Magnitude – L/M Duration – Construction, operation and long term Reversibility - no</td>
<td>H</td>
</tr>
</tbody>
</table>

## Disturbance to potentially supporting Northern United roost

The impact of the development on the potentially supporting Northern United roost will need to be minimised through ultimate design of the development. Protection and enhancement measures will need to be development and implemented through a mitigation and management scheme to ensure the long-term viability of the roost which will need to be agreed with Natural England.

Standard and targeted control measures will be implemented throughout the development to ensure no disturbance impacts or impacts such as dust smothering occur at the Northern United site and associated woodland.
6 CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

This report sets out findings of a Habitats Regulation screening assessment for the potential effects of the current version of the Cinderford AAP.

The intent is that the findings of the report should feed into the completion of the AAP and inform subsequent detailed design of the masterplan and provide an indication of likely further assessment that is likely to be required at a later stage in planning, for example at the outline planning stage. In this way it ensures that the Habitats Regulations are given adequate consideration and limits avoidable issues from arising later into the planning process.

6.2 FINDINGS

Four potentially likely significant effects (see Table 5.2) were identified through a screening of the AAP:

1) Potential disturbance from traffic to Walmore Common and Severn Estuary including in-combination effects;
2) Potential pollution effects from traffic on Walmore Common and Severn Estuary including in-combination effects;
3) Potential nutrient enrichment from proposed energy centre (assuming it is bio-fuelled) on all identified designated sites; and
4) Potential disturbance to bat flight lines, potentially supporting Northern United Roost and woodland and smothering effects during construction 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 regarding development layout, construction and operational activities to be able to adequately assess the risk and likelihood of them occurring. It may be possible through implementation of mitigation measures to avoid these likely effects at a later stage and this should be made clear within the AAP.

6.3 NEXT STEPS

The AAP documentation will incorporate the findings of this screening assessment, and the identified need for further assessment will be developed at the subsequent planning stages, when additional appraisals and design development will be undertaken.
Figures
Walmore Common
Severn Estuary/ Môr Hafren
SPA and Ramsar

Blaisdon Hill
Wye Valley and Forest of Dean Bat Sites/
Safleoedd Ystlumod Dyffryn Gwy a Fforest y Ddena

Dean Hall Coach House and Cellar
Wye Valley and Forest of Dean Bat Sites/
Safleoedd Ystlumod Dyffryn Gwy a Fforest y Ddena

Newton Court Stable Block
Wye Valley and Forest of Dean Bat Sites/
Safleoedd Ystlumod Dyffryn Gwy a Fforest y Ddena

Pennallt Old Church
River Wye/ Afon Gwy
Wye Valley Woodlands/
Coetiroedd Dyffryn Gwy

Wigpool Ironstone Mine
Wye Valley and Forest of Dean Bat Sites/
Safleoedd Ystlumod Dyffryn Gwy a Fforest y Ddena

Devil's Chapel Scowles
Old Bow and Old Ham Mines
Wye Valley and Forest of Dean Bat Sites/
Safleoedd Ystlumod Dyffryn Gwy a Fforest y Ddena

Westbury Brook Ironstone Mine
Bucknashart Mine & Bradley Hill Railway Tunnel
Wye Valley and Forest of Dean Bat Sites/
Safleoedd Ystlumod Dyffryn Gwy a Fforest y Ddena

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Figure 1
European Sites
Figure 2
Component SSSI of the Wye Valley and Forest of Dean Bat Site SAC
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