# Appendix 7

# HABITATS REGULATIONS APPRAISAL

of
Matters Arising Changes
of
Deposit Local Development Plan





The City of Cardiff Council January 2016





South East Wales Strategic Planning Group (SEWSPG)



## HABITATS REGULATIONS APPRAISAL REPORT

of
Matters Arising Changes
of
Deposit Local Development Plan

**The City of Cardiff Council** 

date:	11 <sup>th</sup> January 2016
issue no.:	1
prepared by:	Matthew Harris
quality assurance:	

The format of this report is based upon a toolkit which was developed to provide information and analysis to support the South East Wales Strategic Planning Group (SEWSPG) authorities with the process of Habitats Regulations Appraisal as required by the Habitats Directive. The approach outlined reflects official Welsh Assembly Government (WG) guidance and Countryside Council for Wales (NRW) advice, but does not have official status. Enfusion Ltd does not accept liability for use of the toolkit or decisions that are made based upon it.

(December 2010, Update)

## City of Cardiff Council Matters Arising Changes Schedule

## **Habitats Regulations Appraisal Report**

### **CONTENTS**

### **SUMMARY**

1 INTRODUCTION

Requirement for Habitats Regulations Appraisal Guidance for Habitats Regulations Appraisal/Appropriate Assessment Consultation Purpose & Structure of Report

- 2 METHOD
- 3 SCREENING
- 4 CONCLUSIONS

## **REFERENCES/BIBLIOGRAPHY**

### **TABLES**

- 1. European Sites within Cardiff boundary
- 2. European Sites within search area buffer zone

## **APPENDICES**

APPENDIX 1: Consideration of MACs against HRA screening criteria

## SUMMARY

- 0.1 A Habitats Regulations Appraisal (HRA) of spatial development plans is a requirement of the Habitats Directive (92/43/EEC) as set out in the Conservation of Habitats and Species Regulations 2010 (as amended).
- O.2 This report details the HRA process for the new Matters Arising Changes Schedule (MAC) and the Inspector Changes arising from Hearing Sessions 20-26, the methods and findings, and the conclusions of the assessment.
- 0.3 An assessment was made of the likelihood of significant impact of the MAC and Inspector's Changes on eight international sites in and around Cardiff, namely Cardiff Beech Woods SAC, Severn Estuary SAC, SPA, Ramsar Site, River Usk SAC, River Wye SAC, Blackmill Woodlands SAC and Aberbargoed Grasslands SAC.
- 0.4 None of the new MACs or Inspector's Changes were judged to have the potential to affect any of these sites, above or beyond those potential impacts already considered in the HRA of the Deposit LDP.
- 0.5 Therefore, none of these new MACs or Inspector's Changes are likely to have a significant effect on any of the international sites either alone or in combination with other plans, projects or programmes.
- 0.6 The Habitats Regulations Appraisals of the LDPs of neighbouring Local Authorities have indicated that in the absence of direct effects, in-combination effects with other plans are not likely to be significant at the sites considered in the light of the evidence available.
- 0.7 The LDP can proceed without further reference to this section of the Habitats Regulations.

### 1.0 INTRODUCTION

- 1.1 Cardiff Council is currently progressing a Local Development Plan (LDP), and has undertaken Habitats Regulations Appraisal (HRA) of that plan in line with the requirements set by the Conservation of Habitats and Species Regulations 2010<sup>1</sup> (as amended) [referred to subsequently as The Habitats Regulations].
- 1.2 The HRA of the Deposit LDP concluded that the Deposit LDP was not likely to have a significant effect upon any of the European Sites considered, either alone, or in combination with other plans, projects or programmes in the region.
- 1.3 The present HRA report considers the effect of the Matters Arising Changes Schedule upon the policies and proposals of the Deposit LDP, and whether those changes would give rise to potential effects upon European Sites above or beyond those already assessed.

## **Requirement for Habitats Regulations Appraisal**

- 1.4 The European Directive (92/43/EEC) on the Conservation of Natural Habitats and Wild Flora and Fauna ('The Habitats Directive') protects habitats and species of European nature conservation importance. The Habitats Directive establishes a network of internationally important sites designated for their ecological status. These are referred to as Natura 2000 (N2K) sites or European Sites, and comprise Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) [which are classified under the Council Directive 79/409/EEC on the conservation of wild birds, the 'Birds Directive'].
- 1.5 Articles 6 (3) and 6 (4) of the Habitats Directive require HRA to be undertaken on proposed plans or projects which are not necessary for the management of the site but which are likely to have a significant effect on one or more European sites either individually, or in combination with other plans and projects.<sup>2</sup> This requirement is set out in Regulation 102 of the Conservation of Habitats and Species Regulations 2010 (as amended) which require the application of HRA to all land use plans. Welsh Government (WG) guidance also requires that Ramsar sites (which support internationally important wetland habitats) and are listed under the Convention on Wetlands of International Importance (Ramsar Convention 1971) are included within HRA/AA and that candidate SACs and proposed SPAs are treated as 'designated' sites in the context of HRA. In this report the term 'European sites' will be used when referring to SACs, cSACs, SPAs, pSPAs and Ramsar sites.
- 1.6 The purpose of HRA is to assess the impacts of a land-use plan, in combination with the effects of other plans and projects, against the conservation objectives of a European Site and to ascertain whether it would

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adversely affect the integrity<sup>3</sup> of that site. Where significant negative effects are identified, alternative options or mitigation measures should be examined to avoid any potential damaging effects. The scope of the HRA is dependent on the location, size and significance of the proposed plan or project and the sensitivities and nature of the interest features of the European Sites under consideration.

## **Guidance for Habitats Regulations Appraisal/Appropriate Assessment**

1.7 Guidance for HRA is contained in WG's Technical Advice Note 5: Nature Conservation and Planning, Annex 6 'The Appraisal of Development Plans in Wales under the Provisions of the Habitats Regulations' (Sept 2009). NRW (as CCW) has also produced draft guidance<sup>4</sup> to assist plan-making authorities to comply with the requirements of the Habitats Directive.

#### Consultation

1.8 The Habitats Regulations require the plan making/competent authority to consult the appropriate nature conservation statutory body [Natural Resources Wales (NRW)] if undertaking an Appropriate Assessment. Consultation on the approach to this HRA screening, including advice on which European sites should be considered within the area of search, was undertaken with NRW following the HRA of the Preferred Strategy and Deposit LDP, and their consultation responses were taken into account, where appropriate. The Habitats Regulations leave consultation with other bodies and the public to the discretion of the plan-making authority.

### 2.0 METHOD

- 2.1 Fuller details of the HRA methodology are set out in the HRA to the Deposit LDP
- 2.2 This report considers only the new Matters Arising Changes (MACs) as set out in the 'City of Cardiff Council Draft Matters Arising Changes Schedule' October 2015, and in subsequent Inspector's Changes. The changes listed in that schedule and in the Inspector's Changes are categorised according to the criteria set out below. Where further consideration is indicated, that change would be subject to the Policy Screening Template as set out in Appendix 2 of the original HRA of the deposit LDP.
- 2.3 The HRA of the Deposit LDP concluded that the deposit plan was not likely to have a significant effect upon any European Sites, subject to implementation of polices within the plan which were designed in part to offset any potential impact.
- 2.4 New MACs and Inspector's Changes are categorised according to one or more of the following criteria:-

<sup>3</sup> Integrity is described as the sites' coherence, ecological structure and function across the whole area that enables it to sustain the habitat, complex of habitats and/or levels of populations of species for which it was classified, (ODPM, 2005).

<sup>4</sup> Tyldesley, D., 2009, Draft Guidance for Plan Making Authorities in Wales: The Appraisal of Plans under the Habitats Directive for Countryside Council for Wales CCW Bangor (Revised April 2010).

- The change will benefit biodiversity and may have a positive effect upon European Sites
- The change does not relate to a specific policy, and therefore cannot affect any European Sites when the LDP is implemented.
- This change proposes the inclusion of factual details, which do not promote any new development.
- The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy.
- The change relates to restructuring or reorganising the policy, which does not significantly alter the meaning of the policy.
- The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.
- The change relates to the insertion of new text into the policy which increases
  potential of that policy to impact upon a European Site, beyond that in the
  original HRA of the deposit LDP. Therefore this change requires further
  consideration.
- The change relates to the deletion of existing text from the policy which does not alter its potential to impact upon a European Site.
- The change relates to the deletion of existing text from the policy which increases its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP. This arises because that wording, when implemented, would have counteracted or offset any impacts upon European Sites arising from other policies elsewhere in the plan. Therefore this change requires further consideration.
- The change relates to the creation of a new policy which does not have the potential to impact upon a European Site.
- The change relates to the creation of a new policy which has the potential to impact upon a European Site, and which therefore requires further more detailed consideration.
- The change relates to deletion of an existing policy which does not alter the
  potential of the LDP to impact upon a European Site, beyond that assessed in
  the original HRA of the deposit LDP.
- The change relates to deletion of an existing policy which increases the potential of the LDP to impact upon a European Site, beyond that in the original HRA of the deposit LDP. This arises because that policy contained wording which, when implemented, would have counteracted or offset any impacts upon European Sites arising from other policies elsewhere in the plan. Therefore this change requires further consideration.

### 3.0 SCREENING

# **Identification of European Sites & characterisation**

3.1 Four designated European Sites lie within the Cardiff boundary, and these are set out in Table 1 below. Detailed site characterisation information for the sites, is provided in Appendix 1 of the HRA of the Deposit LDP.

Table 1	
European Sites within Plan/ Proposal Boundary	Designation
<ul> <li>Cardiff Beech Woods</li> </ul>	SAC
<ul><li>Severn Estuary</li></ul>	SAC
<ul> <li>Severn Estuary</li> </ul>	SPA
Severn Estuary	Ramsar

- 3.2 Plans, programmes and projects can have spatial implications that extend beyond the intended plan boundaries. In particular, it is recognised that distance in itself is not a definitive guide to the likelihood or severity of an impact (inaccessibility/ remoteness is typically more relevant) as factors such as the prevailing wind direction, river flow direction, and ground water flow direction will all have a bearing on the relative distance at which an impact can occur. This means that a plan directing development some distance away from a European Site could still have effects on the site and therefore, needs to be considered as part of the screening process.
- 3.3 Taking into account the potential for transboundary impacts, screening of the HRA of the Deposit LDP has identified four European Sites that lie within the influence of the Cardiff Council LDP. These sites are outlined in Table 2 below and detailed information for the European Sites is provided in Appendix 1 of the HRA of the Deposit LDP.

Table 2			
European Sites Within Search Area of Plan Area	Designation	Distance from Plan/ Proposal Boundary (approx Km)	
Aberbargoed Grasslands	SAC	14	
Blackmill Woodlands	SAC	14	
River Usk	SAC	6	
River Wye	SAC	30	

### **Consideration of Other Plans, Projects and Programmes**

- 3.4 It is a requirement of Article 6(3) of the Habitats Directive that HRA examines the potential for plans and projects to have a significant effect either individually or 'in combination' with other plans, programmes & projects (PPPs). Undertaking an assessment of other PPPs for the Cardiff Council LDP required a pragmatic approach given the extensive range of PPPs underway in the surrounding region. The approach taken was cognisant of the emphasis in the forthcoming WG guidance, that considering the potential for in-combination effects is core to delivering robust/ precautionary HRA.<sup>5</sup>
- 3.5 When considering other PPPs attention was focused on those aimed at delivering planned spatial growth with the most significant being those that seek to provide, housing, employment and infrastructure. The review considered the most relevant plans including:
  - The Wales Spatial Plan (update) 2008
  - Local Development Plans in South East Wales neighbouring authorities
  - Waste and Mineral Strategies for South East Wales and neighbouring authorities
  - Regional Transport Plans where relevant and/or major development schemes
  - Catchment Abstraction Management Plans where relevant to the designated sites under consideration
  - Water Resource Management Plans
- 3.6 The potential effects of these plans are reviewed in detail at Appendix 9 of the HRA of the Deposit LDP and the potential for these effects to act 'incombination' with effects identified from Cardiff Council Deposit LDP are considered in the screening assessment (Appendix 10 of the HRA of the Deposit LDP).

### **Assessment of Potential impacts**

3.7 Each policy or section of the Deposit LDP which is the subject of a MAC, is considered against each of the criteria in Section 2.4 above. The results of this analysis are set out in Appendix 1, below.

### 4.0 CONCLUSIONS

4.1 This report outlines the methods used and the findings arising from the screening stage of the Habitats Regulations Appraisal undertaken for the Matters Arising Changes Schedule and Inspector's Changes

- 4.2 The HRA considered eight European Sites within the influence of the Deposit LDP
- 4.3 Based on the information considered, the findings of the assessment indicate that the new Matters Arising Changes and Inspector's Changes

<sup>&</sup>lt;sup>5</sup> The review also draws on work being undertaken on behalf of the South East Wales Strategic Planning Group (SEWSPG) to build a resource kit of information and analysis to support HRA in the region.

to the City of Cardiff Council Deposit LDP in implementation will not have a likely significant effect on the European sites considered as part of the HRA screening and will not require full Appropriate Assessment under the Habitats Regulations.

4.4 This conclusion is dependent in part upon the implementation of policies in the Deposit LDP which would serve to counteract adverse effects arising from policies screened-in to this HRA.

# Appendix 1: Consideration of MACs against HRA Screening Criteria

MAC Number	Additional Hearing Session/Action Point	Proposed Change October 2015	HRA Screening Criteria
Inspector MAC1	Policy KP3 (A): Green Belt	Delete Policy KP3 (A) and reasoned justification and replace with new KP3(A) Green Wedge  Numerous amendments throughout the LDP to delete reference to Green Belt and insert Green Wedge instead.	The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP. Over the lifetime of the plan, these changes will not alter the impact that this plan has upon any European designated sites.
Inspector MAC2	Policy C2: Protection of Existing Community Facilities:	Delete 'and' and replace with 'or' between bullet points i) and ii) in the main text of this policy	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy
MAC4	Hearing Session 24: Miscellaneous Matters Action Point 4	Minor amendment to point iii, to delete reference to a table elsewhere in the policy.	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy
MAC5	Hearing Session 24: Miscellaneous Matters Action Point 5, Action Point 6,	Minor amendment to paragraph 10 of proposed new PolicyKP2 (C)  Minor amendment to 9 of proposed new Policy KP 2 (D&E)  Minor amendment to paragraph 2 of the reasoned justification of new	The changes are minor, and relate to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy

MAC Number	Additional Hearing Session/Action Point	Proposed Change October 2015	HRA Screening Criteria
	Action Point 7, Action Point 8	Policy KP 2 (F), in relation to ownership of the site  Delete reference to the disused railway line in KP2 (F), which was included in error in the origibal text	
MAC8	Hearing Session 25: Transport and Infrastructure Action Point 1,	Amend paragraph 4.89 of Policy KP 6 New Infrastructure, adjusting the wording of the policy and clarifying the scope of potential infrastructure requirements	The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.  The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy
MAC10	Hearing Session 25: Transport and Infrastructure Action Point 3	Amend proposed new paragraph after existing paragraph 4.105 of Policy KP8, with minor changes to wording	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy
MAC11	Hearing Session 23: Minerals Action Point 6	Amend Policy KP11: Minerals And Aggregates to include clarifications to wording	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy
MAC23	Hearing Session 24: Miscellaneous Matters Action Point 2	Amend paragraphs 5.52 and 5.53 of the reasoned justification to Policy H8 to reinsert references to WG guidance and requirement in PPW to allocate sites to meet identified need for Gypsy and Traveller accommodation. Amendments do not propose specific sites.	This change proposes the inclusion of factual details, which do not promote any new development.

MAC Number	Additional Hearing Session/Action Point	Proposed Change October 2015	HRA Screening Criteria
MAC34	Hearing Session 26 Monitoring Framework Action Point 2	Insert new sentence regarding SPG at the end of paragraph 5.186 of the reasoned justification to Policy EN12 Renewable Energy and Low Carbon Technologies. This sentence explains that SPG guidance will be produce, and does not promote Renewable Energy and Low Carbon Technologies beyond that which has already been assessed in the HRA of the original policies.	The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.
MAC39	Hearing Session 24: Miscellaneous Matters Action Point 9	Amend reasoned justification to proposed new Policy T9 Cardiff City Region 'Metro' network to update reference to national guidance. This amendment does not specify new infrastructure.	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy.
MAC40	Hearing Session 22: Retail Provision Within Strategic Sites	Amend Policy R1: Retail Hierarchy to reflect retail provision within Strategic Sites. This amendment does not specify locations for retail development.	This change proposes the inclusion of factual details, which do not promote any new development
MAC41	Hearing Session 22: Retail Provision Within Strategic Sites	Amend Policy R7: Retail Provision within Strategic Sites to remove cross reference with out –of-centre retail tests.	The change relates to the deletion of existing text from the policy which does not alter its potential to impact upon a European Site.
MAC61	Hearing Session 23:	Amend Policy M2: Preferred Order Of Mineral Resource Release and	The change relates to the deletion of

MAC Number	Additional Hearing Session/Action Point	Proposed Change October 2015	HRA Screening Criteria
	Minerals Action Point 4	reasoned justification. These changes amend the preferred order of release and do not set out new locations for specific mineral workings	existing text from the policy which does not alter its potential to impact upon a European Site.  The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.
MAC67	Hearing Session 23: Minerals Action Point 5	Insert new paragraph at the end of the reasoned justification to new Policy M7 Safeguarding of Sand and Gravel, Coal and Limestone Resources	The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.

### **REFERENCES / BIBLIOGRAPHY**

## Legislation

European Communities (1979) Council Directive 79/409/EEC on the conservation of wild birds the 'Birds Directive'.

European Communities (1992) Council Directive 92/43/EEC on the conservation of natural habitats and wild fauna and flora the 'Habitats Directive'.

Ramsar Convention on Wetlands (1971) - Intergovernmental Treaty.

The Conservation of Habitats and Species Regulations, 2010.

The Offshore Marine Conservation (Natural Habitats, &c) Regulations 2007.

### Welsh Assembly Government (WG) Guidance

Technical Advice Note (TAN) 5 (WG, 2009) Nature Conservation and Planning: Annex 6 to TAN5 (WG, 2009) The appraisal of development plans in Wales under the provisions of the Habitats Regulations.

WG Habitats Directive

Weblink. <a href="http://wales.gov.uk/topics/environmentcountryside/consmanagement/conservationbiodiversity/habitatdirective/?lang=en">http://wales.gov.uk/topics/environmentcountryside/consmanagement/conservationbiodiversity/habitatdirective/?lang=en</a>

## **European Union Guidance**

European Commission (EC) (2000) Managing Natura 2000 Sites: The Provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.

EC (2001) Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC.

EC (2007) Guidance Document on Article 6(4) of the 'Habitats Directive' 92/43/EEC. Clarification of Concepts of: Alternative Solutions, Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence, Opinion of the Commission.

### Other Relevant Reference & Guidance Sources

Hosking R & Tyldesley D (2006) How the scale of effects on internationally designated nature conservation sites in Britain has been considered in decision making: A review of authoritative decisions.

Tyldesley, D., (2009) Draft Guidance for Plan Making Authorities in Wales: The Appraisal of Plans under the Habitats Directive, for Countryside Council for Wales CCW Bangor.

WG (2004) Strategic Environmental Assessment (SEA) of Unitary Development Plans – Interim Good Practice Guide

WG (2006) Local Development Plans Wales.

TraCC Regional Transport Plan 2009,

SEWTA Rail Strategy Study Jan 2006

South East Wales Transport Alliance: Regional Transport Plan 2009

Welsh Coastal Tourism Strategy 2008

Merchant Shipping (Oil Pollution Preparedness Response and Co-operation Convention) Regulations 1998, SI 1998 No 1056.

Core Management Plan (Including Conservation Objectives) for Cardiff Beech Woods Special Area of Conservation (SAC). December 2008. Countryside Council for Wales.

Revised Draft Water Resources Management Plan. October 2011. Dŵr Cymru Welsh Water

The Usk Catchment Abstraction Management Strategy. March 2007. Environment Agency Wales.

People, Places, Futures: The Wales Spatial Plan (Update 2008). Welsh Assembly Government.

## **European Site Specific Information**

Joint Nature Conservation Committee (JNCC) - Protected Sites:

http://www.jncc.gov.uk/page-4

Browse SACs on map:

http://www.jncc.gov.uk/page-1515

Browse SPAs on map:

http://www.jncc.gov.uk/page-2598

Air Pollution Information System (APIS):

http://www.apis.ac.uk/

**UK Water Company Boundaries:** 

http://www.water.org.uk/home/our-members/find-water-company

# **European Site Specific Information Wales**

Countryside Council for Wales (NRW) - Site Management Plans:

http://www.ccw.gov.uk/landscape--wildlife/protecting-our-landscape/special-sites-project.aspx

NRW - Protected Sites Map:

http://www.ccw.gov.uk/interactive-maps/protected-sites-map.aspx

NRW - Sites of Special Scientific Interest (SSSI):

http://www.ccw.gov.uk/landscape--wildlife/protecting-our-landscape/special-landscapes--sites/protected-landscapes/sssis/sssi--report.aspx

Catchment Abstraction Management Strategies (CAMS) Wales: <a href="http://www.environment-agency.gov.uk/business/topics/water/119927.aspx">http://www.environment-agency.gov.uk/business/topics/water/119927.aspx</a>



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The City of Cardiff Council
October 2015





South East Wales
Strategic Planning Group (SEWSPG)



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- 0.2 This report details the HRA process for the new Matters Arising Changes Schedule (MAC) arising from hearings XXXX, the methods and findings, and the conclusions of the assessment.
- 0.3 An assessment was made of the likelihood of significant impact of the MAC on eight international sites in and around Cardiff, namely Cardiff Beech Woods SAC, Severn Estuary SAC, SPA, Ramsar Site, River Usk SAC, River Wye SAC, Blackmill Woodlands SAC and Aberbargoed Grasslands SAC.
- 0.4 None of the new MACs were judged to have the potential to affect any of these sites, above or beyond those potential impacts already considered in the HRA of the Deposit LDP.
- 0.5 Therefore, none of these new MACs are likely to have a significant effect on any of the international sites either alone or in combination with other plans, projects or programmes.
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- 0.7 The LDP can proceed without further reference to this section of the Habitats Regulations.

### 1.0 INTRODUCTION

- 1.1 Cardiff Council is currently progressing a Local Development Plan (LDP), and has undertaken Habitats Regulations Appraisal (HRA) of that plan in line with the requirements set by the Conservation of Habitats and Species Regulations 2010<sup>1</sup> (as amended) [referred to subsequently as The Habitats Regulations].
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### **Requirement for Habitats Regulations Appraisal**

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adversely affect the integrity<sup>3</sup> of that site. Where significant negative effects are identified, alternative options or mitigation measures should be examined to avoid any potential damaging effects. The scope of the HRA is dependent on the location, size and significance of the proposed plan or project and the sensitivities and nature of the interest features of the European Sites under consideration.

### **Guidance for Habitats Regulations Appraisal/Appropriate Assessment**

1.7 Guidance for HRA is contained in WG's Technical Advice Note 5: Nature Conservation and Planning, Annex 6 'The Appraisal of Development Plans in Wales under the Provisions of the Habitats Regulations' (Sept 2009). NRW (as CCW) has also produced draft guidance<sup>4</sup> to assist plan-making authorities to comply with the requirements of the Habitats Directive.

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1.8 The Habitats Regulations require the plan making/competent authority to consult the appropriate nature conservation statutory body [Natural Resources Wales (NRW)] if undertaking an Appropriate Assessment. Consultation on the approach to this HRA screening, including advice on which European sites should be considered within the area of search, was undertaken with NRW following the HRA of the Preferred Strategy and Deposit LDP, and their consultation responses were taken into account, where appropriate. The Habitats Regulations leave consultation with other bodies and the public to the discretion of the plan-making authority.

### 2.0 METHOD

- 2.1 Fuller details of the HRA methodology are set out in the HRA to the Deposit LDP
- 2.2 This report considers only the new Matters Arising Changes (MACs) as set out in the 'City of Cardiff Council Draft Matters Arising Changes Schedule' October 2015. The changes listed in that schedule are categorised according to the criteria set out below. Where further consideration is indicated, that change would be subject to the Policy Screening Template as set out in Appendix 2 of the original HRA of the deposit LDP.
- 2.3 The HRA of the Deposit LDP concluded that the deposit plan was not likely to have a significant effect upon any European Sites, subject to implementation of polices within the plan which were designed in part to offset any potential impact.
- 2.4 New MACs are categorised according to one or more of the following criteria:-

<sup>3</sup> Integrity is described as the sites' coherence, ecological structure and function across the whole area that enables it to sustain the habitat, complex of habitats and/or levels of populations of species for which it was classified, (ODPM, 2005).

<sup>4</sup> Tyldesley, D., 2009, Draft Guidance for Plan Making Authorities in Wales: The Appraisal of Plans under the Habitats Directive for Countryside Council for Wales CCW Bangor (Revised April 2010).

- The change will benefit biodiversity and may have a positive effect upon European Sites
- The change does not relate to a specific policy, and therefore cannot affect any European Sites when the LDP is implemented.
- This change proposes the inclusion of factual details, which do not promote any new development.
- The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy.
- The change relates to restructuring or reorganising the policy, which does not significantly alter the meaning of the policy.
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  potential of that policy to impact upon a European Site, beyond that in the
  original HRA of the deposit LDP. Therefore this change requires further
  consideration.
- The change relates to the deletion of existing text from the policy which does not alter its potential to impact upon a European Site.
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  potential of the LDP to impact upon a European Site, beyond that assessed in
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### 3.0 SCREENING

## Identification of European Sites & characterisation

3.1 Four designated European Sites lie within the Cardiff boundary, and these are set out in Table 1 below. Detailed site characterisation information for the sites, is provided in Appendix 1 of the HRA of the Deposit LDP.

Table 1	
European Sites within Plan/ Proposal Boundary	Designation
<ul> <li>Cardiff Beech Woods</li> </ul>	SAC
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Severn Estuary	Ramsar

- 3.2 Plans, programmes and projects can have spatial implications that extend beyond the intended plan boundaries. In particular, it is recognised that distance in itself is not a definitive guide to the likelihood or severity of an impact (inaccessibility/ remoteness is typically more relevant) as factors such as the prevailing wind direction, river flow direction, and ground water flow direction will all have a bearing on the relative distance at which an impact can occur. This means that a plan directing development some distance away from a European Site could still have effects on the site and therefore, needs to be considered as part of the screening process.
- 3.3 Taking into account the potential for transboundary impacts, screening of the HRA of the Deposit LDP has identified four European Sites that lie within the influence of the Cardiff Council LDP. These sites are outlined in Table 2 below and detailed information for the European Sites is provided in Appendix 1 of the HRA of the Deposit LDP.

Table 2			
European Sites Within Search Area of Plan Area	Designation	Distance from Plan/ Proposal Boundary (approx Km)	
Aberbargoed Grasslands	SAC	14	
Blackmill Woodlands	SAC	14	
River Usk	SAC	6	
River Wye	SAC	30	

### **Consideration of Other Plans, Projects and Programmes**

- 3.4 It is a requirement of Article 6(3) of the Habitats Directive that HRA examines the potential for plans and projects to have a significant effect either individually or 'in combination' with other plans, programmes & projects (PPPs). Undertaking an assessment of other PPPs for the Cardiff Council LDP required a pragmatic approach given the extensive range of PPPs underway in the surrounding region. The approach taken was cognisant of the emphasis in the forthcoming WG guidance, that considering the potential for in-combination effects is core to delivering robust/ precautionary HRA.<sup>5</sup>
- 3.5 When considering other PPPs attention was focused on those aimed at delivering planned spatial growth with the most significant being those that seek to provide, housing, employment and infrastructure. The review considered the most relevant plans including:
  - The Wales Spatial Plan (update) 2008
  - Local Development Plans in South East Wales neighbouring authorities
  - Waste and Mineral Strategies for South East Wales and neighbouring authorities
  - Regional Transport Plans where relevant and/or major development schemes
  - Catchment Abstraction Management Plans where relevant to the designated sites under consideration
  - Water Resource Management Plans
- 3.6 The potential effects of these plans are reviewed in detail at Appendix 9 of the HRA of the Deposit LDP and the potential for these effects to act 'incombination' with effects identified from Cardiff Council Deposit LDP are considered in the screening assessment (Appendix 10 of the HRA of the Deposit LDP).

## **Assessment of Potential impacts**

3.7 Each policy or section of the Deposit LDP which is the subject of a MAC, is considered against each of the criteria in Section 2.4 above. The results of this analysis are set out in Appendix 1, below.

### 4.0 CONCLUSIONS

- 4.1 This report outlines the methods used and the findings arising from the screening stage of the Habitats Regulations Appraisal undertaken for the Matters Arising Changes Schedule
- 4.2 The HRA considered eight European Sites within the influence of the Deposit LDP

<sup>&</sup>lt;sup>5</sup> The review also draws on work being undertaken on behalf of the South East Wales Strategic Planning Group (SEWSPG) to build a resource kit of information and analysis to support HRA in the region.

- 4.3 Based on the information considered, the findings of the assessment indicate that the new Matters Arising Changes to the City of Cardiff Council Deposit LDP in implementation will not have a likely significant effect on the European sites considered as part of the HRA screening and will not require full Appropriate Assessment under the Habitats Regulations.
- 4.4 This conclusion is dependent in part upon the implementation of policies in the Deposit LDP which would serve to counteract adverse effects arising from policies screened-in to this HRA.

# Appendix 1: Consideration of MACs against HRA Screening Criteria

MAC Number	Additional Hearing Session/Action Point	Proposed Change October 2015	HRA Screening Criteria
Inspector MAC1	Policy KP3 (A): Green Belt	Delete Policy KP3 (A) and reasoned justification and replace with new KP3(A) Green Wedge  Numerous amendements throughout the LDP to delete reference to Green Belt and insert Green Wedge instead.	The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP. Over the lifetime of the plan, these changes will not alter the impact that this plan has upon any European designated sites.
MAC4	Hearing Session 24: Miscellaneous Matters Action Point 4	Minor amendment to point iii, to delete reference to a table elsewhere in the policy.	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy
MAC5	Hearing Session 24: Miscellaneous Matters Action Point 5, Action Point 6, Action Point 7, Action Point 8	Minor amendment to paragraph 10 of proposed new PolicyKP2 (C)  Minor amendment to 9 of proposed new Policy KP 2 (D&E)  Minor amendment to paragraph 2 of the reasoned justification of new Policy KP 2 (F), in relation to ownership of the site  Delete reference to the disused railway line in KP2 (F), which was included in error in the origibal text	The changes are minor, and relate to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy

MAC Number	Additional Hearing Session/Action Point	Proposed Change October 2015	HRA Screening Criteria
MAC8	Hearing Session 25: Transport and Infrastructure Action Point 1,	Amend paragraph 4.89 of Policy KP 6 New Infrastructure, adjusting the wording of the policy and clarifying the scope of potential infrastructure requirements	The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.  The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy
MAC10	Hearing Session 25: Transport and Infrastructure Action Point 3	Amend proposed new paragraph after existing paragraph 4.105 of Policy KP8, with minor changes to wording	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy
MAC11	Hearing Session 23: Minerals Action Point 6	Amend Policy KP11: Minerals And Aggregates to include clarifications to wording	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy
MAC23	Hearing Session 24: Miscellaneous Matters Action Point 2	Amend paragraphs 5.52 and 5.53 of the reasoned justification to Policy H8 to reinsert references to WG guidance and requirement in PPW to allocate sites to meet identified need for Gypsy and Traveller accommodation. Amendments do not propose specific sites.	This change proposes the inclusion of factual details, which do not promote any new development.
MAC34	Hearing Session 26 Monitoring Framework	Insert new sentence regarding SPG at the end of paragraph 5.186 of the reasoned justification to Policy EN12 Renewable Energy and Low Carbon Technologies. This sentence explains that SPG guidance will be	The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site,

MAC Number	Additional Hearing Session/Action Point	Proposed Change October 2015	HRA Screening Criteria
	Action Point 2	produce, and does not promote Renewable Energy and Low Carbon Technologies beyond that which has already been assessed in the HRA of the original policies.	beyond that assessed in the original HRA of the deposit LDP.
MAC39	Hearing Session 24: Miscellaneous Matters Action Point 9	Amend reasoned justification to proposed new Policy T9 Cardiff City Region 'Metro' network to update reference to national guidance. This amendment does not specify new infrastructure.	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy.
MAC40	Hearing Session 22: Retail Provision Within Strategic Sites	Amend Policy R1: Retail Hierarchy to reflect retail provision within Strategic Sites. This amendment does not specify locations for retail development.	This change proposes the inclusion of factual details, which do not promote any new development
MAC41	Hearing Session 22: Retail Provision Within Strategic Sites	Amend Policy R7: Retail Provision within Strategic Sites to remove cross reference with out –of-centre retail tests.	The change relates to the deletion of existing text from the policy which does not alter its potential to impact upon a European Site.
MAC61	Hearing Session 23: Minerals Action Point 4	Amend Policy M2: Preferred Order Of Mineral Resource Release and reasoned justification. These changes amend the preferred order of release and do not set out new locations for specific mineral workings	The change relates to the deletion of existing text from the policy which does not alter its potential to impact upon a European Site.

MAC Number	Additional Hearing Session/Action Point	Proposed Change October 2015	HRA Screening Criteria
			The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.
MAC67	Hearing Session 23: Minerals Action Point 5	Insert new paragraph at the end of the reasoned justification to new Policy M7 Safeguarding of Sand and Gravel, Coal and Limestone Resources	The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.

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## Legislation

European Communities (1979) Council Directive 79/409/EEC on the conservation of wild birds the 'Birds Directive'.

European Communities (1992) Council Directive 92/43/EEC on the conservation of natural habitats and wild fauna and flora the 'Habitats Directive'.

Ramsar Convention on Wetlands (1971) – Intergovernmental Treaty.

The Conservation of Habitats and Species Regulations, 2010.

The Offshore Marine Conservation (Natural Habitats, &c) Regulations 2007.

### Welsh Assembly Government (WG) Guidance

Technical Advice Note (TAN) 5 (WG, 2009) Nature Conservation and Planning: Annex 6 to TAN5 (WG, 2009) The appraisal of development plans in Wales under the provisions of the Habitats Regulations.

WG Habitats Directive Weblink.

http://wales.gov.uk/topics/environmentcountryside/consmanagement/conservationbiodiversity/habitatdirective/?lang=en

## **European Union Guidance**

European Commission (EC) (2000) Managing Natura 2000 Sites: The Provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.

EC (2001) Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC.

EC (2007) Guidance Document on Article 6(4) of the 'Habitats Directive' 92/43/EEC. Clarification of Concepts of: Alternative Solutions, Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence, Opinion of the Commission.

### Other Relevant Reference & Guidance Sources

Hosking R & Tyldesley D (2006) How the scale of effects on internationally designated nature conservation sites in Britain has been considered in decision making: A review of authoritative decisions.

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WG (2006) Local Development Plans Wales.

TraCC Regional Transport Plan 2009,

SEWTA Rail Strategy Study Jan 2006

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Merchant Shipping (Oil Pollution Preparedness Response and Co-operation Convention) Regulations 1998, SI 1998 No 1056.

Core Management Plan (Including Conservation Objectives) for Cardiff Beech Woods Special Area of Conservation (SAC). December 2008. Countryside Council for Wales.

Revised Draft Water Resources Management Plan. October 2011. Dŵr Cymru Welsh Water

The Usk Catchment Abstraction Management Strategy. March 2007. Environment Agency Wales.

People, Places, Futures: The Wales Spatial Plan (Update 2008). Welsh Assembly Government.

## **European Site Specific Information**

Joint Nature Conservation Committee (JNCC) - Protected Sites:

http://www.jncc.gov.uk/page-4

Browse SACs on map:

http://www.jncc.gov.uk/page-1515

Browse SPAs on map:

http://www.jncc.gov.uk/page-2598

Air Pollution Information System (APIS):

http://www.apis.ac.uk/

**UK Water Company Boundaries:** 

http://www.water.org.uk/home/our-members/find-water-company

# **European Site Specific Information Wales**

Countryside Council for Wales (NRW) - Site Management Plans:

http://www.ccw.gov.uk/landscape--wildlife/protecting-our-landscape/special-sites-project.aspx

NRW - Protected Sites Map:

http://www.ccw.gov.uk/interactive-maps/protected-sites-map.aspx

NRW - Sites of Special Scientific Interest (SSSI):

http://www.ccw.gov.uk/landscape--wildlife/protecting-our-landscape/special-landscapes--sites/protected-landscapes/sssis/sssi--report.aspx

Catchment Abstraction Management Strategies (CAMS) Wales: <a href="http://www.environment-agency.gov.uk/business/topics/water/119927.aspx">http://www.environment-agency.gov.uk/business/topics/water/119927.aspx</a>



environmental planning and management for sustainability

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#### **HABITATS REGULATIONS APPRAISAL**

of Matters Arising Changes Schedule



The City of Cardiff Council June 2015





South East Wales Strategic Planning Group (SEWSPG)



#### HABITATS REGULATIONS APPRAISAL REPORT

of

**Matters Arising Changes Schedule** 

The City of Cardiff Council

date:	2 <sup>nd</sup> June 2015
issue no.:	1
prepared by:	Matthew Harris
quality assurance:	

The format of this report is based upon a toolkit which was developed to provide information and analysis to support the South East Wales Strategic Planning Group (SEWSPG) authorities with the process of Habitats Regulations Appraisal as required by the Habitats Directive. The approach outlined reflects official Welsh Assembly Government (WG) guidance and Countryside Council for Wales (NRW) advice, but does not have official status. Enfusion Ltd does not accept liability for use of the toolkit or decisions that are made based upon it.

(December 2010, Update)

### City of Cardiff Council Matters Arising Changes Schedule

#### **Habitats Regulations Appraisal Report**

#### **CONTENTS**

#### **SUMMARY**

1 INTRODUCTION

Requirement for Habitats Regulations Appraisal Guidance for Habitats Regulations Appraisal/Appropriate Assessment Consultation Purpose & Structure of Report

- 2 METHOD
- 3 SCREENING
- 4 CONCLUSIONS

#### **REFERENCES/BIBLIOGRAPHY**

#### **TABLES**

- 1. European Sites within Cardiff boundary
- 2. European Sites within search area buffer zone

#### **APPENDICES**

APPENDIX 1: Consideration of MACs against HRA screening criteria

#### **SUMMARY**

- 0.1 A Habitats Regulations Appraisal (HRA) of spatial development plans is a requirement of the Habitats Directive (92/43/EEC) as set out in the Conservation of Habitats and Species Regulations 2010 (as amended).
- 0.2 This report details the HRA process for the Matters Arising Changes Schedule (MAC), the methods and findings, and the conclusions of the assessment.
- 0.3 An assessment was made of the likelihood of significant impact of the MAC on eight international sites in and around Cardiff, namely Cardiff Beech Woods SAC, Severn Estuary SAC, SPA, Ramsar Site, River Usk SAC, River Wye SAC, Blackmill Woodlands SAC and Aberbargoed Grasslands SAC.
- 0.4 None of the MACs were judged to have the potential to affect any of these sites, above or beyond those potential impacts already considered in the HRA of the Deposit LDP.
- 0.5 Therefore, none of these MACs are likely to have a significant effect on any of the international sites either alone or in combination with other plans, projects or programmes.
- 0.6 The Habitats Regulations Appraisals of the LDPs of neighbouring Local Authorities have indicated that in the absence of direct effects, in-combination effects with other plans are not likely to be significant at the sites considered in the light of the evidence available.
- 0.7 The LDP can proceed without further reference to this section of the Habitats Regulations.

#### 1.0 INTRODUCTION

- 1.1 Cardiff Council is currently progressing a Local Development Plan (LDP), and has undertaken Habitats Regulations Appraisal (HRA) of that plan in line with the requirements set by the Conservation of Habitats and Species Regulations 2010<sup>1</sup> (as amended) [referred to subsequently as The Habitats Regulations].
- 1.2 The HRA of the Deposit LDP concluded that the Deposit LDP was not likely to have a significant effect upon any of the European Sites considered, either alone, or in combination with other plans, projects or programmes in the region.
- 1.3 The present HRA report considers the effect of the Matters Arising Changes Schedule upon the policies and proposals of the Deposit LDP, and whether those changes would give rise to potential effects upon European Sites above or beyond those already assessed.

#### **Requirement for Habitats Regulations Appraisal**

- 1.4 The European Directive (92/43/EEC) on the Conservation of Natural Habitats and Wild Flora and Fauna ('The Habitats Directive') protects habitats and species of European nature conservation importance. The Habitats Directive establishes a network of internationally important sites designated for their ecological status. These are referred to as Natura 2000 (N2K) sites or European Sites, and comprise Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) [which are classified under the Council Directive 79/409/EEC on the conservation of wild birds, the 'Birds Directive'].
- 1.5 Articles 6 (3) and 6 (4) of the Habitats Directive require HRA to be undertaken on proposed plans or projects which are not necessary for the management of the site but which are likely to have a significant effect on one or more European sites either individually, or in combination with other plans and projects.<sup>2</sup> This requirement is set out in Regulation 102 of the Conservation of Habitats and Species Regulations 2010 (as amended) which require the application of HRA to all land use plans. Welsh Government (WG) guidance also requires that Ramsar sites (which support internationally important wetland habitats) and are listed under the Convention on Wetlands of International Importance (Ramsar Convention 1971) are included within HRA/AA and that candidate SACs and proposed SPAs are treated as 'designated' sites in the context of HRA. In this report the term 'European sites' will be used when referring to SACs, cSACs, SPAs, pSPAs and Ramsar sites.
- 1.6 The purpose of HRA is to assess the impacts of a land-use plan, in combination with the effects of other plans and projects, against the conservation objectives of a European Site and to ascertain whether it would

<sup>1</sup> The Conservation of Habitats and Species Regulations 2010 (as amended) consolidate all the various amendments made to the 1994 Regulations in respect of England and Wales.

<sup>2</sup> Potentialists whether are effect in the constant of the c

<sup>&</sup>lt;sup>2</sup> Determining whether an effect is 'significant' is undertaken in relation to the designated interest features and conservation objectives of the Natura 2000 sites. If an impact on any conservation objective is assessed as being adverse then it should be treated as significant. Where information is limited the precautionary principle applies and significant effects should be assumed until evidence exists to the contrary.

adversely affect the integrity<sup>3</sup> of that site. Where significant negative effects are identified, alternative options or mitigation measures should be examined to avoid any potential damaging effects. The scope of the HRA is dependent on the location, size and significance of the proposed plan or project and the sensitivities and nature of the interest features of the European Sites under consideration.

#### **Guidance for Habitats Regulations Appraisal/Appropriate Assessment**

1.7 Guidance for HRA is contained in WG's Technical Advice Note 5: Nature Conservation and Planning, Annex 6 'The Appraisal of Development Plans in Wales under the Provisions of the Habitats Regulations' (Sept 2009). NRW (as CCW) has also produced draft guidance<sup>4</sup> to assist plan-making authorities to comply with the requirements of the Habitats Directive.

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1.8 The Habitats Regulations require the plan making/competent authority to consult the appropriate nature conservation statutory body [Natural Resources Wales (NRW)] if undertaking an Appropriate Assessment. Consultation on the approach to this HRA screening, including advice on which European sites should be considered within the area of search, was undertaken with NRW following the HRA of the Preferred Strategy and Deposit LDP, and their consultation responses were taken into account, where appropriate. The Habitats Regulations leave consultation with other bodies and the public to the discretion of the plan-making authority.

#### 2.0 METHOD

- 2.1 Fuller details of the HRA methodology are set out in the HRA to the Deposit LDP
- 2.2 This report considers only Matters Arising Changes (MACs) as set out in the 'City of Cardiff Council Draft Matters Arising Changes Schedule' May 2015. The changes listed in that schedule are categorised according to the criteria set out below. Where further consideration is indicated, that change would be subject to the Policy Screening Template as set out in Appendix 2 of the original HRA of the deposit LDP.
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#### **Consideration of Other Plans, Projects and Programmes**

- 3.4 It is a requirement of Article 6(3) of the Habitats Directive that HRA examines the potential for plans and projects to have a significant effect either individually or 'in combination' with other plans, programmes & projects (PPPs). Undertaking an assessment of other PPPs for the Cardiff Council LDP required a pragmatic approach given the extensive range of PPPs underway in the surrounding region. The approach taken was cognisant of the emphasis in the forthcoming WG guidance, that considering the potential for in-combination effects is core to delivering robust/ precautionary HRA.<sup>5</sup>
- 3.5 When considering other PPPs attention was focused on those aimed at delivering planned spatial growth with the most significant being those that seek to provide, housing, employment and infrastructure. The review considered the most relevant plans including:
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  - Catchment Abstraction Management Plans where relevant to the designated sites under consideration
  - Water Resource Management Plans
- 3.6 The potential effects of these plans are reviewed in detail at Appendix 9 of the HRA of the Deposit LDP and the potential for these effects to act 'incombination' with effects identified from Cardiff Council Deposit LDP are considered in the screening assessment (Appendix 10 of the HRA of the Deposit LDP).

#### **Assessment of Potential impacts**

3.7 Each policy or section of the Deposit LDP which is the subject of a MAC, is considered against each of the criteria in Section 2.4 above. The results of this analysis are set out in Appendix 1, below.

#### 4.0 CONCLUSIONS

- 4.1 This report outlines the methods used and the findings arising from the screening stage of the Habitats Regulations Appraisal undertaken for the Matters Arising Changes Schedule
- 4.2 The HRA considered eight European Sites within the influence of the Deposit LDP

<sup>&</sup>lt;sup>5</sup> The review also draws on work being undertaken on behalf of the South East Wales Strategic Planning Group (SEWSPG) to build a resource kit of information and analysis to support HRA in the region.

- 4.3 Based on the information considered, the findings of the assessment indicate that the Matters Arising Changes to the City of Cardiff Council Deposit LDP in implementation will not have a likely significant effect on the European sites considered as part of the HRA screening and will not require full Appropriate Assessment under the Habitats Regulations.
- 4.4 This conclusion is dependent in part upon the implementation of policies in the Deposit LDP which would serve to counteract adverse effects arising from policies screened-in to this HRA.

#### Appendix 1: Consideration of MACs against HRA Screening Criteria

MAC	Deposit Policy /Para No	Proposed Change	HRA Screening Criteria
Number			
Chapter 1:	:Introduction		
MAC1	1.1 – 1.19	Update and amend paragraphs 1.1 – 1.19	The change does not relate to a specific policy, and therefore cannot affect any European Sites when the LDP is implemented.
MAC2	New paragraph	Insert new paragraph in the Introduction after existing paragraph 1.19 Other Assessment Processes.	The change does not relate to a specific policy, and therefore cannot affect any European Sites when the LDP is implemented.
	: The Cardiff Context and Key Is		
MAC3	2.1 (page 21)	Key Environmental trends and issues	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy.
Chapter 4:	Left	 Diagram	<u> </u>
MAC4	KP1: Level of Growth	Replace existing Policy KP 1: Level of Growth with revised KP1  Please see Appendix One of this schedule for amended KP 1	The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.  The change relates to the deletion of existing text from the policy which does not alter its potential to impact upon a European Site.  Taken together, these changes do not increase the level of growth, nor do they propose new locations for growth, beyond that proposed
MAC5	Policy KP2 Strategic Sites KP2	Amend Policy KP2:Strategic Sites and	in the Deposit LDP, which was subject to HRA.  The change relates to restructuring or reorganising the policy, which

MAC Number	Deposit Policy /Para No	Proposed Change	HRA Screening Criteria
	New Key Policies, KP2(A) to KP2(H)	reasoned justification and insert new policies KP2A to H after existing KP2	does not significantly alter the meaning of the policy.
		Please see Appendix Two of the MAC schedule for new Policies KP2(A) – KP2(H)	The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.  The change relates to the deletion of existing text from the policy
		Policy KP2  New paragraphs to be inserted after existing paragraph 4.54  Delete existing paragraphs 4.55 to 4.67 relating to Strategic Site H as these matters will now be covered by proposed new KP2(H)	which does not alter its potential to impact upon a European Site. – The deleted section includes the sentence 'Additionally, the adjoining Estuary is a European designated site so run-off issues and disturbance will be particularly sensitive.' However, this is replaced in New Policy KP2(H) by the sentence 'Run-off will enter the River Severn Estuary, a European designated site so drainage and potential disturbance to birds will need to be suitably addressed.'
MAC6	KP4: Master planning Approach Paragraphs 4.84 – 4.85	Amend reasoned justification of KP4: Masterplanning approach	The change relates to the deletion of existing text from the policy which does not alter its potential to impact upon a European Site. The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP. Taken together, these changes reflect the embedding of the Masterplanning Framework document into the LDP, which does not alter the conclusion of the HRA of the LDP.
MAC7	KP5: Good Quality and Sustainable Design	Amend criterion (ix) of Policy KP5: Good Quality and Sustainable Design	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy.

MAC Number	Deposit Policy /Para No	Proposed Change	HRA Screening Criteria
MAC8	Policy KP6: New Infrastructure	Amend Policy KP 6 and reasoned justification	The change relates to the deletion of existing text from the policy which does not alter its potential to impact upon a European Site.  The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.  The changes include the insertion of a bullet point 'Flood mitigation / defences', which may conceivably refer to sea defences along the Severn Estuary Foreshore, which may conceivably lead to an effect upon the Severn Estuary designations. However, no detail is provided as to the actual location of these defences, so the effects of this insertion cannot be assessed further, and in any event, the potential need for sea defences were addressed in paragraphs 4.57 to 4.61 of the deposit LDP, which was subject to HRA, which itself was considered acceptable by NRW.
MAC9	Policy KP7 Planning Obligations Paragraphs 4.98 and 4.101	Amend KP 7 and paragraph reasoned justification	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy.
MAC10	Policy KP8 new paragraph and amendments to 4.117	Insert new paragraph after existing paragraph 4.105 and amend paragraph 4.117 of Policy KP8.  New paragraph after existing paragraph 4.105	The change will benefit biodiversity and may have a positive effect upon European Sites, by reducing the effects of pollution arising from motorised vehicle traffic.
MAC11	KP11: Minerals And Aggregates	Amend Policy KP11 and the reasoned justification	The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond

MAC Number	Deposit Policy /Para No	Proposed Change	HRA Screening Criteria
	Paragraph 4.141		that assessed in the original HRA of the deposit LDP. The change relates to the deletion of existing text from the policy which does not alter its potential to impact upon a European Site. Taken together, these changes do not alter the potential for impact of this policy upon any European Sites, as assessed in the original HRA of the Deposit LDP.
MAC12	Policy KP12 Waste Paragraphs 4.144, 4.145	Amend Policy KP 12 and the reasoned justification	The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.  The change relates to the deletion of existing text from the policy which does not alter its potential to impact upon a European Site.
MAC13	Policy KP13: Responding to Evidenced Social Needs	Amend Policy KP13 and reasoned justification  Insert new paragraph after existing paragraph 4.149	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy. The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.
MAC14	KP15 Climate Change Paragraph 4.167	Amend Policy KP15 and paragraph 4.167 of the reasoned justification	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy
MAC15	Policy KP16 Green Infrastructure	Amend Policy KP16	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy
MAC16	Policy KP17 Built Heritage Paragraphs 4.174, 4.176, 4.178, 4.179	Amend Policy KP17	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy

MAC Number	Deposit Policy /Para No	Proposed Change	HRA Screening Criteria
MAC17	KP18: Natural Resources Paragraph 4.184	Amend criterion (iv) and paragraph 4.184 of Policy KP18	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy
MAC18	Policy H1 Non Strategic Housing Sites Table 3	Amend Table 3 of Policy H1	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy. The changes to these non-strategic housing allocations are relatively small and are not likely to result in a different effect to that previously assessed in the HRA of the Deposit LDP
MAC19	Policy H3 Affordable Housing Paragraphs 5.11, 5.12, 5.13	Amend Policy H3 and paragraphs 5.11, 5.12 and 5.13 of the reasoned justification.	The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.  The change relates to the deletion of existing text from the policy which does not alter its potential to impact upon a European Site.
MAC20	Policy H4: Change Of Use Of Residential Land Or Properties Paragraph 5.18	Amend Policy H4 and paragraph 5.18 of the reasoned justification.	The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.  The change relates to the deletion of existing text from the policy which does not alter its potential to impact upon a European Site.
MAC21	Policy H5 Sub-Division or Conversion of Residential Properties	Amend Policy H5	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy.
MAC22	Policy H7:Allocation Policy for Gypsy and Traveller Site Paragraphs 5.34 – 5.50	Delete Policy H7 and reasoned justification	The change relates to the deletion of existing text from the policy which does not alter its potential to impact upon a European Site. The policy relates to the location of Gypsy and Traveller allocations, so its deletion would not affect any European Sites.

MAC Number	Deposit Policy /Para No	Proposed Change	HRA Screening Criteria
MAC23	Policy H8 Sites for Gypsy and Traveller Caravans Paragraphs 5.52 and 5.53	Amend criterion (ii) and paragraphs 5.52 and 5.53 of the reasoned justification to Policy H8	The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.  The change relates to the deletion of existing text from the policy which does not alter its potential to impact upon a European Site.  The amendments refer to a Gypsy and Traveller site selection process to take place over the next 2 years, and as these sites have not yet been selected, their impacts upon any European Sites cannot yet be assessed. Where individual sites come forward in the future for construction of Gypsy and Traveller sites, these will be subject to individual HRA at the project level.
MAC24	Policy EC3: Alternative Use Of Employment Land And Premises Paragraphs 5.68 and 5.69	Amend Policy EC3 and paragraphs 5.68 and 5.69 of the reasoned justification	The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.  The change relates to the deletion of existing text from the policy which does not alter its potential to impact upon a European Site.
MAC25	New Policy	Insert new policy and reasoned justification after paragraph 5.85 new policy to be referenced EC7	The change relates to the creation of a new policy which does not have the potential to impact upon a European Site.  The new policy does not specify any new locations, so its effects upon any European Sites cannot yet be assessed. Where individual sites come forward in the future for employment use, these will be subject to individual HRA at the project level. The new policy refers to sites allocated in policies KP2 and EC4; these have previously been assessed in the HRA of the Deposit LDP
MAC26	Policy EN: Countryside Protection	Amend Policy EN1 and the reasoned justification	The change relates to restructuring or reorganising the policy, which does not significantly alter the meaning of the policy.

MAC Number	Deposit Policy /Para No	Proposed Change	HRA Screening Criteria
MAC27	Policy EN2 Conversion, Extension and Replacement Buildings in the Countryside Paragraph 5.96	Amend Policy EN2 by deleting criterion v and to include criterion vi within an amended criterion ii remaining parts of the policy stays the same. Amend paragraph 5.96	The change relates to restructuring or reorganising the policy, which does not significantly alter the meaning of the policy.
MAC28	Policy EN3 : Landscape Protection Paragraph 5.106	Amend Policy EN3 and reasoned justification	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy.
MAC29	Policy EN4 River Valleys	Amend paragraph 5.118 of Policy EN4	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy.
MAC30	Policy EN5:—Local Nature Reserves And Non-Statutory Sites Of Nature Conservation And Geological Importance	Rename and amend Policy EN5 and reasoned justification	The change will benefit biodiversity and may have a positive effect upon European Sites
MAC31	Policy EN6 Ecological Networks and Features of Importance for Biodiversity Paragraph 5.137	Delete paragraph 5.137 of EN6	The change relates to the deletion of existing text from the policy which does not alter its potential to impact upon a European Site.
MAC32	Policy EN7: Priority Habitats And Species	Amend Policy EN7 and reasoned justification	The change will benefit biodiversity and may have a positive effect upon European Sites

MAC Number	Deposit Policy /Para No	Proposed Change	HRA Screening Criteria
MAC33	Policy EN9: Conservation of the Historic Environment: paragraphs 5.152, 5.153, 5.155, 5.159	Amend paragraphs 5.152, 5.153, 5.155 and 5.159 of the reasoned justification to Policy EN9	The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.
MAC34	EN12: Renewable Energy And Low Carbon Technologies Paragraphs 5.184, 5.186, 5.187	Amend Policy EN12 and reasoned justification	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy.
MAC35	EN13 Air, Noise, Light Pollution and Contaminated Land, Paragraph 5.208	Amend title of Policy EN13 and paragraph 5.208 of the reasoned justification	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy.
MAC36	EN14: Flood Risk Paragraph 5.211	Amend Policy EN14 and paragraph 5.211 of the reasoned justification	The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.  This new text clarifies and updates the policy in relation to current NRW flood risk management advice, and does not alter the impact of this policy upon European Sites as previously assessed by the HRA of the Deposit LDP.
MAC37	Policy T1: Walking and	Amend paragraph 5.221 of Policy T1	The change is minor, and relates to spelling, grammar, or accuracy or

MAC Number	Deposit Policy /Para No	Proposed Change	HRA Screening Criteria
	Cycling Paragraph 5.221		clarification of wording, which do not alter the meaning of the policy.
MAC38	Policy T2: Strategic Rapid Transit And Bus Corridors	Amend Policy T2 and reasoned justification  T2: STRATEGIC RAPID TRANSIT AND	The change will benefit biodiversity and may have a positive effect upon European Sites, by reducing the effects of pollution arising from motorised vehicle traffic.
		BUS CORRIDORS	Bus route enhancements to not entail construction of new roads, and so are not likely to impact upon European Sites in this respect.
			The alignment and mode of rapid transit corridors and how they connect to and interchange with the public transport network is not yet known and cannot be defined precisely on a map. Therefore the impacts of these rapid transit corridors cannot be fully assessed at this stage. However, individual developments will be subject to HRA at the detailed project stage.
			The changes introduce a 'Southern Bus Corridor' which passes via the Cardiff Bay Barrage, which is close to the boundary of the Severn Estuary SAC/SPA/Ramsar. However, this route is already accessible to traffic, and the road across the barrage is more than 200m away from the SPA boundary, which is the distance beyond which visual disturbance of birds is thought not to occur. Therefore the potential for impact upon the Severn Estuary is not likely to be significant.
MAC39	New Policy and reasoned justification	Insert new policy to be referenced T9 after existing paragraph 5.259	The change will benefit biodiversity and may have a positive effect upon European Sites, by reducing the effects of pollution arising from motorised vehicle traffic.
			The alignment and mode of a 'Metro' network is not yet known and

MAC Number	Deposit Policy /Para No	Proposed Change	HRA Screening Criteria
			cannot be defined precisely on a map. Therefore the impacts of these rapid transit corridors cannot be fully assessed at this stage. However, individual developments will be subject to HRA at the detailed project stage.
MAC40	New Policy and reasoned justification	Insert new policy at the start of the Retail Section to be referenced R1	The change relates to the creation of a new policy which does not have the potential to impact upon a European Site.
MAC41	Policy R1 Retail Provision Within Strategic Sites	Amend Policy R1 i.	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy.
MAC42	Policy R3: Protected Shopping Frontages Para 5.264 of	Amend paragraph 5.264 of Policy R3	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy.
MAC43	Policy R4:Retail Development (Out of Centre) Paragraphs 5.271, 5.272, 5.276	Amend paragraph 5.271 and delete paragraphs 5.272 and 5.276 of the reasoned justification to Policy R4	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy. The change relates to the deletion of existing text from the policy which does not alter its potential to impact upon a European Site
MAC44	Policy R5 District Centres	Amend Policy R5	The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.
MAC45	Policy R6 Local Centres	Amend Policy R6 and insert new paragraph after existing paragraph 5.295	The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.
MAC46	Policy R7: Food and Drink Uses Paragraphs 5.299,	Amend paragraph 5.299 and delete paragraph 5.303 of Policy R7	The change relates to the deletion of existing text from the policy which does not alter its potential to impact upon a European Site.

MAC Number	Deposit Policy /Para No	Proposed Change	HRA Screening Criteria	
	5.303,			
MAC47	Policy R8 Protection Of Local Shopping Parades	Delete Policy R8 and reasoned justification	The change relates to deletion of an existing policy which does not alter the potential of the LDP to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.	
MAC48	All Retail Policies	Re-order and renumber retail policies	The change relates to restructuring or reorganising the policy, whi does not significantly alter the meaning of the policy.	
MAC49	Policy C1 Community Uses Paragraphs 5.311 and 5.316 of	Amend reasoned justification of Policy C1 and insert new paragraph after existing paragraph 5.311		
MAC50	Policy C2 Community Safety / Creating Safe Environments Paragraphs 5.318, 5.321	Amend paragraph 5.318 and 5.321 of existing Policy C2	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy	
MAC51	New Policy and reasoned justification	Insert new Policy to be referenced C2 after existing paragraph 5.316	The change relates to the creation of a new policy which does not have the potential to impact upon a European Site.	
MAC52	Policy C4: Provision For Open Space, Outdoor Recreation, And Sport Paragraph 5.340	Amend Policy C4 and reasoned justification	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy.	
MAC53	Policy C5: Provision For	Delete Policy C5 and reasoned	The change relates to deletion of an existing policy which does not	

MAC Number	Deposit Policy /Para No	Proposed Change	HRA Screening Criteria	
	Allotments And Community Growing	justification	alter the potential of the LDP to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.	
MAC54	Policy C6: Provision of Children's Play	Delete Policy C6 and reasoned justification	The change relates to deletion of an existing policy which does not alter the potential of the LDP to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.	
MAC55	Policy C7 Health Paragraphs 5.355, 5.350, 5.362	Amend Policy C7 and reasoned justification	The change relates to the deletion of existing text from the policy which does not alter its potential to impact upon a European Site.	
MAC56	C8 Planning for Schools	Delete Policy C8 and reasoned justification	The change relates to deletion of an existing policy which does not alter the potential of the LDP to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.	
MAC57	Policy C9: New Educational Facilities	Delete Policy C9 and reasoned justification	The change relates to deletion of an existing policy which does not alter the potential of the LDP to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.	
MAC58	Policy C10: Health Employment Non Strategic Allocation	Delete Policy C10 and reasoned justification  The change relates to deletion of an existing policy alter the potential of the LDP to impact upon a European that assessed in the original HRA of the deposit LDP.		
MAC59	New Policy and reasoned justification  Policy M1: Mineral	Insert new Policy after existing paragraph 5.362 to be referenced as Policy C7  Amend Policy M1 and the reasoned	The change relates to the creation of a new policy which does not have the potential to impact upon a European Site. No specific locations for schools are proposed so their impact cannot be assessed at this stage, however, individual developments will be subject to HRA at the detailed project stage.  The change is minor, and relates to spelling, grammar, or accuracy or	

MAC Number	Deposit Policy /Para No	Proposed Change	HRA Screening Criteria
	Limestone Reserves And Resources Paragraph 5.380	justification	clarification of wording, which do not alter the meaning of the policy.
MAC61	Policy M2: Preferred Order Of Mineral Resource Release Paragraphs 5.382, 5.384, 5.384	M2: PREFERRED ORDER OF MINERAL RESOURCE RELEASE	The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.  The change relates to the deletion of existing text from the policy which does not alter its potential to impact upon a European Site.  Taken together, these changes do not alter the potential for impact of this policy upon any European Sites, as assessed in the original HRA of the Deposit LDP.
MAC62	Policy M3: Quarry Closures And Extension Limits Paragraphs 5.389 and 5.391	Amend Policy M3 and reasoned justification in paragraphs 5.389 and 5.391	The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.  The change relates to the deletion of existing text from the policy which does not alter its potential to impact upon a European Site.  These changes propose no new areas for mineral extraction, compared with the Deposit LDP, which was subject to HRA.
MAC63	Policy M6: Dredged Aggregate Landing And Distribution Facilities Paragraphs 5.405, 5.408	Amend Policy M6 and the reasoned justification	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy. The inclusion of a reference to the need to consider the Severn Estuary SAC/SPA/Ramsar site should serve to further reduce the potential for this policy to affect those sites, as assessed in the HRA of the Deposit LDP.
MAC64	Policy M7: Safeguarding Of	Delete Policy M7 and the reasoned	The change relates to deletion of an existing policy which does not

MAC Number	Deposit Policy /Para No	Proposed Change	HRA Screening Criteria
	Sand And Gravel Resource	justification	alter the potential of the LDP to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.
MAC65	Policy M8: Safeguarding Coal Resources	Delete Policy M8 and the reasoned justification	The change relates to deletion of an existing policy which does not alter the potential of the LDP to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.
MAC66	Policy M9: Safeguarding Of Limestone Resources	Delete Policy M9 and the reasoned justification	The change relates to deletion of an existing policy which does not alter the potential of the LDP to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.
MAC67	New Policy: Safeguarding Of Sand And Gravel, Coal And Limestone Resources	Insert new policy after existing paragraph 5.408 to be referenced M7	The change relates to the creation of a new policy which does not have the potential to impact upon a European Site.  This new policy encompasses the deleted M7, M8 and M9 policies, without increasing the potential for those activities to affect European Sites (Specifically, the Cardiff Beech Woods SAC), beyond that assessed in the HRA of the Deposit LDP.
MAC68	New Policy: Areas Where Coal Working Will Not Be Acceptable	Insert new policy to be referenced M8	The change relates to the creation of a new policy which does not have the potential to impact upon a European Site. It relates to exclusion of coal mining, so will not lead to new development which would affect European Sites.
MAC69	Policy W1: Land for Waste Management	Delete Policy W1 and reasoned justification	The change relates to deletion of an existing policy which does not alter the potential of the LDP to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.  Although the allocation in the Deposit LDP of the waste management site at Lamby Way was assessed in the HRA of the Deposit LDP as not likely to have a significant effect upon the Severn Estuary designations, it is nonetheless welcomed that this allocation is to be removed, thereby removing any remaining potential for impact.

MAC Number	Deposit Policy /Para No	Proposed Change	HRA Screening Criteria
MAC70	Policy W2: Sites For Waste Management Facilities	Amend Policy W2 and the reasoned justification	The change relates to the insertion of new text into the policy which does not alter its potential to impact upon a European Site, beyond that assessed in the original HRA of the deposit LDP.  Caveats which prevent unacceptable harm to the environment are retained in the amended policy.
			No specific locations are proposed, so these cannot be assessed in detail, but individual developments will be screened for the need for HRA at the detailed project stage.
MAC71	New Appendix	Insert New Appendix Showing Sites over 10 dwellings with planning permission for residential  Please see Appendix Three of this schedule	These sites all have planning consent, either with or without Section 106 legal agreement, and so it can be presumed that they have already been screened for the need for HRA.
MAC72	New Appendix	Insert New Appendix – Designated Sites	This change proposes the inclusion of factual details, which do not promote any new development.
MAC73	New Appendix: Areas of Protection	Insert New Appendix	This change proposes the inclusion of factual details, which do not promote any new development.
MAC74	Appendix 5	Delete Appendix 5:Suplementary Planning Guidance and insert new appendix  Please see Appendix Four of this	The change does not relate to a specific policy, and therefore cannot affect any European Sites when the LDP is implemented.

MAC Number	Deposit Policy /Para No	Proposed Change	HRA Screening Criteria
		schedule	
MAC75	Appendix 9	Insert new monitoring chapter & monitoring framework	The change does not relate to a specific policy, and therefore cannot affect any European Sites when the LDP is implemented.
		Please see Appendix Five of this schedule.	
MAC76		Amend the plan to ensure appropriate cross referencing is applied	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy.
MAC77	, , , , , , , , , , , , , , , , , , , ,		The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy.
MAC78		To address any typographical or grammatical errors	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy.
MAC79		Amend the plan to ensure references to national guidance are correct	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy.
MAC80		Amend the Key Diagram to reflect amendments proposed through the matters arising.	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy.
MAC81		Amend the Plan to remove references to the Background Technical Papers	The change is minor, and relates to spelling, grammar, or accuracy or clarification of wording, which do not alter the meaning of the policy.

MAC	Deposit Policy /Para No	Proposed Change	HRA Screening Criteria
Number			
		where appropriate	
		Amendments to the Proposals Map	Most changes relate to factual amendments of allocated site boundaries, river corridors and mineral safeguarding areas. The changes to the policies which are reflected in these Proposals Map changes, are assessed in full above.
			The denotation of the Flexibility Areas has been amended, but this does not entail a change in the location, scale or impacts of those flexibility areas, nor therefore any additional potential for impact upon European Sites.
			The housing allocation at Roath Basin, denoted by Number 2 on the MAC PM5, has already received consent (03/00099/C) and it can be assumed that it was screened for the need for an HRA at the planning application stage.

#### **REFERENCES / BIBLIOGRAPHY**

#### Legislation

European Communities (1979) Council Directive 79/409/EEC on the conservation of wild birds the 'Birds Directive'.

European Communities (1992) Council Directive 92/43/EEC on the conservation of natural habitats and wild fauna and flora the 'Habitats Directive'.

Ramsar Convention on Wetlands (1971) – Intergovernmental Treaty.

The Conservation of Habitats and Species Regulations, 2010.

The Offshore Marine Conservation (Natural Habitats, &c) Regulations 2007.

#### Welsh Assembly Government (WG) Guidance

Technical Advice Note (TAN) 5 (WG, 2009) Nature Conservation and Planning: Annex 6 to TAN5 (WG, 2009) The appraisal of development plans in Wales under the provisions of the Habitats Regulations.

WG Habitats Directive Weblink.

http://wales.gov.uk/topics/environmentcountryside/consmanagement/conservationbiodiversity/habitatdirective/?lang=en

#### **European Union Guidance**

European Commission (EC) (2000) Managing Natura 2000 Sites: The Provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.

EC (2001) Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC.

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#### Other Relevant Reference & Guidance Sources

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#### **European Site Specific Information**

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Browse SACs on map:

http://www.jncc.gov.uk/page-1515

Browse SPAs on map:

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## Cardiff Local Development Plan



# **Background Technical Paper No.4 Habitat Regulations Report**



#### HABITATS REGULATIONS APPRAISAL SCREENING REPORT

The County Council of the City and County of Cardiff Local Development Plan Preferred Strategy

date:	28 <sup>th</sup> September 2012
issue no.:	1
prepared by:	Matthew Harris
quality assurance:	

This toolkit was developed to provide information and analysis to support the South East Wales Strategic Planning Group (SEWSPG) authorities with the process of Habitats Regulations Appraisal as required by the Habitats Directive. The approach outlined reflects official Welsh Assembly Government (WAG) guidance and Countryside Council for Wales (CCW) advice, but does not have official status. Enfusion Ltd does not accept liability for use of the toolkit or decisions that are made based upon it.

(December 2010, Update)

#### County Council of the City and County of Cardiff Local Development Plan Preferred Strategy

#### **Habitats Regulations Appraisal Screening Report**

#### **CONTENTS**

#### **EXECUTIVE SUMMARY**

#### 1 INTRODUCTION

Requirement for Habitats Regulations Appraisal
Guidance for Habitats Regulations Appraisal/Appropriate Assessment
Consultation
Purpose & Structure of Report

#### 2 METHOD

**Screening** 

#### 3 SCREENING

Task 1: Identification of European Sites

Task 2: Plan Review, Policy Screening and Identification of likely impacts

Task 3: Consideration of other plans, programmes and projects

**Task 4: Screening Assessment** 

#### 4 CONCLUSIONS, FUTURE WORK

#### REFERENCES/BIBLIOGRAPHY

#### **TABLES**

- 1. Habitats Regulations Appraisal: Key Stages
- 2. HRA Screening Stage: Key Tasks
- 3. European Sites within Cardiff boundary
- 4. European Sites within search area buffer zone
- 5. HRA Screening Table Summary

#### **APPENDICES**

- 1. European site descriptions/ characterisation
- 2. Policy Screening
- 3. Potential Impacts
- 4. Plans and Programmes Review
- 5. Likely Significant Effect Screening Assessment

#### **EXECUTIVE SUMMARY**

- 0.1 Habitats Regulations Appraisal (HRA) of spatial, development plans is a requirement of the Habitats Directive (92/43/EEC) as set out in the Conservation of Habitats and Species Regulations 2010. This report details the HRA Screening for the Preferred Strategy of the Cardiff Council Local Development Plan (LDP) the methods and findings and the conclusions of the Screening Assessment.
- O.2 An assessment was made of the likelihood of significant impact of the Preferred Strategy on eight international sites in and around Cardiff, namely Cardiff Beech Woods SAC, Severn Estuary SAC, SPA, Ramsar Site, the River Usk SAC, the River Wye SAC, Blackmill Woodlands SAC and Aberbargoed Grasslands SAC.
- O.3 Those elements of the Preferred Strategy which were judged to have the potential to affect some or all of these sites, were Policy 1: Level of growth-Delivering sustainable development, Policy 2: Strategic sites to deliver growth, Policy 5: City Centre and Bay Business Areas, Policy 6: Minerals and Aggregates, Policy 7: Waste, Policy 24: Strategic Recreational Routes, Strategic Growth Options A, B and C, Spatial Option Greenfield site north of M4 at Thornhill, Spatial Option Dispersed smaller greenfield sites, Spatial Option Dispersed brownfield sites and Spatial Option Greenfield sites south of Creigiau/north Junction 33.
- 0.4 Following this screening assessment, none of these policies were considered likely to have a significant effect on any of the international sites either alone or in combination with other plans, projects or programmes.
- 0.5 The Habitats Regulations Appraisals of the LDPs of neighbouring Local Authorities have indicated that in the absence of direct effects, in-combination effects with other plans are not likely to be significant at the sites considered in the light of the evidence available.
- 0.6 Subject to any significant changes to the proposals considered by the HRA, this plan will now proceed without further reference to the Habitats Regulations.

#### 1.0 INTRODUCTION

- 1.1 Cardiff Council is currently developing a Preferred Strategy for its Local Development Plan (LDP) and is undertaking Habitats Regulations Appraisal (HRA) in line with the requirements set by the Conservation of Habitats and Species Regulations 2010<sup>1</sup> [The Habitats Regulations].
- 1.2 This HRA Screening report addresses the likely significant effects on designated European Sites of implementing the policies and proposals of the Preferred Strategy
- 1.3 Habitats Regulations Appraisal is also commonly referred to as Appropriate Assessment (AA) although the requirement for AA is first determined by an initial 'screening' stage undertaken as part of the full HRA. This report addresses the Screening Phase of the HRA; it outlines the screening tasks and the key findings emerging from the assessment.

## **Requirement for Habitats Regulations Appraisal**

- 1.4 The European Directive (92/43/EEC) on the Conservation of Natural Habitats and Wild Flora and Fauna (the Habitats Directive) protects habitats and species of European nature conservation importance. The Habitats Directive establishes a network of internationally important sites designated for their ecological status. These are referred to as Natura 2000 (N2K) sites or European Sites, and comprise Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) [which are classified under the Council Directive 79/409/EEC on the conservation of wild birds, the 'Birds Directive'].
- 1.5 Articles 6 (3) and 6 (4) of the Habitats Directive require AA to be undertaken on proposed plans or projects which are not necessary for the management of the site but which are likely to have a significant effect on one or more European sites either individually, or in combination with other plans and projects.<sup>2</sup> This requirement is set out in the Conservation of Habitats and Species Regulations 2010 which require the application of HRA to all land use plans. Welsh Assembly Government (WAG) guidance also requires that Ramsar sites (which support internationally important wetland habitats) and are listed under the Convention on Wetlands of International Importance (Ramsar Convention 1971) are included within HRA/AA and that candidate SACs and proposed SPAs are treated as 'designated' sites in the context of HRA. In this report the term 'European sites' will be used when referring to SACs, cSACs, SPAs, pSPAs and Ramsar sites.
- 1.6 The purpose of HRA/AA is to assess the impacts of a land-use plan, in combination with the effects of other plans and projects, against the conservation objectives of a European Site and to ascertain whether it would

<sup>&</sup>lt;sup>1</sup> The Conservation of Habitats and Species Regulations 2010 consolidate all the various amendments made to the 1994 Regulations in respect of England and Wales.

<sup>&</sup>lt;sup>2</sup> Determining whether an effect is 'significant' is undertaken in relation to the designated interest features and conservation objectives of the Natura 2000 sites. If an impact on any conservation objective is assessed as being adverse then it should be treated as significant. Where information is limited the precautionary principle applies and significant effects should be assumed until evidence exists to the contrary.

adversely affect the integrity<sup>3</sup> of that site. Where significant negative effects are identified, alternative options or mitigation measures should be examined to avoid any potential damaging effects. The scope of the HRA/AA is dependent on the location, size and significance of the proposed plan or project and the sensitivities and nature of the interest features of the European sites under consideration.

## **Guidance for Habitats Regulations Appraisal/Appropriate Assessment**

- 1.7 Guidance for HRA is contained in WAG's Technical Advice Note 5: Nature Conservation and Planning, Annex 6 'The Appraisal of Development Plans in Wales under the Provisions of the Habitats Regulations' (Sept 2009). CCW has also produced Draft guidance<sup>4</sup> to assist plan making authorities to comply with the requirements of the Habitats Directive.
- 1.8 The methods and approach used for this screening are based on the formal Welsh guidance currently available and emergent practice, which recommends that HRA is approached in three main stages outlined in **Table 1** below. This report outlines the method and findings for stage 1 of the HRA process.

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<sup>&</sup>lt;sup>3</sup> Integrity is described as the sites' coherence, ecological structure and function across the whole area that enables it to sustain the habitat, complex of habitats and/or levels of populations of species for which it was classified, (ODPM, 2005).

<sup>4</sup> Tyldoslov D. 2000, Death Children (C. Discontinuous).

<sup>&</sup>lt;sup>4</sup> Tyldesley, D., 2009, Draft Guidance for Plan Making Authorities in Wales: The Appraisal of Plans under the Habitats Directive for Countryside Council for Wales CCW Bangor (Revised April 2010).

Table 1	
	Habitats Regulations Appraisal: Key Stages
Stage 1	
Screening for	Identify international sites in and around the plan/ strategy area in
likely significant effect	Identify international sites in and around the plan/ strategy area in a search area agreed with the Statutory Body the Countryside Council for Wales
	<ul><li>Examine conservation objectives of the interest feature(s)(where available)</li></ul>
	<ul> <li>Review plan policies and proposals and consider potential effects on European sites (magnitude, duration, location, extent)</li> </ul>
	Examine other plans and programmes that could contribute to 'in combination' effects
	If no effects likely - report no significant effect (taking advice from CCW as necessary).
	If effects are judged likely or uncertainty exists - the precautionary principle applies proceed to stage 2
Stage 2	
Appropriate Assessment	<ul> <li>Complete additional scoping work including the collation of further information on sites as necessary to evaluate impact in light of conservation objectives</li> </ul>
	<ul> <li>Agree scope and method of AA with CCW</li> </ul>
	<ul> <li>Consider how plan 'in combination' with other plans and programmes will interact when implemented (the Appropriate Assessment)</li> </ul>
	<ul> <li>Consider how effect on integrity of site could be avoided by changes to plan and the consideration of alternatives</li> </ul>
	<ul> <li>Develop mitigation measures (including timescale and mechanisms)</li> </ul>
	<ul> <li>Report outcomes of AA including mitigation measures, consult with CCW and wider [public] stakeholders as necessary</li> </ul>
	If plan will not significantly effect European site proceed without further reference to Habitats Regs
	If effects or uncertainty remain following the consideration of alternatives and development of mitigations proceed to stage 3
Stage 3	
Procedures	Consider alternative solutions, delete from plan or modify
where significant	Consider if priority species/ habitats affected
effect on	Identify 'imperative reasons of overriding public interest' (IROPI)
integrity of	economic, social, environmental, human health, public safety
international	<ul> <li>Notify Assembly Government</li> </ul>
site remains	Develop and secure compensatory measures

## Consultation

1.9 The Habitats Regulations require the plan making/competent authority to consult the appropriate nature conservation statutory body [Countryside

Council for Wales (CCW)] if undertaking an Appropriate Assessment. Consultation on the approach to this HRA screening, including advice on which European sites should be considered within the area of search, was undertaken with CCW following the HRA of the previous Preferred Strategy and previous draft LDP, which did not progress. Their consultation responses have been taken into account, where appropriate, in this HRA of the current Preferred Strategy. The Habitats Regulations leave consultation with other bodies and the public to the discretion of the plan making authority. The WAG guidance notes that it is good practice to make information on HRA available to the public at each formal development plan consultation stage. Therefore, in addition to the statutory consultation undertaken with CCW this report is being made available for wider public consultation.

## **Purpose & Structure of Report**

- 1.13 This report documents the process and the findings from the Screening stages of the HRA for Cardiff Council Preferred Strategy Following this introductory section, the document is organised into a further three sections:
  - Section 2 outlines the method used for the Screening process and includes reference to the key information sources used.
  - Section 3 outlines the process and summary findings of the Screening Process and the assessment.
  - Section 4 outlines the conclusions, and how the plan should proceed with reference to the Habitats Regulations.

#### 2.0 METHOD

#### Screening

- 2.1 In accordance with the official Welsh guidance and current practice, conducting the screening stage of the HRA for the Cardiff Council Preferred Strategy employed the method outlined below. This approach combines both a **plan** focus and a **site** focus.
  - The plan focus first screens out those elements of the plan unlikely to affect European site integrity and then considers the impacts of the remaining elements on European sites, including the potential for 'incombination' impacts.
  - The site focus considers the environmental conditions of the site and the factors required to maintain site integrity, and looks at the potential impacts the plan may have.
- 2.2 HRA experience to date has indicated that maintaining a site based approach as core to the HRA/AA method more closely reflects the intent of the Habitats Directive. This means that subsequent mitigation measures [developed if/as required during the AA stage 2] seek to focus on the conditions necessary to maintain site integrity (e.g. avoiding specific types of development/ activity at or near sensitive areas). This is considered to be a more robust and defensible approach than adding policy caveats at a strategic level and devolving decisions about impacts on site integrity to lower level planning documents. Although, this approach does recognise that some decisions on avoidance and mitigation can only be made when site level detail becomes available.
- 2.3 The key tasks employed for the HRA Screening are set out in **Table 2** below.

Table 2			
	HRA Screening Stage 1: Key Tasks		
Task 1  Identification of Natura 2000 sites & characterisation	<ul> <li>Identification of European sites both within the plan/proposal boundaries and in an area of search extending to 15km [as recommended by extant guidance] around the plan/proposal area. This includes considering hydrological connectivities and the catchment of watercourses relating to identified designations</li> <li>Information was obtained for each European site, based on publicly available information and consultation with Countryside Council for Wales where appropriate.<sup>5</sup></li> </ul>		
	<ul> <li>This included information relating to the sites' qualifying features; conservation objectives; vulnerabilities/ sensitivities, current conditions, trends &amp; geographical boundaries.</li> </ul>		
Task 2  Plan review and identification of likely impacts	Screening of the plan/proposal and the identification of likely impacts (including a review of the plan/proposal's aims, objectives, strategic policies, including spatial implications where identified to determine likely impacts).		
Task 3  Consideration of other plans and programmes	Consideration, where appropriate of other plans and programmes that may have in-combination effects with the plan/proposal.		
Task 4 Screening Assessment	<ul> <li>Assessment of the potential of identified impacts to affect the designated interest features of European sites</li> <li>Summary of screening outcomes and recommendations.</li> </ul>		

<sup>&</sup>lt;sup>5</sup> Key Information Sources: Joint Nature Conservation Committee (JNCC) web resource <a href="https://www.coc.gov.uk">www.jncc.gov.uk</a> including site details/ character contained on Natura 2000 Standard Data Form. Conservation Objectives, management plan information, Countryside Council for Wales web resource <a href="http://www.ccw.gov.uk/">http://www.ccw.gov.uk/</a>

#### 3.0 SCREENING

## Task 1: Identification of European Sites & characterisation

3.1 Two designated sites lie within the Cardiff boundary. Detailed site characterisation information for the sites, is provided in **Appendix 1**.

Table 3	
European Sites within Plan/ Proposal Boundary	Designation
<ul> <li>Cardiff Beech Woods</li> </ul>	SAC
<ul><li>Severn Estuary</li></ul>	SPA
<ul><li>Severn Estuary</li></ul>	SAC
Severn Estuary	Ramsar

- 3.2 Plans, programmes and projects can have spatial implications that extend beyond the intended plan boundaries. In particular, it is recognised that distance in itself is not a definitive guide to the likelihood or severity of an impact [inaccessibility/ remoteness is typically more relevant] as factors such as the prevailing wind direction, river flow direction, and ground water flow direction will all have a bearing on the relative distance at which an impact can occur. This means that a plan directing development some distance away from a European Site could still have effects on the site and therefore, needs to be considered as part of the screening process.
- 3.3 Taking into account the potential for transboundary impacts the screening has identified four European Sites that lie within the influence of the Cardiff Council Preferred Strategy. These sites are outlined in **Table 3** below and detailed information for the European sites is provided in **Appendix 1**.

Table 3		
European Sites within a search area of 15km around Plan/Proposal Area	Designation	Distance from Plan/ Proposal Boundary (approx Km)
Aberbargoed Grasslands	SAC	14
Blackmill Woodlands	SAC	14
River Usk	SAC	7
River Wye	SAC	30

# Task 2: Plan/Strategy review, policy screening and identification of likely impacts

## Cardiff Council Preferred Strategy: Summary Review

3.5 This Cardiff Council Preferred Strategy sets out a strategy for the future development of Cardiff, capital city of Wales and economic driver of the wider city-region to 2026. It provides an opportunity for people and organisations to comment on the strategy before a more detailed framework called the Deposit Local Development Plan (LDP) is consulted on and then formally submitted for independent examination prior to adoption. LDP's are a key driver for investment, help the city-region compete in a competitive market, create homes and protect sensitive environments. They deliver vital outcomes for not only the local community but also for businesses and other interests. In this way LDP's set out how development can be delivered in a sustainable way for the next 15 years.

## Cardiff Council Preferred Strategy: Screening Plan/Proposal

- 3.6 The Cardiff Council Preferred Strategy was for the purposes of the HRA subject to an initial screening process. The aim of this screening is to identify at a broad level those policies that will not have an effect on European Sites and those that have the potential to have a likely significant effect both alone and in combination at the sites identified at Task 1.
- 3.7 The approach is in accordance with CCW draft guidance for the appraisal of plans under the Habitats Directive (Tyldesley, D. 2009). In order to complete the policy screening each policy was categorised as to its likely effects on each European site identified in **Appendix 1**. There are four categories of potential effects, which are as follows:
  - Category A: elements of the plan/options that would have no negative effect on a European site at all;
  - Category B: elements of the plan/options that could have an effect, but the likelihood is there would be no significant negative effect on a European site either alone or in combination with other elements of the same plan, or other plans or projects;
  - Category C: elements of the plan/options that could or would be likely to have a significant effect alone and will require the plan to be subject to an appropriate assessment before the plan may be adopted;
  - Category D: elements of the plan/options that would be likely to have a significant effect in combination with other elements of the same plan, or other plans or projects and will require the plan to be subject to an appropriate assessment before the plan may be adopted.
- 3.8 Categories A, C and D are subdivided so that the specific reason why a policy has been allocated to a particular category is clear. The detail of the screening assessment which considers each of the policies against the categories is provided in **Appendix 2** and policies which were considered to potentially lead to likely significant effects are listed in **Table 4**.

Table 4	
Plan/ Proposal Policies Screened in to the assessment process	Assessment Category
Policy 1: Level of growth- Delivering sustainable development.	C2
Policy 2: Strategic sites to deliver growth	C2
Policy 5: City Centre and Bay Business Areas.	C2
Policy 6: Minerals and Aggregates.	C1
Policy 7: Waste.	C1
Policy 24: Strategic Recreational Routes	C2
Strategic Options A, B and C	C2
Spatial Option - Greenfield site north of M4 at Thornhill	C2
Spatial Option - Dispersed smaller greenfield sites;	C2
Spatial Option - Dispersed brownfield sites;	C2
Greenfield sites south of Creigiau/ north Junction 33	C2

- 3.9 The potential impacts arising as a result of these policies are set out in detail in **Appendix 3**, wherein the factors to which each site is broadly sensitive, are compared with each of the screened-in policies, for each of the 8 sites identified in 3.1 and 3.3 above. Where there is the potential for interaction between an activity likely to arise form the Preferred Strategy, and a sensitivity which has been identified for one or more of the features of a European site, then a screening for Likely Significant Effect is undertaken, as described in '**Task 4**', below. In general terms, the potential effects of the Preferred Strategy upon these sites is as follows:-
- 3.10 The Aberbargoed Grasslands and Blackmill Woodlands SAC lie outside Cardiff's boundary and are not in contact with Cardiff hydrologically, so the only potential effect for the Preferred Strategy on these sites would be via aerial pollutants arising from traffic, industry and housing.
- 3.11 The Rivers Usk and Wye SACs are also outside Cardiff's boundary, but are hydrologically linked to Cardiff via the Severn Estuary, so there is the potential for water-borne pollution arising from activities within Cardiff to migrate to these rivers, both of which flow into the estuary, as well as the potential for aerial pollution.
- 3.12 However, the most important potential effect upon these two sites arises because they are both used to supply water to Cardiff, so housing and industry allocations provided for by the Preferred Strategy would place an increased water demand on these rivers, which in turn could affect the special features for which they have been designated.
- 3.13 Cardiff Beechwoods SAC is almost wholly within the Cardiff boundary, so as well as aerial pollution mentioned above, developments close to the woods could lead to increased recreational pressure at the site. Furthermore, most of Cardiff's sites for extraction of minerals and aggregates lie close to this site, so this has to be examined for potential effects.

3.14 The Severn Estuary has three separate designations with a range of different features which could be impacted by a number of activities arising from the Preferred Strategy. As well as aerial and aquatic pollution mentioned above, recreational activity and operation of industry has the potential to cause visual and noise disturbance to wetland birds, where these activities take place close to the foreshore.

#### Task 3: Consideration of other plans and programmes

- 3.12 It is a requirement of Article 6(3) of the Habitats Directive that HRA examines the potential for plans and projects to have a significant effect either individually or 'in combination' with other plans, programmes & projects (PPPs). Undertaking an assessment of other PPPs for the Cardiff Council Preferred Strategy required a pragmatic approach given the extensive range of PPPs underway in the surrounding region. The approach taken was cognisant of the emphasis in the forthcoming WAG guidance, that considering the potential for in-combination effects is core to delivering robust/ precautionary HRA.<sup>6</sup>
- 3.13 When considering other PPPs attention was focused on those aimed at delivering planned spatial growth with the most significant being those that seek to provide, housing, employment and infrastructure. The review considered the most relevant plans including:
  - The Wales Spatial Plan (update) 2008
  - Local Development Plans in South East Wales neighbouring authorities
  - Waste and Mineral Strategies for South East Wales and neighbouring authorities
  - Regional Transport Plans where relevant and/or major development schemes
  - Catchment Abstraction Management Plans where relevant to the designated sites under consideration
  - Water Resource Management Plans
- 3.14 The potential effects of these plans are reviewed in detail at **Appendix 4** and the potential for these effects to act 'in-combination' with effects identified from Cardiff Council Preferred Strategy are considered in the screening assessment [**Appendix 5**].

#### **Task 4: Screening Assessment**

- 3.15 In line with the screening requirement of the Habitats Regulations, an assessment was undertaken to determine the potential significant effects of the Cardiff Council Preferred Strategy on the eight European sites that lie within the influence of the Preferred Strategy The screening decision was informed by:
  - The information gathered on the European sites Appendix 1;

<sup>&</sup>lt;sup>6</sup> The review also draws on work being undertaken on behalf of the South East Wales Strategic Planning Group (SEWSPG) to build a resource kit of information and analysis to support HRA in the region.

- The review of the Cardiff Council Preferred Strategy policies and their likely impacts (Appendix 2); which included an analysis of the potential environmental impacts generated by the development activities directed by the LDP and;
- The review of other relevant plans and programmes Appendix 4
- WAG and CCW guidance which indicates that HRA for plans is typically broader and more strategic than project level HRA and that it is proportionate to the available detail of the plan.

## **Screening Assessment Summary**

3.16 The detail of the main screening exercise is set out at **Appendix 5** and the result of the assessment is summarised in the paragraphs below and at **Table 5**.

Table 5 HRA Screening Table Summary			
European Site[s]	Designation	AA required alone?  ➤ No  ✓ Yes  ? Uncertain	AA required in combination?  ★ No  ✓ Yes ? Uncertain
Aberbargoed Grasslands	SAC	×	×
Blackmill Woodlands	SAC	*	×
Cardiff Beechwoods	SAC	*	×
River Usk	SAC	*	×
River Wye	SAC	*	×
Severn Estuary	Ramsar	*	×
Severn Estuary	SAC	×	×
Severn Estuary	SPA	*	×

## 4. 0 CONCLUSIONS, FUTURE WORK

- 4.1 This report outlines the methods used and the findings arising from the screening stage of the Habitats Regulations Appraisal undertaken for the Cardiff Council Preferred Strategy
- 4.2 The HRA considered eight European Sites within the influence of the Preferred Strategy
- 4.3 Based on the information considered as part of the screening process, the findings of the assessment indicate that the Cardiff Council Preferred Strategy in implementation will not have a likely significant effect on the European sites considered as part of the HRA screening and will not require full AA under the Habitats Regulations. The assessment may be revised should further relevant comments be received or if there are significant changes to the plan/ proposal as screened.

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http://www.apis.ac.uk/

**UK Water Company Boundaries:** 

http://www.water.org.uk/home/our-members/find-water-company

#### **European Site Specific Information Wales**

Countryside Council for Wales (CCW) - Site Management Plans: <a href="http://www.ccw.gov.uk/landscape--wildlife/protecting-our-landscape/special-sites-project.aspx">http://www.ccw.gov.uk/landscape--wildlife/protecting-our-landscape/special-sites-project.aspx</a>

#### CCW - Protected Sites Map:

http://www.ccw.gov.uk/interactive-maps/protected-sites-map.aspx

## CCW - Sites of Special Scientific Interest (SSSI):

http://www.ccw.gov.uk/landscape--wildlife/protecting-our-landscape/special-landscapes--sites/protected-landscapes/sssis/sssi--report.aspx

Catchment Abstraction Management Strategies (CAMS) Wales:

http://www.environment-agency.gov.uk/business/topics/water/119927.aspx

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**Habitats Regulations Appraisal Screening Report** 



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Habitat Regulations Assessment Report:
Appendix 1 - European Site Descriptions and Characterisation
September 2013



## **Appendix 1 - EUROPEAN SITE CHARACTERISATIONS**

## **Special Areas of Conservation**

- 1. Aberbargoed Grasslands
- 2. Blackmill Woodlands
- 3. Cardiff Beech Woods
- 4. River Usk
- 5. River Wye
- 6. Severn Estuary

## **Special Protection Areas**

1. Severn Estuary

#### **Ramsar Sites**

1. Severn Estuary

All core site specific information unless otherwise stated has been referenced from the Countryside Council for Wales / Natural Resources Wales website (Natura 2000 Management Plans) and the Joint Nature Conservation Committee website (Protected Sites).

## **Special Areas of Conservation**

Site Name: Aberbargoed Grasslands Location Grid Ref: ST163992 JNCC Site Code: UK0030071 Size: 39.78 Designation: SAC	Habitats Regulations Assessment: Data Proforma
Site Description	Aberbargoed Grasslands covers an area of 42.5ha and lies on a southwest facing hillside in the Rhymney Valley, 1km east of Bargoed and adjacent to the A4049. A large and relatively isolated population of marsh fritillary butterfly (Euphydryas aurinia) is present on a series of damp pastures and heaths in Gwent, representing the species on the eastern edge of its range in Wales.  The fields in the south and west of Aberbargoed Grasslands have impeded drainage and contain a mixture of marshy grassland communities. Areas of particular interest are characterised by abundant purple moor grass Molinia caerulea and meadow thistle Cirsium dissectum with devil's bit scabious Succisa pratensis and carnation sedge Carex panicea. Other species such as saw-wort Serratula tinctoria and lousewort Pedicularis sylvatica occur frequently in heavily flushed areas. Associated stands of Molinia caerulea — Potentilla erecta mire contain abundant purple moor grass with tormentil Potentilla erecta, mat grass Nardus stricta, common sedge Carex nigra and spotted orchid Dactylorhiza maculata. Small stands of rush pasture are scattered across the site, with soft rush Juncus effuses, greater bird's foot trefoil Lotus uliginosus and marsh bedstraw Galium palustre.
Qualifying Features	Annex I Habitats qualifying feature:  Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)  Annex II Species primary reason for selection:  Marsh fritillary butterfly Euphydryas (Eurodryas, Hypodryas) aurinia
Conservation Objectives	Conservation Objective for Feature 1: Marsh fritillary Butterfly Euphydryas (Eurodryas, Hypodryas) aurinia  The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:

Site Name: Aberbargoed Grasslands Location Grid Ref: ST163992 JNCC Site Code: UK0030071 Size: 39.78	Habitats Regulations Assessment: Data Proforma
Designation: SAC	
	<ul> <li>The site will support a sustainable metapopulation of the marsh fritillary in the Aberbargoed area. This will require at least 50ha of suitable habitat, although not all of this will be within the SAC</li> <li>The population will be viable in the long term, acknowledging the extreme population fluctuations of the species.</li> </ul>
	Habitats on the site will be in optimal condition to support the metapopulation.
	At least 25ha of the total site area will be marshy grassland suitable for supporting marsh fritillary, with Succisa pratensis present and only a low cover of scrub.
	At least 6.25ha will be good marsh fritillary breeding habitat, dominated by purple moor-grass <i>Molinia caerulea</i> , with S. <i>pratensis</i> present throughout and a vegetation height of 10-20cm over the winter period.
	All factors affecting the achievement of the foregoing conditions are under control.
	Conservation Objective for Feature 2:  Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)
	Vision for feature 2
	The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:
	eu-Molinion marshy grassland will occupy at least 70% of the total site area.
	The remainder of the site will be other semi-natural habitat or areas of permanent pasture.
	The following plants will be common in the <i>eu-Molinion</i> marshy grassland: purple moor-grass <i>Molinia caerulea</i> ; meadow thistle <i>Cirsium dissectum</i> ; devil's bit scabious <i>Succisa pratensis</i> ; carnation sedge <i>Carex panicea</i> ; saw wort <i>Serratula tinctoria</i> ; and lousewort <i>Pedicularis sylvestris</i> .
	Cross-leaved heath Erica tetralix and common heather Calluna vulgaris will also be common in some areas.
	Rushes and species indicative of agricultural modification, such as perennial rye grass Lolium perenne and white

Site Name: Aberbargoed	Habitats Regulations Assessment: Data Proforma
Grasslands Location Grid Ref: ST163992	
JNCC Site Code: <u>UK0030071</u>	
Size: 39.78	
Designation: SAC	alover Trifelium repens will be largely about from the au Malinian marchy grandland
	clover <i>Trifolium repens</i> will be largely absent from the <i>eu-Molinion</i> marshy grassland.
	Scrub species such as willow Salix and birch Betula will also be largely absent from the eu-Molinion marshy grassland.
	All factors affecting the achievement of these conditions are under control.
	Performance indicators for Feature 1
	The performance indicators are part of the conservation objective, not a substitute for it. Assessment of plans and projects must be based on the entire conservation objective, not just the performance indicators. The performance indicators can be found within the <a href="Aberbargoed Grasslands SAC Management Plan">Aberbargoed Grasslands SAC Management Plan</a> .
Component SSSIs	Aberbargoed Grasslands SSSI
	The site has been divided into 2 management units of which unit 1 forms the Aberbargoed Grasslands SAC. A map of the management units can be viewed on the <a href="https://creativecommons.org/linearing/linearing/">CCW website</a> .
Key Environmental Conditions (factors that maintain site	The Marsh fritillary butterfly is dependent on the Molinia meadows and wet heath.
integrity	Livestock grazing - The eu-Molinion marshy grassland needs to be maintained through traditional farming practices. Without an appropriate grazing regime, the grassland will continue to become rank and eventually turn to scrub and woodland. Light grazing by cattle and ponies between April and November each year is essential in maintaining the marshy grassland communities.
SAC Condition Assessment	Conservation Status of Feature 1: Marsh fritillary butterfly Euphydryas (Eurodryas, Hypodryas) aurinia
	The Marsh Fritillary feature at Aberbargoed Grasslands SAC is considered to be in <b>unfavourable</b> condition and conservation status (October 2003).

Site Name: Aberbargoed Grasslands	Habitats Regulations Assessment: Data Proforma	
Location Grid Ref: ST163992		
JNCC Site Code: <u>UK0030071</u> Size: 39.78		
Designation: SAC		
	Web counts have in recent years been very low, but the species naturally undergoes significant fluctuations in population numbers due to a variety of factors, including cold and wet weather conditions and parasitic attack.	
	Conservation Status of Feature 2:  Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	
	The SAC report dated October 2003 states that the site is considered to be <b>Unfavourable</b> condition and conservation status. This is because the habitat is not in suitable condition for the marsh fritillary. In areas of the site the vegetation is too tall, is dominated by <i>Molinia</i> and does not have sufficient <i>Succisa</i> . There is only 2.3ha of good condition habitat and 9.7ha of suitable habitat within the site.	
Vulnerabilities (includes existing pressures and trends)	The marsh fritillary butterfly population is under threat from:	
<b>3</b>	Parasites - Parasitic wasps.	
	The Molinia meadows are under threat from:	
	Anti-social behaviours - In previous years anti-social behaviour such as off-roading and burning have occurred at Aberbargoed grasslands. This issues need to be addressed to prevent the <i>eu-Molinion</i> habitat from being damaged.	
	CCW states that work has progressed well on the site in the past few years; the site is now stock-proof and a mixture of Welsh Black and Belted Galloways graze the land with a Limousin bull. Scrub clearance and bracken control has begun and flight lines have been cut to improve the connectivity for the butterflies. A programme has been set up to educate the local community to understand why this area is important. A newsletter has been created detailing activities on the grassland and difficulties the site is facing. This and the presence of staff and stock onsite seem to have halted the illegal burning and off-roading.	
Landowner/ Management	Caerphilly County Borough Council.	

Site Name: Aberbargoed	Habitats Regulations Assessment: Data Proforma
Grasslands	
Location Grid Ref: ST163992	
JNCC Site Code: UK0030071	
Size: 39.78	
<b>Designation: SAC</b>	
Responsibility	

Site Name: Blackmill Woodlands	Habitats Regulations Assessment: Data Proforma	
Location Grid Ref: SS929859		
JNCC Site Code: UK0030090		
Size: 71.01		
Designation: SAC	Disclardi Was disputs is an example of old specify only woods at the court are extreme of the highlights represent Walson	
Site Description	Blackmill Woodlands is an example of old sessile oak woods at the southern extreme of the habitat's range in Wales, and contributes to representation of the habitat in Wales and in south-west England. The site is situated within Bridgend County Borough and is approximately 3km away from the City of Bridgend. The A4061 runs directly between the two areas that comprise to make up the SAC. The ground flora is restricted by the relative dryness of the site, but the main habitat features of sessile oak <i>Quercus petraea</i> canopy, acidic ground flora of <i>Vaccinium myrtillus</i> and wavy hair-grass <i>Deschampsia flexuosa</i> , and moderate fern and bryophyte cover are present. The woodlands have a long cultural history of management, reflected in the distinctive gnarled appearance of many of the trees.	
Qualifying Features	Annex I Habitats primary reason for selection:	
	Old sessile oak woods with Ilex and Blechnum in the British Isles	
Conservation Objectives	Conservation Objective for Feature 1: Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	
	Vision for feature 1 There is only one feature for the site, and so the vision for this feature is the same as that for the site: At least 90% of the site will be covered by semi-natural broadleaved woodland. The trees will be locally native broadleaved species, with a dominance of oak in the canopy. In the long term, the canopy will include trees of a wide range of age classes, with particular attention given to retaining old or veteran trees and encouraging natural regeneration of tree species, in particular oak. Dead wood, standing and fallen, will be maintained where possible to provide habitat for invertebrates, fungi and other woodland species. The tree canopy will not be completely closed; approximately 10% of the woodland will include a naturally occurring dynamic, shifting pattern of gaps.	
	It is required that the feature be in a favourable conservation status, where all of the conditions set out in the Performance Indicators table are satisfied, and all factors affecting the achievement of these conditions are under control.	
	Performance indicators for Feature 1	

Site Name: Blackmill Woodlands Location Grid Ref: SS929859	H	abitats Regulations Asso	essment: Data Proforma
JNCC Site Code: <u>UK0030090</u> Size: 71.01			
Designation: SAC			
		e conservation objective, r	ctive, not a substitute for it. Assessment of plans and not just the performance indicators. The performance Management Plan.
Component SSSIs	Blackmill Woodlands SSSI		
	The site has been divided into 2 ma same area. A map of the management		w (Unit 1) and Craig Tal Y Fan (Unit 2), the SAC covers the n the CCW website.
Key Environmental Conditions (factors that maintain site integrity	Management of woodland - focus on restoring an uneven age structure and providing increased opportunity for natural regeneration through removal of grazing and gap creation/maintenance.		
SAC Condition Assessment	Conservation Status of Feature 1: Old sessile oak woods with Ilex and Blechnum in the British Isles		
	Broad Attribute	Allt Y Rhiw (Unit 1)	Craig Tal Y Fan (Unit 2)
	Extent	PASS	PASS
	Structure and Natural Processes	FAIL	FAIL
	Regeneration	FAIL	FAIL
	Composition	PASS	PASS
	Quality Indicators	PASS	PASS
	broad attributes, namely Structure, I woodland blocks had insufficient ga higher for Craig Tal Y Fan than for A Allt Y Rhiw and as a result this wood	Natural Process and Rege ps in the canopy, although Allt Y Rhiw. With regard to dland block passed the lim	raig Tal-y-Fan failed to meet the limits set for two of the eneration. A closer look at the data reveals that both in the average number of gaps per sample was slightly regeneration, seedlings > 5cm high were seen throughout nits set for this attribute. However fewer seedlings were ed this attribute. It is worth noting however that this attribute

Site Name: Blackmill Woodlands Location Grid Ref: SS929859 JNCC Site Code: UK0030090 Size: 71.01 Designation: SAC	needs to be assessed over a ten-year period. Both woodland blocks failed to have sufficient seedlings and saplings within canopy gaps. To summarise, the feature within this site is considered to be in unfavourable condition. However Unit 1 should be classified as unfavourable recovering and Unit 2 as unfavourable declining.
Vulnerabilities (includes existing pressures and trends)	■ <b>Grazing</b> - Sheep grazing has, and continues to have, a major impact on the condition of the site with significant problems as a result of the heavy grazing in the Craig Tal-y-Fan (unit 2) woodland block. Excessive sheep grazing leads to a severely impoverished ground flora and severely inhibits the growth or recruitment of young seedlings and saplings for regeneration. Cessation of all grazing over a long period could be detrimental to the field layer, especially bryophytes, as they can become shaded out. The ideal is either to mimic the very low level within a natural woodland ecosystem, or to periodically vary grazing pressure.
	<ul> <li>Air pollution* - Possible in-combination effect of EA permitted licences, currently under investigation.</li> <li>Acidification.</li> <li>Eutrophication.</li> <li>Photochemical oxidants.</li> <li>Particulate matter.</li> </ul>
Landowner/ Management Responsibility	These woodlands are situated entirely on Common Land, and are subject to rights of common. These include the lopping of branches for firewood which has resulted in the distinctive gnarled shape of many of the trees.

<sup>\*</sup> Air Pollution Information System (APIS). Oak Woodland. Available from: http://www.apis.ac.uk/cgi\_bin/habitat\_result.pl?habResult=Oak+woodland&choice=allHabs&haborspec=habitat&submit.x=23&submit.y=8

Site Name: Cardiff Beech	Habitats Regulations Assessment: Data Proforma
Woods Location Grid Ref: ST118824	
JNCC Site Code: <u>UK0030109</u>	
Size: 115.62	
Designation: SAC	
Site Description	Cardiff Beech Woods lies to the north east of Cardiff and is intersected by the A4054 and the A470. The site contains one of the largest concentrations of <i>Asperulo-Fagetum</i> beech forests in Wales, and represents the habitat close to the western limit of its past native range in both the UK and Europe. The woods show mosaics and transitions to other types, including more acidic beech woodland and oak Quercus and ash <i>Fraxinus excelsior</i> woodland. Characteristic and notable species in the ground flora include ramsons <i>Allium ursinum</i> , <i>sanicle Sanicula europaea</i> , bird's-nest orchid <i>Neottia nidus-avis</i> and yellow bird's-nest <i>Monotropa hypopitys</i> .
Qualifying Features	Annex I Habitats primary reason for selection:
	Asperulo-Fagetum beech forests
	Annex I Habitats qualifying feature:
	<u>Tilio-Acerion forests of slopes, screes and ravines</u> * Priority feature
Conservation Objectives	Conservation Objective for Feature 1:
	Aperulo-Fagetum beech forest
	Vision for feature 1
	The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:
	The existing Asperulo-fagetum beech forest will be maintained.
	At least 95% of canopy forming trees will be locally native species such as beech, ash and oak, with some areas dominated by beech.

Site Name: Cardiff Beech Woods	Habitats Regulations Assessment: Data Proforma
Location Grid Ref: ST118824	
JNCC Site Code: <u>UK0030109</u>	
Size: 115.62 Designation: SAC	
	The tree canopy will not be completely closed; approximately 10% of the canopy will include a dynamic shifting pattern of gaps encouraging natural regeneration of tree species of all ages.
	Dead wood, standing and fallen, will be maintained where possible to provide habitat for invertebrates, fungi and other woodland species.
	There are pockets of ground flora across the site, comprising species typical of lime-rich beech wood, including indicators of ancient woodland such as wood anemone, ramsons and sanicle.
	There is little evidence of browsing or squirrel damage to trees.
	Recreational use of the site will continue to be managed so it does not damage the wildlife interest of the site.
	All factors affecting the achievement of these conditions are under control.
	Performance indicators for feature 1
	The performance indicators are part of the conservation objective, not a substitute for it. Assessment of plans and projects must be based on the entire conservation objective, not just the performance indicators. The performance indicators can be found within the <a href="Mailto:Cardiff Beech Woods SAC Management Plan">Cardiff Beech Woods SAC Management Plan</a> .
	Conservation Objective for Feature 2:  Tilio-Acerion forest of slopes, screes and ravines
	Vision for feature 2
	The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:
	The existing <i>Tilio-acerion</i> forest will be maintained.
	At least 95% of canopy forming trees will be locally native species (sycamore included).
	■ The tree canopy will not be completely closed; approximately 10% of the canopy will include a dynamic shifting

Site Name: Cardiff Beech	Habitats Regulations Assessment: Data Proforma
Woods Location Grid Ref: ST118824	
JNCC Site Code: UK0030109	
Size: 115.62	
Designation: SAC	
	pattern of gaps encouraging natural regeneration of tree species of all ages.
	Dead wood, standing and fallen, will be maintained where possible to provide habitat for invertebrates, fungi and other woodland species.
	There are pockets of ground flora across the site, comprising species typical of lime-rich beech wood, including indicators of ancient woodland such as wood anemone, ramsons and sanicle.
	There is little evidence of browsing or squirrel damage to trees.
	Recreational use of the site will continue to be managed so it does not damage the wildlife interest of the site.
	All factors affecting the achievement of these conditions are under control.
	Performance indicators for feature 2 (see performance indicators for feature 1)
Component SSSIs	Fforestganol, Tongwynlais a Cwm Nofydd (units 1-5)
	Castell Coch Woodlands and Road Section (units 6-9)
	Garth Wood (units 10-12)
	There are 12 management units of which numbers 1, 2, 3, 4, 8, 9 and 10 comprise to form the Cardiff Beech Woods SAC. A map showing the management units can be viewed on the <a href="CCW website">CCW website</a> .
Key Environmental Conditions (factors that maintain site integrity	Maintain/manage the surrounding woodland - Commercial forestry in the vicinity of Castell Coch may have implications for surface water supply and quality. There are also a number of active and disused limestone quarries in the area. Garth Wood surrounds Taff's Well Quarry but there are other, smaller quarries in and around all component SSSIs. Quarrying can lead to direct loss of the feature together with indirect impacts from issues such as access. There are also a number of impacts arising from restoration at the end of a quarry's working life.
	Manage public access - Management of the recreational use of the woodlands should focus on maintaining the network of public footpaths and access routes. Regular maintenance of the footpaths and bridleways is essential to stop them spreading onto the adjacent woodland habitat. By restricting recreational use of the woodlands to certain

Site Name: Cardiff Beech	Habitats Regulations Assessment: Data Proforma
Woods Location Grid Ref: ST118824	
JNCC Site Code: UK0030109	
Size: 115.62	
Designation: SAC	areas and paths, natural woodland processes can be left to occur away from these areas of recreational use and
	without the need for intervention from a public health and safety perspective.
SAC Condition Assessment	Conservation Status of Feature 1 Aperulo-Fagetum beech forest
	The sites were monitored in March 2004 to gather the extent or condition of the habitat. The current feature status for the Asperulo-fagetum beech forest is <b>Unfavourable</b> - Unclassified (March 2004).
	The justification for the above feature status (March 2004) is as follows:
	CCW view is that the site is still recovering from undesirable effects of past management. Although most if not all aspects of the component sites are heading in the right direction the status is still short of favourable. Implementation of appropriate management will be addressed but in our view there is no urgent or immediate need for action.
	The Garth Wood component is thought to be 'unfavourable recovering' although a management plan has not been prepared to date so its status has not been fully assessed. The management is mostly limited intervention and for most of the site there is good age structure and gap regeneration. Natural processes could be enhanced by localised intervention and this will be addressed through management recommendations.
	Fforestganol a Chwm Nofydd is thought to be 'unfavourable recovering', although a management plan has not been prepared to date so its status has not been fully assessed. Although there are small areas of even age structure there is generally a diverse age structure. This, together with concerns at the percentage of beech at some locations, will be addressed through management recommendations.
	Castell Coch Woodlands and Road Section is thought to be 'unfavourable recovering'. A full management plan has not been prepared to date so its status has not been fully assessed. There is generally an even age structure with low canopy cover. However, there is evidence of natural woodland processes, with good regeneration within the pattern of gaps. Recovery is expected over time and this could be hastened with increased localised intervention. This, together

Site Name: Cardiff Beech Woods Location Grid Ref: ST118824 JNCC Site Code: UK0030109 Size: 115.62	Habitats Regulations Assessment: Data Proforma
Designation: SAC	with concerns over the species composition (particularly ash and sycamore) at some locations will be addressed through management recommendations.
	Conservation Status of Feature 2 Tilio-Acerion forest of slopes, screes and ravines
	The sites were monitored in February 2004 to gather the extent or condition of the habitats and the species. The current feature status for the Tilio-Acerion forest of slopes, screes and ravines is <b>Unfavourable - Recovering</b> (February 2004).
	The justification for the above feature status (February 2004) is as follows:
	CCW view is that the site is still recovering from undesirable effects of past management. Although most if not all aspects of the component sites are heading in the right direction the status is still short of favourable. Implementation of appropriate management will be addressed but in our view there is no urgent or immediate need for action.
	The Garth Wood component is thought to be 'unfavourable recovering' although a management plan has not been prepared to date so its status has not been fully assessed. The management is mostly limited intervention and for most of the site there is good age structure and gap regeneration. Natural processes could be enhanced by localised intervention and this will be addressed through management recommendations.
	Fforestganol a Chwm Nofydd is thought to be 'unfavourable recovering', although a management plan has not been prepared to date so its status has not been fully assessed. Although there are small areas of even age structure there is generally a diverse age structure. This, together with concerns at the percentage of beech at some locations, will be addressed through management recommendations.
Vulnerabilities (includes existing pressures and trends)	<ul> <li>Atmospheric Pollution - its location in industrialised South Wales, together with the presence of nearby quarrying and associated activities, means that there is the potential for localised atmospheric pollution. Quarry dust deposition is an issue that occasionally comes up.</li> <li>Nitrogen deposition.</li> </ul>

Site Name: Cardiff Beech Woods	Habitats Regulations Assessment: Data Proforma
Location Grid Ref: ST118824 JNCC Site Code: UK0030109 Size: 115.62 Designation: SAC	
	<ul><li>Photochemical oxidants (ozone).</li><li>Acidification.</li></ul>
	Recreational pressure - All component SSSIs are used to a greater or lesser extent for recreation purposes. Castell Coch Woodlands and Fforestganol a Chwm Nofydd experience the most recreation pressure, and are popular for walking, climbing and mountain biking. The Taff train runs through part of the Castell Coch Woodlands site and the historic building of Castell Coch attracts many visitors, which increases the access pressure on the woodlands. The road section is becoming increasingly popular for climbing, and this is unlikely to be a problem for the geological interest of the site. However, climbing could be potentially damaging to trees at the top of the crag and needs to be kept under review. Management of access is nominally through the individual site owners but there are potential conflicts between different users which to date have been addressed through the Local Authority Access Forum. Recreation within the areas supporting this habitat feature is restricted due to the steep and rocky nature of the terrain. Therefore the recreational pressure on areas of Tilio-acerion is less than on areas of Asperulo-fagetum habitat. Nonetheless, given the high recreation pressure experienced by Fforestganol a Chwm Nofydd, which supports areas of Tilio-acerion habitat, aspects of recreational management still apply to this feature.
	• Mineral extraction and related activities - There are a number of active and disused limestone quarries in the area. Garth Wood surrounds Taff's Well Quarry but there are other, smaller quarries in and around all component SSSIs. Quarrying can lead to direct loss of the feature together with indirect impacts from issues such as access. There are also a number of impacts arising from restoration at the end of a quarry's working life.
	Development - Its location in the populated South Wales area means that there is considerable development pressure in the vicinity including associated infrastructure on land adjacent to the site. There is the potential for a range of impacts arising from increasing urbanisation.
	<ul> <li>Commercial Forestry - Commercial forestry in the vicinity of Castell Coch may have implications for surface water supply and quality.</li> </ul>

Site Name: Cardiff Beech Woods Location Grid Ref: ST118824 JNCC Site Code: UK0030109 Size: 115.62 Designation: SAC	Habitats Regulations Assessment: Data Proforma	
	Non-native species - The presence of a number of species considered to be non-native e.g. sycamore and Japanese knotweed, is currently under review to determine any detrimental effects on the woodland communities of special interest.	
Landowner/ Management Responsibility	The majority of the woodlands are owned, or in the guardianship of government agencies, with most of the remainder of the woodland covered by a Section 106 agreement. Cardiff County Council, Cadw and Forestry Commission carry out woodland management for conservation purposes and occasionally health and safety purposes.	

Site Name: River Usk Location Grid Ref: SO301113 JNCC Site Code: UK0013007 Size: 1007.71 Designation: SAC	Habitats Regulations Assessment: Data Proforma
Site Description	The River Usk SAC rises in the Black Mountain range in the west of the Brecon Beacons National Park and flows east and then south, to enter the Severn Estuary at Newport. The overall form of the catchment is long and narrow, with short, generally steep tributaries flowing north from the Black Mountain, Fforest Fawr and Brecon Beacons, and south from Mynydd Epynt and the Black Mountains. The underlying geology consists predominantly of Devonian Old Red Sandstone with a moderate base status, resulting in waters that are generally well buffered against acidity. This geology also produces a generally low to moderate nutrient status, and a moderate base-flow index, intermediate between base-flow dominated rivers and more flashy rivers on less permeable geology. The run-off characteristics and nutrient status are significantly modified by land use in the catchment, which is predominantly pastoral with some woodland and commercial forestry in the headwaters and arable in the lower catchment. The Usk catchment is entirely within Wales.  The ecological structure and functions of the site are dependent on hydrological and geomorphological processes (often referred to as hydromorphological processes), as well as the quality of riparian habitats and connectivity of habitats. Animals that move around and sometimes leave the site, such as migratory fish and otters, may also be affected by factors operating outside the site.  The River Usk is also important for its population of sea lamprey <i>Petromyzon marinus</i> . The site also supports a healthy population of brook lamprey <i>Lampetra planeri</i> and river lamprey <i>Lampetra fluviatilis</i> and is considered to provide exceptionally good quality habitat likely to ensure the continued survival of the species in this part of the UK. The site supports a range of Annex II fish species, which includes twaits shad <i>Alosa falla</i> , salmon <i>Salmo sala</i> and bullhead <i>Cottus gobi</i> . The River Usk is an important site for otters Lutra lutra in Wales.
Qualifying Features	Annex I Habitats qualifying feature:  Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation
	Annex II Species primary reason for selection:

Site Name: River Usk Location Grid Ref: SO301113 JNCC Site Code: UK0013007 Size: 1007.71 Designation: SAC	Habitats Regulations Assessment: Data Proforma
	<ul> <li>Sea lamprey Petromyzon marinus</li> <li>Brook lamprey Lampetra planeri</li> <li>River lamprey Lampetra fluviatilis</li> <li>Twaite shad Alosa fallax</li> <li>Atlantic salmon Salmo salar</li> <li>Bullhead Cottus gobio</li> <li>Otter Lutra lutra</li> <li>Annex II Species qualifying feature:</li> <li>Allis shad Alosa alosa</li> </ul>
Conservation Objectives	The ecological status of the water course is a major determinant of Favourable Condition Status (FCS) for all features. The required conservation objective for the water course is defined below.  Conservation Objective for the water course  The capacity of the habitats in the SAC to support each feature at near-natural population levels, as determined by predominantly unmodified ecological and hydromorphological processes and characteristics, should be maintained as far as possible, or restored where necessary.  The ecological status of the water environment should be sufficient to maintain a stable or increasing population of each feature. This will include elements of water quantity and quality, physical habitat and community composition and structure. It is anticipated that these limits will concur with the relevant standards used by the Review of Consents process given in Annexes 1-3.  Flow regime, water quality and physical habitat should be maintained in, or restored as far as possible to, a near-natural state, in order to support the coherence of ecosystem structure and function across the whole area of the SAC.  All known breeding, spawning and nursery sites of species features should be maintained as suitable habitat as far as

Site Name: River Usk Location Grid Ref: SO301113 JNCC Site Code: UK0013007 Size: 1007.71	Habitats Regulations Assessment: Data Proforma
Designation: SAC	
	possible, except where natural processes cause them to change.
	Flows, water quality, substrate quality and quantity at fish spawning sites and nursery areas will not be depleted by abstraction, discharges, engineering or gravel extraction activities or other impacts to the extent that these sites are damaged or destroyed.
	The river planform and profile should be predominantly unmodified. Physical modifications having an adverse effect on the integrity of the SAC, including, but not limited to, revetments on active alluvial river banks using stone, concrete or waste materials, unsustainable extraction of gravel, addition or release of excessive quantities of fine sediment, will be avoided.
	River habitat SSSI features should be in favourable condition. In the case of the Usk Tributaries SSSI, the SAC habitat is not underpinned by a river habitat SSSI feature. In this case, the target is to maintain the characteristic physical features of the river channel, banks and riparian zone.
	Artificial factors impacting on the capability of each species feature to occupy the full extent of its natural range should be modified where necessary to allow passage, eg. weirs, bridge sills, acoustic barriers.
	<ul> <li>Natural factors such as waterfalls, which may limit the natural range of a species feature or dispersal between naturally isolated populations, should not be modified.</li> </ul>
	Flows during the normal migration periods of each migratory fish species feature will not be depleted by abstraction to the extent that passage upstream to spawning sites is hindered.
	Flow objectives for assessment points in the Usk Catchment Abstraction Management Strategy will be agreed between EA and CCW as necessary. It is anticipated that these limits will concur with the standards used by the Review of Consents process given in Annex 1 of this document.
	Levels of nutrients, in particular phosphate, will be agreed between EA and CCW for each Water Framework Directive water body in the Usk SAC, and measures taken to maintain nutrients below these levels. It is anticipated that these limits will concur with the standards used by the Review of Consents process given in Annex 2 of this document.
	Levels of water quality parameters that are known to affect the distribution and abundance of SAC features will be agreed between EA and CCW for each Water Framework Directive water body in the Usk SAC, and measures taken to maintain pollution below these levels. It is anticipated that these limits will concur with the standards used by the Review of Consents process given in Annex 3 of this document.
	Potential sources of pollution not addressed in the Review of Consents, such as contaminated land, will be

Site Name: River Usk Location Grid Ref: SO301113 JNCC Site Code: UK0013007 Size: 1007.71	Habitats Regulations Assessment: Data Proforma
Designation: SAC	
	considered in assessing plans and projects.
	Levels of suspended solids will be agreed between EA and CCW for each Water Framework Directive water body in the Usk SAC. Measures including, but not limited to, the control of suspended sediment generated by agriculture, forestry and engineering works, will be taken to maintain suspended solids below these levels.
	Conservation Objective for Features 1-5:
	- Sea lamprey Petromyzon marinus; - Brook lamprey Lampetra planeri; - River lamprey Lampetra fluviatilis; - Twaite shad Alosa fallax; - Allis shad Alosa alosa; - Atlantic salmon Salmo salar; - Bullhead Cottus gobio.
	Vision for features 1-5 The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:
	The conservation objective for the water course as defined in 4.1 above must be met.
	The population of the feature in the SAC is stable or increasing over the long term.
	The natural range of the feature in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. The natural range is taken to mean those reaches where predominantly suitable habitat for each life stage exists over the long term. Suitable habitat is defined in terms of near-natural hydrological and geomorphological processes and forms eg. suitable flows to allow upstream migration, depth of water and substrate type at spawning sites, and ecosystem structure and functions eg. food supply. Suitable habitat need not be present throughout the SAC but where present must be secured for the foreseeable future. Natural factors such as waterfalls may limit the natural range of individual species. Existing artificial influences on natural range that cause an adverse effect on site integrity, such as physical barriers to migration, will be assessed in view of the following bullet point.

Site Name: River Usk Location Grid Ref: SO301113 JNCC Site Code: UK0013007 Size: 1007.71 Designation: SAC	Habitats Regulations Assessment: Data Proforma
	<ul> <li>There is, and will probably continue to be, a sufficiently large habitat to maintain the feature's population in the SAC on a long-term basis.</li> <li>Performance indicators for features 1-5</li> </ul>
	Performance indicators for features 1-5
	The performance indicators are part of the conservation objective, not a substitute for it. Assessment of plans and projects must be based on the entire conservation objective, not just the performance indicators. The performance indicators can be found within the <a href="River Usk SAC Management Plan">River Usk SAC Management Plan</a> .
	Conservation Objective for Feature 6: - European otter Lutra lutra
	Vision for feature 6 The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:
	The population of otters in the SAC is stable or increasing over the long term and reflects the natural carrying capacity of the habitat within the SAC, as determined by natural levels of prey abundance and associated territorial behaviour.
	The natural range of otters in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. The natural range is taken to mean those reaches that are potentially suitable to form part of a breeding territory and/or provide routes between breeding territories. The whole area of the Usk SAC is considered to form potentially suitable breeding habitat for otters. The size of breeding territories may vary depending on prey abundance. The population size should not be limited by the availability of suitable undisturbed breeding sites. Where these are insufficient they should be created through habitat enhancement and where necessary the provision of artificial holts. No otter breeding site should be subject to a level of disturbance that could have an adverse effect on breeding success. Where necessary, potentially harmful levels of disturbance must be managed.
	The safe movement and dispersal of individuals around the SAC is facilitated by the provision, where necessary, of suitable riparian habitat, and underpasses, ledges, fencing etc at road bridges and other artificial barriers.

Site Name: River Usk Location Grid Ref: SO301113 JNCC Site Code: UK0013007 Size: 1007.71 Designation: SAC	Habitats Regulations Assessment: Data Proforma
	Performance indicators for feature 6 (see performance indicators for features 1 - 5)
	Conservation Objective for Feature 7: - Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation
	Vision for feature 7
	The performance indicators are part of the conservation objective, not a substitute for it. Assessment of plans and projects must be based on the entire conservation objective, not just the performance indicators.
	The conservation objectives for the water course as defined above must be met.
	The natural range of the plant communities represented within this feature should be stable or increasing in the SAC. The natural range is taken to mean those reaches where predominantly suitable habitat exists over the long term. Suitable habitat and associated plant communities may vary from reach to reach. Suitable habitat is defined in terms of near-natural hydrological and geomorphological processes and forms eg. depth and stability of flow, stability of bed substrate, and ecosystem structure and functions eg. nutrient levels, shade. Suitable habitat for the feature need not be present throughout the SAC but where present must be secured for the foreseeable future, except where natural processes cause it to decline in extent.
	The area covered by the feature within its natural range in the SAC should be stable or increasing.
	The conservation status of the feature's typical species should be favourable. The typical species are defined with reference to the species composition of the appropriate JNCC river vegetation type for the particular river reach, unless differing from this type due to natural variability when other typical species may be defined as appropriate.
	Performance indicators for feature 7 (see performance indicators for features 1 - 5)
Component SSSIs	River Usk (Upper Usk) SSSI River Usk (Lower Usk) SSSI
	River Usk (Tributaries) SSSI

Site Name: River Usk Location Grid Ref: SO301113 JNCC Site Code: UK0013007 Size: 1007.71 Designation: SAC	Habitats Regulations Assessment: Data Proforma
	<ul> <li>Penllwyn-yr-hendy SSSI</li> <li>Coed Dyrysiog SSSI</li> <li>Coed Nant Menascin SSSI</li> <li>Coed Ynysfaen SSSI</li> <li>The SAC has been divided into 10 management units:</li> <li>Units 1 to 3 - River Usk (Lower Usk) SSSI.</li> <li>Units 4 to 6 - River Usk (Upper Usk) SSSI.</li> <li>Units 7 to 10 - River Usk (Tributaries) SSSI.</li> <li>A map showing the various management units can be seen within the River Usk SAC Management Plan.</li> </ul>
Key Environmental Conditions (factors that maintain site integrity	<ul> <li>Hydrological processes:         <ul> <li>River flow (level and variability) and water chemistry, determine a range of habitat factors of critical importance to the SAC features, including current velocity, water depth, wetted area, substrate quality, dissolved oxygen levels and water temperature. Maintenance of both high 'spate' flows and base-flows is essential. Reduction in flows may reduce the ability of the adults of migratory fish to reach spawning sites. Water-crowfoot vegetation thrives in relatively stable, moderate flows and clean water. The flow regime should be characteristic of the river in order to support the functioning of the river ecosystem.</li> </ul> </li> <li>Geomorphological processes - of erosion by water and subsequent deposition of eroded sediments downstream, create the physical structure of the river habitats. Whilst some sections of the river are naturally stable, especially where they flow over bedrock, others undergo constant and at times rapid change through the erosion and deposition of bed and bank sediments as is typical of meandering sections within floodplains (called 'alluvial' rivers). These processes help to sustain the river ecosystem by allowing a continued supply of clean gravels and other important substrates to be transported downstream. In addition, the freshly deposited and eroded surfaces, such as shingle banks and earth cliffs, enable processes of ecological succession to begin again, providing an essential habitat for specialist, early-successional species. Lampreys need clean gravel for spawning, and marginal silt or sand for the</li> </ul>

Site Name: River Usk Location Grid Ref: SO301113	Habitats Regulations Assessment: Data Proforma
JNCC Site Code: <u>UK0013007</u> Size: 1007.71	
Designation: SAC	
	burrowing juvenile ammocoetes. Processes at the wider catchment scale generally govern processes of erosion and deposition occurring at the reach scale, although locally, factors such as the effect of grazing levels on riparian vegetation structure may contribute to enhanced erosion rates. In general, management that interferes with natural geomorphological processes, for example preventing bank erosion through the use of hard revetments or removing large amounts of gravel, are likely to be damaging to the coherence of the ecosystem structure and functions.
	■ Riparian habitats - including bank sides and habitats on adjacent land, are an integral part of the river ecosystem. Diverse and high quality riparian habitats have a vital role in maintaining the SAC features in a favourable condition. The type and condition of riparian vegetation influences shade and water temperature, nutrient run-off from adjacent land, the availability of woody debris to the channel and inputs of leaf litter and invertebrates to support in-steam consumers. Light, temperature and nutrient levels influence in-stream plant production and habitat suitability for the SAC features. Woody debris is very important as it provides refuge areas from predators, traps sediment to create spawning and juvenile habitat and forms the base of an important aquatic food chain. Otters require sufficient undisturbed riparian habitats as breeding and resting sites. It is important that appropriate amounts of tree cover, in general at least 50% high canopy cover, tall vegetation and other semi-natural habitats are maintained on the riverbanks and in adjacent areas, and that they are properly managed to support the SAC features. This may be achieved, for example, through managing grazing levels, selective coppicing of riparian trees and restoring adjacent wetlands. In the urban sections the focus may be on maintaining the river as a communication corridor but this will still require that sufficient riparian habitat is present and managed to enable the river corridor to function effectively.
	■ Habitat connectivity - is an important property of a river ecosystem structure and function. Many of the fish that spawn in the river are migratory, depending on the maintenance of suitable conditions on their migration routes to allow the adults to reach available spawning habitat and juvenile fish to migrate downstream. For resident species, dispersal to new areas, or the prevention of dispersal causing isolated populations to become genetically distinct, may be important factors. Naturally isolated feature populations that are identified as having important genetic distinctiveness should be maintained. Artificial obstructions including weirs and bridge sills can reduce connectivity for some species. In addition, reaches subject to depleted flow levels, pollution, or disturbance due to noise, vibration or light, can all inhibit the movement of sensitive species. The dispersal of semi-terrestrial species such as the otter can be adversely affected by structures such as bridges under certain flow conditions; therefore, these must be designed to allow safe passage. The continuity of riparian habitats enables a wide range of terrestrial species, for example

Site Name: River Usk Location Grid Ref: SO301113 JNCC Site Code: UK0013007 Size: 1007.71 Designation: SAC	Habitats Regulations Assessment: Data Proforma  lesser horseshoe bats, to migrate and disperse through the landscape. Connectivity should be maintained or restored
	where necessary as a means to ensure access for the features to sufficient habitat within the SAC.
SAC Condition Assessment	Conservation status of Feature 1: Sea lamprey Petromyzon marinus  Status: Unfavourable: Unclassified. Sea lamprey monitoring showed that overall catchment mean ammocoete density considerably exceeded the JNCC target threshold and also complied with targets for spawning site and ammocoete distribution. A caveat on the latter is uncertainty over whether the natural range of sea lamprey extends above Brecon weir: this is assumed not to be the case.  Factors leading to an unfavourable assessment are the presence of probable partial barriers further downstream (notably Crickhowell Bridge), and flow depletion resulting from abstractions including Brecon canal and Prioress Mill public water supply abstraction. The latter in particular has been shown to have effects both on a seasonal timescale by reducing spate flows during the migration period and on a diurnal timescale by substantially depleting flows during the night time to the extent that sea lamprey nests and nursery areas are likely to be exposed above the water level. The effect of the Brecon canal abstraction has been shown to comprise a substantial depletion of flows, at least locally, during low flow periods with a resulting reduction in river depth downstream of the off-take weir.  Conservation status of Feature 2: Brook lamprey Lampetra planeri and River lamprey Lampetra fluviatilis  Status: Favourable. Brook/river lamprey monitoring showed that overall catchment mean ammocoete density considerably exceeded the JNCC target threshold and also complied with targets for ammocoete distribution1.  It has not been possible to distinguish between these two species during monitoring, due to the reliance on juvenile stages (ammocoetes). Anecdotal evidence suggests that both species are likely to be present in many reaches, though brook lamprey are expected to predominate in the headwaters and river lamprey may be the more abundant species in the main channel and the lower reaches of larger tributaries. More information on the relative abundance of these two specie

Site Name: River Usk Location Grid Ref: SO301113 JNCC Site Code: UK0013007 Size: 1007.71 Designation: SAC	Habitats Regulations Assessment: Data Proforma
Designation. SAC	Conservation status of Feature 3: Twaite shad <i>Alosa fallax</i> and Allis shad <i>Alosa alosa</i>
	Status: <b>Unfavourable</b> : Unclassified. Monitoring of these species in the Usk relies on two methods, Kick sampling for eggs provides qualitative information on spawning distribution, Netting for juveniles in the lower river and tidal reaches during late summer/autumn when juveniles drift downstream towards the estuary.
	These methods do not distinguish between the two species. Allis shad is thought to be rare, with no recent records in the Usk, while twaite shad is relatively common. Kick sampling for eggs is only able to give a broad scale indication of presence or absence at sampled locations. Netting for juveniles gives a quantitative estimate of abundance, though may be subject to a high degree of uncertainty due to sampling error. This uncertainty is likely to be compounded by variation between years in the size of the adult run, spawning success and resulting numbers of juveniles. Poor adult runs are likely to result from unsuitable flows during the March to June migration period, in particular prolonged low flows, while poor survival of eggs and juveniles is related to spate flows in the mid to late summer which can flush them into the estuary prematurely.
	CSM guidance states that adult run size should comply with an agreed target for each river, with no drop in the annual run greater than would be expected from variations in natural mortality alone. This attribute is not currently assessed in the Usk due to the absence of a fish counter.
	The current unfavourable status results from a precautionary assessment of feature distribution and abundance, and from the presence of adverse factors, in particular flow depletion and physical barriers to migration.
	Conservation status of Feature 4: Atlantic salmon Salmo salar
	Status: <b>Unfavourable</b> : Unclassified. Monitoring of Atlantic salmon in the Usk relies on two methods,  1. Estimation of adult run size from angling catch returns,  2. Electro-fishing for juveniles in nursery areas.
	The estimate of adult numbers is converted into an estimate of numbers of eggs deposited which is compared against an Egg Deposition Target (EDT), calculated by considering the area of suitable spawning habitat within the catchment. The

Site Name: River Usk Location Grid Ref: SO301113 JNCC Site Code: UK0013007 Size: 1007.71	Habitats Regulations Assessment: Data Proforma
Designation: SAC	
	equivalent adult run to achieve the EDT is described in terms of a Conservation Limit, which must be exceeded 4 years in 5 for the Management Target to be considered attained. Electro-fishing for juveniles is either quantitative or semi-quantitative, and estimated juvenile densities are classified in one of six categories A to F. The monitoring guidance produced by the LIFE in UK Rivers project recommends that ideally juvenile densities should be compared to predicted densities for the sample reach using the HABSCORE model6. These targets are calculated and monitored by the Environment Agency as part of the Salmon Action Plan for the Usk.
	The current unfavourable status results from a precautionary assessment of feature distribution and abundance, in particular the results of juvenile surveys, and from the presence of adverse factors, in particular flow depletion and localised water quality failures.
	Conservation status of Feature 5: Bullhead Cottus gobio
	Status: <b>Unfavourable</b> : Unclassified. The current unfavourable status results from the presence of adverse factors, in particular flow depletion and localised water quality failures. Records obtained from juvenile salmon monitoring show that bullhead are widespread in the main river and tributaries. There is a need for quantitative information on bullhead abundance, which will be addressed by targeted monitoring in 2007.
	Conservation status of Feature 6: European otter Lutra lutra
	Status: <b>Favourable</b> . The conservation status of otters in the Usk SAC is determined by monitoring their distribution, breeding success, and the condition of potential breeding and feeding habitat outlined in the Performance Indicators. Their current condition can be considered favourable, but with scope for further improvement, if habitat and other natural factors can be maintained and enhanced.
	Conservation status of Feature 7: Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation
	Status: <b>Unfavourable</b> : Unclassified. The present unfavourable status of the feature results from the over-abundance of invasive non-native species of bankside plant communities, which are included within the feature definition. These are predominantly giant hogweed and Himalayan balsam in the lower reaches of the main river.

Site Name: River Usk Location Grid Ref: SO301113 JNCC Site Code: UK0013007	Habitats Regulations Assessment: Data Proforma
Size: 1007.71 Designation: SAC	
Vulnerabilities (includes existing pressures and trends)	Abstraction levels - Entrainment in water abstractions directly impacts on lamprey population dynamics through reduced recruitment and survival rates. The impact of flow depletion resulting from a small number of major abstractions was highlighted in the Review of Consents process.
	Eutrophication - factors that are important to the favourable conservation status of this feature include flow, substrate quality and water quality, which in turn influence species composition and abundance. These factors often interact, producing unfavourable conditions by promoting the growth of a range of algae and other species indicative of eutrophication. Under conditions of prolonged low flows and high nutrient status, epiphytic algae may suppress the growth of aquatic flowering plants.
	■ Diffuse Pollution - The Atlantic salmon is the focus for much of the management activity carried out on the Usk. 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. In the Usk catchment, the most significant sources of diffuse pollution and siltation are from agriculture, including fertiliser run-off, livestock manure, silage effluent and soil erosion from ploughed land. The most intensively used areas such as heavily trampled gateways and tracks can be especially significant sources of polluting run-off. Farm operations should avoid ploughing land which is vulnerable to soil erosion or leaving such areas without crop cover during the winter. Contamination by synthetic pyrethroid sheep dips, which are extremely toxic to aquatic invertebrates, has a devastating impact on crayfish populations and can deprive fish populations of food over large stretches of river. These impacts can arise if recently dipped sheep are allowed access to a stream or hard standing area, which drains into a watercourse. Pollution from organophosphate sheep dips and silage effluent can be very damaging locally. Pollution from slurry and other agricultural and industrial chemicals, including fuels, can kill all forms of aquatic life. All sheep dips and silage, fuel and chemical storage areas should be sited away from watercourses or bunded to contain leakage. Recently dipped sheep should be kept off stream banks. Discharges from sewage treatment works, urban drainage, engineering works such as road improvement schemes, contaminated land, and other domestic and industrial sources can also be significant causes of pollution, and must be managed appropriately. Pollution of rivers with toxic chemicals, such as PCBs, was one of the major factors identified in the widespread decline of otters during the last century.

Site Name: River Usk Location Grid Ref: SO301113 JNCC Site Code: UK0013007 Size: 1007.71 Designation: SAC	Habitats Regulations Assessment: Data Proforma
	■ Barriers to migration - There are few barriers to migration for the anadromous species and where barriers exist, investigation is proposed to analyse for potential impacts and remedy them through multi-species fish passes. Crickhowell Bridge is considered to be the most significant barrier to fish migration in the Usk. Management to reduce or remove the effect of this barrier is a high priority for the River Usk SAC. Artificial physical barriers are probably the single most important factor in the decline of shad in Europe. Impassable obstacles between suitable spawning areas and the sea can eliminate breeding populations of shad. Both species (but particularly allis shad) can make migrations of hundreds of kilometres from the estuary to spawning grounds in the absence of artificial barriers. Existing fish passes designed for salmon are often not effective for shad.
	■ <b>Development pressure</b> - in the lower catchment can cause temporary physical, acoustic, chemical and sediment barrier effects that need to be addressed in the assessment of specific plans and projects. Noise/vibration e.g. due to impact piling, drilling, salmon fish counters present within or in close proximity to the river can create a barrier to shad migration. Land on both sides of the river in Newport is potentially highly contaminated. Contamination of the river can arise when this is disturbed e.g. as a result of development. Contamination can also arise from pollution events (which could be shipping or industry related). Barriers resulting from vibration, chemicals, low dissolved oxygen and artificially high sediment levels must be prevented at key times (generally March to June).
	Invasive non-native plants - are a detrimental impact on the water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation. Giant hogweed, Himalayan balsam and Japanese knotweed should be actively managed to control their spread and hopefully reduce their extent in the SAC.
	<ul> <li>Artificially enhanced densities of other fish - may introduce unacceptable competition or predation pressure and the aim should be to minimise these risks in considering any proposals for stocking.</li> </ul>
	<b>External factors</b> - operating outside the SAC, may also be influential, particularly for the migratory fish and otters. For example, salmon may be affected by barriers to migration in the Severn Estuary, inshore fishing and environmental conditions prevailing in their north Atlantic feeding grounds. Otters may be affected by developments that affect resting and breeding sites outside the SAC boundary.

Site Name: River Usk	Habitats Regulations Assessment: Data Proforma
Location Grid Ref: SO301113	
JNCC Site Code: UK0013007	
Size: 1007.71	
<b>Designation: SAC</b>	
Landowner/ Management	■ N/A
Responsibility	

Site Name: River Wye Location Grid Ref: SO109369	Habitats Regulations Assessment: Data Proforma
JNCC Site Code: UK0012642 Size: 2234.89 Designation: SAC	
Site Description	The River Wye rises on Plynlimon in the Cambrian Mountains and flows in a generally south-easterly direction to enter the Severn Estuary at Chepstow. The upper catchment comprises several large sub-catchments, including the Irfon on the generally infertile upland landscape in the north-west, the Ithon in the north-east often on more low-lying, fertile terrain and the Lugg in the east in a predominantly low-lying fertile landscape much of which lies within England. The underlying geology consists predominantly of impermeable, acidic rocks of Silurian and Ordovician age in the north-west and more permeable Devonian Old Red Sandstone with a moderate base status in the middle and lower catchment. This geology produces a generally low to moderate nutrient status and a low to moderate base-flow index, making the river characteristically flashy. The run-off characteristics and nutrient status are significantly modified by land use in the catchment, which is predominantly pastoral with some woodland and commercial forestry in the headwaters and arable in the lower catchment and the Lugg. The Wye catchment is divided between Wales and England; the river forms the border from south of Monmouth to Chepstow and to the east of Hay-on-Wye.  Historically, the Wye is the most famous and productive river in Wales for Atlantic salmon Salmo salar, with high-quality spawning grounds and juvenile habitat in both the main channel and tributaries. The Wye salmon population is particularly notable for the very high proportion (around 75%) of multi sea winter (MSW) fish, a stock component which has declined sharply in recent years throughout the UK. This pattern has also occurred in the Wye, with a consequent marked decline in the population since the 1980s. However, the Wye salmon population is still of considerable importance in UK terms. 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 t

Site Name: River Wye Location Grid Ref: SO109369 JNCC Site Code: UK0012642 Size: 2234.89 Designation: SAC	Habitats Regulations Assessment: Data Proforma
Qualifying Features	Annex I habitats primary reason for selection:
	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation
	Association of the Contract of
	Annex I habitats qualifying feature:
	Transition mires and quaking bogs
	Annex II species primary reason for selection:
	White-clawed (or Atlantic stream) crayfish Austropotamobius pallipes
	Sea lamprey Petromyzon marinus
	Brook lamprey Lampetra planeri
	River lamprey Lampetra fluviatilis
	Twaite shad Alosa fallax
	Atlantic salmon Salmo salar
	Bullhead Cottus gobio
	Otter Lutra lutra
	Annex II Species qualifying feature:
	Allis shad Alosa alosa
Conservation Objectives	The ecological status of the watercourse is a major determinant of Favourable Condition Status for all features. The required conservation objective for the watercourse is defined below.
	Conservation Objective for the watercourse
	The capacity of the habitats in the SAC to support each feature at near-natural population levels, as determined by predominantly unmodified ecological and hydromorphological processes and characteristics, should be maintained as far as possible, or restored where necessary.

Site Name: River Wye Location Grid Ref: SO109369 JNCC Site Code: UK0012642 Size: 2234.89 Designation: SAC	Habitats Regulations Assessment: Data Proforma
	The ecological status of the water environment should be sufficient to maintain a stable or increasing population of each feature. This will include elements of water quantity and quality, physical habitat and community composition and structure. It is anticipated that these limits will concur with the relevant standards used by the Review of Consents process given in Annexes 1-3.
	Flow regime, water quality and physical habitat should be maintained in, or restored as far as possible to, a near-natural state, in order to support the coherence of ecosystem structure and function across the whole area of the SAC.
	All known breeding, spawning and nursery sites of species features should be maintained as suitable habitat as far as possible, except where natural processes cause them to change.
	Flows, water quality, substrate quality and quantity at fish spawning sites and nursery areas will not be depleted by abstraction, discharges, engineering or gravel extraction activities or other impacts to the extent that these sites are damaged or destroyed.
	The river planform and profile should be predominantly unmodified. Physical modifications having an adverse effect on the integrity of the SAC, including, but not limited to, revetments on active alluvial river banks using stone, concrete or waste materials, unsustainable extraction of gravel, addition or release of excessive quantities of fine sediment, will be avoided.
	River habitat SSSI features should be in favourable condition. Where the SAC habitat is not underpinned by a river habitat SSSI feature, the target is to maintain the characteristic physical features of the river channel, banks and riparian zone.
	Artificial factors impacting on the capability of each species feature to occupy the full extent of its natural range should be modified where necessary to allow passage, eg. weirs, bridge sills, acoustic barriers.
	Natural factors such as waterfalls, which may limit, wholly or partially, the natural range of a species feature or dispersal between naturally isolated populations, should not be modified.
	Flows during the normal migration periods of each migratory fish species feature will not be depleted by abstraction to the extent that passage upstream to spawning sites is hindered.
	Flow objectives for assessment points in the Wye Catchment Abstraction Management Strategy will be agreed between EA and CCW as necessary. It is anticipated that these limits will concur with the standards used by the Review of Consents process given in Annex 1 of this document.

Site Name: River Wye Location Grid Ref: SO109369 JNCC Site Code: UK0012642 Size: 2234.89 Designation: SAC	Habitats Regulations Assessment: Data Proforma
	Levels of nutrients, in particular phosphate, will be agreed between EA and CCW for each Water Framework Directive water body in the Wye SAC, and measures taken to maintain nutrients below these levels. It is anticipated that these limits will concur with the standards used by the Review of Consents process given in Annex 2 of this document.
	Levels of water quality parameters that are known to affect the distribution and abundance of SAC features will be agreed between EA and CCW for each Water Framework Directive water body in the Wye SAC, and measures taken to maintain pollution below these levels. It is anticipated that these limits will concur with the standards used by the Review of Consents process given in Annex 3 of this document.
	Potential sources of pollution not addressed in the Review of Consents, such as contaminated land, will be considered in assessing plans and projects.
	Levels of suspended solids will be agreed between EA and CCW for each Water Framework Directive water body in the Wye SAC. Measures including, but not limited to, the control of suspended sediment generated by agriculture, forestry and engineering works, will be taken to maintain suspended solids below these levels.
	Conservation Objective for Features 1-5:
	- Sea lamprey Petromyzon marinus; - Brook lamprey Lampetra planeri; - River lamprey Lampetra fluviatilis; - Twaite shad Alosa fallax; - Allis shad Alosa alosa; - Atlantic salmon Salmo salar; - Bullhead Cottus gobio.
	Vision for features 1-5 The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:
	The conservation objective for the water course as defined in 4.1 above must be met.
	The population of the feature in the SAC is stable or increasing over the long term.

Site Name: River Wye Location Grid Ref: SO109369 JNCC Site Code: UK0012642 Size: 2234.89 Designation: SAC	Habitats Regulations Assessment: Data Proforma
	<ul> <li>The natural range of the feature in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. The natural range is taken to mean those reaches where predominantly suitable habitat for each life stage exists over the long term. Suitable habitat is defined in terms of near-natural hydrological and geomorphological processes and forms eg. suitable flows to allow upstream migration, depth of water and substrate type at spawning sites, and ecosystem structure and functions eg. food supply. Suitable habitat need not be present throughout the SAC but where present must be secured for the foreseeable future. Natural factors such as waterfalls may limit the natural range of individual species. Existing artificial influences on natural range that cause an adverse effect on site integrity, such as physical barriers to migration, will be assessed in view of the following bullet point.</li> <li>There is, and will probably continue to be, a sufficiently large habitat to maintain the feature's population in the SAC on a long-term basis.</li> </ul>
	Performance indicators for features 1-5
	The performance indicators are part of the conservation objective, not a substitute for it. Assessment of plans and projects must be based on the entire conservation objective, not just the performance indicators. The performance indicators can be found within the <u>River Wye SAC Management Plan</u> .
	Conservation Objective for Feature 6: - European otter Lutra lutra
	Vision for feature 6 The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:
	The population of otters in the SAC is stable or increasing over the long term and reflects the natural carrying capacity of the habitat within the SAC, as determined by natural levels of prey abundance and associated territorial behaviour.
	The natural range of otters in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. The natural range is taken to mean those reaches that are potentially suitable to form part of a breeding territory and/or provide routes between breeding territories. The whole area of the Wye SAC is considered to form potentially

Site Name: River Wye Location Grid Ref: SO109369 JNCC Site Code: UK0012642 Size: 2234.89 Designation: SAC	Habitats Regulations Assessment: Data Proforma
Designation. SAG	suitable breeding habitat for otters. The size of breeding territories may vary depending on prey abundance. The population size should not be limited by the availability of suitable undisturbed breeding sites. Where these are insufficient they should be created through habitat enhancement and where necessary the provision of artificial holts. No otter breeding site should be subject to a level of disturbance that could have an adverse effect on breeding success. Where necessary, potentially harmful levels of disturbance must be managed.
	The safe movement and dispersal of individuals around the SAC is facilitated by the provision, where necessary, of suitable riparian habitat, and underpasses, ledges, fencing etc at road bridges and other artificial barriers.
	Performance indicators for feature 6 (see performance indicators for features 1 - 5)
	Conservation Objective for Feature 7: - Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation
	Vision for feature 7 The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:
	The conservation objectives for the water course as defined above must be met.
	The natural range of the plant communities represented within this feature should be stable or increasing in the SAC. The natural range is taken to mean those reaches where predominantly suitable habitat exists over the long term. Suitable habitat and associated plant communities may vary from reach to reach. Suitable habitat is defined in terms of near-natural hydrological and geomorphological processes and forms eg. depth and stability of flow, stability of bed substrate, and ecosystem structure and functions eg. nutrient levels, shade. Suitable habitat for the feature need not be present throughout the SAC but where present must be secured for the foreseeable future, except where natural processes cause it to decline in extent.
	The area covered by the feature within its natural range in the SAC should be stable or increasing.
	The conservation status of the feature's typical species should be favourable. The typical species are defined with reference to the species composition of the appropriate JNCC river vegetation type for the particular river reach, unless differing from this type due to natural variability when other typical species may be defined as appropriate.

Site Name: River Wye Location Grid Ref: SO109369 JNCC Site Code: UK0012642 Size: 2234.89 Designation: SAC	Habitats Regulations Assessment: Data Proforma
	Performance indicators for feature 7 (see performance indicators for features 1 - 5)
	Conservation Objective for Feature 8: - White-clawed crayfish Austropotamobius pallipes
	Vision for feature 8
	The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:
	The conservation objective for the water course as defined in 4.1 above must be met.
	The population of the feature in the SAC is stable or increasing over the long term.
	The natural range of the feature in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. The natural range is taken to mean those reaches where predominantly suitable habitat for each life stage exists over the long term. Suitable habitat is defined in terms of near-natural hydrological and geomorphological processes and forms e.g. substrate type, water hardness and temperature, and ecosystem structure and functions e.g. food supply, absence of invasive non-native competitors. Suitable habitat need not be present throughout the SAC but where present must be secured for the foreseeable future. Natural factors such as waterfalls may limit the natural range of individual species. Existing artificial influences on natural range that cause an adverse effect on site integrity will be assessed in view of the objective below.
	There is, and will probably continue to be, a sufficiently large habitat to maintain the feature's population in the SAC on a long-term basis.
	Performance indicators for feature 8 (see performance indicators for features 1 - 5)
	Conservation Objective for Feature 9: - Quaking bogs and transition mires

Site Name: River Wye Location Grid Ref: SO109369 JNCC Site Code: UK0012642 Size: 2234.89 Designation: SAC	Habitats Regulations Assessment: Data Proforma
	Vision for feature 9
	The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:
	The conservation objective for the water course as defined in 4.1 above must be met.
	The natural range of the plant communities represented within this feature should be stable or increasing in the SAC. The natural range is taken to mean those reaches where near-natural hydrological and geomorphological processes and landforms favour the development of this habitat. The feature need not be present in all suitable locations in the SAC but where present must be secured for the foreseeable future.
	The area covered by the feature within its natural range in the SAC should be stable or increasing.
	The conservation status of the feature's typical species should be favourable. The typical species are defined with reference to the species composition of the appropriate NVC type(s), unless differing from this type due to natural variability/local distinctiveness when other typical/indicator species may be defined as appropriate.
	Performance indicators for feature 9 (see performance indicators for features 1 - 5)
Component SSSIs	The site has been divided into management units to enable practical communication about features, objectives, and management. This will also allow CCW to differentiate between the different designations where necessary. In the management plan units have been based on the following:
	SSSI boundaries
	<ul> <li>Natural hydromorphology, where there are significant differences in management issues/key features between reaches</li> </ul>
	<ul> <li>Units partly within England coincide with Natural England's equivalent units, as far as is practicable</li> </ul>
	The units include one or more of EA's River Basin Management Plan water bodies; as far as is practicable, unit boundaries coincide with these water body boundaries.

Site Name: River Wye Location Grid Ref: SO109369	Habitats Regulations Assessment: Data Proforma
JNCC Site Code: UK0012642	
Size: 2234.89	
Designation: SAC	The component CCCle and management units that comprise to form the Diver Wee CAC are
	The component SSSIs and management units that comprise to form the River Wye SAC are:
	River Wye (Lower Wye) SSSI - Management units 1A to 1D;
	River Wye (Upper Wye) SSSI - Management units 2A & 2B;
	River Wye (Tributaries) SSSI - Management unit 3;
	Afon Llynfi SSSI - Management unit 4;
	Duhonw SSSI - Management unit 5;
	Afon Irfon SSSI - Management unit 6;
	River Ithon SSSI - Management unit 7;
	Upper Wye Tributaries SSSI - Management unit 8; and
	Colwyn Brook Marshes (North & South) SSSI - Management units 9A to 9G & 10A & 10E.
	Note: a number of smaller SSSI have part of their area included within the River Wye SAC. These are not all included separately here, but management actions for adjacent SAC units also apply to these sites.
	Maps containing the component SSSIs and management units can be viewed on the <a href="CCW website">CCW website</a> .
Key Environmental Conditions (factors that maintain site integrity	The ecological structure and functions of the site are dependent on hydrological and geomorphological processes (often referred to as hydromorphological processes), as well as the quality of riparian habitats and connectivity of habitats. Animals that move around and sometimes leave the site, such as migratory fish and otters, may also be affected by factors operating outside the site.
	Hydrological processes in particular river flow (level and variability) and water chemistry, determine a range of habitat factors of importance to the SAC features, including current velocity, water depth, wetted area, substrate quality, dissolved oxygen levels and water temperature. Maintenance of both high 'spate' flows and base-flows is essential. Reductions in flow may reduce the ability of the adult migratory fish to reach spawning sites. Water-crowfoot vegetation thrives in relatively stable, moderate flows and clean water. The flow regime should be characteristic of the river in order to support the functioning of the river ecosystem.

Site Name: River Wye Location Grid Ref: SO109369 JNCC Site Code: UK0012642 Size: 2234.89 Designation: SAC	Habitats Regulations Assessment: Data Proforma
	Geomorphological processes of erosion by water and subsequent deposition of eroded sediments downstream create the physical structure of the river habitats. While some sections of the river are naturally stable, especially where they flow over bedrock, others undergo continual and at times rapid change through the erosion and deposition of bed and bank sediments as is typical of meandering sections within floodplains (called 'alluvial' rivers). These processes help to sustain the river ecosystem by allowing a continued supply of clean gravels and other important substrates to be transported downstream. In addition, the freshly deposited and eroded surfaces, such as shingle banks and earth cliffs, enable processes of ecological succession to begin again, providing an essential habitat for specialist, early-successional species. Processes at the wider catchment scale generally govern processes of erosion and deposition occurring at the reach scale, although locally factors such as the effect of grazing levels on riparian vegetation structure may contribute to enhanced erosion rates. In general, management that interferes with natural geomorphological processes, for example preventing bank erosion through the use of hard revetments or removing large amounts of gravel, are likely to be damaging to the coherence of the ecosystem structure and functions.
	Riparian habitats including bank sides and habitats on adjacent land, are an integral part of the river ecosystem. Diverse and high quality riparian habitats have a vital role in maintaining the SAC features in a favourable condition. The type and condition of riparian vegetation influences shade and water temperature, nutrient run-off from adjacent land, the availability of woody debris to the channel and inputs of leaf litter and invertebrates to support in-steam consumers. Light, temperature and nutrient levels influence in-stream plant production and habitat suitability for the SAC features. Woody debris is very important as it provides refuge areas from predators, traps sediment to create spawning and juvenile habitat and forms the base of an important aquatic food chain. Otters require sufficient undisturbed riparian habitat for breeding and resting sites. It is important that appropriate amounts of tree cover, in general at least 50% high canopy cover, tall vegetation and other semi-natural habitats are maintained on the riverbanks and in adjacent areas, and that they are properly managed to support the SAC features. This may be achieved for example, through managing grazing levels, selective coppicing of riparian trees and restoring adjacent wetlands. In the urban sections the focus may be on maintaining the river as a communication corridor but this will still require that sufficient riparian habitat is present and managed to enable the river corridor to function effectively. Overhanging trees provide valuable shade and food sources for Atlantic salmon whilst tree root systems provide important cover and flow refuges for juveniles. Bullheads are particularly associated with woody debris in lowland reaches, where it is likely that it provides an alternative source of cover from predators and floods. It may also be

Site Name: River Wye Location Grid Ref: SO109369 JNCC Site Code: UK0012642 Size: 2234.89 Designation: SAC	Habitats Regulations Assessment: Data Proforma
Designation. SAC	used as an alternative spawning substrate. Debris dams and woody debris should be retained where characteristic of the river/reach. Woody debris removal should be minimised, and restricted to essential activities such as flood defence.
	Habitat connectivity is an important property of river ecosystem structure and function. Many of the fish that spawn in the river are migratory, depending on the maintenance of suitable conditions on their migration routes to allow the adults to reach available spawning habitat and juvenile fish to migrate downstream. For resident species, dispersal to new areas, or the prevention of dispersal causing isolated populations to become genetically distinct, may be important factors. Naturally isolated feature populations that are identified as having important genetic distinctiveness should be maintained.
	In all river types, artificial barriers should be made passable. Physical modification of barriers is required where depth/velocity/duration of flows is unsuitable to allow passage. Complete or partial natural barriers to potentially suitable spawning areas should not be modified or circumvented. Certain areas of the SAC are critical to the movement of otters both within the system and to adjacent sites. The Wye SAC provides a key movement corridor for otters passing between the relatively high densities in mid Wales and the south-east Wales coastal strip (Seven Estuary and Gwent Levels). The function of this aspect of the site should be protected through the maintenance of suitable resting sites (in terms of size, quality and levels of disturbance) through urban centres such as Monmouth. Connectivity should be maintained, or restored where necessary, as a means to ensure access for the features to sufficient habitat within the SAC.
	<b>External factors</b> operating outside the SAC, may also be influential, particularly for the migratory fish and otters. For example, salmon may be affected by barriers to migration in the Severn Estuary, inshore fishing and environmental conditions prevailing in their north Atlantic feeding grounds. Otters may be affected by developments that affect resting and breeding sites outside the SAC boundary.
SAC Condition Assessment	Conservation status of Feature 1: Sea lamprey Petromyzon marinus  Conservation status (2006)

Site Name: River Wye Location Grid Ref: SO109369 JNCC Site Code: UK0012642 Size: 2234.89	Habitats Regulations Assessment: Data Proforma
Designation: SAC	
	Status within the site: <b>Favourable: Unclassified</b> . Sea lamprey monitoring showed that overall catchment mean ammocoete density considerably exceeded the JNCC target threshold and also complied with targets for spawning site and ammocoete distribution. Sea lamprey ammocoetes were recorded in good numbers immediately upstream of the falls at Rhayader, their most upstream recorded site on the main Wye. They were also recorded in the Irfon and Ithon tributaries.
	Conservation status of Feature 2: Brook lamprey Lampetra planeri and River lamprey Lampetra fluviatilis
	Conservation status (2006)
	Status within the site: <b>Favourable: Unclassified</b> . Brook/river lamprey monitoring showed that overall catchment mean ammocoete density considerably exceeded the JNCC target threshold. However, Lampetra ammocoetes were recorded at only 30 of the 54 sample sites (56%) thus failed to meet the criterion of presence at least two thirds of sites within their natural range. Consequently, the feature may be in unfavourable condition. Further clarification is needed concerning a number of sample sites in the upper reaches (Upper Wye and Elan), which may reflect unsuitable habitat and be outside the natural ranges of the species.
	It has not been possible to distinguish between these two species during monitoring, due to the reliance on juvenile stages (ammocoetes). Anecdotal evidence suggests that both species are likely to be present in many reaches, though brook lamprey are expected to predominate in the headwaters and river lamprey may be the more abundant species in the main channel and the lower reaches of larger tributaries. More information on the relative abundance of these two species in different parts of the Wye SAC is desirable. Records of spawning adult river lamprey would be particularly useful.
	Conservation status of Feature 3: Twaite shad Alosa fallax and Allis shad Alosa alosa
	Conservation status (2006)
	Status within the site: Unfavourable: Unclassified.
	Physical barriers to migration are a major cause of unfavourable status of these species in Europe as a whole; however,

Site Name: River Wye Location Grid Ref: SO109369 JNCC Site Code: UK0012642 Size: 2234.89 Designation: SAC	Habitats Regulations Assessment: Data Proforma
	there are not thought to be any significant barriers to shad migration in the Wye.
	The current unfavourable status results from a precautionary assessment of feature abundance, and from the presence of adverse factors, in particular the potential for damaging flow depletion and entrainment/impingement in water intakes.
	Conservation status of Feature 4: Atlantic salmon Salmo salar
	Conservation status (2006)
	Status within the site: Unfavourable: Unclassified.
	The current unfavourable status results from failure of the Management Target for adult run size as well as a precautionary assessment of juvenile distribution and abundance and the presence of adverse factors, in particular the potential for flow depletion and localised water quality failures. Acidification due to forestry is a factor in the upper reaches of the Wye and Irfon.
	Conservation status of Feature 5: Bullhead Cottus gobio
	Conservation status (2006)
	Status within the site: <b>Unfavourable: Unclassified</b> . The current unfavourable status results from the presence of adverse factors, in particular localised water quality failures. Records obtained from juvenile salmon monitoring show that bullhead are widespread in the main river and tributaries. Quantitative information on bullhead abundance is being provided through targeted monitoring.
	Conservation status of Feature 6: European otter Lutra lutra
	Conservation status (2006)
	Status within the site: <b>Unfavourable</b> . The conservation status of otters in the Wye SAC is determined by monitoring their distribution, breeding success, and the condition of potential breeding and feeding habitat as outlined in the

Site Name: River Wye Location Grid Ref: SO109369 JNCC Site Code: UK0012642 Size: 2234.89 Designation: SAC	Habitats Regulations Assessment: Data Proforma
<u> </u>	Performance Indicators. Their current condition is considered unfavourable due a lack of suitable breeding sites around the middle reaches of the river.
	Conservation status of Feature 7: Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation
	Conservation status (2006)
	Status within the site: <b>Unfavourable: Declining</b> . The present unfavourable status of the feature results from declining water quality in some tributaries of the Wye e.g. parts of the Ithon and Llynfi sub-catchments, due mainly to diffuse pollution from agriculture.
	A further adverse factor is the over-abundance of invasive non-native species of bankside plant communities, which are included within the feature definition. Japanese knotweed and Himalayan balsam are widespread in the catchment, including the Irfon sub-catchment.
	Conservation status of Feature 8: White-clawed crayfish Austropotamobius pallipes
	Conservation status (2006)
	Status within the site: <b>Unfavourable: Declining</b> . There is considerable anecdotal evidence of a major decline in the distribution and abundance of the native white-clawed crayfish in the Wye catchment over the last few decades. Native crayfish may have been lost from the main river channel, from tributaries such as the Duhonw and Ithon and have almost disappeared from the Afon Irfon. Significant populations within the Wye SAC are now confined to the Sgithwen, Cletwr, Edw, Llynfi Dulas and Builth Road Dulas. The most recent assessment of the condition of crayfish in the Wye SAC, using modified Common Standards Monitoring techniques, found that populations are unfavourable.
Vulnerabilities (includes existing pressures and trends)	Abstraction levels - entrainment in water abstractions directly impacts on species population dynamics through reduced recruitment and survival rates. The impact of flow depletion resulting from a small number of major abstractions was highlighted in the Review of Consents process. As a result of this process, flow targets have been

Site Name: River Wye Location Grid Ref: SO109369 JNCC Site Code: UK0012642 Size: 2234.89 Designation: SAC	Habitats Regulations Assessment: Data Proforma
Designation. OAO	set which are considered likely to significantly reduce or remove the potential impacts on SAC features.
	<b>Eutrophication</b> - factors that are important to the favourable conservation status of this feature include flow, substrate quality and water quality, which in turn influence species composition and abundance. These factors often interact, producing unfavourable conditions by promoting the growth of a range of algae and other species indicative of eutrophication. Under conditions of prolonged low flows and high nutrient status, epiphytic algae may suppress the growth of aquatic flowering plants.
	■ <b>Diffuse Pollution</b> - in the Wye catchment the most significant sources of diffuse pollution and siltation are from agriculture, including fertiliser run-off, livestock manure, silage effluent and soil erosion from ploughed land. The most intensively used areas such as heavily trampled gateways and tracks can be especially significant sources of polluting run-off. Preventative measures can include surfacing of tracks and gateways, moving feeding areas, and separating clean and dirty water in farmyards. Farm operations should avoid ploughing land which is vulnerable to soil erosion or leaving such areas without crop cover during the winter.
	Among toxic pollutants, sheep dip and silage effluent present a particular threat to aquatic animals in this predominantly rural area. Contamination by synthetic pyrethroid sheep dips, which are extremely toxic to aquatic invertebrates, has a devastating impact on crayfish populations and can deprive fish populations of food over large stretches of river. These impacts can arise if recently dipped sheep are allowed access to a stream or hard standing area, which drains into a watercourse. Pollution from organophosphate sheep dips and silage effluent can be very damaging locally. Pollution from slurry and other agricultural and industrial chemicals, including fuels, can kill all forms of aquatic life. All sheep dips and silage, fuel and chemical storage areas should be sited away from watercourses or bunded to contain leakage. Recently dipped sheep should be kept off stream banks.
	Discharges from sewage treatment works, urban drainage, engineering works such as road improvement schemes, contaminated land, and other domestic and industrial sources can also be significant causes of pollution, and must be managed appropriately. Used dip should be disposed of strictly in accordance with Environment Agency Regulations and guidelines. Statutory and voluntary agencies should work closely with landowners and occupiers to minimise the risk of any pollution incidents and enforce existing regulations. Measures to control diffuse pollution in the water environment, including 'Catchment Sensitive Farming', may be implemented as a result of the Water Framework

Site Name: River Wye Location Grid Ref: SO109369 JNCC Site Code: UK0012642 Size: 2234.89 Designation: SAC	Habitats Regulations Assessment: Data Proforma
	Directive and, along with existing agri-environment schemes, will help to achieve the conservation objectives for the SAC. Pollution of rivers with toxic chemicals, such as PCBs, was one of the major factors identified in the widespread decline of otters during the last century. There should be no increase in pollutants potentially toxic to otters.
	■ Barriers to migration - Artificial obstructions including weirs and bridge sills can reduce connectivity for some species. In addition, reaches subject to depleted flow levels, pollution, or disturbance due to noise, vibration or light, can all inhibit the movement of sensitive species. The dispersal of semi-terrestrial species, such as the otter, can be adversely affected by structures such as bridges under certain flow conditions, therefore these must be designed to allow safe passage.
	■ <b>Development pressure</b> - can cause temporary physical, acoustic, chemical and sediment barrier effects that need to be addressed in the assessment of specific plans and projects. Noise/vibration eg. due to impact piling, drilling, salmon fish counters present within or in close proximity to the river can create a barrier to shad migration. Barriers resulting from vibration, chemicals, low dissolved oxygen and artificially high sediment levels must be prevented at key times. Engineering works such as bridge repairs in reaches where white-clawed crayfish are known to occur should include appropriate pollution prevention measures and a crayfish rescue by a suitably licensed person where there is a risk of physical damage to crayfish.
	Invasive and non-native species - are a detrimental impact on the water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation. Giant hogweed, Himalayan balsam and Japanese knotweed should be actively managed to control their spread and hopefully reduce their extent in the SAC. The American signal crayfish is present in the Wye catchment and poses a very serious threat to the continued existence of the native white-clawed crayfish in the site and in Wales. Native crayfish are unable to co-exist where signal crayfish are present, due to the latter's superior competitive ability and a disease, crayfish plague, which it carries but to which native crayfish have no immunity. American signal crayfish and crayfish plague are widespread and abundant in nearby catchments such as the Lugg, Arrow and Severn. Crayfish plague can be transferred to streams on wet fishing gear, boots, canoes, machinery, stocked fish etc., so measures such as raising awareness, disinfection facilities and where appropriate restrictions on access, should be implemented where a significant risk is identified. Signal crayfish are also extremely harmful to fish communities and the overall ecology of the river. It is illegal to release non-native crayfish into the wild, to keep live crayfish in most of Wales or to trap crayfish without a licence

Site Name: River Wye Location Grid Ref: SO109369 JNCC Site Code: UK0012642 Size: 2234.89	Habitats Regulations Assessment: Data Proforma
Designation: SAC	
	from the Environment Agency. Bullhead densities have been found to be negatively correlated with densities of non- native crayfish, suggesting competitive and/or predator-prey interactions. Non-native crayfish should be absent from the SAC.
	Artificially enhanced densities of other fish - may introduce unacceptable competition or predation pressure and the aim should be to minimise these risks in considering any proposals for stocking. A small-scale salmon rearing and stocking programme is currently in operation in the Wye, run by the Wye and Usk Foundation. The management objectives for SAC salmon populations are to attain naturally self-sustaining populations. Salmon stocking should not be routinely used as a management measure. Salmon stocking represents a loss of naturalness and, if successful, obscures the underlying causes of poor performance (potentially allowing these risks to perpetuate). It carries various ecological risks, including the loss of natural spawning from broodstock, competition between stocked and naturally produced individuals, disease introduction and genetic alterations to the population. Therefore, there is a presumption that salmon stocking in the Wye SAC will be phased out over time. The presence of artificially high densities of salmonids and other fish will create unacceptably high levels of predatory and competitive pressure on juvenile and adult bullhead. Stocking of fish should be avoided in the SAC.
	<b>External factors</b> - operating outside the SAC, may also be influential, particularly for the migratory fish and otters. For example, salmon may be affected by barriers to migration in the Severn Estuary, inshore fishing and environmental conditions prevailing in their north Atlantic feeding grounds. Otters may be affected by developments that affect resting and breeding sites outside the SAC boundary.
Landowner/ Management Responsibility	■ N/A

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

Site Name: Severn Estuary Location Grid Ref: ST321748 JNCC Site Code: UK0013030 Size: 73715.4 Designation: cSAC	Habitats Regulations Assessment: Data Proforma
<u></u>	Annex I Habitats qualifying feature:
	<ul> <li>Sandbanks which are slightly covered by sea water all the time</li> </ul>
	■ Reefs
	Annex II Species primary reason for selection:
	Sea lamprey Petromyzon marinus
	River lamprey Lampetra fluviatilis
	Twaite shad Alosa fallax
Conservation Objectives	SAC interest feature 1: Estuaries
	The conservation objective for the "estuaries" feature of the Severn Estuary SAC is to maintain the feature in favourable condition, as defined below:
	The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:
	i. the total extent of the estuary is maintained;
	ii. the characteristic physical form (tidal prism/cross sectional area) and flow (tidal regime) of the estuary is maintained:
	iii. the characteristic range and relative proportions of sediment sizes and sediment budget within the site is maintained;
	iv. the extent, variety and spatial distribution of estuarine habitat communities5 within the site is maintained;
	v. the extent, variety, spatial distribution and community composition of hard substrate habitats and their notable communities is maintained;
	vi. the abundance of the notable estuarine species assemblages7 is maintained or increased;
	vii. the physico-chemical characteristics of the water column9 support the ecological objectives described above;
	viii. Toxic contaminants in water column and sediment are below levels which would pose a risk to the ecological objectives described above.

Site Name: Severn Estuary Location Grid Ref: ST321748 JNCC Site Code: UK0013030 Size: 73715.4 Designation: cSAC	Habitats Regulations Assessment: Data Proforma
besignation, cono	ix. Airborne nutrient and contaminant loads are below levels which would pose a risk to the ecological objectives described above
	SAC interest feature 2: Subtidal sandbanks which are covered by sea water all the time (subtidal sandbanks)
	The conservation objective for the "subtidal sandbanks" feature of the Severn Estuary SAC is to maintain the feature in favourable condition, as defined below:
	The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:
	<ul> <li>i. the total extent of the subtidal sandbanks within the site is maintained;</li> <li>ii. the extent and distribution of the individual subtidal sandbank communities within the site is maintained;</li> <li>iii. the community composition of the subtidal sandbank feature within the site is maintained;</li> <li>iv. the variety and distribution of sediment types across the subtidal sandbank feature is maintained;</li> <li>v. the gross morphology (depth, distribution and profile) of the subtidal sandbank feature within the site is maintained.</li> </ul>
	SAC interest feature 3: Mudflats and sandflats not covered by seawater at low tide (mudflats and sandflats)
	The conservation objective for "mudflats and sandflats" feature of the Severn Estuary SAC is to maintain the feature in favourable condition, as defined below:
	The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:
	<ul> <li>i. The total extent of the mudflats and sandflats feature is maintained;</li> <li>ii. the variety and extent of individual mudflats and sandflats communities within the site is maintained;</li> <li>iii. the distribution of individual mudflats and sandflats communities within the site is maintained;</li> <li>iv. the community composition of the mudflats and sandflats feature within the site is maintained;</li> <li>v. the topography of the intertidal flats and the morphology (dynamic processes of sediment movement and</li> </ul>

Site Name: Severn Estuary Location Grid Ref: ST321748 JNCC Site Code: UK0013030 Size: 73715.4 Designation: cSAC	Habitats Regulations Assessment: Data Proforma
	channel migration across the flats) are maintained.
	SAC interest feature 4: Atlantic salt meadow
	The conservation objective for the "Atlantic salt meadow" feature of the Severn Estuary SAC is to maintain the feature in favourable condition, as defined below:
	The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:
	<ul> <li>i. the total extent of Atlantic salt meadow and associated transitional vegetation communities within the site is maintained;</li> <li>ii. the extent and distribution of the individual Atlantic salt meadow and associated transitional vegetation communities within the site is maintained;</li> <li>iii. the zonation of Atlantic salt meadow vegetation communities and their associated transitions to other estuary habitats is maintained;</li> <li>iv. the relative abundance of the typical species of the Atlantic salt meadow and associated transitional vegetation communities is maintained;</li> </ul>
	<ul> <li>v. the abundance of the notable species of the Atlantic salt meadow and associated transitional vegetation communities is maintained.</li> <li>vi. the structural variation of the salt marsh sward (resulting from grazing) is maintained within limits sufficient to satisfy the requirements of conditions iv and v above and the requirements of the Ramsar and SPA features</li> <li>vii. the characteristic stepped morphology of the salt marshes and associated creeks, pills, drainage ditches and pans, and the estuarine processes that enable their development, is maintained.</li> <li>viii. Any areas of <i>Spartina anglica</i> salt marsh (SM6) are capable of developing naturally into other saltmarsh communities.</li> </ul>
	SAC interest feature 5: Reefs
	The conservation objective for the "reefs" feature of the Severn Estuary SAC is to maintain the feature in a favourable condition, as defined below:

Site Name: Severn Estuary Location Grid Ref: ST321748 JNCC Site Code: UK0013030 Size: 73715.4 Designation: cSAC	Habitats Regulations Assessment: Data Proforma
	The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:  i. the total extent and distribution of Sabellaria reef is maintained; ii. the community composition of the Sabellaria reef is maintained; iii. the full range of different age structures of Sabellaria reef are present; iv. the physicalSand ecological processes necessary to support Sabellaria reef are maintained.  SAC interest feature 6: River lamprey Lampetra fluviatilis  The conservation objective for the river lamprey Lampetra fluviatilis feature of the Severn Estuary SAC is to maintain the feature in a favourable condition, as defined below:  The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:  i. the migratory passage of both adult and juvenile river lamprey through the Severn Estuary between the Bristol Channel and any of their spawning rivers is not obstructed or impeded by physical barriers, changes in flows, or poor water quality; ii. the size of the river lamprey population in the Severn Estuary and the rivers which drain into it, is at least maintained and is at a level that is sustainable in the long term; iii. the abundance of prey species forming the river lamprey's food resource within the estuary, is maintained.  Toxic contaminants in the water column and sediment are below levels which would pose a risk to the ecological objectives described above.  SAC interest feature 7: The conservation objective for sea lamprey Petromyzon marinus  The conservation objective for the sea lamprey Petromyzon marinus feature of the Severn Estuary SAC is to maintain the feature in a favourable condition, as defined below:

Site Name: Severn Estuary Location Grid Ref: ST321748 JNCC Site Code: UK0013030 Size: 73715.4 Designation: cSAC	Habitats Regulations Assessment: Data Proforma
Designation: cSAC	The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:  i. the migratory passage of both adult and juvenile sea lamprey through the Severn Estuary between the Bristol Channel and any of their spawning rivers is not obstructed or impeded by physical barriers, changes in flows, or poor water quality;  ii. the size of the sea lamprey population in the Severn Estuary and the rivers which drain into it, is at least maintained as is at a level that is sustainable in the long term;  iii. the abundance of prey species forming the sea lamprey's food resource within the estuary, is maintained.  vi. Toxic contaminants in the water column and sediment are below levels which would pose a risk to the ecological objectives described above.  SAC interest feature 8: The conservation objective for twaite shad Alosa fallax  The conservation objective for the twaite Shad Alosa fallax feature of the Severn Estuary SAC is to maintain the feature in a favourable condition, as defined below:  The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:  i. the migratory passage of both adult and juvenile twaite shad through the Severn Estuary between the Bristol Channel and their spawning rivers is not obstructed or impeded by physical barriers, changes in flows or poor water quality;  ii. the size of the twaite shad population within the Severn Estuary and the rivers draining into it is at least maintained and is at a level that is sustainable in the long term.  iii. the abundance of prey species forming the twaite shad's food resource within the estuary, in particular at the salt wedge, is maintained.  iv. Toxic contaminants in the water column and sediment are below levels which would pose a risk to the ecological
	objectives described above.

Site Name: Severn Estuary	Habitats Regulations Assessment: Data Proforma
Location Grid Ref: ST321748	
JNCC Site Code: <u>UK0013030</u>	
Size: 73715.4	
Designation: cSAC	
Component SSSIs	N/A
Key Environmental Conditions (factors that maintain site integrity	Hydrodynamic and sedimentary regime - The conservation of the site features is dependent on the tidal regime. The tidal range in the Severn Estuary is the second-highest in the world and the scouring of the seabed and strong tidal streams result in natural erosion of the habitats and the presence of high sediment loads.
	Maintain suitable distance between the site and development - to allow for managed retreat of intertidal habitats and avoid coastal squeeze.
	Manage public access and activities.
SAC Condition Assessment	N/A
Vulnerabilities (includes existing pressures and trends)	Physical loss of supporting habitats through removal - The physical loss of areas of intertidal habitats may be caused directly through change of land use or indirectly as a consequence of changes to sedimentation processes (e.g. coastal defences) as well as via the effects of smothering by artificial structures (e.g. jetties) or the disposal of spoils. The intertidal mudflats and sandflats and the saltmarsh are highly sensitive to removal by land reclamation and barrage construction. Information provided by NE and CCW states that large areas of the European marine site are not currently under threat, however when combined with a high level of sensitivity this leads to a moderate vulnerability.
	Contamination by synthetic and/or non-synthetic toxic compounds - At the moment there is no evidence to show that this is the case on the Severn Estuary, but the estuary is vulnerable to oil spills and there is a continuous discharge of toxins into the estuary, some of which bind to the sediments. NE and CCW identify this is an area which requires further assessment. The intertidal mudflats and sandflats and the saltmarsh are currently highly vulnerable to the introduction of synthetic and non-synthetic compounds.
	Damage by abrasion or selective extraction - Saltmarsh may be physically damaged from overgrazing or eroded

Site Name: Severn Estuary Location Grid Ref: ST321748 JNCC Site Code: UK0013030 Size: 73715.4 Designation: cSAC	Habitats Regulations Assessment: Data Proforma
	when boats are moored on it and when paths are worn through it to reach moored boats on foot or via vehicles. Currently all supporting habitats are considered to be moderately vulnerable to abrasion. Intertidal habitats are highly sensitive to damage by direct and indirect effects of aggregate dredging. The intertidal mudflats and sandflats and the shingle and rocky shore are therefore considered by NE and CCW to be highly vulnerable to selective extraction.  Changes in nutrient and/or organic loading - Changes in organic or nutrient loading can change the species composition of the plants on the saltmarsh and thus the structure of the sward. Increases in nutrients can also cause excessive algal growth on the mudflats, denying the birds access to their invertebrate prey and changing the invertebrate species composition in the sediment. Though the water quality has been improved in recent years there are still local areas of concern and any increase in nutrient loading should be avoided. At present the intertidal mudflats and sandflats are moderately vulnerable to this category of operation.  Inappropriate grazing - Much of the saltmarsh is managed by grazing and changes in management can alter the availability of prey and suitability of roosting sites. The saltmarsh is currently highly vulnerable to the selective extraction of species.
Landowner/ Management Responsibility	■ N/A

## **Special Protection Areas**

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

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

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: UK9015022 Size: 24662.98	Habitats Regulations Assessment: Data Proforma
Designation: SPA	<ul> <li>i. the 5 year peak mean population size for the Bewick's swan population is no less than 289 individuals (ie the 5 year peak mean between 1988/9 - 1992/3);</li> <li>ii. the extent of saltmarsh at the Dumbles is maintained;</li> <li>iii. the extent of intertidal mudflats and sandflats at Frampton Sands, Waveridge Sands and the Noose is maintained;</li> <li>iv. the extent of vegetation with an effective field size of &gt;6 ha and with unrestricted bird sightlines &gt; 500m at feeding, roosting and refuge sites are maintained;</li> <li>v. greater than 25% cover of suitable soft leaved herbs and grasses in winter season throughout the transitional saltmarsh at the Dumbles is maintained;</li> <li>vi. aggregations of Bewick's swan at feeding, roosting and refuge sites are not subject to significant disturbance.</li> <li>Interest feature 2: Internationally important population of regularly occurring migratory species: wintering dunlin</li> <li>The conservation objective is to maintain the dunlin population and its supporting habitats in favourable condition, as defined below.</li> <li>The interest feature dunlin will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:  i. the 5 year peak mean population size for the wintering dunlin population is no less than 41,683 individuals (ie the 5 year peak mean between 1988/9 - 1992/3);</li> <li>ii. the extent of saltmarsh is maintained;</li> <li>iv. the extent of similar and rocky shore is maintained;</li> <li>v. the extent of vegetation with a sward height of &lt;10cm is maintained throughout the saltmarsh;</li> <li>vi. the distribution and abundance of suitable invertebrates in intertidal mudflats and sandflats is maintained;</li> <li>viii. the extent of strandlines is maintained;</li> <li>viii. the extent of strandlines is maintained;</li> <li>viii. the extent of strandlines is maintained;</li> </ul>

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: UK9015022 Size: 24662.98 Designation: SPA	Habitats Regulations Assessment: Data Proforma
Designation. SFA	ix. unrestricted bird sightlines of >200m at feeding and roosting sites are maintained; x. aggregations of dunlin at feeding or roosting sites are not subject to significant disturbance.
	Interest feature 3: Internationally important population of regularly occurring migratory species: wintering European white-fronted goose
	The conservation objective is to maintain the European white-fronted goose population and its supporting habitats in <b>favourable condition</b> , as defined below.
	The interest feature European white-fronted goose will be considered to be in favourable condition when, subject to natural processes (Box 1), each of the following conditions are met:
	<ul> <li>i. the 5 year peak mean population size for the wintering European white fronted goose population is no less than 3,002 individuals (ie the 5 year peak mean between 1988/9-ii. 1992/3);</li> </ul>
	iii. the extent of saltmarsh at the Dumbles is maintained; iv. the extent of intertidal mudflats and sandflats at Frampton Sands, Waveridge Sands and the Noose is maintained;
	<ul> <li>v. greater than 25% cover of suitable soft-leaved herbs and grasses is maintained during the winter on saltmarsh areas;</li> <li>vi. unrestricted bird sightlines of &gt;200m at feeding and roosting sites are maintained;</li> <li>vii. aggregations of European white-fronted goose at feeding or roosting sites are not subject to significant disturbance.</li> </ul>
	Interest feature 4: Internationally important population of regularly occurring migratory species: wintering redshank
	The conservation objective is to maintain the redshank population and its supporting habitats in <b>favourable condition</b> , as defined below.

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: <u>UK9015022</u> Size: 24662.98	Habitats Regulations Assessment: Data Proforma
Designation: SPA	
	The interest feature redshank will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:
	<ul> <li>i. the 5 year peak mean population size for the wintering redshank population is no less than 2,013 individuals (ie the 5 year peak mean between 1988/9 - 1992/3);</li> <li>ii. the extent of saltmarsh is maintained;</li> <li>iii. the extent of intertidal mudflats and sandflats is maintained;</li> <li>iv. the extent of shingle and rocky shore is maintained;</li> <li>v. the extent of vegetation with a sward height of &lt;10cm throughout the saltmarsh is maintained;</li> <li>vi. the distribution and abundance of suitable invertebrates in intertidal mudflats and sandflats is maintained;</li> <li>vii. the distribution and abundance of suitable invertebrates in shingle and rocky shore is maintained;</li> <li>viii. strandlines are not subject to significant disturbance;</li> <li>ix. unrestricted bird sightlines of &gt;200m at feeding and roosting sites are maintained;</li> <li>x. aggregations of redshank at feeding or roosting sites are not subject to significant disturbance.</li> <li>Interest feature 5: Internationally important population of regularly occurring migratory species: wintering</li> </ul>
	shelduck
	The conservation objective is to maintain the shelduck population and its supporting habitats in <b>favourable condition</b> , as defined below.
	The interest feature shelduck will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:
	<ul> <li>i. the 5 year peak mean population size for the wintering shelduck population is no less than 2,892 individuals (ie the 5 year peak mean between 1988/9 - 1992/3);</li> <li>ii. the extent of saltmarsh is maintained;</li> <li>iii. the extent of intertidal mudflats and sandflats is maintained;</li> </ul>

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: UK9015022 Size: 24662.98	Habitats Regulations Assessment: Data Proforma
Designation: SPA	
	<ul> <li>iv. the extent of shingle and rocky shore is maintained;</li> <li>v. the distribution and abundance of suitable invertebrates in intertidal mudflats and sandflats is maintained;</li> <li>vi. unrestricted bird sightlines of &gt;200m at feeding and roosting sites are maintained; aggregations of shelduck at feeding or roosting sites are not subject to significant disturbance.</li> </ul>
	Interest Feature 6: SPA interest feature 6: Internationally important population of regularly occurring migratory species: wintering gadwall
	The conservation objective is to maintain the gadwall population and its supporting habitats in favourable condition, as defined below:
	The interest feature gadwall will be considered to be in favourable condition when, subject to natural processes2, each of the following conditions are met:  i. the 5 year peak mean population size for the wintering gadwall population is no less than 330 (ie the 5 year peak mean between 1988/9 - 1992/3);
	ii. the extent of intertidal mudflats and sandflats (Appendix 8) is maintained; iii. unrestricted bird sightlines of >200m at feeding and roosting sites are maintained; iv. aggregations of gadwall at feeding or roosting sites are not subject to significant disturbance. v. Interest feature 7: Internationally important assemblage of waterfowl
	The conservation objective is to maintain the waterfowl assemblage and its supporting habitats in <b>favourable condition</b> , as defined below.
	The interest feature waterfowl assemblage will be considered to be in favourable condition when, subject to natural processes (Box1), each of the following conditions are met:
	<ul> <li>i. the 5 year peak mean population size for the waterfowl assemblage is no less than 68,026 individuals (ie the 5 year peak mean between 1988/9 - 1992/3);</li> <li>ii. the extent of saltmarsh is maintained;</li> </ul>

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: <u>UK9015022</u> Size: 24662.98 Designation: SPA	Habitats Regulations Assessment: Data Proforma
	<ul> <li>iii. the extent of intertidal mudflats and sandflats is maintained;</li> <li>iv. the extent of shingle and rocky shore is maintained;</li> <li>v. extent of vegetation of &lt;10cm throughout the saltmarsh is maintained;</li> <li>vi. the distribution and abundance of suitable invertebrates in intertidal mudflats and sandflats is maintained;</li> <li>vii. the distribution and abundance of suitable invertebrates in shingle and rocky shore is maintained;</li> <li>viii. greater than 25% cover of suitable soft leaved herbs and grasses during the winter on saltmarsh areas is maintained;</li> <li>ix. strandlines are not subject to significant disturbance;</li> <li>x. unrestricted bird sightlines of &gt;500m at feeding and roosting sites are maintained;</li> <li>xi. waterfowl aggregations at feeding or roosting sites are not subject to significant disturbance.</li> </ul>
Component SSSIs	<ul> <li>Severn Estuary SSSI</li> <li>Flat Holm SSSI</li> <li>Bridgwater Bay SSSI</li> <li>Penarth Coast SSSI</li> <li>Steep Holm SSSI</li> <li>Sully Island SSSI</li> <li>Upper Severn Estuary SSSI</li> <li>Maps of the site can be viewed on the <a href="CCW website">CCW website</a>.</li> </ul>
Key Environmental Conditions (factors that maintain site integrity	<ul> <li>Key supporting habitats for the Annex I species:</li> <li>Intertidal mudflats and sandflats:         <ul> <li>Habitat extent - The focal area for the Bewick's swans is the upper Severn Estuary in the vicinity of the New Grounds, Slimbridge area. The mudflats and sandflats exposed as the tide falls where the estuary widens in the</li> </ul> </li> </ul>

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: <u>UK9015022</u> Size: 24662.98 Designation: SPA	Habitats Regulations Assessment: Data Proforma
	upper reaches of the site at Waveridge Sands, Frampton Sands and The Noose are used as safe refuge areas when the birds are disturbed.  Unimpeded sightlines at feeding and roosting sites - Bewick's swan require unrestricted views >500m to allow early detection of predators when feeding and roosting.
	<ul> <li>Saltmarsh communities:</li> <li>Habitat extent - The birds feed on the saltmarsh and the transition from saltmarsh to coastal grazing marsh in front of the sea defences in the upper estuary at The Dumbles, where areas of the high marsh are mainly affected only by brackish water during tidal inundation.</li> <li>Vegetation characteristics - Bewick's swan graze on a range of 'soft' meadow grasses such as Agrostis stolonifera and Alopecurus geniculatus found in wet meadows which are outwith the European marine site boundary.</li> <li>Unimpeded sightlines at feeding and roosting sites - Bewick's swan require unrestricted views &gt;500m to allow early detection of predators when feeding and roosting.</li> </ul>
	Key supporting habitats for populations of regularly occurring migratory species and assemblage of waterfowl:
	<ul> <li>Intertidal mudflats and sandflats:</li> <li>Habitat extent - Intertidal mudflats and sandflats and their communities are important habitats as they provide both roosting and feeding areas. The European white-fronted geese roost at night on estuarine sandbanks and usually fly less than 10km to the daytime feeding grounds. Therefore conservation of traditional roosting sites is necessary to enable the population to exploit potential feeding habitats.</li> <li>Food availability - Most of the waders and waterfowl within the assemblage including the internationally important regularly occurring migratory birds feed on invertebrates within and on the sediments.</li> <li>Unimpeded sightlines at feeding and roosting sites - Waterfowl require unrestricted views &gt;500m to allow early detection of predators when feeding and roosting.</li> </ul>
	<ul> <li>Saltmarsh:</li> <li>Habitat extent - Saltmarsh and their communities are important habitats as they provide both roosting and feeding</li> </ul>

Site Name: Severn Estuary	Habitats Regulations Assessment: Data Proforma
Location (Lat & Long):	<b>3</b>
51 13 29 N	
03 02 57 W	
JNCC Site Code: UK9015022	
Size: 24662.98	
Designation: SPA	
	<ul> <li>areas. Upper and lower saltmarsh provide important feeding and roosting areas for the internationally important migratory birds throughout the estuary.</li> <li>Food availability - The saltmarshes provide a rich feeding habitat for redshank and shelduck, which feed on invertebrate species in the sediments, such as the mudsnail Hydrobia. The European white-fronted geese graze on a range of saltmarsh grasses and herbs such as common saltmarsh grass Puccinellia maritime and sea barley Hordeum marinum. The birds feed on the saltmarsh and the transition to coastal grazing marsh in front of the sea defences in the upper estuary and particularly at the The Dumbles.</li> <li>Vegetation characteristics - Vegetation of &lt;10 cm is required throughout areas used by roosting waders. This is managed by grazing.</li> <li>Unimpeded sightlines at feeding and roosting sites - Waterfowl require unrestricted views &gt;500m to allow early detection of predators when feeding and roosting. The saltmarshes also have an important function providing a safe haven from the tides that flood the mudflats twice a day. The low-growing dense vegetation provides a suitable roosting habitat for redshank and dunlin, which prefer to roost on areas of short vegetation ensuring good visibility.</li> </ul>
	<ul> <li>Shingle and rocky shore:         <ul> <li>Habitat extent - the shingle and rocks in the estuary provide feeding areas for dunlin and redshank and some limited foraging at high tide. It is also provides important roost sites at high tide particularly for the dunlin and redshank. Many of the rocks are off shore and are therefore generally free from human disturbance. These include Guscar Rocks in the upper reaches, Blackstone Rocks at Clevedon and Stert Island in Bridgwater Bay.</li> <li>Food availability - see above.</li> <li>Unimpeded sightlines at feeding and roosting sites - Waterfowl require unrestricted views &gt;500m to allow early detection of predators when feeding and roosting.</li> </ul> </li> <li>Wet coastal grazing marsh, improved grassland and open standing waters - these supporting habitats lie</li> </ul>
	outside the European marine site boundary but within the SPA. They provide key areas for feeding and roosting for all the migratory species particularly at high tide.

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: <u>UK9015022</u> Size: 24662.98 Designation: SPA		Habit	ats Regulations A	Assessment: Data Pr	oforma	
	Key environmen	tal conditions for the	supporting habi	tats:		
		ng of the seabed and		ange in the Severn Est s result in natural eros		
	• Maintain suitable distance between the site and development - to allow for managed retreat of intertidal hab and avoid coastal squeeze.				of intertidal habitats	
	Other key condit	ions:				
	• Manage/restrict public access - at certain times of the year. Significant disturbance attributable to human activities can result in reduced food intake and/or increased energy expenditure.					
	Maintain level	s of prey.				
	Maps showing sup	oporting habitats of the	e Severn Estuary S	SPA can be found on	he <u>CCW Website</u> .	
SPA Condition Assessment	Severn Estuary SSSI condition summary <sup>1</sup> (compiled 01 October 2010).					
	% Area meeting PSA* target	% Area favourable	% Area unfavourable recovering	% Area unfavourable no change	% Area unfavourable declining	% Area destroyed / part destroyed
	95.19%	94.83%	0.36%	2.65%	2.16%	0.00%

<sup>&</sup>lt;sup>1</sup> Natural England SSSI condition summary. Available [online]: <a href="http://www.english-nature.org.uk/special/sssi/reportAction.cfm?report=sdrt18&category=S&reference=1002284">http://www.english-nature.org.uk/special/sssi/reportAction.cfm?report=sdrt18&category=S&reference=1002284</a>

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: <u>UK9015022</u> Size: 24662.98 Designation: SPA	Habitats Regulations Assessment: Data Proforma
	*PSA target - The Government's Public Service Agreement (PSA) target to have 95% of the SSSI area in favourable or recovering condition by 2010.
Vulnerabilities (includes existing pressures and trends)	Internationally important populations of regularly occurring Annex 1 species:  Physical loss of supporting habitats through removal - The physical loss of areas of intertidal habitats may be caused directly through change of land use or indirectly as a consequence of changes to sedimentation processes (e.g. coastal defences) as well as via the effects of smothering by artificial structures (e.g. jetties) or the disposal of spoils. Activities or developments resulting in physical loss of the intertidal supporting habitats are likely to reduce the availability of feeding and roosting habitat and thus be detrimental to the favourable condition of the SPA interest features including the Annex 1 species, Bewick's swan. The intertidal mudflats and sandflats and the saltmarsh are highly sensitive to removal by land reclamation and barrage construction. Information provided by NE and CCW states that large areas of the European marine site are not currently under threat, however when combined with a high level of sensitivity this leads to a moderate vulnerability.  Noise or visual disturbance - Overwintering birds are disturbed by sudden movements and sudden noises. This can displace the birds from their feeding grounds. Disturbance can prevent the birds from feeding and in response they either a) decrease their energy intake at their present (disturbed) feeding site through displacement activity, or b) move to an alternative less favoured feeding site. Such a response affects energy budgets and thus survival. There is intermittent disturbance from both the landward and seaward side of the site. Bewick's swans are mainly affected by disturbance from the landward side and any increase in disturbance should be avoided. At present NE and CCW assess that the Annex 1 species are moderately vulnerable to noise and visual disturbance on the intertidal mudflats and sandflats and highly vulnerable to this category of operation on the saltmarsh.  Contamination by synthetic and/or non-synthetic toxic compounds - Waterfowl are subj

Site Name: Severn Estuary	Habitats Regulations Assessment: Data Proforma
Location (Lat & Long):	<b>3</b>
51 13 29 N	
03 02 57 W	
JNCC Site Code: UK9015022	
Size: 24662.98	
Designation: SPA	
	continuous discharge of toxins into the estuary, some of which bind to the sediments. NE and CCW identify this is an area which requires further assessment. They also identify Bewick's swans as currently moderately vulnerable to toxic contamination.
	Internationally important waterfowl assemblage including populations of regularly occurring migratory species:
	Physical loss through removal - The physical loss of areas of intertidal habitats may be caused directly through change of land use or indirectly as a consequence of changes to sedimentation processes (e.g. coastal defences) as well as via the effects of smothering by artificial structures (e.g. jetties) or the disposal of spoils. Eelgrass beds are being affected by siltation due to changes in sediment movement after construction of the Second Severn Crossing which has resulted in smothering. Activities or developments resulting in physical loss of the intertidal supporting habitats are likely to reduce the availability of food and roosting habitat and thus be detrimental to the favourable condition of the SPA interest features including all the migratory species and waterfowl assemblage. All three supporting habitats are highly sensitive to removal by land reclamation and barrage construction. Information provided by NE and CCW states that large areas of the European marine site are not currently under threat, however when combined with a high level of sensitivity this leads to a moderate vulnerability.
	■ Damage by abrasion or selective extraction - Saltmarsh may be physically damaged from overgrazing or eroded when boats are moored on it and when paths are worn through it to reach moored boats on foot or via vehicles. Currently all supporting habitats are considered to be moderately vulnerable to abrasion. Intertidal habitats are highly sensitive to damage by direct and indirect effects of aggregate dredging. The intertidal mudflats and sandflats and the shingle and rocky shore are therefore considered by NE and CCW to be highly vulnerable to selective extraction.
	Noise or visual disturbance - Overwintering birds are disturbed by sudden movements and sudden noises. This can have the effect of displacing the birds from their feeding grounds. Disturbance can prevent the birds from feeding and in response they either a) decrease their energy intake at their present (disturbed) feeding site through displacement activity, or b) move to an alternative less favoured feeding site. Such a response affects energy budgets and thus survival. There is intermittent disturbance to the internationally important migratory species and the waterfowl

Site Name: Severn Estuary	Habitats Regulations Assessment: Data Proforma
Location (Lat & Long): 51 13 29 N	
03 02 57 W	
JNCC Site Code: <u>UK9015022</u>	
Size: 24662.98	
Designation: SPA	
	assemblage from both the landward and seaward side of the site which has increased in recent years, due to the estuary becoming more populated and the development of all weather recreational pursuits. All supporting habitats are currently highly vulnerable to noise and visual disturbance.
	Contamination by synthetic and/or non-synthetic toxic compounds - Waterfowl are subject to the accumulation of toxins through the food chain or through direct contact with toxic substances when roosting or feeding. Their ability to feed can also be affected by the abundance or change in palatability of their prey caused by toxic contamination. At the moment there is no evidence to show that this is the case on the Severn Estuary, but the estuary is vulnerable to oil spills and there is a continuous discharge of toxins into the estuary, some of which bind to the sediments. NE and CCW identify this is an area which requires further assessment. The intertidal mudflats and sandflats and the saltmarsh are currently highly vulnerable to the introduction of synthetic and non-synthetic compounds.
	Changes in nutrient and/or organic loading - Changes in organic or nutrient loading can change the species composition of the plants on the saltmarsh and thus the structure of the sward. Increases in nutrients can also cause excessive algal growth on the mudflats, denying the birds access to their invertebrate prey and changing the invertebrate species composition in the sediment. Though the water quality has been improved in recent years there are still local areas of concern and any increase in nutrient loading should be avoided. At present the intertidal mudflats and sandflats are moderately vulnerable to this category of operation.
	Biological disturbance through the selective extraction of species - Wildfowling is carried out all around the estuary. NE and CCW have not established that it has a detrimental effect on the overall bird populations but state that wildfowling needs to be exercised in a managed and sustainable manner preferably by a British Association of Shooting and Conservation (BASC) affiliated association, applying the BASC wildfowlers code of conduct. Bait digging is also carried out around the estuary. If too large an area is regularly dug over, it can change the availability of prey in the sediment as the area needs a period of recovery and recolonisation. The removal of strandline vegetation by beach cleaning removes an important habitat for invertebrates, as well as many of the invertebrates themselves, reducing the quantity and variety of prey available to the birds. Much of the saltmarsh is managed by grazing and changes in management can alter the availability of prey and suitability of roosting sites. The saltmarsh is

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: UK9015022 Size: 24662.98 Designation: SPA	Habitats Regulations Assessment: Data Proforma
	currently highly vulnerable to the selective extraction of species.
Landowner/ Management Responsibility	■ N/A

## **Ramsar Sites**

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: UK11081 Size: 24662.98 Designation: Ramsar	Habitats Regulations Assessment: Data Proforma
Site Description	The Severn Estuary is the largest coastal plain estuary in the UK with extensive mudflats and sandflats, rocky shore platforms, shingle and islands. Saltmarsh fringes the coast, backed by grazing marsh with freshwater and occasional brackish ditches. The estuary's classic funnel shape, unique in the UK, is a factor causing the Severn to have the second highest tidal range in the world (after the Bay of Fundy in Canada) at more than 12 meters. This tidal regime results in plant and animal communities typical of the extreme physical conditions of strong flows, mobile sediments, changing salinity, high turbidity and heavy scouring. The resultant low diversity invertebrate communities, that frequently include populations of ragworms, lugworms and other invertebrates in high densities, form an important food source for passage and wintering birds. The site is important in the spring and autumn migration periods for waders moving along the west coast of Europe, as well as in winter for large numbers of waterbirds including swans, geese, ducks and waders. These bird populations are regarded as internationally important.

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: <u>UK11081</u> Size: 24662.98 Designation: Ramsar	Habitats Regulations Assessment: Data Proforma
	Glassworts and annual sea-blite colonise the open mud, with beds of all three species of eelgrass <i>Zostera</i> occurring on more sheltered mud and sandbanks. Large expanses of common cord-grass also occur on the outer marshes. Heavily grazed saltmarsh fringes the estuary with a range of saltmarsh types present. The middle marsh sward is dominated by common saltmarsh-grass with typical associated species. In the upper marsh, red fescue and saltmarsh rush become more prominent.
	Areas of saltmarsh fringe the estuary, mostly grazed with a range of vegetation communities. There are gradual and stepped transitions between bare mudflat to upper marsh and grassland. Main vegetation types are: upper saltmarsh with Festuca rubra and Juncus gerardii; middle marsh dominated by Puccinellia maritima with Glaux maritima and Triglochin maritima; dense monocultures of Spartina anglica at the edge of the mudflats-brackish pools and depressions with Phragmites australis and Bolboschoenus maritimus.
Qualifying Features	Ramsar criterion 1
	Immense tidal range (second-largest in world) creating diversity of physical environment and biological communities.
	Ramsar criterion 3
	Due to unusual estuarine communities, reduced diversity and high productivity.
	Ramsar criterion 4
	This site is important for the run of migratory fish between sea and river via estuary. Species include Salmon Salmo salar, sea trout S. trutta, sea lamprey Petromyzon marinus, river lamprey Lampetra fluviatilis, allis shad Alosa alosa, twaite shad A. fallax, and eel Anguilla anguilla. It is also of particular importance for migratory birds during spring and autumn.
	Ramsar criterion 5
	Species with peak counts in winter:
	70919 waterfowl

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: <u>UK11081</u> Size: 24662.98 Designation: Ramsar	Habitats Regulations Assessment: Data Proforma
	Ramsar criterion 6 Species with peak counts in winter:  Bewick's swan  Greater white-fronted goose  Common shelduck  Gadwall  Dunlin  Common redshank
	Ramsar criterion 8  The fish of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded. Salmon Salmo salar, sea trout S. trutta, sea lamprey Petromyzon marinus, river lamprey Lampetra fluviatilis, allis shad Alosa alosa, twaite shad A. fallax, and eel Anguilla Anguilla use the Severn Estuary as a key migration route to their spawning grounds in the many tributaries that flow into the estuary. The site is important as a feeding and nursery ground for many fish species particularly allis shad Alosa alosa and twaite shad A. fallax which feed on mysid shrimps in the salt wedge.
Conservation Objectives	Ramsar interest feature 1: Estuaries  The conservation objective for the "estuaries" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined by the conservation objective for the SAC "estuaries" feature" (please refer to Severn Estuary SAC in this document).  Ramsar interest feature 2: Assemblage of migratory fish species  The conservation objective for the "assemblage of migratory fish species" feature of the Severn Estuary Ramsar Site is

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W	Habitats Regulations Assessment: Data Proforma
JNCC Site Code: <u>UK11081</u> Size: 24662.98	
Designation: Ramsar	
	to maintain the feature in favourable condition, as defined below:  The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:  i. the migratory passage of both adults and juveniles of the assemblage of migratory fish species through the
	Severn Estuary between the Bristol Channel and any of their spawning rivers is not obstructed or impeded by physical barriers, changes in flows, or poor water quality;  ii. the size of the populations of the assemblage species in the Severn Estuary and the rivers which drain into it, is at least maintained and is at a level that is sustainable in the long term;
	iii. the abundance of prey species forming the principle food resources for the assemblage species within the estuary, is maintained.  iv. Toxic contaminants in the water column and sediment are below levels which would pose a risk to the ecological
	objectives described above.
	Ramsar interest feature 3: Internationally important populations of waterfowl : Bewick's swan
	The conservation objective for the "Bewick's swan" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined by the conservation objective for the SPA "Bewick's swan" feature
	Ramsar interest feature 4 : Internationally important populations of waterfowl : European white-fronted goose
	The conservation objective for the "European white-fronted goose" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined by the conservation objective for the SPA "wintering European white-fronted goose" feature
	Ramsar interest feature 5: Internationally important populations of waterfowl : dunlin
	The conservation objective for the "dunlin" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined by the conservation objective for the SPA "wintering dunlin" feature
	Ramsar interest feature 6: Internationally important populations of waterfowl : redshank

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: <u>UK11081</u> Size: 24662.98 Designation: Ramsar	Habitats Regulations Assessment: Data Proforma
	The conservation objective for the "redshank" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined by the conservation objective for the SPA "wintering redshank" feature
	Ramsar interest feature 7: Internationally important populations of waterfowl: shelduck
	The conservation objective for the "shelduck" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined by the conservation objective for the SPA "wintering shelduck" feature
	Ramsar interest feature 8: Internationally important populations of waterfowl : gadwall
	The conservation objective for the "gadwall" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined by the conservation objective for the SPA "wintering gadwall" feature
	Ramsar interest feature 9: Internationally important assemblage of waterfowl
	The conservation objective for the "internationally important assemblage of waterfowl" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined by the conservation objective for the SPA "internationally important assemblage of waterfowl" feature
Component SSSIs	Sully Island SSSI
	Steep Holm SSSI
	Bridgwater Bay SSSI
	Flat Holm SSSI
	Severn Estuary SSSI
	Severn Estuary SSSI
	Flat Holm SSSI
	Upper Severn Estuary SSSI
	<ul><li>Bridgwater Bay SSSI</li><li>Penarth Coast SSSI</li></ul>
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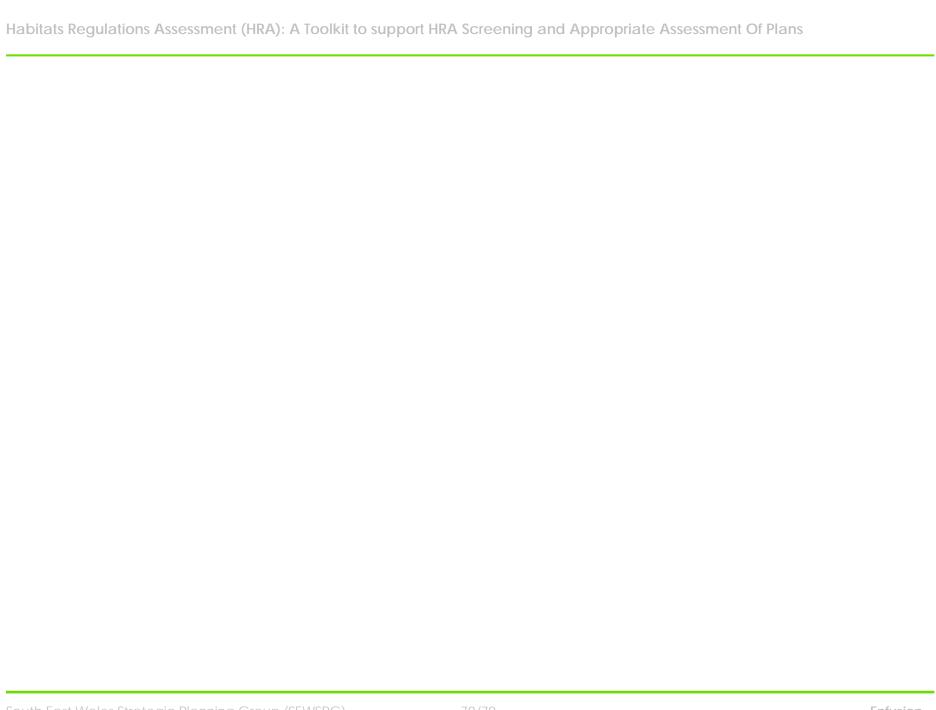
Site Name: Severn Estuary	Habitats Regulations Assessment: Data Proforma
Location (Lat & Long):	
51 13 29 N 03 02 57 W	
JNCC Site Code: <u>UK11081</u>	
Size: 24662.98	
Designation: Ramsar	
	Steep Holm SSSI
	Sully Island SSSI
	Upper Severn Estuary SSSI
<b>Key Environmental Conditions</b>	Key supporting habitats for the Berwick's swan:
(factors that maintain site	
integrity	Intertidal mudflats and sandflats:
	<ul> <li>Habitat extent - The focal area for the Bewick's swans is the upper Severn Estuary in the vicinity of the New Grounds, Slimbridge area. The mudflats and sandflats exposed as the tide falls where the estuary widens in the upper reaches of the site at Waveridge Sands, Frampton Sands and The Noose are used as safe refuge areas when the birds are disturbed.</li> <li>Unimpeded sightlines at feeding and roosting sites - Bewick's swan require unrestricted views &gt;500m to allow early detection of predators when feeding and roosting.</li> </ul>
	Saltmarsh communities:
	<ul> <li>Habitat extent - The birds feed on the saltmarsh and the transition from saltmarsh to coastal grazing marsh in front of the sea defences in the upper estuary at The Dumbles, where areas of the high marsh are mainly affected only by brackish water during tidal inundation.</li> <li>Vegetation characteristics - Bewick's swan graze on a range of 'soft' meadow grasses such as <i>Agrostis stolonifera</i></li> </ul>
	and <i>Alopecurus geniculatus</i> found in wet meadows which are outwith the European marine site boundary.  Unimpeded sightlines at feeding and roosting sites - Bewick's swan require unrestricted views >500m to allow early detection of predators when feeding and roosting.
	Key supporting habitats for populations of regularly occurring migratory species and assemblage of waterfowl
	Intertidal mudflats and sandflats:
	<ul> <li>Habitat extent - Intertidal mudflats and sandflats and their communities are important habitats as they provide both</li> </ul>

Site Name: Severn Estuary	Habitats Regulations Assessment: Data Proforma
Location (Lat & Long):	
51 13 29 N 03 02 57 W	
JNCC Site Code: <u>UK11081</u>	
Size: 24662.98	
Designation: Ramsar	
	roosting and feeding areas. The European white-fronted geese roost at night on estuarine sandbanks and usually fly less than 10km to the daytime feeding grounds. Therefore conservation of traditional roosting sites is necessary to enable the population to exploit potential feeding habitats.  o Food availability - Most of the waders and waterfowl within the assemblage including the internationally important
	regularly occurring migratory birds feed on invertebrates within and on the sediments.  O Unimpeded sightlines at feeding and roosting sites - Waterfowl require unrestricted views >500m to allow early detection of predators when feeding and roosting.
	Saltmarsh:
	<ul> <li>Habitat extent - Saltmarsh and their communities are important habitats as they provide both roosting and feeding areas. Upper and lower saltmarsh provide important feeding and roosting areas for the internationally important migratory birds throughout the estuary.</li> </ul>
	Food availability - The saltmarshes provide a rich feeding habitat for redshank and shelduck, which feed on invertebrate species in the sediments, such as the mudsnail Hydrobia. The European white-fronted geese graze on a range of saltmarsh grasses and herbs such as common saltmarsh grass Puccinellia maritime and sea barley Hordeum marinum. The birds feed on the saltmarsh and the transition to coastal grazing marsh in front of the sea defences in the upper estuary and particularly at the The Dumbles.
	<ul> <li>Vegetation characteristics - Vegetation of &lt;10 cm is required throughout areas used by roosting waders. This is managed by grazing.</li> </ul>
	O Unimpeded sightlines at feeding and roosting sites - Waterfowl require unrestricted views >500m to allow early detection of predators when feeding and roosting. The saltmarshes also have an important function providing a safe haven from the tides that flood the mudflats twice a day. The low-growing dense vegetation provides a suitable roosting habitat for redshank and dunlin, which prefer to roost on areas of short vegetation ensuring good visibility.
	<ul> <li>Shingle and rocky shore:</li> <li>Habitat extent - the shingle and rocks in the estuary provide feeding areas for dunlin and redshank and some limited foraging at high tide. It is also provides important roost sites at high tide particularly for the dunlin and</li> </ul>

Site Name: Severn Estuary	Habitats Regulations Assessment: Data Proforma	
Location (Lat & Long): 51 13 29 N		
03 02 57 W		
JNCC Site Code: <u>UK11081</u> Size: 24662.98		
Designation: Ramsar		
_	redshank. Many of the rocks are off shore and are therefore generally free from human disturbance. These include Guscar Rocks in the upper reaches, Blackstone Rocks at Clevedon and Stert Island in Bridgwater Bay.  o Food availability - see above.	
	<ul> <li>Unimpeded sightlines at feeding and roosting sites - Waterfowl require unrestricted views &gt;500m to allow early detection of predators when feeding and roosting.</li> </ul>	
	Wet coastal grazing marsh, improved grassland and open standing waters - these supporting habitats lie outside the European marine site boundary but within the SPA. They provide key areas for feeding and roosting for all the migratory species particularly at high tide.	
	Key environmental conditions for the supporting habitats:	
	Hydrodynamic and sedimentary regime - the tidal range in the Severn Estuary is the second-highest in the world and the scouring of the seabed and strong tidal streams result in natural erosion of the habitats and the presence of high sediment loads.	
	Maintain suitable distance between the site and development - to allow for managed retreat of intertidal habitats and avoid coastal squeeze.	
	Other key conditions:	
	Manage/restrict public access - at certain times of the year. Significant disturbance attributable to human activities can result in reduced food intake and/or increased energy expenditure.	
	Maintain levels of prey.	

Site Name: Severn Estuary Location (Lat & Long):	Habitats Regulations Assessment: Data Proforma	
51 13 29 N		
03 02 57 W		
JNCC Site Code: <u>UK11081</u> Size: 24662.98		
Designation: Ramsar		
Ramsar Condition Assessment	■ N/A	
Vulnerabilities (includes existing pressures and trends)	Physical loss of supporting habitats through removal - The physical loss of areas of intertidal habitats may be caused directly through change of land use or indirectly as a consequence of changes to sedimentation processes (e.g. coastal defences) as well as via the effects of smothering by artificial structures (e.g. jetties) or the disposal of spoils. Activities or developments resulting in physical loss of the intertidal supporting habitats are likely to reduce the availability of feeding and roosting habitats. The intertidal mudflats and sandflats and the saltmarsh are highly sensitive to removal by land reclamation and barrage construction. Information provided by NE and CCW states that large areas of the European marine site are not currently under threat, however when combined with a high level of sensitivity this leads to a moderate vulnerability.	
	Noise or visual disturbance - Overwintering birds are disturbed by sudden movements and sudden noises. This can displace the birds from their feeding grounds. Disturbance can prevent the birds from feeding and in response they either a) decrease their energy intake at their present (disturbed) feeding site through displacement activity, or b) move to an alternative less favoured feeding site. Such a response affects energy budgets and thus survival. There is intermittent disturbance to the internationally important migratory species and the waterfowl assemblage from both the landward and seaward side of the site which has increased in recent years, due to the estuary becoming more populated and the development of all weather recreational pursuits. Bewick's swans are mainly affected by disturbance from the landward side and any increase in disturbance should be avoided. All supporting habitats are currently highly vulnerable to noise and visual disturbance.	
	Contamination by synthetic and/or non-synthetic toxic compounds - Waterfowl are subject to the accumulation of toxins through the food chain or through direct contact with toxic substances when roosting or feeding. Their ability to feed can also be affected by the abundance or change in palatability of their prey caused by toxic contamination. At the moment there is no evidence to show that this is the case, but the estuary is vulnerable to oil spills and there is a continuous discharge of toxins into the estuary, some of which bind to the sediments. NE and CCW identify this is an area which requires further assessment. The intertidal mudflats and sandflats and the saltmarsh are currently highly vulnerable to the introduction of synthetic and non-synthetic compounds.	

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: <u>UK11081</u> Size: 24662.98 Designation: Ramsar	Habitats Regulations Assessment: Data Proforma
	<ul> <li>Damage by abrasion or selective extraction - Saltmarsh may be physically damaged from overgrazing or eroded when boats are moored on it and when paths are worn through it to reach moored boats on foot or via vehicles. Currently all supporting habitats are considered to be moderately vulnerable to abrasion. Intertidal habitats are highly sensitive to damage by direct and indirect effects of aggregate dredging. The intertidal mudflats and sandflats and the shingle and rocky shore are therefore considered by NE and CCW to be highly vulnerable to selective extraction.</li> <li>Changes in nutrient and/or organic loading - Changes in organic or nutrient loading can change the species composition of the plants on the saltmarsh and thus the structure of the sward. Increases in nutrients can also cause excessive algal growth on the mudflats, denying the birds access to their invertebrate prey and changing the invertebrate species composition in the sediment. Though the water quality has been improved in recent years there are still local areas of concern and any increase in nutrient loading should be avoided. At present the intertidal mudflats and sandflats are moderately vulnerable to this category of operation.</li> </ul>
	Biological disturbance through the selective extraction of species - Wildfowling is carried out all around the estuary. NE and CCW have not established that it has a detrimental effect on the overall bird populations but state that wildfowling needs to be exercised in a managed and sustainable manner preferably by a British Association of Shooting and Conservation (BASC) affiliated association, applying the BASC wildfowlers code of conduct. Bait digging is also carried out around the estuary. If too large an area is regularly dug over, it can change the availability of prey in the sediment as the area needs a period of recovery and recolonisation. The removal of strandline vegetation by beach cleaning removes an important habitat for invertebrates, as well as many of the invertebrates themselves, reducing the quantity and variety of prey available to the birds. Much of the saltmarsh is managed by grazing and changes in management can alter the availability of prey and suitability of roosting sites. The saltmarsh is currently highly vulnerable to the selective extraction of species.
Landowner/ Management Responsibility	■ N/A





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Habitat Regulations Assessment Report: Appendix 2 - Policy Screening Template



## **Appendix 2 - POLICY SCREENING TEMPLATE**

	ening: Categorising the Potential Effects of the Plan (Tyldesley, 2009)					
Criteria Category	Rationale					
Category A:	Category A: No negative effect					
A1	Options/ policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development or they are not a land use planning policy.					
A2	Options/ policies intended to protect the natural environment, including biodiversity.					
A3	Options/ policies intended to conserve or enhance the natural, built or historic environment, where enhancement measures will not be likely to have any negative effect on a European site.					
A4	Options/ policies that positively steer development away from European sites and associated sensitive areas.					
A5	Options/ policies that would have no effect because no development could occur through the policy itself, the development being implemented through later policies in the same plan, which are more specific and therefore more appropriate to access for their effects on European Sites and associated sensitive areas.					
Category B:	No significant effect					
В	Options/ policies that could have an effect but would not be likely to have a significant (negative) effect on a European site (alone or incombination with other plans or projects) because the effects are trivial or 'de minimis' even if combined with other effects.					
Category C:	Potential significant effect alone					
C1	The option, policy could <b>directly affect</b> a European site because it provides for, or steers, a quantity or type of development onto a European site, or adjacent to it.					
C2	The option, policy could <b>indirectly affect</b> a European site e.g. because it provides for, or steers, a quantity or type of development that may be very close to it, or ecologically, hydrologically or physically connected to it or it may increase disturbance as a result of increased recreational pressure.					
C3	Proposals for a <b>magnitude of development</b> that, no matter where it is located, the development would be likely to have a significant effect on a European site.					
C4	An option, or policy that makes provision for a quantity/ type of development (and may indicate one or more broad locations e.g. a particular part of the plan area), but the effects are uncertain because the detailed location of the development is to be selected following consideration of options in a later, more specific plan. The consideration of options in the later plan will assess potential effects on European Sites, but because the development could possibly affect a European site a significant effect cannot be ruled out on the basis of objective information					
C5	Options, policies or proposals for developments or infrastructure projects that <b>could block options or alternatives</b> for the provision of other development or projects in the future, which will be required in the public interest, that may lead to adverse effects on European sites, which would otherwise be avoided.					

Policy Screening: Categorising the Potential Effects of the Plan (Tyldesley, 2009)			
Criteria Category	Rationale		
C6	Options, policies or proposals which <b>depend on how the policies etc are implemented</b> in due course, for example, through the development management process. There is a theoretical possibility that if implemented in one or more particular ways, the proposal could possibly have a significant effect on a European site		
<b>C</b> 7	Any other options, policies or proposals that would be <b>vulnerable to failure</b> under the Habitats Regulations at project assessment stage; to include them in the plan would be regarded by the EC as 'faulty planning'.		
C8	Any other proposal that may have an adverse effect on a European site, which might try to pass the tests of the Habitats Regulations at project assessment stage by arguing that the <b>plan provides the imperative reasons</b> of overriding public interest to justify its consent despite a negative assessment.		
Category D: Po	otential significant effects in combination		
D1	The option, policy or proposal alone would not be likely to have significant effects but if its effects are combined with the effects of other policies or proposals <b>provided for or coordinated</b> by the Local Development Document (internally) the <b>cumulative</b> effects would be likely to be significant.		
D2	Options, policies or proposals that alone would not be likely to have significant effects but if their effects are <b>combined with the effects of other plans and projects</b> and possibly the effects of other developments provided for in the Local Development Document as well, the combined effects are likely to be significant.		
D3	Options or proposals that are, or could be, part of a <b>programme or sequence of development</b> delivered over a period, where the implementation of the early stages would not have a significant effect on European sites, but which would dictate the nature, scale, duration, location, timing of the whole project, the later stages of which could have adverse effects on such sites.		

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
KP1: LEVEL OF GROWTH  Provision will be made for a range and choice of opportunities to deliver 41,100 new dwellings and 40,000 new jobs in Cardiff between 2006-2026. Furthermore, in order to demonstrate that the Plan	European site e.g. because it provides for, or steers, a quantity or type of development that may be very close to it, or ecologically,	within and outside Cardiff. The magnitude of housing and employment development proposed

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
meets the flexibility test of soundness and to accommodate potentially higher build rates than anticipated, provision has been made to deliver an additional 10% flexibility allowance (for 4,000 dwellings) which can be triggered, if demonstrated as necessary through annual monitoring, in the later phases of the Plan period.	may increase disturbance as a result of increased recreational pressure.  C3 Proposals for a magnitude of development that, no matter where it is located, the development could potentially have a significant effect on a European site.	upon European Sites.
KP2: STRATEGIC SITES Strategic Sites will be allocated as set out below to help meet the need for new dwellings and jobs: Brownfield Strategic Sites: (A) Cardiff Central Enterprise Zone and Regional Transport Hub; (B) Former Gas Works, Ferry Road; Greenfield Strategic Sites: (C) North West Cardiff; (D) North of Junction 33 on M4; (E) South of Creigiau; (F) North East Cardiff (West of Pontprennau); (G) East of Pontprennau Link Road; and (H) South of St Mellons Business Park - Employment only.	C2 The option, policy could indirectly affect a European site e.g. because it provides for, or steers, a quantity or type of development that may be very close to it, or ecologically, hydrologically or physically connected to it or it may increase disturbance as a result of increased recreational pressure.  C3 Proposals for a magnitude of development that, no matter where it is located, the development could potentially have a significant effect on a European site.	Proposed growth will not incur land take at European sites, but may potentially affect sites within and outside Cardiff. The magnitude of housing and employment development proposed requires examination to determine any effects upon European Sites.
KP3(A): GREEN BELT In order to strategically manage the urban form of Cardiff and to protect the setting of the urban area, a Green Belt is proposed on land North of the M4 as shown on the Proposals Map. Within this area	<ul> <li>A2 Options/ policies intended to protect the natural environment, including biodiversity.</li> <li>A3 Options/ policies intended to conserve or enhance the natural, built or historic environment,</li> </ul>	This policy is aimed in part at preserving the natural environment.

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
development which prejudices the open nature of this land will not be permitted. Positive biodiversity, landscape, climate change mitigation and informal recreational management and enhancement measures will be encouraged in this area to further enhance the long term role of the area as a key natural resource benefitting the city.	where enhancement measures will not be likely to have any negative effect on a European site.	
KP3(B): SETTLEMENT BOUNDARIES In order to strategically manage the spatial growth of Cardiff, settlement boundaries are proposed as shown on the Proposals Map. In all areas outside the defined settlement boundaries, otherwise referred to as countryside, there will be a corresponding presumption against inappropriate development.	A5 Options/ policies that would have no effect because no development could occur through the policy itself, the development being implemented through later policies in the same plan, which are more specific and therefore more appropriate to access for their effects on European Sites and associated sensitive areas.	Definition of a settlement boundary will not affect European sites per se.
KP4: MASTERPLANNING APPROACH New development should accord with:  (i) The Masterplanning General Principles (as set out in the Deposit LDP) (ii) Guidance set out in Site-Specific Masterplanning Frameworks, where prepared.	A5 Options/ policies that would have no effect because no development could occur through the policy itself, the development being implemented through later policies in the same plan, which are more specific and therefore more appropriate to access for their effects on European Sites and associated sensitive areas.	This policy does not stipulate development in itself, but instead provides the Masterplanning principles that policies such as KP1 and KP2 should follow.
KP5: HIGH QUALITY AND SUSTAINABLE DESIGN To help support the development of Cardiff as a world-class European Capital City, all new development will be required to be of a high quality,	A1 Options/ policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning	Design-related policy which does not in itself lead to development.

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
sustainable design and make a positive contribution to the creation of distinctive communities, places and spaces	policy.	
KP6: NEW INFRASTRUCTURE  New development will make appropriate provision for, or contribute towards, the necessary infrastructure required as a consequence of the proposed development. Such infrastructure will be delivered in a timely manner to meet the needs of existing and planned communities and includes the aspects which may be required subject to the nature and details of the proposal as set out in text of this policy.	C2 The option, policy could <b>indirectly affect</b> a European site e.g. because it provides for, or steers, a quantity or type of development that may be very close to it, or ecologically, hydrologically or physically connected to it or it may increase disturbance as a result of increased recreational pressure.	Proposed infrastructure will not incur land take at European sites, but may potentially affect sites within and outside Cardiff.
KP7: PLANNING OBLIGATIONS Planning obligations will be sought to mitigate any adverse impacts of development.	A1 Options/ policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy.	Policy will not lead to development in itself.
KP8: SUSTAINABLE TRANSPORT  Development in Cardiff will be integrated with transport infrastructure and services in order to:  (i) Minimise travel demand and dependence on the car;  (ii) Enable and maximise use of sustainable and active modes of transport;  (iii) Integrate travel modes;	A2 Options/ policies intended to protect the natural environment, including biodiversity.	Policy will serve to offset potential negative impacts arising from other parts of the plan.

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
(iv) Provide for people with special access and mobility requirements; (v) Improve safety for all travellers; (vi) Maintain and improve the efficiency and reliability of the transport network; (vii) Support the movement of freight by rail or water; and (viii) Manage freight movements by road and minimise their impacts.		
KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS  Provision will be made for a range and choice of new employment sites including those identified in KP2 for different types of employment and in different geographical locations to effectively deliver the level of growth set out in the plan together with putting in place a framework to protect the role of existing employment land	C2 The option, policy could indirectly affect a European site e.g. because it provides for, or steers, a quantity or type of development that may be very close to it, or ecologically, hydrologically or physically connected to it or it may increase disturbance as a result of increased recreational pressure.  C3 Proposals for a magnitude of development that, no matter where it is located, the development could potentially have a significant effect on a European site.	Proposed employment sites will not incur land take at European sites, but may potentially affect sites within and outside Cardiff. The magnitude of housing and employment development proposed requires examination to determine any effects upon European Sites.
KP10: CENTRAL AND BAY BUSINESS AREAS The following uses are considered appropriate within the Central and Bay Business Areas:  (i) New offices, residential and commercial leisure uses within the Central and Bay Business	C2 The option, policy could indirectly affect a European site e.g. because it provides for, or steers, a quantity or type of development that may be very close to it, or ecologically, hydrologically or physically connected to it or it may increase disturbance as a result of	Proposed development sites will not incur land take at European sites, but are connected to the Severn Estuary via Cardiff Bay, and so may potentially affect this site.

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)		Potential effects (Category A - D, see key above)	Rationale/ Comments
(ii) (iii)	Areas; Enhanced retail and complementary facilities within the Central Shopping Area; and Other uses most appropriately located in city centres.	increased recreational pressure.	
	: MINERALS AND AGGREGATES  ff will contribute to regional aggregate supplies  Promoting and supporting the efficient use of minerals and use of alternatives to naturally occurring minerals including the re-use of secondary aggregates;  Protecting existing mineral reserves and potential resources from development that would preclude their future extraction; and Maintaining a 10 year land bank of permitted aggregate reserves in line with national guidance.	C2 The option, policy could indirectly affect a European site e.g. because it provides for, or steers, a quantity or type of development that may be very close to it, or ecologically, hydrologically or physically connected to it or it may increase disturbance as a result of increased recreational pressure.	Mineral sites are close to Cardiff Beech Woods SAC, so potential for effect should be examined in further detail.
KP12: WASTE Waste arisings from Cardiff will be managed by:  (i) Promoting and supporting additional sustainable waste treatment facilities, measures and strategies in accordance with the Regional Waste Plan;		C2 The option, policy could indirectly affect a European site e.g. because it provides for, or steers, a quantity or type of development that may be very close to it, or ecologically, hydrologically or physically connected to it or it may increase disturbance as a result of increased recreational pressure.	Where waste sites are close to the Severn Estuary, the potential for an effect should be examined in further detail.

	Policy References or full text of policy and supporting text, ease refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
(ii)	Encouraging the provision of in-building treatment facilities on existing and allocated areas of general industry;		
(iii)	Supporting the provision and maintenance of sustainable waste management storage and collection arrangements in all appropriate new developments; and		
(iv)	Supporting waste minimisation and the provision of facilities that use recycled or composted products.		
NEE A ke will b	3: RESPONDING TO EVIDENCED SOCIAL DS by part of the successful progression of the city be to develop sustainable neighbourhoods, tackle ivation, and improve the quality of life for all.	A1 Options/ policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy.	Policy will not lead to development in itself.
Card seek enco deter healt supp trave	4: HEALTHY LIVING  liff will be made a healthier place to live by ing to reduce health inequalities through buraging healthy lifestyles, addressing the social rminants of health and providing accessible th care facilities. This will be achieved by corting developments which provide for active el, access to quality open spaces and accessible the facilities.	C2 The option, policy could indirectly affect a European site e.g. because it provides for, or steers, a quantity or type of development that may be very close to it, or ecologically, hydrologically or physically connected to it or it may increase disturbance as a result of increased recreational pressure.	Where access to open spaces is promoted as part of developments, and this access is in a sensitive area such as Cardiff beech Woods or the foreshore of the Severn Estuary, the potential for an effect should be examined in further detail.

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
KP15: CLIMATE CHANGE  To mitigate against the effects of climate change and adapt to its impacts, development proposals should take into account the following factors:  (i) Reducing carbon emissions;  (ii) Protecting and increasing carbon sinks;  (iii) Adapting to the implications of climate change at both a strategic and detailed design level;  (iv) Promoting energy efficiency and increasing the supply of renewable energy; and  (v) Avoiding unnecessary flood risk by assessing the implications of development proposals within areas susceptible to flooding and preventing development that unacceptably increases risk.	C2 The option, policy could indirectly affect a European site e.g. because it provides for, or steers, a quantity or type of development that may be very close to it, or ecologically, hydrologically or physically connected to it or it may increase disturbance as a result of increased recreational pressure.	Where policies promote generation of renewable energy, this could include wind turbines situated on the foreshore of the Severn Estuary, so the potential for an effect should be examined in further detail.
KP16: NATURAL HERITAGE Cardiff's distinctive natural heritage that provides a network of green infrastructure. The network will be protected, enhanced, created and managed to ensure integrity and connectivity of this multifunctional green resource is maintained.  Protection and conservation of natural heritage network needs to be balanced against the benefits of development. Proposed development should therefore demonstrate how green infrastructure has been considered and integrated into the proposals. If	A2 Options/ policies intended to protect the natural environment, including biodiversity.	Policy will serve to offset potential negative impacts arising from other parts of the plan.

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
development results in overall loss of green infrastructure, appropriate compensation will be required.		
KP17: BUILT HERITAGE Cardiff's distinctive heritage assets will be protected, managed and enhanced.	A3 Options/ policies intended to conserve or enhance the natural, built or historic environment, where enhancement measures will not be likely to have any negative effect on a European site.	Policy itself will not lead to development.
KP18: NATURAL RESOURCES In the interests of the long-term sustainable development of Cardiff, development proposals must take full account of the need to minimise impacts on the city's natural resources and minimise pollution	A2 Options/ policies intended to protect the natural environment, including biodiversity.	Policy will serve to offset potential negative impacts arising from other parts of the plan.
H1: NON-STRATEGIC HOUSING SITES The non-strategic sites which are allocated for housing are listed in Table 3 of the draft deposit LDP document.	D1 The option, policy or proposal alone would not be likely to have significant effects but if its effects are combined with the effects of other policies or proposals provided for or coordinated by the Local Development Document (internally) the cumulative effects could potentially to be significant.	Non-strategic housing sites, when combined with educational, community, retail, waste management, and employment development, may have a combined effect upon European sites within and outside Cardiff, so the potential for a combined effect should be examined in further detail.
H2: CONVERSION TO RESIDENTIAL USE Within the Central Business Area of the city centre, District and Local centres, as defined on the Proposals Map, the conversion of suitable vacant	A4 Options/ policies that positively steer development away from European sites and associated sensitive areas.	Areas referred to in this policy are not close to European Sites, and the effects of building conversions are likely to be localised.

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
space above commercial premises to residential use will be favoured where:  (i) Adequate servicing and security can be maintained to the existing commercial use(s);  (ii) Appropriate provision can be made for parking, access, pedestrian access, amenity space, and refuse disposal together with any appropriate external alterations and;  (iii) The residential use does not compromise the ground floor use		
H3: AFFORDABLE HOUSING Where there is evidence of need, the Council will seek a target of X% affordable housing in all residential proposals that:  (i) Contain X or more new dwellings; or (ii) Exceed X hectares in gross site area; or (iii) Exceed the thresholds in (i) or (ii) above for adjacent sites.  The exact affordable housing contribution to be provided will depend on the circumstances of each proposal, particularly scheme viability	A1 Options/ policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy.	Policy itself will not lead to development.
H4: CHANGE OF USE OF RESIDENTIAL LAND OR PROPERTIES Outside the Central and Bay Business Areas and District and Local Centres, identified on the	A1 Options/ policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning	Policy itself will not lead to new development, and in any case the effects of redevelopment of residential properties are likely to be localised.

	Policy References r full text of policy and supporting text, ase refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
resid	osals Map, conversion or redevelopment of ential properties to other use will only be itted where:	policy.	
(i)	The premises or their location are no longer suitable for residential use; or		
(ii)	The proposal is for a community use necessary within a residential area; or		
(iii)	The proposal is for a use that could contribute to the creation of sustainable communities.		
Propo	SUB-DIVISION OR CONVERSION OF DENTIAL PROPERTIES osals for any conversion to flats or Houses in ole Occupation will be permitted where:  The existing property is of a size (without	A1 Options/ policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy.	Policy itself will not lead to new development, and in any case the effects of conversion of residential properties are likely to be localised.
	being extended for the proposed use), whereby the layout, room sizes, range of facilities and external amenity space of the resulting property would ensure an adequate standard of residential amenity for future occupiers.		
(ii)	There would be no material harm to the amenity of existing, nearby residents by virtue of general disturbance, noise or overlooking.		
(iii)	The cumulative impact of such conversions will not adversely affect the amenity and/or the character of the area.		
(iv)	Does not have an adverse affect on local parking provision		

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
H6: CHANGE OF USE OR REDEVELOPMENT TO RESIDENTIAL USE Change of use of redundant premises or redevelopment of redundant previously developed land for residential use will be permitted where:  (i) There is no overriding need to retain the existing use of the land or premises and no overriding alternative local land use requirement;  (ii) The resulting residential accommodation and amenity will be satisfactory;  (iii) There will be no unacceptable impact on the operating conditions of existing businesses;  (iv) Necessary community and transportation facilities are accessible or can be readily provided or improved; and  (v) It can be demonstrated that the change of use to a more sensitive end use has been assessed in terms of land contamination risk and that there are no an unacceptable risk to the end users.	A1 Options/ policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy.	Policy itself will not lead to new development, and in any case the effects of change of use likely to be localised.

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S)  Land is allocated for the provision of Gypsies and Travellers accommodation at Pengam Green as defined on the Proposals Map.	D1 The option, policy or proposal alone would not be likely to have significant effects but if its effects are combined with the effects of other policies or proposals provided for or coordinated by the Local Development Document (internally) the cumulative effects could potentially to be significant.	This allocation, when combined with other housing, educational, community, waste management, and employment development, may have a combined effect upon European sites within and outside Cardiff, so the potential for a combined effect should be examined in further detail.
H8: SITES FOR GYPSY AND TRAVELLER CARAVANS  New sites and extensions to existing sites will be permitted where:  (i) Necessary physical, transport and social infrastructure are accessible or can be readily provided;  (ii) Environmental factors including flood risk, ground stability, contaminated land and proximity of hazardous installations do not make the site inappropriate for residential development;  (iii) The site is designed in line with the Welsh Government Good Practice Guide in Designing Gypsy Traveller Sites.  (iv) There would be no unreasonable impact on the character and appearance of the surrounding areas including impact on residential amenity of neighbouring occupiers or the operating conditions of existing	C4 An option, or policy that makes provision for a quantity/ type of development (and may indicate one or more broad locations e.g. a particular part of the plan area), but the effects are uncertain because the detailed location of the development is to be selected following consideration of options in a later, more specific plan. The consideration of options in the later plan will assess potential effects on European Sites, but because the development could possibly affect a European site a significant effect cannot be ruled out on the basis of objective information	Where there exists the potential for new sites and extensions to existing sites close to the foreshore of the Severn Estuary, then the potential for an effect should be examined in further detail.

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
businesses  (v) In the case of a transit or touring site, it has good access to the primary highway network.		
EC1: EXISTING EMPLOYMENT LAND  The city's existing employment areas outside of the Central and Bay Business Areas (as designated on the Proposals Map) will be protected for B class employment generating uses (together with appropriate ancillary and/or complementary uses and activities as referred to in Policy EC2) as described in the table included in the text of this policy in the draft deposit LDP.	C2 The option, policy could indirectly affect a European site e.g. because it provides for, or steers, a quantity or type of development that may be very close to it, or ecologically, hydrologically or physically connected to it or it may increase disturbance as a result of increased recreational pressure.	Some of the sites referred to in this policy are close to the Severn Estuary foreshore, so the potential for an effect should be examined in further detail.
EC2: PROVISION OF COMPLEMENTARY FACILITIES FOR EMPLOYEES IN BUSINESS, INDUSTRIAL AND WAREHOUSING DEVELOPMENTS  Provision for open space, public realm, leisure, food and drink, and child-care facilities will be appropriate in office, industrial and warehousing developments, provided, the facility is of an appropriate scale and nature intended primarily to meet the needs of workers in the vicinity, therefore not attracting significant levels of visitor traffic into the area, or exacerbating existing traffic conditions.	A1 Options/ policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy.	Policy itself will not lead to new development, and in any case the effects of these facilities are likely to be localised.
EC3: ALTERNATIVE USE OF EMPLOYMENT	A1 Options/ policies that will not themselves	Policy itself will not lead to new development, but

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
LAND AND PREMISES  Development of business, industrial and warehousing land and premises for other uses will only be permitted if:  (i) The land or premises are no longer well-located for business, industrial or warehousing use; or  (ii) There is no need to retain the land or premises for business, industrial or warehousing use, having regard to the demand for such land and premises and the requirement to provide for a range and choice of sites available for such use; and  (iii) There will be no unacceptable impact on the operating conditions of existing businesses.	lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy.	instead controls the type of development at these sites.
EC4: PROTECTING OFFICES IN THE CENTRAL AND BAY BUSINESS AREAS  The alternative use of offices within the Central and Bay Business Areas will only be permitted where it can be demonstrated that there is no need to retain the site or premises for office use having regard to the demand for offices and the requirement to provide a range and choice of sites available for such use.	A1 Options/ policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy.	Policy itself will not lead to new development, but instead controls the type of development at these sites.
EC5: HOTEL DEVELOPMENT  Proposals for hotel development will be favoured:	C2 The option, policy could indirectly affect a European site e.g. because it provides for, or steers, a quantity or type of development that may be very close to it, or ecologically,	Development in the Bay area may potentially have effects upon the Severn Estuary, so this potential should be examined in more detail.

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
<ul> <li>(i) Within the Central and Bay Business Areas of the city centre;</li> <li>(ii) In appropriate locations for the conversion of suitable residential or commercial properties;</li> <li>(iii) At other locations within the urban area, if there is no need to preserve the site for its existing or allocated use, assessed against the relevant policies of the plan;</li> <li>Subject to considerations of scale, location, design, amenity and transportation being acceptable.</li> </ul>	hydrologically or physically connected to it or it may increase disturbance as a result of increased recreational pressure.	
EC6: NON-STRATEGIC EMPLOYMENT SITE  Land is allocated for university related research and development uses at Maindy Road, Cathays.	B Options/ policies that could have an effect but would not be likely to have a significant (negative) effect on a European site (alone or incombination with other plans or projects) because the effects are trivial or 'de minimis' even if combined with other effects.	The size of development is too small and too far removed from any European Site to have any potential effect, either alone or in combination with other developments.
EN1: COUNTRYSIDE PROTECTION  There will be a presumption against development in the countryside, beyond the settlement boundaries identified on the Proposals Map, except where it can be justified for agricultural and forestry needs or it is essential for facilitating sustainable access to and enjoyment of the countryside including appropriate outdoor recreation and tourism uses.  Appropriate development in the countryside should be in harmony with, and not cause unacceptable	A2 Options/ policies intended to protect the natural environment, including biodiversity.	This policy is aimed in part at preserving the natural environment.

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
harm to, the character and quality of the surrounding countryside and landscape		
EN2: CONVERSION, EXTENSION AND REPLACEMENT BUILDINGS IN THE COUNTRYSIDE  There will be a presumption against conversion, extension and replacement of buildings in Cardiff's countryside except in accordance with the detailed criteria set out in this policy in the draft deposit LDP.	A1 Options/ policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy.	Policy itself does not lead to development.
EN3: LANDSCAPE PROTECTION  Development will not be permitted that would cause unacceptable harm to the character and quality of the landscape and setting of the city, with particular priority given to protecting, managing and enhancing the character and quality of the following Special Landscape Areas:  (i) St Fagans Lowlands and the Ely Valley;  (ii) Garth Hill and Pentyrch Ridges;  (iii) Fforest Fawr and Caerphilly Ridge;  (iv) Wentloog Levels; and  (v) Flat Holm.	A1 Options/ policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy.	Policy itself does not lead to development.
EN4: RIVER VALLEYS  The Natural Heritage, character and other key features of Cardiff's river corridors will be protected,	C2 The option, policy could indirectly affect a European site e.g. because it provides for, or steers, a quantity or type of development that	Where the Taff Trail is promoted, the potential for an effect upon the Cardiff Beech Woods should be examined in further detail.

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
promoted and enhanced, together with facilitating sustainable access and recreation.	may be very close to it, or ecologically, hydrologically or physically connected to it or it may increase disturbance as a result of increased recreational pressure.	
EN5: LOCAL NATURE RESERVES AND NON-STATUTORY SITES OF NATURE CONSERVATION AND GEOLOGICAL IMPORTANCE  Development proposals that would affect locally designated sites of nature conservation and geological importance should maintain or enhance the nature conservation and/or geological importance of the designation	A2 Options/ policies intended to protect the natural environment, including biodiversity.	This policy is aimed at preserving the natural environment.
EN6: ECOLOGICAL NETWORKS AND FEATURES OF IMPORTANCE FOR BIODIVERSITY Development will only be permitted if it does not cause unacceptable harm to:	<b>A2</b> Options/ policies intended to protect the natural environment, including biodiversity.	This policy is aimed at preserving the natural environment.
<ul> <li>(i) Landscape features of importance for wild flora and fauna, including wildlife corridors and 'stepping stones' which enable the dispersal and functioning of protected and priority species;</li> <li>(ii) Networks of importance for landscape or</li> </ul>		
nature conservation.  Particular priority will be given to the protection, enlargement, connectivity and management of the overall nature of semi natural habitats.		

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
EN7: PRIORITY HABITATS AND SPECIES  Development proposals that would have a significant adverse affect on the continued viability of habitats and species identified as priorities in the UK or Local Biodiversity Action Plan will only be permitted where:  (i) The need for development outweighs the nature conservation importance of the site;  (ii) The developer demonstrates that there is no satisfactory alternative location for the development which avoids nature conservation impacts; and  (iii) Effective mitigation measures are provided by the developer.	A2 Options/ policies intended to protect the natural environment, including biodiversity.	This policy is aimed at preserving the natural environment.
EN8: TREES, WOODLANDS AND HEDGEROWS Development will not be permitted that would cause unacceptable harm to trees, woodlands and hedgerows of significant public amenity, natural or cultural heritage value, or that contribute significantly to mitigating the effects of climate change.	A2 Options/ policies intended to protect the natural environment, including biodiversity.	This policy is aimed at preserving the natural environment.
EN9: CONSERVATION OF THE HISTORIC ENVIRONMENT Development relating to any of the heritage assets	A3 Options/ policies intended to conserve or enhance the natural, built or historic environment, where enhancement measures will not be likely	Policy itself will not lead to development

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
listed (or their settings) will only be permitted where it can be demonstrated that it preserves or enhances that asset's architectural quality, historic and cultural significance, character, integrity and/or setting.	to have any negative effect on a European site.	
EN10: INNOVATIVE WATER SOLUTIONS  Development should demonstrate the incorporation of water sensitive urban design solutions (the process of integrating water cycle management with the built environment through planning and urban design). To include the management of:  (i) Water demand and supply;  (ii) Waste water and pollution;  (iii) Rainfall and runoff;  (iv) Watercourses and water resource;  (v) Flooding; and  (vi) Water pathways.	A2 Options/ policies intended to protect the natural environment, including biodiversity.	Policy itself will not lead to development, and will serve to offset any potential negative effects arising from other part of the plan.
EN11: PROTECTION OF WATER RESOURCES  Development will not be permitted that would cause unacceptable harm to the quality or quantity of underground, surface or coastal waters.	A2 Options/ policies intended to protect the natural environment, including biodiversity.	Policy itself will not lead to development, and will serve to offset any potential negative effects arising from other part of the plan.
EN12: RENEWABLE ENERGY AND LOW CARBON TECHNOLOGIES  The Council will encourage developers of major and strategic sites to incorporate schemes which	C2 The option, policy could indirectly affect a European site e.g. because it provides for, or steers, a quantity or type of development that may be very close to it, or ecologically,	Where policies promote generation of renewable energy, this could include wind turbines situated on the foreshore of the Severn Estuary, so the potential for an effect should be examined in

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
generate energy from renewable and low carbon technologies. This includes opportunities to minimise carbon emissions associated with the heating, cooling and power systems for new development.	hydrologically or physically connected to it or it may increase disturbance as a result of increased recreational pressure.	further detail.
EN13: AIR, NOISE, LIGHT POLLUTION AND CONTAMINATED LAND  Development will not be permitted where it would cause or result in unacceptable harm to health, local amenity, the character and quality of the countryside, or interests of nature conservation, landscape or built heritage importance because of air, noise, light pollution or the presence of unacceptable levels of land contamination.	A2 Options/ policies intended to protect the natural environment, including biodiversity.	Policy itself will not lead to development, and will serve to offset any potential negative effects arising from other part of the plan.
<ul> <li>EN14: FLOOD RISK Development will not be permitted: <ol> <li>Within tidal or fluvial flood plains unless existing or proposed flood prevention and/or protection measures are acceptable; or</li> <li>Where it would increase the risk of flooding; or</li> <li>Where it would hinder future maintenance or improvement schemes of flood defences and watercourses; or</li> <li>Where it would cause adverse effects on the integrity of tidal or fluvial defences; or</li> <li>Where ground floor bedrooms are proposed in areas at high risk of flooding.</li> </ol> </li> </ul>	A1 Options/ policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy.	Policy itself will not lead to development.

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
T1: SUPPORTING ACTIVE TRAVEL  To enable people to access employment, essential services and community facilities by walking and cycling the Council will support developments which incorporate the attributes detailed in the text of this policy in the draft deposit LDP	A2 Options/ policies intended to protect the natural environment, including biodiversity.	Policy itself will not lead to development, and will serve to offset any potential negative effects arising from other part of the plan.
T2: STRATEGIC RAPID TRANSIT AND BUS CORRIDORS  To avoid car-based developments and maximise use of sustainable transport, infrastructure and associated services will be introduced to develop strategic rapid transport and bus corridors including those detailed in the text of this policy in the draft deposit LDP	A2 Options/ policies intended to protect the natural environment, including biodiversity.	Policy itself will not lead to development, and will serve to offset any potential negative effects arising from other part of the plan.
T3: TRANSPORT INTERCHANGES In order to facilitate the transfer between transport modes and help to minimise travel demand and reduce car dependency, developments detailed in the text of this policy in the draft deposit LDP will be supported.	A2 Options/ policies intended to protect the natural environment, including biodiversity.	Policy itself will not lead to development, and will serve to offset any potential negative effects arising from other part of the plan.
T4: REGIONAL TRANSPORT HUB Support will be given to the development of infrastructure and facilities in and around Cardiff	A4 Options/ policies that positively steer development away from European sites and associated sensitive areas.	Locations mentioned are not near European sites, and any effects are likely to be localized.

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
Central Railway Station which meet the criteria detailed in the text of this policy in the draft deposit LDP.		
T5: MANAGING TRANSPORT IMPACTS Where necessary, safe and convenient provision will be sought in conjunction with development for: (i) Pedestrians; (ii) People with special access and mobility requirements; (iii) Cyclists; (iv) Powered two-wheelers; (v) Public transport; (vi) Vehicular access and traffic management within the site and its vicinity; (vii) Car parking and servicing; (viii) Coach parking; and (ix) Horse-riders.	A2 Options/ policies intended to protect the natural environment, including biodiversity.	Policy itself will not lead to development, and will serve to offset any potential negative effects arising from other part of the plan.
T6: IMPACT ON TRANSPORT NETWORKS AND SERVICES  Development will not be permitted which would cause unacceptable harm to the safe and efficient operation of the highway, public transport and other movement networks including pedestrian and cycle routes, public rights of way and bridle routes.	A1 Options/ policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy.	Policy itself will not lead to development.

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE Support will be given to the development of the following elements of strategic transportation infrastructure:  (i) Eastern Bay Link; (ii) St Mellons rail interchange; and (iii) New sustainable transport corridor in North West Cardiff	C2 The option, policy could indirectly affect a European site e.g. because it provides for, or steers, a quantity or type of development that may be very close to it, or ecologically, hydrologically or physically connected to it or it may increase disturbance as a result of increased recreational pressure.	The Eastern Bay Link Road passes close to the Severn Estuary and so its potential effects should be examined in more detail.
T8: STRATEGIC RECREATIONAL ROUTES A strategic network of recreational routes will be maintained and developed to link Cardiff's coast, river corridors, open spaces, countryside, and the regional network of routes, facilitating access to them by local communities, and forming an integral part of the wider cycling and walking network in Cardiff.	C2 The option, policy could indirectly affect a European site e.g. because it provides for, or steers, a quantity or type of development that may be very close to it, or ecologically, hydrologically or physically connected to it or it may increase disturbance as a result of increased recreational pressure.	Where recreational routes are promoted or enhanced, and these routes are in a sensitive area such as Cardiff Beech Woods or the foreshore of the Severn Estuary, the potential for an effect should be examined in further detail.
R1: RETAIL PROVISION WITHIN STRATEGIC SITES Retail development which forms part of the allocated housing led Strategic Sites will be supported, where:  (i) It is of an appropriate scale which satisfies an identified local need; (ii) It is located along public transport corridors and easily accessible by walking and cycling; and	D1 The option, policy or proposal alone would not be likely to have significant effects but if its effects are combined with the effects of other policies or proposals provided for or coordinated by the Local Development Document (internally) the cumulative effects could potentially to be significant.	Retail provision in Strategic Sites, when combined with housing, educational, community, waste management, and employment development, may have a combined effect upon European sites within and outside Cardiff, so the potential for a combined effect should be examined in further detail.

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
(iii) It forms part of a planned centre which reinforces a sense of place.		
R2: DEVELOPMENT IN THE CENTRAL SHOPPING AREA  Development proposals within the Central Shopping Area (CSA) will be assessed against the following criteria:  (i) Whether the proposal involves the loss of shop uses (Class A1) from within Protected Shopping Frontages;  (ii) Whether the proposal involves retail and other uses which enhance the vitality, viability and attractiveness of the city centre;  (iii) Whether the development allows for, or retains the effective use of, upper floors; and  (iv) Supports the regeneration, renewal and enhancement of the city centre.	A4 Options/ policies that positively steer development away from European sites and associated sensitive areas.	Locations mentioned are not near European sites, and any potential effects are likely to be localised.
R3: PROTECTED SHOPPING FRONTAGES  Development proposals involving the loss of Class A1 (shop) uses within Protected Shopping Frontages will be assessed against the following criteria:  (i) The balance and distribution of existing and committed non-shop uses;  (ii) The amount of A1 floorspace and frontage length being lost;  (iii) Whether, and for how long, the premises have	A1 Options/ policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy.	Policy itself will not lead to development.

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
been vacant and actively marketed;  (iv) The location, character and prominence of individual premises or frontages;  (v) The nature of the proposed use, including whether an appropriate shop front and window display is to be provided; and  (vi) The impact of the proposed use upon the amenity of adjacent or nearby residents.		
R4: RETAIL DEVELOPMENT (OUT OF CENTRE) Retail development will only be permitted outside the Central Shopping Area, District and Local Centres identified on the Proposals Map if it meets the criteria in the text of this policy in the draft deposit LDP.	B Options/ policies that could have an effect but would not be likely to have a significant (negative) effect on a European site (alone or incombination with other plans or projects) because the effects are trivial or 'de minimis' even if combined with other effects.	This policy does not provide for development, but identifies the criteria against which development out of Central Shopping Area, District and Local Centres, will be judged.
R5: DISTRICT CENTRES Retail, office, leisure and community facilities will be favoured within the District Centres identified on the Proposal Map.	A4 Options/ policies that positively steer development away from European sites and associated sensitive areas.	Areas referred to in this policy are not close to European Sites, and the effects of building these facilities are likely to be localised.
R6: LOCAL CENTRES Retail, office, leisure and community facilities will be favoured within the Local Centres identified on the Proposal Map.	A4 Options/ policies that positively steer development away from European sites and associated sensitive areas.	Areas referred to in this policy are not close to European Sites, and the effects of building these facilities are likely to be localised.
R7: FOOD AND DRINK USES	A1 Options/ policies that will not themselves	Policy itself will not lead to development.

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
Food and Drink Uses are most appropriately located in:  (i) The City Centre (Central Business Area)  (ii) The inner harbour/waterfront area of Cardiff Bay (Bay Business Area)  (iii) District and Local Centres	lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy.	
R8: PROTECTION OF LOCAL SHOPPING PARADES  Proposals that would lead to the loss of local shops outside of identified centres will be assessed having regard to the role of those shops in meeting local shopping needs and the viability of the premises for continued retail use.	A1 Options/ policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy	Policy itself will not lead to development.
C1: COMMUNITY FACILITIES Proposals for new and improved community facilities, health and religious facilities will be encouraged, subject to the criteria detailed in this policy in the draft deposit LDP being satisfied.	D1 The option, policy or proposal alone would not be likely to have significant effects but if its effects are combined with the effects of other policies or proposals provided for or coordinated by the Local Development Document (internally) the cumulative effects could potentially to be significant.	Community facilities, when combined with housing, educational, Waste management, and employment development, may have a combined effect upon European sites within and outside Cardiff, so the potential for a combined effect should be examined in further detail.
C2: COMMUNITY SAFETY/CREATING SAFE ENVIRONMENTS All new development and redevelopment shall be designed to promote a safe and secure environment	A1 Options/ policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning	Policy itself will not lead to development.

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
and minimise the opportunity for crime	policy.	
C3: PROTECTION OF OPEN SPACE  Development will not be permitted on areas of open space unless:  (i) It would not cause or exacerbate a deficiency of open space in accordance with the most recent open space study; and  (ii) The open space has no significant functional or amenity value; and  (iii) The open space is of no significant quality; or (iv) The developers make satisfactory compensatory provision; and, in all cases;  (v) The open space has no significant nature or historic conservation importance.	A2 Options/ policies intended to protect the natural environment, including biodiversity.	Policy itself will not lead to development, and will serve to offset any potential negative effects arising from other part of the plan.

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
C4: PROVISION FOR OPEN SPACE, OUTDOOR RECREATION AND SPORT  Provision for open space, outdoor recreation and sport will be sought in conjunction with all new residential developments. This Policy is aimed at securing the provision or improvement of open space and other appropriate outdoor recreation and sport in conjunction with all new residential developments over 8 units and on site provision of functional open space in conjunction with all new residential developments over 14 units.	<b>B</b> Options/ policies that could have an effect but would not be likely to have a significant (negative) effect on a European site (alone or incombination with other plans or projects) because the effects are trivial or 'de minimis' even if combined with other effects.	The nature of the development provided for by this policy is such that any potential effect upon European sites is minimal.
C5: PROVISION FOR ALLOTMENTS AND COMMUNITY GROWING  Provision for allotments and/or community growing areas will be sought on new residential developments over 46 units and on all developments over 1800, provision of a 40 plot allotment site will be sought, increasing on a pro-rata basis for larger sites.	B Options/ policies that could have an effect but would not be likely to have a significant (negative) effect on a European site (alone or incombination with other plans or projects) because the effects are trivial or 'de minimis' even if combined with other effects.	The nature of the development provided for by this policy is such that any potential effect upon European sites is minimal.
C6: PROVISION FOR CHILDREN'S PLAY Provision for children's play should be an essential element of the layout of new developments. Access to at least three different types of outdoor play provision as indicated in the text of this policy in the draft deposit LDPA shall be provided within 400m of family homes within new developments.	<b>B</b> Options/ policies that could have an effect but would not be likely to have a significant (negative) effect on a European site (alone or incombination with other plans or projects) because the effects are trivial or 'de minimis' even if combined with other effects.	The nature of the development provided for by this policy is such that any potential effect upon European sites is minimal.

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
C7: HEALTH Priority in new developments will be given to reducing health inequalities and encouraging healthy lifestyles	A1 Options/ policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy.	Policy itself will not lead to development.
C8: PLANNING FOR SCHOOLS  New and improved school facilities will be provided to meet existing and future educational needs.	D1 The option, policy or proposal alone would not be likely to have significant effects but if its effects are combined with the effects of other policies or proposals provided for or coordinated by the Local Development Document (internally) the cumulative effects could potentially to be significant.	Educational facilities, when combined with housing, retail, waste management, educational, community, and employment developments, may have a combined effect upon European sites within and outside Cardiff, so the potential for a combined effect should be examined in further detail.
C9: NEW EDUCATIONAL FACILITIES  Development of nursery, primary, secondary and sixth form education should:  (i) Be well designed, well related to neighbourhood services and amenities, and easily accessible by sustainable transport modes; and  (ii) Include, where appropriate, provision for other appropriate community uses in addition to their educational use.	D1 The option, policy or proposal alone would not be likely to have significant effects but if its effects are combined with the effects of other policies or proposals provided for or coordinated by the Local Development Document (internally) the cumulative effects could potentially to be significant.	Educational facilities, when combined with housing, retail, waste management, community, and employment developments, may have a combined effect upon European sites within and outside Cardiff, so the potential for a combined effect should be examined in further detail.
C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION	D1 The option, policy or proposal alone would not be likely to have significant effects but if its effects are combined with the effects of other policies or proposals provided for or	Health employment facilities, when combined with housing, retail, waste management, educational and community developments, may have a combined effect upon European sites

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments	
Land is allocated for health related uses at Government Offices, St Agnes Road, Heath (4.07ha)	<b>coordinated</b> by the Local Development Document (internally) the <b>cumulative</b> effects could potentially to be significant.	within and outside Cardiff, so the potential for a combined effect should be examined in further detail.	
M1: MINERAL LIMESTONE RESERVES AND RESOURCES  Mineral reserves with planning permission will be safeguarded from development that would prevent their extraction at:  (i) Creigiau Quarry;  (ii) Taffs Well Quarry;  (iii) Ton Mawr Quarry; and  (iv) Blaengwynlais Quarry.  Resource areas will be safeguarded from development that would prevent their extraction at:  (i) Creigiau Quarry; and  (ii) Creigiau Quarry.	C1 The option, policy could directly affect a European site because it provides for, or steers, a quantity or type of development onto a European site, or adjacent to it.	Quarries referred to lie close to Cardiff Beech Woods SAC	
M2: PREFERRED ORDER OF MINERAL RESOURCE RELEASE The extension or deepening of existing mineral workings will be favoured in preference to the release of new sites and deepening will be preferred to lateral extension.	A1 Options/ policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy.	Policy does not provide for quarrying per se, just the preferred order of release.	

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
M3: QUARRY CLOSURES AND EXTENSION LIMITS  Measures to prevent further mineral working and, where appropriate, to secure restoration and landscaping works at the earliest opportunity, will be sought at the following sites:  (i) Cefn Garw Quarry, Tongwynlais;  (ii) Highland Park Brickworks, Ely;  (iii) West End Brickworks, Ely; and  (iv) Southern and western parts of Creigiau Quarry.  (v) No further extension to mineral reserves will be permitted at these sites, or at:  (vi) Blaengwynlais Quarry, Rhiwbina Hill.	C1 The option, policy could directly affect a European site because it provides for, or steers, a quantity or type of development onto a European site, or adjacent to it.	Restoration activities may potentially have an effect upon Cardiff Beech Woods SAC.
M4: MINERALS BUFFER ZONES Within the minerals buffer zones no mineral working, housing or other sensitive development will be permitted.	A1 Options/ policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy.	Policy does not provide for quarrying per se, just the buffer zone around the quarries.
M5: RESTORATION AND AFTER - USE OF MINERAL WORKINGS  Proposals for mineral working or for related plant and buildings will be permitted only where firm proposals are included for the reinstatement of the site to a condition fit for an appropriate after-use supported, where relevant, by adequate after-care	C1 The option, policy could directly affect a European site because it provides for, or steers, a quantity or type of development onto a European site, or adjacent to it.	Restoration activities may potentially have an effect upon Cardiff Beech Woods SAC.

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
proposals. Appropriate reinstatement and after-care proposals will similarly be required when existing controls are reviewed.		
M6: DREDGED AGGREGATE LANDING AND DISTRIBUTION FACILITIES  The sand wharves shown on the Proposals Map will be protected against development which would prejudice their ability to land marine dredged sand and gravel. Proposals for the provision and improvement of landing and distribution facilities for marine dredged aggregates within Cardiff Docks will be favoured where there will be no unacceptable harm to the environment, nearby residential areas or future regeneration prospects of the waterfront area.	C1 The option, policy could directly affect a European site because it provides for, or steers, a quantity or type of development onto a European site, or adjacent to it.	The wharves are close to the Severn Estuary, and access to them is via the estuary, so the potential for an effect upon the European site need to be examined further.
M7: SAFEGUARDING OF SAND AND GRAVEL RESOURCE The area of sand and gravel resource shown on the Proposals Map will be protected against all forms of permanent development in order to prevent sterilisation of the resource and to ensure that the sand and gravel within that area will be preserved for the future, should a demonstrable need for the use of those resources arise.	A1 Options/ policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy.	The policy protects sites from development, rather than promoting development.
M8: SAFEGUARDING OF COAL RESOURCES Areas of coal resource as shown on the Proposals	A1 Options/ policies that will not themselves lead to development e.g. because they relate to	The policy protects sites from development, rather than promoting development.

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
Map will be protected against all forms of permanent development in order to prevent sterilisation of the resource and to ensure that the coal within that area will be preserved for the future, should a demonstrable need for the use of those resources arise.	design or other qualitative criteria for development, or they are not a land use planning policy.	
M9: SAFEGUARDING OF LIMESTONE RESOURCES  Areas of limestone resource as shown on the Proposals Map will be protected against all forms of permanent development in order to prevent sterilisation of the resource and to ensure that the limestone within that area will be preserved for the future, should a demonstrable need for the use of those resources arise.	A1 Options/ policies that will not themselves lead to development e.g. because they relate to design or other qualitative criteria for development, or they are not a land use planning policy.	The policy protects sites from development, rather than promoting development.
W1: LAND FOR WASTE MANAGEMENT Land will be allocated for waste management purposes at Lamby Way as defined on the Proposals Map	C2 The option, policy could indirectly affect a European site e.g. because it provides for, or steers, a quantity or type of development that may be very close to it, or ecologically, hydrologically or physically connected to it or it may increase disturbance as a result of increased recreational pressure.	The Lamby Way site is close to the foreshore of the Severn Estuary, so any development in this area must be examined for its potential to affect the features of the European Site.
W2: SITES FOR WASTE MANAGEMENT FACILITIES Proposals for the development of waste management	<b>D1</b> The option, policy or proposal alone would not be likely to have significant effects but if its effects are combined with the effects of other	Waste management facilities, when combined with housing, retail, educational, community, and employment developments, may have a

Policy References (for full text of policy and supporting text, please refer to the Deposit LDP document)	Potential effects (Category A - D, see key above)	Rationale/ Comments
facilities will be permitted where they meet the criteria detailed in the text of this policy in the draft deposit LDP	policies or proposals provided for or coordinated by the Local Development Document (internally) the cumulative effects could potentially to be significant.	combined effect upon European sites within and outside Cardiff, so the potential for a combined effect should be examined in further detail.
W3: PROVISION FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT Where appropriate, provision will be sought in all new development for facilities for the storage, recycling and other management of waste	D1 The option, policy or proposal alone would not be likely to have significant effects but if its effects are combined with the effects of other policies or proposals provided for or coordinated by the Local Development Document (internally) the cumulative effects could potentially to be significant.	Waste management facilities, when combined with housing, retail, educational, community, and employment developments, may have a combined effect upon European sites within and outside Cardiff, so the potential for a combined effect should be examined in further detail.



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Habitat Regulations Assessment Report:
Appendix 3 - Development Types and Summary of Effects



## Appendix 3 - DEVELOPMENT TYPES AND SUMMARY OF EFFECTS ON EUROPEAN SITES

Type of Development	Potential Impacts of Development	Example	Summary of Effects on N2K Sites
Housing	Land take	This could be the direct loss of designated land or the indirect loss of important surrounding habitat.	<ul> <li>Habitat Fragmentation &amp; Loss</li> <li>Disturbance</li> <li>Changes to Hydrological Regime</li> <li>Changes in Water Quality</li> </ul>
	Increased abstraction levels	Increased abstraction levels can lead to a decrease in water levels, which can affect water quality and designated flora.	<ul><li>Changes to Hydrological Regime</li><li>Changes in Water Quality</li></ul>
	Increased traffic movements	Diffuse air pollution can also effect water quality (eutrophication).	<ul><li>Changes in Air Quality</li><li>Disturbance</li></ul>
	Growth in requirements for waste management facilities and increased demand for minerals	See Waste & Minerals below	<ul> <li>See Waste &amp; Minerals below</li> </ul>
	Increased need for further infrastructure provision.	See Infrastructure below	See Infrastructure below
	Increase in population and therefore recreation levels	Some designated species and habitats are sensitive to disturbance - an increase in population can lead to higher levels of disturbance.	<ul><li>Disturbance</li></ul>
	Increased noise and light pollution	Some designated species are sensitive to disturbance, such as the Lesser Horseshoe Bat.	<ul><li>Disturbance</li></ul>
	Impacts on surface water run-off	An increase in non-permeable surfaces can lead to increased flood risk.	<ul><li>Changes to Hydrological Regime</li><li>Changes in Water Quality</li></ul>
Employment	Land take	This could be the direct loss of designated land or the indirect loss of important surrounding habitat.	<ul> <li>Habitat Fragmentation &amp; Loss</li> <li>Disturbance</li> <li>Changes to Hydrological Regime</li> <li>Changes in Water Quality</li> </ul>

	Increased demand for water resources	Increased abstraction levels can lead to a decrease in water levels, which can affect water quality and designated flora.	<ul><li>Changes to Hydrological Regime</li><li>Changes in Water Quality</li></ul>
	Increased traffic movements	Diffuse air pollution can also effect water quality (eutrophication).	<ul><li>Changes in Air Quality</li><li>Disturbance</li></ul>
	Growth in requirements for waste management facilities and increased demand for minerals	See Waste & Minerals below	See Waste & Minerals below
	Increased need for further infrastructure provision.	See Infrastructure below	See Infrastructure below
	Increase in population and therefore recreation levels	Some designated species and habitats are sensitive to disturbance - an increase in population can lead to higher levels of disturbance.	Disturbance
	Increased noise and light pollution	Some designated species are sensitive to disturbance, such as the Lesser Horseshoe Bat.	Disturbance
	Impacts on surface water run-off	An increase in non-permeable surfaces can lead to increased flood risk.	<ul><li>Changes to Hydrological Regime</li><li>Changes in Water Quality</li></ul>
Waste & Minerals	Land take	This could be the direct loss of designated land or the indirect loss of important surrounding habitat.	<ul><li>Habitat Fragmentation</li><li>Disturbance</li></ul>
	Increased transport movements	Diffuse air pollution can also effect water quality (eutrophication).	<ul><li>Changes in Air Quality</li><li>Disturbance</li></ul>
	Dust, noise and odour associated with industrial processes	Some designated species are sensitive to disturbance, such as the Lesser Horseshoe Bat.	<ul><li>Changes in Air Quality</li><li>Disturbance</li></ul>
	Contamination, accumulation of toxic substances	This can lead to a decrease in water and soil quality.	Changes in Water Quality
	Wastewater	There is the potential for high concentrations of metals, dissolved nitrogen and organic material associated with certain waste and minerals development.	Changes in Water Quality
	Topography alteration	Impacts on surface water run-off could	<ul> <li>Changes to Hydrological Regime</li> </ul>

		increase the risk of flooding.		Changes in Water Quality
	Aggregates removal	Aggregates removal will have effects on	•	Changes to Hydrological Regime
		groundwater flow and water quality.	•	Changes in Water Quality
Infrastructure	Land Take	Development of a new road could, for		Habitat Fragmentation
		example, involve the construction of a bridge	•	Barriers to Migration
e.g.		over a river, which could act as a barrier to	•	Disturbance
Roads		migration for certain fish species.		
Water Supply	Impacts on surface water run-off	An increase in non-permeable surfaces can	•	Changes to Hydrological Regime
Wastewater		lead to increased flood risk.	•	Changes in Water Quality
Power Grid	Increased transport movements	Diffuse air pollution can also effect water	•	Changes in Air Quality
Flood		quality (eutrophication).	•	Disturbance
Management	Laying pipes and cables	The laying of pipes and cables underground	•	Changes to Hydrological Regime
Renewables		could disturb groundwater flow and there is	•	Changes in Water Quality
Development		also the potential for leakage of wastewater.	•	Disturbance
	Wind Turbines	Erection and use of wind turbines may cause	•	Disturbance
		visual disturbance to birds, and directly harm	•	Direct Harm
		them if within flight path.		



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Habitat Regulations Assessment Report:
Appendix 4 - Generic Potential Effects of Development



## **Appendix 4 – GENERIC POTENTIAL EFFECTS OF DEVELOPMENT**

Where a policy may directly give rise to one of the generic potential effects listed, this is indicated with a tick (✓)

				G	eneric Pote	ntial Imp	acts of D	evelopm	ent				
Policy References: Plan/ Proposal	Aggregates removal	Contamination, accumulation of toxic substances	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Impacts on surface water run-off	Increase in population and therefore recreation levels	Increased demand for water resources	Increased noise, and light pollution	Increased traffic movements	Land take	Laying pipes and cables	Topography alteration	Wastewater and Sewage	Wind Turbines
KP1: LEVEL OF GROWTH	*	×	<b>✓</b>	✓	<b>✓</b>	✓	<b>✓</b>	<b>√</b>	<b>✓</b>	×	×	<b>✓</b>	×
KP2: STRATEGIC SITES	×	×	✓	✓	✓	✓	✓	✓	<b>√</b>	×	×	<b>✓</b>	×
KP6: NEW INFRASTRUCTURE	*	×	<b>✓</b>	✓	*	×	×	<b>√</b>	<b>✓</b>	<b>✓</b>	×	×	<b>✓</b>
KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment)	*	×	✓	✓	✓	✓	✓	✓	✓	×	×	<b>✓</b>	*

				G	eneric Pote	ential Imp	acts of D	evelopm	ent				
Policy References: Plan/ Proposal	Aggregates removal	Contamination, accumulation of toxic substances	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Impacts on surface water run-off	Increase in population and therefore recreation levels	Increased demand for water resources	Increased noise, and light pollution	Increased traffic movements	Land take	Laying pipes and cables	Topography alteration	Wastewater and Sewage	Wind Turbines
KP10: CENTRAL AND BAY BUSINESS AREAS	*	×	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	✓	×	×	×	*
KP11: MINERALS AND AGGREGATES	*	<b>✓</b>	<b>✓</b>	*	×	*	*	<b>√</b>	<b>√</b>	×	<b>✓</b>	<b>✓</b>	×
KP12: WASTE	×	✓	<b>✓</b>	*	*	*	*	<b>√</b>	<b>√</b>	×	×	<b>✓</b>	×
KP14: HEALTHY LIVING	×	×	×	*	✓	*	*	*	×	×	×	×	×
KP15: CLIMATE	×	×	×	×	*	×	×	×	×	×	×	×	<b>√</b>

				G	eneric Pote	ential Imp	acts of D	evelopm	ent				
Policy References: Plan/ Proposal	Aggregates removal	Contamination, accumulation of toxic substances	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Impacts on surface water run-off	Increase in population and therefore recreation levels	Increased demand for water resources	Increased noise, and light pollution	Increased traffic movements	Land take	Laying pipes and cables	Topography alteration	Wastewater and Sewage	Wind Turbines
CHANGE													
H1: NON-STRATEGIC HOUSING SITES	*	*	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	×	×	<b>✓</b>	*
H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S)	×	×	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	×	×	<b>✓</b>	*
H8: SITES FOR GYPSY AND TRAVELLER CARAVANS	*	×	*	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>√</b>	*	*	<b>✓</b>	*
EC1: EXISTING EMPLOYMENT LAND	×	×	✓	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	×	×	<b>✓</b>	×

				G	eneric Pote	ential Imp	acts of D	evelopm	ent				
Policy References: Plan/ Proposal	Aggregates removal	Contamination, accumulation of toxic substances	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Impacts on surface water run-off	Increase in population and therefore recreation levels	Increased demand for water resources	Increased noise, and light pollution	Increased traffic movements	Land take	Laying pipes and cables	Topography alteration	Wastewater and Sewage	Wind Turbines
EC5: HOTEL DEVELOPMENT	*	*	<b>✓</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	×	×	<b>✓</b>	×
EN4: RIVER VALLEYS	×	*	×	×	<b>√</b>	×	*	×	×	×	×	×	×
EN12: RENEWABLE ENERGY AND LOW CARBON TECHNOLOGIES	*	×	×	×	×	×	*	*	*	×	×	×	<b>✓</b>

		Generic Potential Impacts of Development											
Policy References: Plan/ Proposal	Aggregates removal	Contamination, accumulation of toxic substances	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Impacts on surface water run-off	Increase in population and therefore recreation levels	Increased demand for water resources	Increased noise, and light pollution	Increased traffic movements	Land take	Laying pipes and cables	Topography alteration	Wastewater and Sewage	Wind Turbines
T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE	×	×	<b>✓</b>	<b>✓</b>	×	×	*	<b>✓</b>	<b>✓</b>	<b>✓</b>	×	×	*
T8: STRATEGIC RECREATIONAL ROUTES	×	×	×	×	<b>√</b>	×	*	*	×	×	×	×	×
R1: RETAIL PROVISION WITHIN STRATEGIC SITES	*	×	<b>✓</b>	<b>✓</b>	×	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	×	×	<b>✓</b>	*
C1: COMMUNITY FACILITIES	×	×	<b>✓</b>	<b>√</b>	*	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	×	×	<b>✓</b>	×
C8: PLANNING FOR SCHOOLS.	×	×	✓	✓	*	✓	✓	✓	<b>✓</b>	×	×	✓	*

				Ge	eneric Pote	ential Imp	acts of D	evelopm	ent				
Policy References: Plan/ Proposal	Aggregates removal	Contamination, accumulation of toxic substances	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Impacts on surface water run-off	Increase in population and therefore recreation levels	Increased demand for water resources	Increased noise, and light pollution	Increased traffic movements	Land take	Laying pipes and cables	Topography alteration	Wastewater and Sewage	Wind Turbines
C9: NEW EDUCATIONAL FACILITIES	*	*	<b>√</b>	<b>✓</b>	*	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	×	×	<b>✓</b>	*
C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION	×	*	✓	<b>√</b>	×	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	*	*	<b>✓</b>	×
M1: MINERAL LIMESTONE RESERVES AND RESOURCES	<b>✓</b>	<b>✓</b>	<b>√</b>	*	×	*	×	<b>✓</b>	✓	×	<b>✓</b>	<b>✓</b>	×
M3: QUARRY CLOSURES AND	✓	<b>✓</b>	✓	×	×	*	*	✓	✓	×	✓	✓	×

		Generic Potential Impacts of Development											
Policy References: Plan/ Proposal	Aggregates removal	Contamination, accumulation of toxic substances	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Impacts on surface water run-off	Increase in population and therefore recreation levels	Increased demand for water resources	Increased noise, and light pollution	Increased traffic movements	Land take	Laying pipes and cables	Topography alteration	Wastewater and Sewage	Wind Turbines
EXTENSION LIMITS													
M5: RESTORATION AND AFTER - USE OF MINERAL WORKINGS	<b>√</b>	<b>√</b>	<b>✓</b>	×	×	*	*	<b>√</b>	<b>√</b>	×	<b>√</b>	<b>✓</b>	*
M6: DREDGED AGGREGATE LANDING AND DISTRIBUTION FACILITIES	<b>√</b>	<b>✓</b>	<b>✓</b>	×	×	*	*	<b>√</b>	<b>✓</b>	×	×	<b>✓</b>	*
W1: LAND FOR WASTE MANAGEMENT	×	<b>✓</b>	<b>✓</b>	×	×	×	×	✓	<b>✓</b>	×	×	<b>✓</b>	×
W2: SITES FOR WASTE MANAGEMENT FACILITIES	×	<b>✓</b>	✓	*	×	*	*	✓	✓	×	×	<b>✓</b>	×

				G	eneric Pote	ential Imp	acts of D	evelopm	ent				
Policy References: Plan/ Proposal	Aggregates removal	Contamination, accumulation of toxic substances	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Impacts on surface water run-off	Increase in population and therefore recreation levels	Increased demand for water resources	Increased noise, and light pollution	Increased traffic movements	Land take	Laying pipes and cables	Topography alteration	Wastewater and Sewage	Wind Turbines
W3: PROVISION FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT	*	<b>✓</b>	✓	×	×	×	*	<b>√</b>	<b>✓</b>	×	×	<b>✓</b>	×



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Habitat Regulations Assessment Report:
Appendix 5 - Potential Effects of Policies upon European Sites
September 2013



## Appendix 5 – SUMMARY OF POTENTIAL EFFECTS OF POLICIES UPON EUROPEAN SITES

Policy	Potential Impacts of Policy	Summary of Potential Effects upon European sites
KP1: LEVEL OF	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Changes in Air Quality Disturbance
	Impacts on surface water run-off	Changes in Water Quality
	Increase in population and therefore recreation levels	Disturbance
	Increased demand for water resources	Changes to Hydrological Regime Changes in Water Quality
	Increased noise and light pollution	Disturbance
	Increased traffic movements	Disturbance Changes in Air Quality
	Land take	Habitat Fragmentation & Loss Disturbance Changes to Hydrological Regime Changes in Water Quality Barriers to Dispersal
	Wastewater and Sewage	Changes in Water Quality
KP2: STRATEGIC SITES	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Changes in Air Quality Disturbance

Policy	Potential Impacts of Policy	Summary of Potential Effects upon European sites
	Impacts on surface water run-off	Changes in Water Quality
	Increase in population and therefore recreation levels	Disturbance
	Increased demand for water resources	Changes to Hydrological Regime Changes in Water Quality
	Increased noise and light pollution	Disturbance
	Increased traffic movements	Disturbance Changes in Air Quality
	Land take	Habitat Fragmentation & Loss Disturbance Changes to Hydrological Regime Changes in Water Quality Barriers to Dispersal
	Wastewater and Sewage	Changes in Water Quality
KP6: NEW INFRASTRUCTURE	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Changes in Air Quality Disturbance
	Impacts on surface water run-off	Changes in Water Quality
	Increased traffic movements	Disturbance Changes in Air Quality
	Land take	Habitat Fragmentation & Loss Disturbance Changes to Hydrological Regime

Policy	Potential Impacts of Policy	Summary of Potential Effects upon European sites
		Changes in Water Quality Barriers to Dispersal
	Laying pipes and cables	Disturbance Changes to Hydrological Regime Changes in Water Quality
	Wind Turbines	Disturbance Direct Harm
KP9: RESPONDING TO EVIDENCED	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Changes in Air Quality Disturbance
ECONOMIC NEEDS (Employment)	Impacts on surface water run-off	Changes in Water Quality
	Increase in population and therefore recreation levels	Disturbance
	Increased demand for water resources	Changes to Hydrological Regime Changes in Water Quality
	Increased noise and light pollution	Disturbance
	Increased traffic movements	Disturbance Changes in Air Quality
	Land take	Habitat Fragmentation & Loss Disturbance Changes to Hydrological Regime Changes in Water Quality Barriers to Dispersal
	Wastewater and sewage	Changes in Water Quality

Policy	Potential Impacts of Policy	Summary of Potential Effects upon European sites
KP10: CENTRAL AND BAY BUSINESS	Dust, noise, vibration, movement and odour associated with industrial and construction processes  Dust, noise, vibration, movement and odour associated with industrial and construction processes	Changes in Air Quality Disturbance
AREAS	Impacts on surface water run-off	Changes in Water Quality
	Increase in population and therefore recreation levels	Disturbance
	Increased demand for water resources	Changes to Hydrological Regime Changes in Water Quality
	Increased noise and light pollution	Disturbance
	Increased traffic movements	Disturbance Changes in Air Quality
	Land take	Habitat Fragmentation & Loss Disturbance Changes to Hydrological Regime Changes in Water Quality Barriers to Dispersal
KP11: MINERALS	Contamination, accumulation of toxic substances	Changes in Water Quality
AND AGGREGATES	Aggregates removal	Changes in Water Quality Changes to Hydrological Regime
	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Changes in Air Quality Disturbance

Policy	Potential Impacts of Policy	Summary of Potential Effects upon European sites
	Increased traffic movements	Disturbance Changes in Air Quality
	Land take	Habitat Fragmentation & Loss Disturbance Changes to Hydrological Regime Changes in Water Quality Barriers to Dispersal
	Wastewater and Sewage	Changes in Water Quality
	Topography alteration	Changes to Hydrological Regime Changes in Water Quality
KP12: WASTE	Contamination, accumulation of toxic substances	Changes in Water Quality
	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Changes in Air Quality Disturbance
	Increased traffic movements	Disturbance Changes in Air Quality
	Land take	Habitat Fragmentation & Loss Disturbance Changes to Hydrological Regime Changes in Water Quality Barriers to Dispersal
	Wastewater and Sewage	Changes in Water Quality
KP14: HEALTHY LIVING	Increase in population and therefore recreation levels	Disturbance

Policy	Potential Impacts of Policy	Summary of Potential Effects upon European sites
KP15: CLIMATE CHANGE	Wind Turbines	
H1: NON STRATEGIC HOUSING SITES	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Changes in Air Quality Disturbance
	Impacts on surface water run-off	Changes in Water Quality
	Increase in population and therefore recreation levels	Disturbance
	Increased demand for water resources	Changes to Hydrological Regime Changes in Water Quality
	Increased noise and light pollution	Disturbance
	Increased traffic movements	Disturbance Changes in Air Quality
	Land take	Habitat Fragmentation & Loss Disturbance Changes to Hydrological Regime Changes in Water Quality Barriers to Dispersal
	Wastewater and Sewage	Changes in Water Quality

Policy	Potential Impacts of Policy	Summary of Potential Effects upon European sites
H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Changes in Air Quality Disturbance
SITE(S)	Impacts on surface water run-off	Changes in Water Quality
	Increase in population and therefore recreation levels	Disturbance
	Increased demand for water resources	Changes to Hydrological Regime Changes in Water Quality
	Increased noise and light pollution	Disturbance
	Increased traffic movements	Disturbance Changes in Air Quality
	Land take	Habitat Fragmentation & Loss Disturbance Changes to Hydrological Regime Changes in Water Quality Barriers to Dispersal
	Wastewater and Sewage	Changes in Water Quality
H8: SITES FOR GYPSY AND	Impacts on surface water run-off	Changes in Water Quality
TRAVELLER CARAVANS	Increase in population and therefore recreation levels	Disturbance
	Increased demand for water resources	Changes to Hydrological Regime Changes in Water Quality

Policy	Potential Impacts of Policy	Summary of Potential Effects upon European sites
	Increased noise and light pollution	Disturbance
	Increased traffic movements	Disturbance Changes in Air Quality
	Land take	Habitat Fragmentation & Loss Disturbance Changes to Hydrological Regime Changes in Water Quality Barriers to Dispersal
	Wastewater and Sewage	Changes in Water Quality
EC1: EXISTING EMPLOYMENT LAND	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Changes in Air Quality Disturbance
	Impacts on surface water run-off	Changes in Water Quality
	Increase in population and therefore recreation levels	Disturbance
	Increased demand for water resources	Changes to Hydrological Regime Changes in Water Quality
	Increased noise and light pollution	Disturbance
	Increased traffic movements	Disturbance Changes in Air Quality
	Land take	Habitat Fragmentation & Loss Disturbance Changes to Hydrological Regime Changes in Water Quality

Policy	Potential Impacts of Policy	Summary of Potential Effects upon European sites
		Barriers to Dispersal
	Wastewater and Sewage	Changes in Water Quality
EC5: HOTEL DEVELOPMENT	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Changes in Air Quality Disturbance
5212201 III.2111	Impacts on surface water run-off	Changes in Water Quality
	Increased demand for water resources	Changes to Hydrological Regime Changes in Water Quality
	Increased noise and light pollution	Disturbance
	Increased traffic movements	Disturbance Changes in Air Quality
	Land take	Habitat Fragmentation & Loss Disturbance Changes to Hydrological Regime Changes in Water Quality Barriers to Dispersal
	Wastewater and Sewage	Changes in Water Quality

Policy	Potential Impacts of Policy	Summary of Potential Effects upon European sites
EN4: RIVER VALLEYS	Increase in population and therefore recreation levels	Disturbance
EN12: RENEWABLE ENERGY AND LOW CARBON TECHNOLOGIES	Wind Turbines	
T7: STRATEGIC TRANSPORTATION	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Changes in Air Quality Disturbance
INFRASTRUCTURE	Impacts on surface water run-off	Changes in Water Quality
	Increased traffic movements	Disturbance Changes in Air Quality
	Land take	Habitat Fragmentation & Loss Disturbance Changes to Hydrological Regime Changes in Water Quality Barriers to Dispersal
	Laying pipes and cables	Disturbance Changes to Hydrological Regime Changes in Water Quality
T8: STRATEGIC RECREATIONAL ROUTES	Increase in population and therefore recreation levels	Disturbance

Policy	Potential Impacts of Policy	Summary of Potential Effects upon European sites
R1: RETAIL PROVISION WITHIN	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Changes in Air Quality Disturbance
STRATEGIC SITES	Impacts on surface water run-off	Changes in Water Quality
	Increased demand for water resources	Changes to Hydrological Regime Changes in Water Quality
	Increased noise and light pollution	Disturbance
	Increased traffic movements	Disturbance Changes in Air Quality
	Land take	Habitat Fragmentation & Loss Disturbance Changes to Hydrological Regime Changes in Water Quality Barriers to Dispersal
	Wastewater and Sewage	Changes in Water Quality
C1: COMMUNITY FACILITIES	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Changes in Air Quality Disturbance
	Impacts on surface water run-off	Changes in Water Quality
	Increased demand for water resources	Changes to Hydrological Regime Changes in Water Quality
	Increased noise and light pollution	Disturbance

Policy	Potential Impacts of Policy	Summary of Potential Effects upon European sites
	Increased traffic movements	Disturbance Changes in Air Quality
	Land take	Habitat Fragmentation & Loss Disturbance Changes to Hydrological Regime Changes in Water Quality Barriers to Dispersal
	Wastewater and Sewage	Changes in Water Quality
C8: PLANNING FOR SCHOOLS.	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Changes in Air Quality Disturbance
	Impacts on surface water run-off	Changes in Water Quality
	Increased demand for water resources	Changes to Hydrological Regime Changes in Water Quality
	Increased noise and light pollution	Disturbance
	Increased traffic movements	Disturbance Changes in Air Quality
	Land take	Habitat Fragmentation & Loss Disturbance Changes to Hydrological Regime Changes in Water Quality Barriers to Dispersal
	Wastewater and Sewage	Changes in Water Quality

Policy	Potential Impacts of Policy	Summary of Potential Effects upon European sites
C9: NEW	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Changes in Air Quality Disturbance
FACILITIES	Impacts on surface water run-off	Changes in Water Quality
	Increased demand for water resources	Changes to Hydrological Regime Changes in Water Quality
	Increased noise and light pollution	Disturbance
	Increased traffic movements	Disturbance Changes in Air Quality
	Land take	Habitat Fragmentation & Loss Disturbance Changes to Hydrological Regime Changes in Water Quality Barriers to Dispersal
	Wastewater and Sewage	Changes in Water Quality
C10: HEALTH EMPLOYMENT NON STRATEGIC	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Changes in Air Quality Disturbance
ALLOCATION	Impacts on surface water run-off	Changes in Water Quality
	Increased demand for water resources	Changes to Hydrological Regime Changes in Water Quality
	Increased noise and light pollution	Disturbance

Policy	Potential Impacts of Policy	Summary of Potential Effects upon European sites
	Increased traffic movements	Disturbance Changes in Air Quality
	Land take	Habitat Fragmentation & Loss Disturbance Changes to Hydrological Regime Changes in Water Quality Barriers to Dispersal
	Wastewater and Sewage	Changes in Water Quality
M1: MINERAL	Contamination, accumulation of toxic substances	Changes in Water Quality
LIMESTONE RESERVES AND RESOURCES	Aggregates removal	Changes in Water Quality Changes to Hydrological Regime
RESOURCES	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Changes in Air Quality Disturbance
	Increased traffic movements	Disturbance Changes in Air Quality
	Land take	Habitat Fragmentation & Loss Disturbance Changes to Hydrological Regime Changes in Water Quality Barriers to Dispersal
	Wastewater and Sewage	Changes in Water Quality
	Topography alteration	Changes to Hydrological Regime Changes in Water Quality

Policy	Potential Impacts of Policy	Summary of Potential Effects upon European sites
M3: QUARRY	Contamination, accumulation of toxic substances	Changes in Water Quality
CLOSURES AND EXTENSION LIMITS	Aggregates removal	Changes in Water Quality Changes to Hydrological Regime
	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Changes in Air Quality Disturbance
	Increased traffic movements	Disturbance Changes in Air Quality
	Land take	Habitat Fragmentation & Loss Disturbance Changes to Hydrological Regime Changes in Water Quality Barriers to Dispersal
	Wastewater and Sewage	Changes in Water Quality
	Topography alteration	Changes to Hydrological Regime Changes in Water Quality
M5: RESTORATION	Contamination, accumulation of toxic substances	Changes in Water Quality
AND AFTER USE OF MINERAL WORKINGS	Aggregates removal	Changes in Water Quality Changes to Hydrological Regime
	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Changes in Air Quality Disturbance
	Increased traffic movements	Disturbance Changes in Air Quality

Policy	Potential Impacts of Policy	Summary of Potential Effects upon European sites
	Land take  Wastewater and Sewage	Habitat Fragmentation & Loss Disturbance Changes to Hydrological Regime Changes in Water Quality Barriers to Dispersal Changes in Water Quality
	Topography alteration	Changes in Water Quality  Changes to Hydrological Regime Changes in Water Quality
M6: DREDGED AGGREGATE LANDING AND	Contamination, accumulation of toxic substances  Aggregates removal	Changes in Water Quality Changes in Water Quality Changes to Hydrological Regime
DISTRIBUTION FACILITIES	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Changes in Air Quality Disturbance
	Increased traffic movements	Disturbance Changes in Air Quality
	Land take	Habitat Fragmentation & Loss Disturbance Changes to Hydrological Regime Changes in Water Quality Barriers to Dispersal
	Wastewater and Sewage	Changes in Water Quality
W1: LAND FOR	Contamination, accumulation of toxic substances	Changes in Water Quality

Policy	Potential Impacts of Policy	Summary of Potential Effects upon European sites
WASTE MANAGEMENT	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Changes in Air Quality Disturbance
	Increased traffic movements	Disturbance Changes in Air Quality
	Land take	Habitat Fragmentation & Loss Disturbance Changes to Hydrological Regime Changes in Water Quality Barriers to Dispersal
	Wastewater and Sewage	Changes in Water Quality
W2: SITES FOR	Contamination, accumulation of toxic substances	Changes in Water Quality
WASTE MANAGEMENT FACILITIES	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Changes in Air Quality Disturbance
	Increased traffic movements	Disturbance Changes in Air Quality
	Land take	Habitat Fragmentation & Loss Disturbance Changes to Hydrological Regime Changes in Water Quality Barriers to Dispersal
	Wastewater and Sewage	Changes in Water Quality
W3: PROVISION FOR	Contamination, accumulation of toxic substances	Changes in Water Quality

Policy	Potential Impacts of Policy	Summary of Potential Effects upon European sites
WASTE MANAGEMENT FACILITIES IN	Dust, noise, vibration, movement and odour associated with industrial and construction processes	Changes in Air Quality Disturbance
DEVELOPMENT	Increased traffic movements	Disturbance Changes in Air Quality
	Land take	Habitat Fragmentation & Loss Disturbance Changes to Hydrological Regime Changes in Water Quality Barriers to Dispersal
	Wastewater and Sewage	Changes in Water Quality



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Habitat Regulations Assessment Report:
Appendix 6 - Screening of Vulnerabilities for each Site
September 2013



## Appendix 6 – SCREENING OF VULNERABILITIES / SENSITIVITIES OF EACH SITE FOR RELEVANCE TO DEPOSIT LDP

Where a site features is vulnerable or sensitive to any effect arising from the Deposit LDP, this is indicated with a tick  $(\checkmark)$ 

Site Name:	Vulnerabilities/Sensitivities	Relevance of Vulnerability/Sensitivity to Deposit LDP	Further Consideration in HRA
Aberbargoed Grasslands SAC	<ul> <li>Parasites (parasitic wasps affecting Marsh Fritillary Butterfiles)</li> </ul>	A development plan for Cardiff cannot influence levels of parasitism on Marsh Fritillary Butterflies living on this site, which is about 14Km away from Cardiff.	*
	Direct habitat Loss	Site is in Caerphilly CBC,and about 14Km from Cardiff, so development in Cardiff cannot result in land-take at this site.	*
	Aerial Pollution	There is the potential for diffuse pollution arising from Cardiff to reach this site.	✓
	<ul> <li>Inappropriate grazing levels</li> </ul>	A development plan for Cardiff cannot influence levels of grazing on this site, which is about 14Km away from Cardiff.	×
	Off-road vehicle use	A development plan for Cardiff cannot influence levels of off-road vehicle use on this site, which is about 14Km away from Cardiff.	×
Blackmill Woodlands SAC	<ul> <li>Inappropriate grazing levels</li> </ul>	A development plan for Cardiff cannot influence levels of grazing on this site, which is about 14Km away from Cardiff.	×
	<ul><li>Air pollution</li></ul>	There is the potential for diffuse pollution arising from Cardiff to reach this site.	✓
	Direct Habitat Loss	Site is in Bridgend CBC, and about 14Km from Cardiff, so development in Cardiff cannot result in land-take at this site.	×
Cardiff Beech Woods	Recreational pressure	There is the potential for an increase in	✓

Site Name:	Vulnerabilities/Sensitivities	Relevance of Vulnerability/Sensitivity to Deposit LDP	Further Consideration in HRA
SAC		recreational pressure to arise from a local development plan, and subsequently impact upon this site.	
	Atmospheric Pollution	There is the potential for diffuse pollution arising from new development and infrastructure within Cardiff to impact upon this site.	✓
	Mineral extraction and related activities	Mineral extraction sites are close to this SAC, so this activity, together with subsequent quarry restoration activities, as the potential to impact upon this site.	✓
	Development	General effects of development not considered under other vulnerabilities/sensitivites have the potential to affect this site	✓
	Non-native species	The development plan itself could not lead to invasive non-native species affecting this site. An increase in recreational use may lead to an increase in dispersal of non-native species' seeds, but this would be accounted for under 'recreational pressure', above,	*
	Changes to Local Hydrology	Any development close to this site would have the potential to affect local hydrology within it.	✓
River Usk SAC	Abstraction levels	A proportion of Cardiff's water supply may be abstracted from this river, so increased housing, industry, and amenity building within Cardiff could lead to increased abstraction levels at this site.	✓
	<ul><li>Eutrophication</li></ul>	Sewage from Cardiff is ultimately discharged into the Severn Estuary, following treatment, so there is potential for this treated material to enter the River usk and affect its features.	<b>√</b>
	Diffuse Pollution	There is the potential for diffuse pollution from Cardiff to be deposited in the River Usk and its	<b>√</b>

Site Name:	Vulnerabilities/Sensitivities	Relevance of Vulnerability/Sensitivity to Deposit LDP	Further Consideration in HRA
		catchment, and affect the River Usk SAC features.	
	Barriers to migration	The River Usk is about 6 Km from Cardiff so there is no possibility that development in Cardiff will impede fish or Otter migration within the River itself.	*
	<ul> <li>Development pressure</li> </ul>	A development plan in Cardiff will not result in development near the River Usk, which is in Newport at its neares point to Cardiff.	*
	Invasive non-native plants	A development plan in Cardiff will not result in the spread of invasive non-native plant species in or next to the River Usk, which is in Newport.	*
	Artificially enhanced densities of other fish	A development plan in Cardiff will not artificially alter the densities of fish species in River Usk, which is in Newport. Any effects of the development plan upon Severn Estuary fish populations, which may then subsequently affect those in the River Usk, will be dealt with under consideration of the Severn Estuary, below.	*
	External factors	Any effects of the development plan upon Severn Estuary habitats and species, which may then subsequently affect those in the River Usk, will be dealt with under consideration of the Severn Estuary, below.	*
River Wye SAC	Abstraction levels	A proportion of Cardiff's water supply may be abstracted from this river, so increased housing, industry, and amenity building within Cardiff could lead to increased abstraction levels at this site.	✓
	<ul><li>Eutrophication</li></ul>	Sewage from Cardiff is ultimately discharged into the Severn Estuary, following treatment, so there is potential for this treated material to enter the	√

Site Name:	Vulnerabilities/Sensitivities	Relevance of Vulnerability/Sensitivity to Deposit LDP	Further Consideration in HRA
	Diffuse Pollution	River Wye and affect its features.  There is the potential for diffuse pollution from Cardiff to be deposited in the River Wye and its catchment, and affect the River Wye SAC features.	✓
	Barriers to migration	The River Wye is about 14 Km from Cardiff so there is no possibility that development in Cardiff will impede fish or Otter migration within the River itself.	×
	<ul> <li>Development pressure</li> </ul>	A development plan in Cardiff will not result in development near the River Wye, which is in Monmouthsire at its nearest point to Cardiff.	×
	<ul> <li>Invasive non-native species</li> </ul>	A development plan in Cardiff will not result in the spread of invasive non-native plant species in or next to the River Wye, which is in Monmouthsire at its nearest point to Cardiff.	*
	Artificially enhanced densities of other fish	A development plan in Cardiff will not artificially alter the densities of fish species in River Wye, which is in Monmouthsire. Any effects of the development plan upon Severn Estuary fish populations, which may then subsequently affect those in the River Wye, will be dealt with under consideration of the Severn Estuary, below.	×
	External factors	Any effects of the development plan upon Severn Estuary habitats and species, which may then subsequently affect those in the River Wye, will be dealt with under consideration of the Severn Estuary, below.	×
Severn Estuary SAC	Physical loss of supporting habitats through removal	There is the potential for development arising from a land use plan to cause physical loss of habitat.	✓
	<ul> <li>Contamination by synthetic and/or non-synthetic</li> </ul>	There is the potential for development arising	✓

Site Name:	Vulnerabilities/Sensitivities	Relevance of Vulnerability/Sensitivity to Deposit LDP	Further Consideration in HRA
	toxic compounds	from a land use plan to lead to release of toxic compounds, which could affect the features of this site.	
	Damage by abrasion or selective extraction	There is the potential for development arising from a land use plan to lead to abrasion or selective extraction, resulting in loss of habitat.	✓
	Changes in nutrient and/or organic loading	There is the potential for changes in nutrient and organic loading to arise from a land use plan.	✓
	Inappropriate grazing of Saltmarsh	A development plan would not cause or control grazing on these habitats.	×
Severn Estuary SPA	Physical loss of habitats through removal	There is the potential for development arising from a land use plan to cause physical loss of habitat.	<b>√</b>
	Noise, visual disturbance or direct harm to birds	Construction and operation of development could cause disturbance to species which are a feature of this site.	✓
	<ul> <li>Contamination by synthetic and/or non-synthetic toxic compounds</li> </ul>	There is the potential for development arising from a land use plan to lead to release of toxic compounds, which could affect the features of this site.	<b>√</b>
	Damage by abrasion or selective extraction	There is the potential for development arising from a land use plan to lead to abarasion or selective extraction, resulting in loss of habitat.	<b>√</b>
	Changes in nutrient and/or organic loading	There is the potential for changes in nutrient and organic loading to arise from a land use plan.	✓
	Biological disturbance through the selective extraction of species	A development plan would not cause or control fishing or wildfowling which are the principal means of selective extraction of species.	×
Severn Estuary Ramsar	<ul> <li>Physical loss of supporting habitats through removal</li> </ul>	There is the potential for development arising from a land use plan to cause physical loss of habitat.	<b>√</b>
	Noise, visual disturbance or direct harm to birds	Construction and operation of development	✓

Site Name:	Vulnerabilities/Sensitivities	Relevance of Vulnerability/Sensitivity to Deposit LDP	Further Consideration in HRA
		could cause disturbance to species which are a feature of this site.	
	<ul> <li>Contamination by synthetic and/or non-synthetic toxic compounds</li> </ul>	There is the potential for development arising from a land use plan to lead to release of toxic compounds, which could affect the features of this site.	<b>√</b>
	Damage by abrasion or selective extraction	There is the potential for development arising from a land use plan to lead to abarasion or selective extraction, resulting in loss of habitat.	<b>√</b>
	Changes in nutrient and/or organic loading	There is the potential for changes in nutrient and organic loading to arise from a land use plan.	✓
	Biological disturbance through the selective extraction of species	A development plan would not cause or control fishing or wildfowling which are the principal means of selective extraction of species.	×



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Habitat Regulations Assessment Report: Appendix 7 - Screened-in Vulnerabilities



## Appendix 7 – SUMMARY OF SCREENED-IN VULNERABILITIES / SENSITIVITIES FOR EACH SITE

Where a site features is vulnerable or sensitive to any effect arising from the Deposit LDP, this is indicated with a tick ( $\checkmark$ )

Site Name:	Vulnerabilities/Sensitivities	Relevance of Vulnerability/Sensitivity to Draft Deposit LDP	Further Consideration in HRA
Aberbargoed Grasslands SAC	Aerial Pollution	There is the potential for diffuse pollution arising from Cardiff to reach this site.	✓
Blackmill Woodlands SAC	Aerial Pollution	There is the potential for diffuse pollution arising from Cardiff to reach this site.	✓
Cardiff Beech Woods SAC	Recreational pressure	There is the potential for an increase in recreational pressure to arise from a local development plan, and subsequently impact upon this site.	✓
	Aerial Pollution	There is the potential for diffuse pollution arising from new development and infrastructure within Cardiff to impact upon this site.	✓
	Mineral extraction and related activities	Mineral extraction sites are close to this SAC, so this activity, together with subsequent quarry restoration activities, as the potential to impact upon this site.	✓
	<ul><li>Development</li></ul>	General effects of development not considered under other vulnerabilities/sensitivites have the potential to affect this site	✓
	Changes to Local Hydrology	Any development close to this site would have the potential to affect local hydrology within it.	<b>√</b>
River Usk SAC	Abstraction levels	A proportion of Cardiff's water supply may be abstracted from this river, so increased housing, industry, and amenity building within Cardiff	✓

Site Name:	Vulnerabilities/Sensitivities	Relevance of Vulnerability/Sensitivity to Draft Deposit LDP	Further Consideration in HRA
		could lead to increased abstraction levels at this site.	
	<ul> <li>Eutrophication</li> </ul>	Sewage from Cardiff is ultimately discharged into the Severn Estuary, following treatment, so there is potential for this treated material to enter the River usk and affect its features.	✓
	<ul> <li>Aerial Pollution</li> </ul>	There is the potential for diffuse pollution from Cardiff to be deposited in the River Usk and its catchment, and affect the River Usk SAC features.	✓
River Wye SAC	Abstraction levels	A proportion of Cardiff's water supply may be abstracted from this river, so increased housing, industry, and amenity building within Cardiff could lead to increased abstraction levels at this site.	✓
	<ul><li>Eutrophication</li></ul>	Sewage from Cardiff is ultimately discharged into the Severn Estuary, following treatment, so there is potential for this treated material to enter the River Wye and affect its features.	<b>√</b>
	<ul> <li>Aerial Pollution</li> </ul>	There is the potential for diffuse pollution from Cardiff to be deposited in the River Wye and its catchment, and affect the River Wye SAC features.	✓
Severn Estuary SAC	<ul> <li>Physical loss of supporting habitats through removal</li> </ul>	There is the potential for development arising from a land use plan to cause physical loss of habitat.	✓
	<ul> <li>Contamination by synthetic and/or non-synthetic toxic compounds</li> </ul>	There is the potential for development arising from a land use plan to lead to release of toxic compounds, which could affect the features of this site.	<b>√</b>
	Damage by abrasion or selective extraction	There is the potential for development arising from a land use plan to lead to abrasion or	✓

Site Name:	Vulnerabilities/Sensitivities	Relevance of Vulnerability/Sensitivity to Draft Deposit LDP	Further Consideration in HRA
		selective extraction, resulting in loss of habitat.	
	Changes in nutrient and/or organic loading	There is the potential for changes in nutrient and organic loading to arise from a land use plan.	✓
Severn Estuary SPA	Physical loss of habitats through removal	There is the potential for development arising from a land use plan to cause physical loss of habitat.	✓
	Noise, visual disturbance or direct harm to birds	Construction and operation of development could cause disturbance to species which are a feature of this site.	<b>√</b>
	Contamination by synthetic and/or non-synthetic toxic compounds	There is the potential for development arising from a land use plan to lead to release of toxic compounds, which could affect the features of this site.	✓
	Damage by abrasion or selective extraction	There is the potential for development arising from a land use plan to lead to abarasion or selective extraction, resulting in loss of habitat.	<b>√</b>
	Changes in nutrient and/or organic loading	There is the potential for changes in nutrient and organic loading to arise from a land use plan.	✓
Severn Estuary Ramsar	<ul> <li>Physical loss of supporting habitats through removal</li> </ul>	There is the potential for development arising from a land use plan to cause physical loss of habitat.	<b>√</b>
	Noise, visual disturbance or direct harm to birds	Construction and operation of development could cause disturbance to species which are a feature of this site.	<b>√</b>
	<ul> <li>Contamination by synthetic and/or non-synthetic toxic compounds</li> </ul>	There is the potential for development arising from a land use plan to lead to release of toxic compounds, which could affect the features of this site.	✓
	Damage by abrasion or selective extraction	There is the potential for development arising from a land use plan to lead to abarasion or selective extraction, resulting in loss of habitat.	<b>√</b>
	Changes in nutrient and/or organic loading	There is the potential for changes in nutrient and	✓

Site Name:	Vulnerabilities/Sensitivities	Relevance of Vulnerability/Sensitivity to Draft Deposit LDP	Further Consideration in HRA
		organic loading to arise from a land use plan.	



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# Habitat Regulations Assessment Report: Appendix 8 - Comparison of Potential Effects with Screened-in Vulnerabilities September 2013



## Appendix 8 – COMPARISON OF GENERIC POTENTIAL IMPACTS OF EACH POLICY WITH SCREENED-IN VULNERABILITIES / SENSITIVITIES OF EACH EUROPEAN SITE

Where a a site's vulnerability or sensitivity coincides with a potential effect arising from a policy, this is indicated with a tick (✓)

							Desi	gnate	ed Sites	s and t	he Fa	ctors t	o Whic	ch The	ir Feat	ures a	re Vul	nerabl	e/Sen	sitive (	(From	Apper	ndix 7)					
		Aberbargoed grasslands SAC	ackmill odlands SA	C	Cardiff	Beecl SAC	h Woo	ds	Riv	er Usk	SAC	Riv	er Wye	e SAC	Sev	ern Es	stuary	SAC		Severr	n Estu	ary SF	PA	S	evern	Estuar	'y Ran	nsar
Policy	Potential Impacts of Policy (From Appendix 5)	Aerial Pollution	Aerial Pollution	Recreational pressure	Aerial Pollution	Mineral extraction and related activities	Development	Changes to Local Hydrology	Abstraction levels	Eutrophication	Aerial Pollution	Abstraction levels	Eutrophication	Aerial Pollution	Physical loss of supporting habitats	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of supporting habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading
KP1: LEVEL OF GROWTH	Dust, noise, vibration movement and odour associated with industrial and construction processes	<b>√</b>	<b>√</b>	×	✓	×	×	×	×	✓	✓	×	<b>√</b>	<b>√</b>	×	×	×	✓	×	✓	×	*	✓	×	✓	×	*	<b>√</b>
	Impacts on surface water run-off	×	×	×	×	×	×	×	×	<b>√</b>	×	×	<b>✓</b>	×	×	<b>√</b>	×	<b>✓</b>	×	×	<b>√</b>	×	<b>√</b>	×	×	<b>√</b>	×	<b>√</b>
	Increase in population and therefore recreation levels	×	×	<b>✓</b>	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	<b>✓</b>	×	×	×	×	<b>✓</b>	×	×	×
	Increased demand for water resources	*	×	×	×	×	×	*	<b>✓</b>	×	×	<b>√</b>	×	×	×	×	×	×	×	×	×	*	×	×	×	×	×	×
	Increased noise and light pollution	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	<b>✓</b>	×	×	×	×	<b>✓</b>	×	×	×
	Increased traffic movements	✓	<b>✓</b>	×	<b>√</b>	×	×	*	×	×	<b>√</b>	×	×	<b>√</b>	×	<b>√</b>	×	×	×	<b>√</b>	<b>√</b>	×	×	×	<b>✓</b>	<b>✓</b>	×	×

							Desi	gnate	d Sites	and t	he Fac	ctors to	o Whic	h The	ir Feat	ures a	re Vul	nerabl	e/Sen:	sitive (	(From	Appen	dix 7)					
		Aberbargoed grasslands SAC	ဟ	C	ardiff	Beech SAC		ds	Rive	er Usk	SAC	Rive	er Wye	SAC	Sev	ern Es	stuary	SAC		Severi	n Estu	ary SP	A	Se	evern I	Estuar	y Ran	nsar
Policy	Potential Impacts of Policy (From Appendix 5)	Aerial Pollution	Aerial Pollution	Recreational pressure	Aerial Pollution	Mineral extraction and related activities	Development	Changes to Local Hydrology	Abstraction levels	Eutrophication	Aerial Pollution	Abstraction levels	Eutrophication	Aerial Pollution	Physical loss of supporting habitats	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of supporting habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading
	Land take	×	×	×	×	×	✓	✓	×	×	×	×	×	×	✓	×	×	×	✓	×	×	×	×	✓	×	×	×	×
	Wastewater and Sewage	×	×	×	×	×	×	×	×	<b>√</b>	×	×	<b>√</b>	×	×	<b>√</b>	×	<b>√</b>	×	×	<b>✓</b>	×	<b>√</b>	×	×	<b>√</b>	×	<b>✓</b>
KP2: STRATEGIC SITES	Dust, noise, vibration, movement and odour associated with industrial and construction processes	<b>√</b>	<b>√</b>	*	<b>√</b>	×	×	*	×	<b>√</b>	<b>√</b>	×	<b>√</b>	<b>√</b>	×	×	×	✓	×	<b>√</b>	*	×	✓	×	<b>√</b>	×	×	<b>√</b>
	Impacts on surface water run-off	×	×	×	×	×	×	×	×	<b>√</b>	×	×	<b>√</b>	×	×	✓	×	<b>√</b>	×	×	✓	×	<b>√</b>	×	×	<b>√</b>	×	<b>✓</b>
	Increase in population and therefore recreation levels	×	×	<b>√</b>	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	<b>✓</b>	×	×	×	×	<b>✓</b>	×	×	×
	Increased demand for water resources	×	×	×	×	×	×	×	<b>√</b>	×	×	<b>✓</b>	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	Increased noise and light pollution	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	<b>√</b>	×	×	×	×	✓	×	×	×
	Increased traffic movements	<b>√</b>	<b>√</b>	×	<b>√</b>	×	×	×	×	×	<b>✓</b>	×	×	<b>✓</b>	×	<b>√</b>	×	×	×	<b>√</b>	<b>✓</b>	×	×	×	<b>√</b>	<b>√</b>	×	×
	Land take	×	×	×	*	×	✓	<b>√</b>	×	*	*	*	*	×	<b>✓</b>	*	×	×	<b>✓</b>	×	×	×	×	<b>✓</b>	×	*	×	×

							Desi	gnate	d Sites	and t	he Fac	ctors to	o Whic	h The	ir Feat	tures a	re Vul	nerabl	e/Sens	sitive (	(From	Appen	dix 7)					
		Aberbargoed grasslands SAC	S	C	Cardiff	Beech SAC		ds	Rive	er Usk	SAC	Rive	er Wye	sAC	Sev	vern E	stuary	SAC		Severr	n Estu	ary SP	Α	Se	evern I	Estuar	y Ran	nsar
Policy	Potential Impacts of Policy (From Appendix 5)	Aerial Pollution	Aerial Pollution	Recreational pressure	Aerial Pollution	Mineral extraction and related activities	Development	Changes to Local Hydrology	Abstraction levels	Eutrophication	Aerial Pollution	Abstraction levels	Eutrophication	Aerial Pollution	Physical loss of supporting habitats	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of supporting habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading
	Wastewater and Sewage	×	×	×	×	×	×	×	×	<b>√</b>	×	×	✓	×	×	✓	×	<b>√</b>	×	×	✓	×	✓	×	×	<b>√</b>	×	✓
KP6: NEW INFRASTRUCTURE	Dust, noise, vibration, movement and odour associated with industrial and construction processes	<b>√</b>	<b>√</b>	×	✓	×	×	×	×	<b>√</b>	<b>√</b>	×	<b>√</b>	<b>√</b>	*	*	×	✓	×	<b>√</b>	*	×	<b>√</b>	×	✓	×	×	<b>√</b>
	Impacts on surface water run-off	×	×	×	×	×	×	×	×	<b>√</b>	×	×	<b>√</b>	×	×	<b>✓</b>	×	<b>√</b>	×	×	<b>✓</b>	×	<b>√</b>	×	×	<b>✓</b>	×	<b>✓</b>
	Increased traffic movements	<b>√</b>	<b>√</b>	×	<b>√</b>	×	×	×	×	*	<b>√</b>	×	×	<b>√</b>	×	<b>✓</b>	×	×	×	<b>√</b>	<b>√</b>	×	×	×	<b>✓</b>	<b>✓</b>	×	×
	Land take	×	×	×	×	×	<b>√</b>	<b>√</b>	×	×	×	×	×	×	<b>✓</b>	×	×	×	✓	×	×	×	×	<b>✓</b>	×	×	×	×
	Laying pipes and cables	*	×	×	×	×	×	<b>✓</b>	×	*	×	*	×	*	*	×	*	×	×	<b>√</b>	*	×	×	*	<b>✓</b>	×	×	×
KP9: RESPONDING TO	Dust, noise, vibration, movement and odour associated with industrial and construction processes	<b>✓</b>	<b>✓</b>	*	<b>✓</b>	×	×	×	×	<b>✓</b>	<b>✓</b>	*	<b>✓</b>	<b>✓</b>	*	×	×	<b>✓</b>	×	<b>✓</b>	*	×	<b>✓</b>	×	<b>✓</b>	×	×	<b>✓</b>

							Desi	gnate	d Sites	and t	he Fac	ctors to	Whic	h The	ir Feat	ures a	re Vul	nerabl	e/Sen	sitive (	(From	Appen	dix 7)					
		Aberbargoed grasslands SAC	ဟ	C	ardiff	Beech SAC		ds	Rive	er Usk	SAC	Rive	er Wye	SAC	Sev	vern Es	stuary	SAC		Severi	n Estu	ary SP	A	Se	evern E	Estuar	y Ran	<b>ısar</b>
Policy	Potential Impacts of Policy (From Appendix 5)	Aerial Pollution	Aerial Pollution	Recreational pressure	Aerial Pollution	Mineral extraction and related activities	Development	Changes to Local Hydrology	Abstraction levels	Eutrophication	Aerial Pollution	Abstraction levels	Eutrophication	Aerial Pollution	Physical loss of supporting habitats	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of supporting habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading
EVIDENCED ECONOMIC NEEDS																												
(Employment)	Impacts on surface water run-off	×	×	×	×	×	×	*	×	<b>✓</b>	×	×	<b>✓</b>	×	×	<b>✓</b>	×	<b>✓</b>	×	×	<b>✓</b>	×	<b>✓</b>	×	×	✓	×	<b>√</b>
	Increase in population and therefore recreation levels	×	×	✓	*	×	×	*	×	×	×	×	×	×	×	×	×	×	×	<b>✓</b>	*	×	×	×	<b>✓</b>	×	×	×
	Increased demand for water resources	*	×	×	*	×	*	×	<b>√</b>	*	×	<b>√</b>	*	×	*	*	×	×	×	×	×	×	*	×	×	×	×	×
	Increased noise and light pollution	×	×	×	×	×	×	×	×	×	*	×	×	×	×	×	×	×	×	<b>✓</b>	×	×	×	×	<b>✓</b>	×	×	×
	Increased traffic movements	<b>√</b>	<b>√</b>	×	<b>√</b>	*	×	×	×	×	<b>✓</b>	×	*	<b>√</b>	×	<b>✓</b>	×	×	×	<b>✓</b>	<b>✓</b>	×	×	×	<b>✓</b>	<b>√</b>	×	×
	Land take	*	×	×	×	×	<b>√</b>	<b>✓</b>	×	*	*	×	×	×	<b>✓</b>	×	×	×	<b>✓</b>	×	×	×	×	<b>✓</b>	×	×	×	×

							Desi	gnate	d Sites	and t	he Fac	ctors to	o Whic	h The	ir Feat	ures a	re Vul	nerabl	e/Sen	sitive (	(From	Appen	dix 7)					
		Aberbargoed grasslands SAC	ဟ	C	Cardiff	Beech SAC	Wood	ds	Rive	r Usk	SAC	Rive	er Wye	SAC	Sev	vern Es	stuary	SAC		Severr	n Estu	ary SP	A	Se	evern E	Estuar	y Ran	isar
Policy	Potential Impacts of Policy (From Appendix 5)	Aerial Pollution	Aerial Pollution	Recreational pressure	Aerial Pollution	Mineral extraction and related activities	Development	Changes to Local Hydrology	Abstraction levels	Eutrophication	Aerial Pollution	Abstraction levels	Eutrophication	Aerial Pollution	Physical loss of supporting habitats	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of supporting habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading
KP10: CENTRAL AND BAY BUSINESS AREAS	Dust, noise, vibration, movement and odour associated with industrial and construction processes	✓	<b>√</b>	×	✓	×	×	×	*	✓	✓	×	✓	✓	×	×	×	✓	×	✓	×	×	✓	×	✓	×	×	<b>√</b>
BOSINESS AREAS	Impacts on surface water run-off	*	×	×	×	×	×	×	*	<b>√</b>	×	×	<b>√</b>	×	×	<b>✓</b>	×	<b>✓</b>	×	×	<b>√</b>	×	<b>√</b>	×	×	<b>√</b>	×	<b>✓</b>
	Increase in population and therefore recreation levels	×	×	✓	×	*	×	×	×	×	×	×	×	×	×	×	×	×	×	✓	×	×	×	×	<b>√</b>	×	×	×
	Increased demand for water resources	×	*	×	×	×	×	×	<b>√</b>	×	×	<b>√</b>	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	Increased noise and light pollution	×	*	×	×	×	×	×	*	×	×	×	×	×	×	×	×	×	×	✓	×	×	×	×	<b>✓</b>	×	×	×
	Increased traffic movements	<b>√</b>	<b>√</b>	×	✓	×	*	×	×	×	<b>✓</b>	×	×	✓	×	<b>√</b>	×	×	×	✓	<b>√</b>	×	×	×	<b>√</b>	✓	×	×
	Land take	×	×	×	×	×	<b>√</b>	<b>√</b>	×	×	×	×	×	×	<b>√</b>	×	×	×	<b>√</b>	×	×	×	×	<b>√</b>	×	×	×	×

							Desi	gnate	ed Site	s and t	he Fac	ctors to	o Whic	h The	eir Feat	tures a	re Vul	nerab	le/Sen	sitive	(From	Apper	ndix 7)					
		Aberbargoed grasslands SAC	S	C	Cardiff	f Beecl SAC		ds	Riv	er Usk	SAC	Rive	er Wye	sAC	Sev	vern E	stuary	SAC		Severi	n Estu	ary SP	Ά	S	evern I	Estuar	y Ran	nsar
Policy	Potential Impacts of Policy (From Appendix 5)	Aerial Pollution	Aerial Pollution	Recreational pressure	Aerial Pollution	Mineral extraction and related activities	Development	Changes to Local Hydrology	Abstraction levels	Eutrophication	Aerial Pollution	Abstraction levels	Eutrophication	Aerial Pollution	Physical loss of supporting habitats	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of supporting habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading
KP11: MINERALS AND	Contamination, accumulation of toxic substances	×	×	×	×	✓	×	×	×	×	×	×	×	×	×	✓	×	×	×	×	<b>√</b>	×	×	×	×	✓	×	×
AGGREGATES	Aggregates removal	✓	<b>✓</b>	×	<b>✓</b>	<b>√</b>	*	<b>✓</b>	×	×	<b>√</b>	×	×	<b>✓</b>	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	Dust, noise, vibration, movement and odour associated with industrial and construction processes	<b>√</b>	<b>√</b>	×	<b>√</b>	*	*	×	×	✓	<b>✓</b>	*	<b>√</b>	<b>✓</b>	*	*	×	<b>√</b>	*	<b>√</b>	*	*	<b>√</b>	*	<b>✓</b>	×	×	✓
	Increased traffic movements	✓	<b>✓</b>	×	<b>✓</b>	×	×	×	×	×	<b>√</b>	×	×	<b>✓</b>	×	<b>√</b>	×	×	×	<b>√</b>	<b>✓</b>	×	×	×	<b>√</b>	<b>√</b>	×	×
	Land take	×	×	×	×	×	<b>√</b>	<b>√</b>	×	×	×	×	×	×	<b>✓</b>	×	×	×	<b>√</b>	×	×	×	×	<b>√</b>	×	×	×	×
	Wastewater and Sewage	×	×	×	×	×	*	×	×	<b>✓</b>	×	×	<b>✓</b>	×	×	<b>√</b>	*	✓	×	×	<b>✓</b>	*	<b>✓</b>	*	×	✓	×	✓
KP12: WASTE	Contamination, accumulation of toxic substances	×	×	×	×	<b>✓</b>	*	×	×	×	×	×	×	×	×	<b>✓</b>	×	×	×	×	<b>✓</b>	×	×	*	×	✓	×	×

							Desi	gnate	d Sites	s and t	he Fac	ctors to	o Whic	h The	ir Fea	tures a	are Vul	nerab	e/Sen	sitive	(From	Apper	ndix 7)					
		Aberbargoed grasslands SAC	တ	C	Cardiff	Beech SAC		ds	Rive	er Usk	SAC	Rive	er Wye	e SAC	Se	vern E	stuary	SAC		Sever	n Estu	ary SP	'A	S	evern I	Estuar	y Rar	nsar
Policy	Potential Impacts of Policy (From Appendix 5)	Aerial Pollution	Aerial Pollution	Recreational pressure	Aerial Pollution	Mineral extraction and related activities	Development	Changes to Local Hydrology	Abstraction levels	Eutrophication	Aerial Pollution	Abstraction levels	Eutrophication	Aerial Pollution	Physical loss of supporting habitats	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of supporting habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading
	Dust, noise, vibration, movement and odour associated with industrial and construction processes	<b>√</b>	<b>√</b>	×	✓	×	×	×	×	<b>√</b>	<b>√</b>	×	✓	<b>√</b>	×	×	×	<b>√</b>	×	✓	×	×	✓	×	<b>√</b>	×	×	✓
	Increased traffic movements	✓	✓	×	<b>√</b>	×	×	×	×	×	<b>√</b>	×	×	<b>√</b>	×	<b>✓</b>	×	×	*	<b>✓</b>	<b>✓</b>	*	×	×	<b>√</b>	<b>✓</b>	×	×
	Land take	*	×	×	×	×	<b>✓</b>	<b>√</b>	×	*	×	×	×	×	<b>√</b>	×	×	*	<b>✓</b>	×	×	×	×	<b>✓</b>	×	×	×	×
	Wastewater and Sewage	×	×	×	×	×	×	×	×	✓	×	×	<b>√</b>	*	×	<b>✓</b>	×	✓	*	*	<b>√</b>	*	<b>√</b>	×	*	<b>✓</b>	×	<b>√</b>
KP14: HEALTHY LIVING	Increase in population and therefore recreation levels	×	×	✓	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	<b>√</b>	×	×	×	×	<b>√</b>	×	×	×
KP15: CLIMATE CHANGE	Installation of wind turbines	×	×	×	×	×	×	×	×	*	*	*	×	*	<b>✓</b>	×	×	*	<b>✓</b>	<b>√</b>	×	*	×	<b>√</b>	<b>√</b>	×	×	×

							Desi	gnate	d Sites	and t	he Fac	tors to	Whic	h The	ir Feat	ures a	re Vul	nerabl	e/Sen	sitive (	(From	Appen	dix 7)					
		Aberbargoed grasslands SAC	ဟ	C	Cardiff	Beech SAC	Wood	ds	Rive	r Usk	SAC	Rive	er Wye	SAC	Sev	vern Es	stuary	SAC		Severr	n Estu	ary SP	A	Se	evern E	Estuar	y Ran	isar
Policy	Potential Impacts of Policy (From Appendix 5)	Aerial Pollution	Aerial Pollution	Recreational pressure	Aerial Pollution	Mineral extraction and related activities	Development	Changes to Local Hydrology	Abstraction levels	Eutrophication	Aerial Pollution	Abstraction levels	Eutrophication	Aerial Pollution	Physical loss of supporting habitats	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of supporting habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading
H1: NON STRATEGIC HOUSING SITES	Dust, noise, vibration, movement and odour associated with industrial and construction processes	✓	<b>√</b>	×	✓	×	×	×	*	✓	✓	×	✓	✓	×	×	×	✓	×	✓	×	×	✓	×	✓	×	×	<b>√</b>
HOUSING SITES	Impacts on surface water run-off	×	×	×	×	×	×	×	×	<b>√</b>	×	×	✓	×	×	<b>√</b>	×	✓	×	×	<b>√</b>	×	✓	×	×	<b>√</b>	×	<b>✓</b>
	Increase in population and therefore recreation levels	×	×	✓	×	*	×	×	×	×	×	×	×	×	×	×	×	×	×	✓	×	×	×	×	<b>√</b>	×	×	×
	Increased demand for water resources	×	×	×	×	×	*	×	<b>√</b>	×	×	<b>✓</b>	×	×	×	×	×	×	×	×	*	×	×	×	×	×	*	×
	Increased noise and light pollution	×	×	×	×	×	*	×	×	×	×	×	×	×	×	×	×	×	×	✓	*	×	×	×	<b>√</b>	×	*	×
	Increased traffic movements	<b>√</b>	<b>√</b>	×	✓	*	×	×	*	×	<b>√</b>	×	×	<b>√</b>	×	<b>✓</b>	×	*	×	✓	<b>✓</b>	×	×	×	<b>√</b>	✓	×	×
	Land take	×	×	×	×	×	<b>√</b>	✓	×	×	×	×	×	×	<b>√</b>	×	×	×	<b>√</b>	×	×	×	×	✓	×	×	×	×

							Desi	gnate	d Sites	and t	he Fac	ctors to	o Whic	h The	ir Fea	tures a	re Vul	nerabl	e/Sen	sitive (	(From	Appen	dix 7)					
		Aberbargoed grasslands SAC	ဟ	C	ardiff	Beech SAC		ds	Rive	er Usk	SAC	Rive	er Wye	SAC	Se	vern E	stuary	SAC		Severr	n Estu	ary SP	Α	Se	evern E	Estuar	y Ran	isar
Policy	Potential Impacts of Policy (From Appendix 5)	Aerial Pollution	Aerial Pollution	Recreational pressure	Aerial Pollution	Mineral extraction and related activities	Development	Changes to Local Hydrology	Abstraction levels	Eutrophication	Aerial Pollution	Abstraction levels	Eutrophication	Aerial Pollution	Physical loss of supporting habitats	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of supporting habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading
	Wastewater and Sewage	×	×	×	×	×	×	×	×	<b>√</b>	×	×	<b>√</b>	×	×	<b>√</b>	×	✓	×	×	<b>√</b>	×	<b>√</b>	×	×	✓	×	<b>✓</b>
H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER	Dust, noise, vibration, movement and odour associated with industrial and construction processes	<b>√</b>	<b>√</b>	×	<b>√</b>	×	×	×	×	<b>√</b>	<b>√</b>	×	<b>√</b>	<b>√</b>	*	*	×	<b>√</b>	×	<b>√</b>	×	×	<b>√</b>	×	<b>√</b>	×	×	<b>✓</b>
SITE(S)	Impacts on surface water run-off	×	×	×	×	×	×	×	×	<b>√</b>	×	×	<b>√</b>	×	×	✓	×	✓	×	×	<b>√</b>	×	<b>√</b>	×	×	✓	×	<b>✓</b>
	Increase in population and therefore recreation levels	×	×	<b>✓</b>	*	×	×	×	×	×	×	×	×	×	×	*	×	×	×	<b>✓</b>	×	×	×	×	<b>√</b>	×	×	×
	Increased demand for water resources	×	×	×	×	×	×	×	<b>√</b>	×	×	<b>√</b>	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	Increased noise and light pollution	×	×	×	×	×	×	×	×	×	×	*	×	*	×	×	×	×	×	<b>✓</b>	*	×	×	×	<b>✓</b>	×	×	×
	Increased traffic movements	<b>√</b>	<b>✓</b>	*	<b>√</b>	×	×	×	×	×	<b>√</b>	×	×	<b>√</b>	*	<b>√</b>	×	×	×	<b>√</b>	<b>√</b>	×	×	×	<b>√</b>	<b>√</b>	*	×

							Desi	gnate	ed Sites	and t	he Fac	ctors t	o Whic	h The	ir Feat	ures a	re Vul	nerabl	e/Sen:	sitive (	From	Appen	dix 7)					
		Aberbargoed grasslands SAC	ဟ	C	ardiff	Beech SAC		ds	Rive	er Usk	SAC	Rive	er Wye	SAC	Sev	vern Es	stuary	SAC		Severr	n Estu	ary SP	A	Se	evern I	Estuar	y Ran	ısar
Policy	Potential Impacts of Policy (From Appendix 5)	Aerial Pollution	Aerial Pollution	Recreational pressure	Aerial Pollution	Mineral extraction and related activities	Development	Changes to Local Hydrology	Abstraction levels	Eutrophication	Aerial Pollution	Abstraction levels	Eutrophication	Aerial Pollution	Physical loss of supporting habitats	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of supporting habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading
	Land take	×	×	×	×	×	✓	✓	×	×	×	×	×	×	✓	×	×	×	✓	×	×	×	×	✓	×	×	×	×
	Wastewater and Sewage	×	*	×	×	*	×	×	×	<b>√</b>	×	×	<b>√</b>	×	×	<b>✓</b>	*	<b>√</b>	×	×	<b>✓</b>	×	<b>√</b>	*	×	<b>√</b>	×	<b>✓</b>
H8: SITES FOR GYPSY AND	Impacts on surface water run-off	×	×	×	×	*	×	×	×	<b>✓</b>	×	×	<b>✓</b>	×	×	<b>✓</b>	*	<b>✓</b>	×	×	<b>✓</b>	×	<b>✓</b>	*	×	✓	*	<b>✓</b>
TRAVELLER CARAVANS	Increase in population and therefore recreation levels	×	×	✓	×	×	×	×	×	×	×	×	×	*	×	×	×	×	×	<b>✓</b>	×	×	×	*	<b>✓</b>	×	×	×
	Increased demand for water resources	×	×	×	×	×	×	×	✓	×	×	<b>√</b>	×	×	×	×	*	×	×	×	×	×	×	*	×	×	×	×
	Increased noise and light pollution	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	<b>✓</b>	×	×	×	×	<b>√</b>	×	×	×
	Increased traffic movements	✓	✓	×	✓	*	×	×	*	*	✓	×	×	<b>✓</b>	×	<b>✓</b>	*	*	×	<b>✓</b>	<b>✓</b>	×	×	*	✓	✓	*	×
	Land take	*	*	*	×	×	<b>√</b>	<b>✓</b>	*	×	*	*	×	×	✓	×	×	×	<b>√</b>	×	×	×	×	✓	×	×	×	×

							Desi	gnate	ed Sites	and t	he Fac	ctors to	o Whic	h The	ir Feat	ures a	re Vul	nerabl	e/Sens	sitive	(From	Appen	dix 7)	ı				
		Aberbargoed grasslands SAC	ဟ	C	Cardiff	Beech SAC		ds	Rive	er Usk	SAC	Rive	er Wye	SAC	Sev	vern E	stuary	SAC		Sever	n Estu	ary SP	Α	Se	evern I	Estuar	y Ran	nsar
Policy	Potential Impacts of Policy (From Appendix 5)	Aerial Pollution	Aerial Pollution	Recreational pressure	Aerial Pollution	Mineral extraction and related activities	Development	Changes to Local Hydrology	Abstraction levels	Eutrophication	Aerial Pollution	Abstraction levels	Eutrophication	Aerial Pollution	Physical loss of supporting habitats	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of supporting habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading
	Wastewater and Sewage	×	×	×	×	×	×	×	×	<b>√</b>	×	×	<b>√</b>	×	×	<b>√</b>	×	✓	×	×	<b>√</b>	×	<b>√</b>	×	×	<b>√</b>	×	✓
EC1: EXISTING EMPLOYMENT LAND	Dust, noise, vibration, movement and odour associated with industrial and construction processes	<b>√</b>	<b>√</b>	×	<b>√</b>	×	×	*	×	<b>√</b>	<b>√</b>	*	<b>√</b>	<b>√</b>	*	×	×	<b>√</b>	×	<b>✓</b>	×	×	<b>√</b>	*	<b>✓</b>	×	×	<b>√</b>
LAND	Impacts on surface water run-off	*	×	×	×	×	×	×	×	<b>√</b>	×	*	<b>✓</b>	×	*	<b>√</b>	×	✓	×	×	<b>✓</b>	*	✓	×	×	<b>✓</b>	×	<b>√</b>
	Increase in population and therefore recreation levels	×	*	<b>✓</b>	×	×	×	×	*	*	*	*	×	×	*	×	×	×	×	<b>✓</b>	×	×	×	*	<b>✓</b>	×	×	×
	Increased demand for water resources	×	*	×	×	×	×	×	<b>✓</b>	×	*	<b>✓</b>	×	×	×	×	×	×	×	×	×	×	×	*	×	×	×	×
	Increased noise and light pollution	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	<b>√</b>	×	×	×	×	<b>√</b>	×	×	×
	Increased traffic movements	<b>✓</b>	<b>√</b>	×	<b>✓</b>	×	×	*	×	*	<b>✓</b>	*	×	<b>✓</b>	*	<b>✓</b>	×	×	×	<b>✓</b>	✓	*	×	*	<b>✓</b>	<b>✓</b>	×	×

							Des	ignate	ed Site	s and t	he Fac	ctors to	o Whic	h The	ir Fea	tures a	are Vul	nerab	le/Sen	sitive	(From	Apper	ndix 7)	)				
		Aberbargoed grasslands SAC	ဟ	C	Cardiff	Beecl SAC		ods	Riv	er Usk	SAC	Rive	er Wye	SAC	Se	vern E	stuary	SAC		Sever	n Estu	ıary SF	'A	S	evern l	Estuar	y Ran	nsar
Policy	Potential Impacts of Policy (From Appendix 5)	Aerial Pollution	Aerial Pollution	Recreational pressure	Aerial Pollution	Mineral extraction and related activities	Development	Changes to Local Hydrology	Abstraction levels	Eutrophication	Aerial Pollution	Abstraction levels	Eutrophication	Aerial Pollution	Physical loss of supporting habitats	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of supporting habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading
	Land take	×	×	×	×	×	✓	✓	×	×	×	×	×	×	✓	×	×	×	<b>√</b>	×	×	×	×	✓	×	×	×	×
	Wastewater and Sewage	×	*	×	×	×	×	×	*	<b>✓</b>	×	*	<b>✓</b>	×	×	<b>✓</b>	×	<b>✓</b>	×	×	<b>√</b>	×	<b>√</b>	×	×	<b>✓</b>	×	<b>√</b>
EC5: HOTEL DEVELOPMENT	Dust, noise, vibration, movement and odour associated with industrial and construction processes	<b>√</b>	<b>√</b>	*	<b>√</b>	×	×	×	×	<b>√</b>	<b>√</b>	*	<b>✓</b>	<b>✓</b>	*	×	×	<b>✓</b>	×	<b>√</b>	×	×	<b>√</b>	×	<b>✓</b>	×	×	<b>✓</b>
	Impacts on surface water run-off	×	×	×	×	×	×	×	×	<b>√</b>	×	×	<b>√</b>	×	×	<b>√</b>	×	<b>✓</b>	×	*	<b>√</b>	×	<b>√</b>	×	×	<b>✓</b>	×	<b>✓</b>
	Increased demand for water resources	*	*	*	×	×	×	*	✓	×	*	<b>✓</b>	×	×	*	*	*	×	*	*	×	×	*	*	×	×	×	×
	Increased noise and light pollution	×	×	×	×	×	×	*	×	×	×	*	×	*	×	×	×	*	*	✓	×	*	×	×	<b>✓</b>	×	×	*

							Desi	gnate	d Sites	and t	he Fac	ctors to	o Whic	h The	eir Feat	ures a	re Vul	nerabl	e/Sen	sitive (	From	Appen	dix 7)					
		Aberbargoed grasslands SAC	S	C	Cardiff	f Beecl SAC		ds	Rive	er Usk	SAC	Rive	er Wye	sAC	Sev	vern E	stuary	SAC		Severr	n Estu	ary SP	A	Se	evern I	Estuar	y Ran	ısar
Policy	Potential Impacts of Policy (From Appendix 5)	Aerial Pollution	Aerial Pollution	Recreational pressure	Aerial Pollution	Mineral extraction and related activities	Development	Changes to Local Hydrology	Abstraction levels	Eutrophication	Aerial Pollution	Abstraction levels	Eutrophication	Aerial Pollution	Physical loss of supporting habitats	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of supporting habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading
	Increased traffic movements	✓	✓	×	✓	*	×	×	×	×	<b>√</b>	×	×	✓	×	✓	×	×	×	<b>√</b>	✓	×	×	×	✓	✓	×	*
	Land take	×	×	×	×	×	<b>✓</b>	<b>✓</b>	*	*	*	*	×	×	<b>✓</b>	*	×	×	<b>✓</b>	×	×	×	×	<b>√</b>	×	×	×	*
	Wastewater and Sewage	×	×	×	×	×	×	×	×	<b>√</b>	×	×	<b>√</b>	×	×	<b>√</b>	×	<b>√</b>	×	×	<b>√</b>	×	<b>√</b>	×	×	✓	×	<b>✓</b>
EN4: RIVER VALLEYS	Increase in population and therefore recreation levels	×	×	<b>✓</b>	×	*	×	×	×	*	*	*	×	×	×	*	×	×	×	<b>✓</b>	×	×	×	×	<b>✓</b>	×	×	×
EN12: RENEWABLE ENERGY AND LOW CARBON TECHNOLOGIES	Installation of Wind Turbines	×	*	*	×	×	×	×	×	×	×	×	×	×	<b>√</b>	×	×	×	<b>✓</b>	<b>✓</b>	×	×	×	<b>√</b>	<b>√</b>	×	×	×

							Desi	gnate	d Sites	and t	he Fac	ctors to	Whic	h The	ir Feat	ures a	re Vul	nerabl	e/Sens	sitive (	(From	Appen	dix 7)					
		Aberbargoed grasslands SAC	S	C	Cardiff	Beech SAC		ds	Rive	er Usk	SAC	Rive	er Wye	SAC	Sev	vern E	stuary	SAC		Severr	n Estu	ary SP	Α	Se	evern E	Estuar	y Ran	nsar
Policy	Potential Impacts of Policy (From Appendix 5)	Aerial Pollution	Aerial Pollution	Recreational pressure	Aerial Pollution	Mineral extraction and related activities	Development	Changes to Local Hydrology	Abstraction levels	Eutrophication	Aerial Pollution	Abstraction levels	Eutrophication	Aerial Pollution	Physical loss of supporting habitats	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of supporting habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading
T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE	Dust, noise, vibration, movement and odour associated with industrial and construction processes	✓	✓	×	✓	×	×	×	×	<b>√</b>	<b>√</b>	×	✓	✓	×	×	×	✓	×	✓	×	×	✓	×	✓	×	*	<b>√</b>
	Impacts on surface water run-off	×	×	×	×	×	×	×	×	<b>√</b>	×	×	<b>√</b>	×	×	<b>√</b>	×	<b>✓</b>	×	×	<b>✓</b>	×	<b>√</b>	×	×	<b>√</b>	×	<b>√</b>
	Increased traffic movements	<b>√</b>	<b>√</b>	×	<b>✓</b>	×	×	×	×	×	<b>√</b>	×	×	<b>√</b>	×	<b>✓</b>	×	×	×	<b>✓</b>	<b>✓</b>	×	×	×	<b>√</b>	<b>√</b>	×	×
	Land take	×	×	×	×	×	<b>✓</b>	<b>√</b>	×	×	×	×	×	×	<b>✓</b>	×	×	×	<b>✓</b>	×	×	×	×	<b>✓</b>	×	×	×	×
	Laying pipes and cables	×	×	×	×	×	×	<b>✓</b>	×	×	×	×	×	×	×	×	×	×	×	<b>✓</b>	×	×	×	×	✓	×	×	*
T8: STRATEGIC RECREATIONAL ROUTES	Increase in population and therefore recreation levels	*	×	<b>√</b>	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	<b>√</b>	*	×	×	×	<b>√</b>	×	*	×
R1: RETAIL PROVISION WITHIN	Dust, noise, vibration, movement and odour associated with industrial and construction processes	<b>√</b>	<b>√</b>	×	✓	×	×	×	×	<b>√</b>	✓	×	<b>√</b>	<b>√</b>	×	×	×	✓	×	<b>√</b>	*	×	<b>√</b>	×	<b>√</b>	×	*	<b>√</b>

							Desi	gnate	d Sites	and t	he Fac	ctors to	Whic	h The	ir Feat	ures a	re Vul	nerabl	e/Sen	sitive (	(From	Appen	dix 7)					
		Aberbargoed grasslands SAC	ဟ	C	ardiff	Beech SAC	Wood	ds	Rive	er Usk	SAC	Rive	er Wye	SAC	Sev	ern Es	stuary	SAC		Severr	n Estu	ary SP	A	Se	evern E	Estuar	y Ran	isar
Policy	Potential Impacts of Policy (From Appendix 5)	Aerial Pollution	Aerial Pollution	Recreational pressure	Aerial Pollution	Mineral extraction and related activities	Development	Changes to Local Hydrology	Abstraction levels	Eutrophication	Aerial Pollution	Abstraction levels	Eutrophication	Aerial Pollution	Physical loss of supporting habitats	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of supporting habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading
STRATEGIC SITES	Impacts on surface water run-off	×	×	×	×	×	×	×	×	<b>√</b>	×	×	✓	×	×	<b>√</b>	×	✓	×	×	<b>√</b>	×	✓	×	×	✓	×	<b>√</b>
	Increased demand for water resources	×	*	×	×	×	×	×	<b>√</b>	×	×	<b>√</b>	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	Increased noise and light pollution	*	×	×	×	×	×	×	×	×	*	×	*	×	×	×	×	×	×	<b>✓</b>	*	×	×	×	<b>√</b>	×	×	×
	Increased traffic movements	✓	<b>√</b>	×	✓	×	×	×	×	×	<b>√</b>	×	×	✓	×	<b>✓</b>	×	*	×	<b>✓</b>	<b>√</b>	×	*	×	<b>✓</b>	<b>✓</b>	×	×
	Land take	×	×	×	×	×	<b>√</b>	<b>✓</b>	×	×	×	×	×	×	<b>✓</b>	×	×	×	<b>✓</b>	×	×	×	×	<b>✓</b>	×	×	×	×
	Wastewater and Sewage	×	×	×	*	*	*	×	×	<b>✓</b>	×	×	✓	*	×	<b>✓</b>	×	<b>√</b>	×	×	<b>✓</b>	×	✓	×	×	<b>✓</b>	×	<b>√</b>
C1: COMMUNITY FACILITIES	Dust, noise, vibration, movement and odour associated with industrial and construction processes	<b>✓</b>	<b>√</b>	*	<b>√</b>	*	*	*	×	<b>✓</b>	<b>✓</b>	×	<b>✓</b>	<b>√</b>	×	×	×	<b>√</b>	×	<b>✓</b>	×	×	<b>√</b>	×	<b>✓</b>	×	×	<b>✓</b>

							Desi	gnate	d Sites	s and t	he Fac	ctors to	Whic	h The	ir Feat	ures a	re Vul	nerabl	e/Sen:	sitive (	(From	Appen	dix 7)					
		Aberbargoed grasslands SAC	၂ တ	C	ardiff	Beech SAC		ds	Rive	er Usk	SAC	Rive	er Wye	SAC	Sev	vern E	stuary	SAC		Severr	n Estu	ary SP	Α	Se	evern E	Estuar	y Ran	ısar
Policy	Potential Impacts of Policy (From Appendix 5)	Aerial Pollution	Aerial Pollution	Recreational pressure	Aerial Pollution	Mineral extraction and related activities	Development	Changes to Local Hydrology	Abstraction levels	Eutrophication	Aerial Pollution	Abstraction levels	Eutrophication	Aerial Pollution	Physical loss of supporting habitats	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of supporting habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading
	Impacts on surface water run-off	×	×	×	×	×	×	×	×	✓	×	×	✓	×	×	✓	×	✓	×	×	✓	×	✓	×	×	✓	×	✓
	Increased demand for water resources	×	×	×	×	×	×	×	<b>√</b>	×	*	<b>√</b>	×	×	×	*	×	×	×	×	*	×	×	×	×	×	×	×
	Increased noise and light pollution	×	×	×	*	×	×	×	×	*	×	×	×	×	×	×	×	×	×	<b>✓</b>	×	×	×	×	<b>✓</b>	×	×	×
	Increased traffic movements	✓	<b>√</b>	×	✓	×	×	×	×	×	<b>√</b>	×	×	<b>√</b>	×	<b>✓</b>	×	*	×	<b>✓</b>	<b>√</b>	×	×	×	<b>√</b>	✓	×	×
	Land take	*	×	×	*	*	✓	<b>√</b>	×	*	×	×	*	×	<b>✓</b>	×	×	*	✓	×	×	×	×	<b>✓</b>	×	*	×	×
	Wastewater and Sewage	*	×	×	*	*	×	×	×	<b>√</b>	×	×	<b>√</b>	×	×	<b>✓</b>	×	<b>√</b>	×	×	<b>✓</b>	×	<b>√</b>	×	×	<b>√</b>	×	<b>√</b>
C8: PLANNING FOR SCHOOLS.	Dust, noise, vibration, movement and odour associated with industrial and construction processes	<b>√</b>	<b>√</b>	*	<b>√</b>	×	×	×	×	<b>√</b>	<b>√</b>	×	<b>√</b>	<b>✓</b>	×	×	×	<b>√</b>	×	<b>✓</b>	×	×	<b>√</b>	×	<b>✓</b>	×	*	<b>√</b>

							Desi	gnate	d Sites	s and t	he Fac	ctors to	o Whic	h The	ir Fea	tures a	re Vul	nerabl	e/Sen	sitive (	(From	Appen	dix 7)					
		Aberbargoed grasslands SAC	ဟ	C	ardiff	Beech SAC		ds	Rive	er Usk	SAC	Rive	er Wye	SAC	Sev	vern E	stuary	SAC		Severr	n Estu	ary SP	Α	Se	evern I	Estuar	y Ran	ısar
Policy	Potential Impacts of Policy (From Appendix 5)	Aerial Pollution	Aerial Pollution	Recreational pressure	Aerial Pollution	Mineral extraction and related activities	Development	Changes to Local Hydrology	Abstraction levels	Eutrophication	Aerial Pollution	Abstraction levels	Eutrophication	Aerial Pollution	Physical loss of supporting habitats	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of supporting habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading
	Impacts on surface water run-off	×	×	×	×	×	×	×	×	✓	×	×	✓	×	×	✓	×	✓	×	×	<b>√</b>	×	✓	×	×	✓	×	<b>√</b>
	Increased demand for water resources	×	×	×	×	×	×	×	<b>√</b>	×	×	<b>√</b>	×	×	×	×	×	×	×	×	*	×	×	×	×	×	×	×
	Increased noise and light pollution	*	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	<b>✓</b>	×	×	×	×	<b>√</b>	×	×	×
	Increased traffic movements	✓	<b>√</b>	×	✓	×	×	×	×	×	<b>✓</b>	*	*	<b>✓</b>	×	✓	×	*	×	<b>✓</b>	<b>✓</b>	×	×	×	<b>✓</b>	<b>✓</b>	×	×
	Land take	*	*	×	*	*	<b>✓</b>	<b>✓</b>	×	*	×	×	×	×	<b>✓</b>	*	×	×	<b>✓</b>	×	×	×	×	<b>✓</b>	×	×	*	×
C9: NEW EDUCATIONAL FACILITIES	Dust, noise, vibration, movement and odour associated with industrial and construction processes	<b>√</b>	<b>√</b>	×	<b>√</b>	×	×	×	×	<b>✓</b>	<b>✓</b>	*	<b>✓</b>	<b>√</b>	×	*	×	<b>✓</b>	×	<b>√</b>	×	×	✓	×	<b>✓</b>	×	×	<b>√</b>
AOLITICO	Impacts on surface water run-off	×	×	×	×	×	×	×	×	<b>✓</b>	×	×	<b>✓</b>	×	×	<b>✓</b>	×	<b>√</b>	×	×	<b>√</b>	×	<b>√</b>	×	×	<b>√</b>	×	<b>✓</b>

							Desi	gnate	d Sites	s and t	he Fac	ctors to	Whic	h The	ir Fea	tures a	re Vul	nerabl	e/Sen	sitive (	(From	Appen	dix 7)					
		Aberbargoed grasslands SAC	၂ တ	C	Cardiff	Beech SAC		ds	Rive	er Usk	SAC	Rive	er Wye	SAC	Sev	vern Es	stuary	SAC		Severi	n Estu	ary SP	Α	Se	evern I	Estuar	y Ran	ısar
Policy	Potential Impacts of Policy (From Appendix 5)	Aerial Pollution	Aerial Pollution	Recreational pressure	Aerial Pollution	Mineral extraction and related activities	Development	Changes to Local Hydrology	Abstraction levels	Eutrophication	Aerial Pollution	Abstraction levels	Eutrophication	Aerial Pollution	Physical loss of supporting habitats	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of supporting habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading
	Increased demand for water resources	×	×	×	×	×	×	×	✓	×	×	✓	*	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	Increased noise and light pollution	×	×	×	×	×	×	×	×	*	×	×	×	×	×	×	×	×	×	<b>✓</b>	×	×	×	×	<b>√</b>	×	×	×
	Increased traffic movements	<b>√</b>	<b>√</b>	×	<b>√</b>	×	×	×	×	×	<b>✓</b>	×	×	<b>√</b>	×	<b>✓</b>	×	×	×	<b>✓</b>	<b>✓</b>	×	×	×	<b>√</b>	<b>✓</b>	×	×
	Land take	×	×	×	×	×	<b>√</b>	<b>√</b>	×	×	×	×	×	×	<b>√</b>	×	×	×	<b>✓</b>	×	×	×	×	<b>√</b>	×	×	×	×
	Wastewater and Sewage	×	×	×	×	×	×	×	×	<b>√</b>	×	×	✓	×	×	<b>√</b>	×	<b>√</b>	×	×	<b>√</b>	×	<b>√</b>	×	×	<b>✓</b>	×	<b>√</b>
C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION	Dust, noise, vibration, movement and odour associated with industrial and construction processes	<b>√</b>	<b>√</b>	*	<b>√</b>	×	×	*	×	<b>√</b>	<b>✓</b>	*	<b>√</b>	<b>√</b>	*	*	×	<b>√</b>	×	<b>✓</b>	*	×	<b>√</b>	×	<b>✓</b>	×	×	<b>√</b>
	Impacts on surface water run-off	×	*	*	×	×	×	×	×	<b>√</b>	*	×	✓	×	×	<b>√</b>	×	✓	×	×	<b>✓</b>	×	✓	×	×	<b>✓</b>	×	<b>√</b>

							Desi	gnate	d Sites	and t	he Fac	ctors to	o Whic	h The	ir Feat	ures a	re Vul	nerabl	e/Sens	sitive (	(From	Appen	dix 7)					
		Aberbargoed grasslands SAC	ဟ	C	ardiff	Beech SAC	ı Woo	ds	Rive	er Usk	SAC	Rive	er Wye	SAC	Sev	ern E	stuary	SAC		Severr	n Estu	ary SP	A	Se	evern E	Estuar	y Ran	ısar
Policy	Potential Impacts of Policy (From Appendix 5)	Aerial Pollution	Aerial Pollution	Recreational pressure	Aerial Pollution	Mineral extraction and related activities	Development	Changes to Local Hydrology	Abstraction levels	Eutrophication	Aerial Pollution	Abstraction levels	Eutrophication	Aerial Pollution	Physical loss of supporting habitats	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of supporting habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading
	Increased demand for water resources	×	×	×	×	×	*	×	<b>√</b>	×	×	✓	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	Increased noise and light pollution	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	<b>√</b>	×	×	×	×	<b>√</b>	×	×	×
	Increased traffic movements	<b>√</b>	<b>√</b>	×	✓	×	×	×	×	×	<b>√</b>	*	×	✓	*	<b>✓</b>	×	×	×	<b>✓</b>	<b>✓</b>	×	*	×	<b>✓</b>	<b>√</b>	×	×
	Land take	×	×	×	×	*	<b>√</b>	<b>✓</b>	*	×	×	×	×	×	<b>✓</b>	×	×	×	<b>√</b>	×	×	×	×	<b>√</b>	×	×	×	×
	Wastewater and Sewage	×	×	×	*	×	×	×	×	<b>✓</b>	×	×	✓	×	×	<b>✓</b>	×	✓	×	×	<b>✓</b>	×	<b>✓</b>	×	×	<b>✓</b>	×	<b>✓</b>
M1: MINERAL LIMESTONE	Contamination, accumulation of toxic substances	×	×	×	×	<b>✓</b>	×	×	×	×	×	×	×	×	×	<b>✓</b>	×	×	×	×	<b>✓</b>	×	×	×	×	<b>✓</b>	×	×
RESERVES AND RESOURCES	Aggregates removal	✓	<b>√</b>	×	<b>✓</b>	<b>✓</b>	×	<b>√</b>	×	×	<b>√</b>	×	×	<b>✓</b>	×	×	×	×	×	×	*	×	×	×	×	×	×	×
	Dust, noise, vibration, movement and odour associated with industrial and construction processes	<b>√</b>	<b>√</b>	*	<b>√</b>	×	*	×	×	<b>√</b>	<b>√</b>	×	<b>√</b>	<b>√</b>	×	×	×	<b>√</b>	×	<b>√</b>	×	×	<b>√</b>	×	<b>√</b>	×	×	<b>√</b>

							Desi	gnate	d Sites	and t	he Fac	ctors to	o Whic	h The	ir Feat	ures a	re Vul	nerabl	e/Sen	sitive (	(From	Apper	ndix 7)					
		Aberbargoed grasslands SAC	ဟ	C	ardiff	Beech SAC		ds	Rive	er Usk	SAC	Rive	er Wye	SAC	Sev	vern E	stuary	SAC		Severi	n Estu	ary SP	'A	Se	evern I	Estuar	y Rar	nsar
Policy	Potential Impacts of Policy (From Appendix 5)	Aerial Pollution	Aerial Pollution	Recreational pressure	Aerial Pollution	Mineral extraction and related activities	Development	Changes to Local Hydrology	Abstraction levels	Eutrophication	Aerial Pollution	Abstraction levels	Eutrophication	Aerial Pollution	Physical loss of supporting habitats	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of supporting habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading
	Land take	×	×	×	×	×	✓	✓	×	×	×	×	×	×	✓	×	×	×	✓	×	×	×	×	✓	×	×	×	×
	Wastewater and Sewage	×	×	×	×	×	×	×	×	<b>✓</b>	×	×	<b>✓</b>	×	×	<b>✓</b>	×	<b>✓</b>	×	×	<b>✓</b>	×	<b>✓</b>	×	×	<b>✓</b>	×	<b>✓</b>
M3: QUARRY CLOSURES AND	Contamination, accumulation of toxic substances	×	×	×	×	<b>√</b>	×	×	×	×	*	*	×	×	×	<b>√</b>	×	×	×	×	<b>√</b>	×	×	×	×	<b>√</b>	×	×
EXTENSION LIMITS	Aggregates removal	<b>✓</b>	✓	×	<b>√</b>	<b>✓</b>	×	<b>✓</b>	×	×	✓	×	×	<b>✓</b>	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	Dust, noise, vibration, movement and odour associated with industrial and construction processes	<b>√</b>	<b>√</b>	×	<b>√</b>	×	×	×	×	<b>√</b>	<b>√</b>	*	<b>√</b>	<b>√</b>	×	×	×	✓	×	<b>√</b>	*	×	<b>√</b>	×	<b>√</b>	×	×	<b>√</b>
	Increased traffic movements	<b>✓</b>	<b>√</b>	×	<b>✓</b>	×	×	×	×	×	<b>✓</b>	×	×	<b>✓</b>	×	<b>✓</b>	×	×	×	<b>✓</b>	<b>✓</b>	×	×	×	<b>✓</b>	<b>✓</b>	×	×
	Land take	×	×	×	×	×	<b>✓</b>	<b>√</b>	×	×	×	×	×	×	<b>√</b>	*	×	×	<b>√</b>	×	×	×	×	<b>√</b>	×	×	×	×
M5: RESTORATION AND AFTER USE	Contamination, accumulation of toxic substances	×	×	×	*	✓	×	×	×	×	×	×	×	×	×	<b>√</b>	×	×	×	×	✓	*	*	×	×	✓	×	×
OF MINERAL WORKINGS	Aggregates removal	<b>√</b>	<b>√</b>	×	<b>√</b>	<b>√</b>	×	✓	×	×	✓	×	×	<b>√</b>	×	×	×	×	×	×	×	×	×	×	×	×	×	×

							Desi	gnate	d Sites	and t	he Fac	ctors to	o Whic	h The	ir Feat	tures a	re Vul	nerabl	e/Sens	sitive (	From	Appen	dix 7)					
		Aberbargoed grasslands SAC	ဟ	Cardiff Beech Woods SAC					River Usk SAC			River Wye SAC			Sev	vern Es	stuary	SAC		Severr	ı Estu	ary SP	Α	Severn Estuary Ramsar				
Policy	Potential Impacts of Policy (From Appendix 5)	Aerial Pollution	Aerial Pollution	Recreational pressure	Aerial Pollution	Mineral extraction and related activities	Development	Changes to Local Hydrology	Abstraction levels	Eutrophication	Aerial Pollution	Abstraction levels	Eutrophication	Aerial Pollution	Physical loss of supporting habitats	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of supporting habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading
	Dust, noise, vibration, movement and odour associated with industrial and construction processes	<b>√</b>	<b>√</b>	×	✓	×	×	*	×	✓	✓	×	✓	✓	×	×	×	✓	×	✓	×	×	✓	×	✓	×	*	✓
	Increased traffic movements	<b>✓</b>	<b>√</b>	×	<b>✓</b>	×	×	×	×	×	<b>✓</b>	×	×	<b>✓</b>	×	<b>✓</b>	×	×	×	<b>✓</b>	<b>✓</b>	×	×	×	<b>✓</b>	<b>✓</b>	×	×
	Land take	×	×	×	×	×	<b>✓</b>	<b>√</b>	×	×	×	×	×	×	<b>✓</b>	×	×	×	<b>✓</b>	×	×	×	×	✓	×	×	×	×
	Wastewater and Sewage	×	×	×	×	×	×	×	×	<b>✓</b>	×	×	<b>✓</b>	×	×	<b>✓</b>	×	<b>✓</b>	×	×	<b>✓</b>	×	<b>✓</b>	×	×	<b>✓</b>	×	<b>√</b>
M6: DREDGED AGGREGATE	Contamination, accumulation of toxic substances	×	×	×	×	×	×	×	×	×	×	×	×	×	×	<b>√</b>	×	×	×	×	<b>✓</b>	×	×	×	×	<b>√</b>	*	×
LANDING AND DISTRIBUTION FACILITIES	Aggregates removal	<b>√</b>	✓	×	✓	✓	×	×	×	×	<b>√</b>	×	×	<b>√</b>	×	*	<b>√</b>	×	×	×	×	✓	×	×	×	×	<b>√</b>	×
	Dust, noise, vibration, movement and odour associated with industrial and construction processes	<b>√</b>	<b>√</b>	×	<b>√</b>	×	×	×	×	<b>√</b>	<b>√</b>	*	<b>√</b>	<b>√</b>	×	*	×	<b>√</b>	×	<b>√</b>	×	×	<b>√</b>	×	<b>√</b>	×	×	<b>√</b>
	Increased traffic movements	<b>✓</b>	<b>√</b>	×	✓	*	×	×	×	×	<b>✓</b>	*	×	<b>✓</b>	*	<b>√</b>	×	*	*	✓	<b>✓</b>	×	×	×	<b>✓</b>	✓	×	×

							Desi	gnate	d Sites	and t	he Fac	ctors to	Whic	h The	ir Feat	ures a	re Vul	nerabl	e/Sen	sitive (	(From	Appen	dix 7)					
		Aberbargoed grasslands SAC	ဟ	Cardiff Beech Woods SAC					River Usk SAC			River Wye SAC			Sev	vern Es	stuary	SAC		Severi	n Estu	ary SP	A	Severn Estuary Ramsar				
Policy	Potential Impacts of Policy (From Appendix 5)	Aerial Pollution	Aerial Pollution	Recreational pressure	Aerial Pollution	Mineral extraction and related activities	Development	Changes to Local Hydrology	Abstraction levels	Eutrophication	Aerial Pollution	Abstraction levels	Eutrophication	Aerial Pollution	Physical loss of supporting habitats	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of supporting habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading
	Land take	×	×	×	×	×	✓	✓	×	×	×	×	×	×	✓	×	×	×	✓	×	×	×	×	✓	×	×	×	×
	Wastewater and Sewage	×	×	×	×	×	×	×	×	<b>√</b>	×	×	✓	×	×	<b>✓</b>	×	<b>√</b>	×	×	<b>√</b>	×	<b>√</b>	×	×	<b>√</b>	×	<b>✓</b>
W1: LAND FOR WASTE	Contamination, accumulation of toxic substances	×	×	×	×	✓	×	×	×	×	×	×	×	×	×	<b>✓</b>	×	×	×	×	<b>✓</b>	×	*	×	×	<b>✓</b>	×	×
MANAGEMENT	Dust, noise, vibration, movement and odour associated with industrial and construction processes	<b>√</b>	<b>√</b>	×	<b>√</b>	×	×	*	×	<b>√</b>	<b>✓</b>	×	<b>√</b>	<b>✓</b>	×	×	×	<b>√</b>	×	<b>✓</b>	*	×	<b>√</b>	×	<b>✓</b>	×	*	<b>✓</b>
	Increased traffic movements	<b>√</b>	<b>√</b>	×	<b>✓</b>	×	×	×	×	*	<b>✓</b>	×	×	<b>√</b>	×	<b>√</b>	×	×	×	<b>√</b>	<b>✓</b>	×	×	×	<b>√</b>	<b>√</b>	×	×
	Land take	×	×	×	×	×	<b>√</b>	<b>√</b>	×	×	×	×	×	×	<b>✓</b>	×	×	×	<b>✓</b>	×	×	×	×	<b>✓</b>	×	×	×	×
	Wastewater and Sewage	×	×	×	×	×	×	×	×	<b>✓</b>	×	×	<b>✓</b>	×	×	<b>✓</b>	×	<b>✓</b>	×	×	<b>✓</b>	×	<b>✓</b>	×	×	✓	×	<b>✓</b>
W2: SITES FOR WASTE	Contamination, accumulation of toxic substances	×	×	*	×	<b>√</b>	×	×	×	×	×	×	×	×	×	<b>✓</b>	×	×	×	×	<b>√</b>	×	×	×	×	<b>√</b>	×	×

							Desi	gnate	d Sites	and t	he Fac	ctors to	Whic	h The	ir Feat	ures a	re Vul	nerabl	e/Sens	sitive (	(From	Appen	dix 7)						
		Aberbargoed grasslands SAC	တ	C	ardiff	Beech SAC	ı Woo	ds	River Usk SAC			Rive	River Wye SAC			vern E	stuary	SAC	Severn Estuary SPA					Se	Severn Estuary Ramsar				
Policy	Potential Impacts of Policy (From Appendix 5)	Aerial Pollution	Aerial Pollution	Recreational pressure	Aerial Pollution	Mineral extraction and related activities	Development	Changes to Local Hydrology	Abstraction levels	Eutrophication	Aerial Pollution	Abstraction levels	Eutrophication	Aerial Pollution	Physical loss of supporting habitats	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	Physical loss of supporting habitats	Noise / visual disturbance / direct harm	Contamination	Damage by abrasion or selective extraction	Changes in nutrient and/or organic loading	
MANAGEMENT FACILITIES	Dust, noise, vibration, movement and odour associated with industrial and construction processes	✓	✓	×	✓	×	×	×	×	✓	✓	×	✓	✓	×	×	×	✓	×	✓	×	×	✓	×	✓	×	×	<b>√</b>	
	Increased traffic movements	<b>✓</b>	<b>√</b>	×	<b>✓</b>	×	×	×	×	×	<b>✓</b>	×	×	<b>✓</b>	×	<b>✓</b>	×	×	×	<b>✓</b>	<b>✓</b>	×	×	×	<b>√</b>	<b>✓</b>	×	×	
	Land take	×	*	×	*	×	<b>√</b>	<b>√</b>	×	×	×	×	×	×	<b>✓</b>	×	×	×	<b>✓</b>	×	×	×	×	<b>✓</b>	×	×	×	×	
	Wastewater and Sewage	×	×	×	*	×	×	×	×	<b>✓</b>	×	×	<b>✓</b>	×	×	<b>✓</b>	×	<b>✓</b>	×	×	<b>✓</b>	×	<b>✓</b>	×	×	<b>✓</b>	×	<b>√</b>	
W3: PROVISION FOR WASTE	Contamination, accumulation of toxic substances	*	×	×	×	✓	×	×	×	×	×	×	×	×	×	<b>✓</b>	×	×	×	×	<b>✓</b>	×	×	×	×	✓	×	×	
MANAGEMENT FACILITIES IN DEVELOPMENT	Dust, noise, vibration, movement and odour associated with industrial and construction processes	<b>√</b>	<b>√</b>	*	<b>√</b>	×	×	×	×	<b>√</b>	<b>√</b>	×	<b>√</b>	<b>√</b>	×	×	×	<b>√</b>	×	<b>√</b>	×	×	<b>√</b>	×	<b>√</b>	×	×	<b>√</b>	
	Increased traffic movements	✓	✓	×	✓	×	×	×	×	×	<b>√</b>	×	×	<b>√</b>	×	<b>√</b>	×	×	×	<b>✓</b>	<b>√</b>	×	×	×	<b>√</b>	✓	×	×	
	Land take	×	×	×	×	×	<b>√</b>	<b>√</b>	×	×	×	×	×	×	<b>✓</b>	×	×	×	✓	×	×	×	×	<b>√</b>	×	×	×	×	
	Wastewater and Sewage	×	×	×	×	×	×	×	×	✓	×	×	✓	×	×	✓	×	✓	×	×	✓	×	✓	×	×	✓	×	✓	



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Habitat Regulations Assessment Report:
Appendix 9 - Plans Projects and Programmes for in Combination Assessment
September 2013



## **Appendix 3: INFORMATION DATABASE**

Plans, Programmes & Projects Effects (in-combination)

### Plans, Programmes and Projects Review

#### National

National												
People, Places, Futures: The Wales Spatial Plan (update) 2008												
Plan Type	Regional Spatial Strategy											
Plan Owner/ Competent Authority	Welsh Assembly Adopted 2004 Wales Planning											
Currency												
Region/Geographic Coverage												
Sector												
Related work SA/SEA HRA/AA	SEA of the Wales Spatial Plan Update 2008 HRA and AA of the Wales Spatial Plan Update (June 2008)											
Document Details The Welge Special Plan acts out an agenda for the sustainable	Potential impacts that could cause 'in-combination' effects											
The Wales Spatial Plan sets out an agenda for the sustainable development of Wales over the next 20 years. The purpose of the update is to reflect new drivers of change and to give status to the Area work which has developed over the past two years. The plan aims to make South East Wales a networked city-region able to provide quality of life for the population and to be able to compete with comparable areas in the UK and the EU for investment and growth.  The pattern of housing development across South East Wales is seen as developing a greater mix and balance of housing in the Heads of the Valleys and Connections Corridor whilst ensuring that development in the Coastal Belt of South East Wales does not undermine this housing market. There should also be a targeted action to secure a supply of affordable housing.	<ul> <li>Direct loss of habitat through development - One of the three Strategic Opportunity Areas identified is 'the area around Llantrisant and North West Cardiff'; Cardiff Beech Woods SAC is in close proximity to this.</li> <li>Housing and employment growth may lead to increased transport movements - the potential for in-combination effect is greater where housing sites are in close proximity to Natura 2000 sites.</li> <li>New communities require increased infrastructure – potential for land take, pollution increase, disturbance/ severance of habitats and species.</li> <li>Growth in the requirement for waste management/ transport disposal from new communities and businesses has the potential to increase pollution, and introduce land take issues.</li> <li>Recreation pressures may result from housing developments near/ adjacent to Natura 2000 sites.</li> <li>Atmospheric pollution generated as a result of housing, employment and transport growth.</li> </ul>											
Three Strategic Opportunity Areas (SOA) were identified as offering potential regional benefits from their sustainable development.												

National	
People, Places, Futures: The Wales Spatial Plan (update) 2008	
These areas are: developments linked to the dualling of the Heads of the Valleys road (A465); the area around Llantrisant and North West Cardiff which has seen major growth over the past 30 years; and development in the Vale of Glamorgan linked to the proposed St Athan military training academy.	
The Plan states that improvements to transport are essential to making the city-region work, and to the regeneration of Valleys communities, highlighting the importance of external transport links, such as the M4, east/west rail links and Cardiff International Airport.	

National Control of the Control of t	
Property Strategy for Employment in Wales 2004- 2008	
Plan Type	Employment Strategy
Plan Owner/ Competent Authority	Welsh Development Agency
Currency	2004 - 2008
Region/Geographic Coverage	Wales
Sector	Planning
Related work SA/SEA HRA/AA	N/A
Document Details	Potential impacts that could cause 'in-combination' effects
The Property Strategy for Employment in Wales 2004-2008 sets out the Welsh Assembly Government's approach for employment sites and buildings across Wales. The document aims to provide a framework to ensure that Wales can provide high quality employment sites and premises in the right locations for inward investors and indigenous businesses.	<ul> <li>Direct loss of habitat through development - There are 4 SACs in close proximity to the M4, these are:</li> <li>River Usk SAC;</li> <li>Cardiff Beech Woods SAC;</li> <li>Cefn Cribwr Grasslands SAC; and</li> <li>Kenfig SAC.</li> </ul>

#### **Property Strategy for Employment in Wales 2004-2008**

#### **Premier Business Park**

(1) - focused on M4/capital of Wales

One park is needed for Wales as a whole, with a land requirement of some 100-300 acres (40-121 hectares). The current lack of such a premier business park is a major weakness in Wales' current property armoury and investor offer. Only the "Greater Cardiff" area can in principle meet the criteria set out in the strategy.

#### **Business Parks**

(6) - 2/3 on M4 Corridor.

#### **Strategic Sites**

(15/20) -concentrated on large centres of population with proximity to the primary road network.

#### **Strategic Mixed Use Sites**

(5-10) - to complement the business parks and strategic sites network.

# **Special Category Sites**

(1) - but with other sites having 'key' sector roles

#### **City/Town Centre Office Sites**

Extensive network based on the main centres of population and existing critical mass, supplemented by smaller scale opportunities. The following areas are recommended for early consideration:

- major settlements
- Cardiff/Cardiff Bay
- Swansea
- Newport
- Wrexham

- Employment growth may lead to increased transport movements.
- New development requires increased infrastructure potential for land take, pollution increase, disturbance/ severance of habitats and species.
- Growth in the requirement for waste management/ transport disposal from new businesses has the potential to increase pollution, and introduce land take issues.
- Recreation pressures may result from developments near/ adjacent to Natura 2000 sites.
- Atmospheric pollution generated as a result of employment and transport growth.

# National Property Strategy for Employment in Wales 2004- 2008 - other settlements - Caerphilly - Cwmbran - Merthyr Tydfil - Carmarthen - Newtown - Bangor - Colwyn Bay Industrial Estates/Local Sites 50-70 – to serve essentially sub-regional and local markets.

National	
One Wales: Connecting the Nation. The Wales Transport Strateg	y 2008
Plan Type	Transport
Plan Owner/ Competent Authority	Welsh Assembly Government - Transport Wales
Currency	2008
Region/Geographic Coverage	Wales
Sector	Transport
Related work SA/SEA HRA/AA	N/A
Document Details	Potential impacts that could cause 'in-combination' effects
The goal of One Wales: Connecting the nation is to promote sustainable transport= networks that safeguard the environment while strengthening our country's economic and social life. Our transport strategy identifies a series of high-level outcomes and sets out the steps to their delivery.  One Wales: Connecting the nation long-term outcomes:  Social  Improve access to healthcare Improve access to education, training and lifelong learning Improve access to shopping and leisure facilities Encourage healthy lifestyles Improve the actual and perceived safety of travel	Improving the efficient, reliable and sustainable movement of people and freight as well as reducing the contribution of transport to greenhouse gas emissions will help to mitigate or offset any increase in diffuse air pollution as a result of this Strategy.
<ul> <li>Economic</li> <li>Improve access to employment opportunities</li> <li>Improve connectivity within Wales and internationally</li> <li>Improve the efficient, reliable and sustainable movement of people</li> <li>Improve the efficient, reliable and sustainable movement of freight</li> </ul>	

National	
One Wales: Connecting the Nation. The Wales Transport Strategy 2008	
<ul> <li>Improve access to visitor attractions</li> </ul>	
Environmental	
Increase the use of more sustainable materials	
Reduce the contribution of transport to greenhouse gas	
emissions	
Adapt to the impacts of climate change	
<ul> <li>Reduce the contribution of transport to air pollution and other</li> </ul>	
harmful emissions	
Improve the impact of transport on the local environment	
Improve the impact of transport on our heritage	
<ul> <li>Improve the impact of transport on biodiversity</li> </ul>	
- improve the impact of transport of blodiversity	
The strategic priorities to focus work cover:	
<ul> <li>Reducing greenhouse gas emissions and other environmental</li> </ul>	
impacts;	
<ul> <li>Integrating local transport;</li> </ul>	
Improving access between key settlements and sites;	
<ul><li>Enhancing international connectivity; and</li></ul>	
Increasing safety and security.	

National	
The Trunk Road Forward Programme 2002 (including 2004 supplement)	
Plan Type	Transport
Plan Owner/ Competent Authority	Welsh Assembly Government - Transport Wales
Currency	2002
Region/Geographic Coverage	Wales
Sector	Transport

Metional		
National The Trunk Road Forward Programme 2002 (including 2004 supplement)		
Related work SA/SEA HRA/AA	N/A	
Document Details	Potential impacts that could cause 'in-combination' effects	
<ul> <li>Phase 1 (Start March 2007)</li> <li>A465 Abergavenny to Gilwern</li> <li>The scheme comprises the on-line widening of some 6km of the A465 between the existing Hardwick Roundabout and Glanbaiden junction, and then continues for just under 1km to Gilwern. Includes the areas: Hardwicke roundabout, Llanfoist, West of Llanfoist, Govilon and Gilwern East.</li> <li>M4 Castleton to Coryton Widening</li> <li>A 13.5km (8.0 mile) long scheme to widen from dual two lane to dual three lane motorway standard at an estimated cost of £71m. The main programme of construction work started in May 2007. Reconstruction and realignment of the motorway within the central reserve is currently underway between Junctions 30 and 32. This will continue until June 2008. The main widening will then follow in core phases: <ul> <li>June 2008 - November 2008: J30 to J32 - Westbound widening.</li> <li>November 2008 - April 2009: J29 to J30 - Eastbound widening.</li> <li>April 2009 - August 2009: J29 to J30 - Central Reserve works.</li> <li>August 2009 - December 2009: J29 to J32 - Westbound widening.</li> </ul> </li> <li>Phase 2 (Could be ready to start by April 2010)  A465 Brynmawr to Tredegor  <ul> <li>The A465 Trunk Road is part of the Trans European Road Network and is an important strategic route in South Wales, linking the Midlands and Northern England to West Wales and Ireland. Includes the areas: The Dingle, Blaen-y-Cwm Reservoir, Garn Lydan, Rassau Industrial Estate East, Rassau Industrial</li> </ul> </li> </ul>	<ul> <li>A465 Abergavenny to Gilwern - Runs in close proximity and across the River Usk SAC. Potential for disturbance at point which the A465 crosses the River Usk and for pollution as a result of construction activities.</li> <li>M4 Castleton to Coryton Widening - Junction 32 of the M4 lies approximately 1.2km away from Cardiff Beech Woods SAC.</li> <li>A465 Gilwern to Brynmawr - This section of the A465 runs directly through Cwm Clydach Woodlands SAC and Usk Bat Sites SAC. Potential for direct land take, increased disturbance for bat population and possible pollution as a result of construction activities.</li> <li>New M4 Magor to Castleton - This development would involve the building of a bridge across the River Usk SAC. Potential for disturbance at point which the bridge crosses the River Usk and for pollution as a result of construction activities. There is potential for the bridge to have significant effects on migratory fish populations.</li> <li>All the development proposed has the potential to increase levels of traffic and therefore contribute to an increase in diffuse air pollution.</li> </ul>	

### The Trunk Road Forward Programme 2002 (including 2004 supplement)

Estate West and Nantybwch Junction (phase two).

#### A465 Gilwern to Brynmawr

The A465 Trunk Road is part of the Trans European Road Network and is an important strategic route in South Wales, linking the Midlands and Northern England to West Wales and Ireland. Includes the areas: Gilwern East (phase two), Gilwern West, Maesygwartha, Upper Clydach, Blackrock and Brynmawr.

#### New M4 Magor to Castleton

The Welsh Assembly Government has proposed a new dual 3-lane motorway link between Magor and Castleton as part of the optimum long-term wider integrated transport strategy for South-East Wales. The new dual 3-lane motorway will be 15 miles (24 km) long, linking Junction 23A at Magor and Junction 29 at Castleton. The route crosses the Gwent Levels, including several Sites of Special Scientific Interest (or SSSIs), so great care will be taken to minimise the effects on the SSSIs by using previous industrial land where feasible.

#### Phase 3 (Unlikely to start before April 2010)

A4042 Llanellen

 A narrow bridge crossing with limited pedestrian facilities and narrow winding approach from the south.

#### Cardiff International Airport Access

The scheme is proposed to address access problems to Cardiff International Airport and Culverhouse Cross. Detailed investigations are underway to ascertain how well various options address the identified issues whilst taking into account environmental, social and economic considerations. As part of the ongoing study traffic surveys and roadside interviews with travellers on roads in the Vale of Glamorgan area will be carried

National Control of the Control of t	
The Trunk Road Forward Programme 2002 (including 2004 supplement)	
out in early March 2008. It is anticipated that solutions which are considered to best address the issues will be the subject of a public consultation planned to start in July 2008. The study is expected to be complete by the end of 2008.	
A465:A470 to Hirwaun	
A465 Dowlais Top to A470	
Includes the areas: Dowlais Top Junction (phase two), Penywern, Galon Uchaf, Gurnos, Cefn Coed, A470 Junction and West of A470.	
On Hold A4042 Penperlleni A40 Abergavenny	

National Control of the Control of t	
Minerals Planning Policy Wales 2001	
Plan Type	Minerals & Waste
Plan Owner/ Competent Authority	Welsh Assembly Government
Currency	2001
Region/Geographic Coverage	Wales
Sector	Minerals
Related work SA/SEA HRA/AA	N/A
Document Details	Potential impacts that could cause 'in-combination' effects

#### **Minerals Planning Policy Wales 2001**

Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar Sites

23. Minerals proposals within or likely to significantly affect potential and classified SPAs, designated, candidate or proposed SACs or Ramsar sites must be carefully examined in relation to the site's conservation objectives in order to ascertain whether or not they are likely to be significant in terms of the ecological objectives of the site. For the purpose of considering development proposals affecting them, potential SPAs and candidate SACs should be given the same protection and treated as classified SPAs and designated SACs. As a matter of policy, the Assembly has chosen to apply the same considerations to Ramsar sites. If a proposal individually or in combination with other proposals and sites with extant planning permission is likely have a significant effect on such a site, an appropriate assessment of the implications for the site must be made by the planning authority. If the proposal would adversely affect the integrity of the site (taking into account advice from the Countryside Council for Wales) and conditions would not remove this effect, planning permission will not be granted unless there are:

- no alternative solutions (i.e. alternative supplies cannot be made available at reasonable cost; and there is no scope for meeting the need in some other way); and,
- imperative reasons of overriding public interest including those of a social and economic nature. In determining this, authorities should have regard to considerations such as the need for the development in terms of UK mineral supply; and, the impact of permitting the development or refusing it on the local economy. The Assembly would consider the question of whether there are imperative reasons of overriding public interest for the development, taking account of advice from the Countryside Council for Wales, and bearing in mind the views of any other

No locations are specified. The document contains strong policies in regard to the protection of Natura 2000 and Ramsar sites.

### **Minerals Planning Policy Wales 2001**

competent authority.

# Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs)

25. Minerals proposals within SSSIs or likely to affect them should be very carefully considered, and where the impact is likely to be significant they should be subject to the most rigorous examination, and the need for the mineral must be balanced against environmental and other relevant considerations. Particular care should be taken in assessing proposals that are likely to affect an SSSI which has been designated an NNR24. Consideration must always include an assessment of:

- the need for the development in terms of UK considerations of mineral supply;
- the impact of permitting the development or refusing it on the local economy;
- whether alternative supplies can be made available at reasonable cost; and the scope for meeting the need in some other way;
- any detrimental effect of the proposals on the nature conservation interest of the site in terms of habitat, protected species, bio-diversity, environment and landscape, and the extent to which that should be moderated; and,
- in the case of extensions to existing quarries and other mineral extraction sites, the extent to which the proposal would achieve an enhancement to the nature conservation and biodiversity interest of the site.

Proposals for opencast or deep-mine development or colliery spoil disposal will be expected to meet the following

National	
Minerals Planning Policy Wales 2001	
requirements otherwise they should not be approved:	
<ul> <li>within or likely to affect Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs), Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar Sites must meet the additional tests set out in paragraphs 23 and 25 above;</li> </ul>	

National Control of the Control of t	
Welsh Coastal Tourism Strategy Draft Final Strategy Document 20	007
Plan Type	Coastal Strategy
Plan Owner/ Competent Authority	Welsh Assembly Government
Currency	2007
Region/Geographic Coverage	Wales
Sector	Planning
Related work SA/SEA HRA/AA	N/A
Document Details	Potential impacts that could cause 'in-combination' effects
South East – The Capital Network  South East Wales is the most populous area of Wales with the coast zone being a main economic driver. Cardiff and Newport are both coastal located cities and the former has an important tourism role as a capital city, regional shopping and cultural centre, a major sporting venue and increasingly as a conference centre and the Ryder Cup at Newport in 2010.	<ul> <li>Direct loss of habitat through development - Severn Estuary SPA, Ramsar and SAC is present all along the Cardiff coastline.</li> <li>Increased levels of tourism and employment may lead to increased transport movements.</li> <li>Atmospheric pollution generated as a result of employment and transport growth.</li> <li>Increased recreational pressure through water sports.</li> <li>An increased level of waterborne transport and development along the coast has the potential to increase diffuse levels of water pollution.</li> </ul>
The regeneration of Cardiff Waterfront has created an important arc of leisure and recreation facilities around an impounded area of	

# Welsh Coastal Tourism Strategy Draft Final Strategy Document 2007

water. The area also has the more traditional seaside resorts of Barry and Penarth and in the Vale of Glamorgan an extensive length of Heritage Coast. In the east of the area the Gwent Levels are important for its wildlife particularly migrating birds.

Elements to consider in the South East Spatial Plan Area

- Establish and implement standards with regard to tourism facilities, information, accommodation and visitor expectations at popular coastal locations.
- To consider the potential of identifying a pilot area as a 'Coastal Recreation Area'.
- To continue to support the waterfront regeneration initiatives in Barry, Cardiff and Newport.
- To consider the opportunities for enhancing the role of beach wardens and voluntary/coastcare groups in the management and maintenance of beaches.
- To consider the potential of additional or new berths at Cardiff and Newport and the provision of visiting berths at existing marinas.
- To consider the improvement of facilities for cruise liners and for passengers in Cardiff.
- To consider opportunities for exploiting the potential of food, heritage and culture.

# Regional

	Regional	
The South East Wales Consultation Draft Regional Waste Plan 1 <sup>st</sup> Revision Oct 2007		
	Plan Type	Waste & Minerals

Regional	
The South East Wales Consultation Draft Regional Waste Plan 1 <sup>s</sup>	t Revision Oct 2007
Plan Owner/ Competent Authority	South East Wales Regional Waste Group
Currency	Consultation document (ended Dec 2007) Final document due 2008
Region/Geographic Coverage	Wales
Sector	Waste
Related work SA/SEA HRA/AA	Sustainability Appraisal & Life Cycle Analysis of the Strategic Waste Management Options (Environment Agency Wales, 2007).
Document Details	Potential impacts that could cause 'in-combination' effects
The <b>estimated total land area required</b> in South East Wales for new in-building facilities by 2013 for the seven sub-Options ranges from between 48 hectares to 108 hectares. An analysis of the potentially available land area on existing B2 or major industry sites and B2 sites that have already been allocated in development plans has shown that in each UA area for which data is available there is, at the current time, a clear surplus of developable land with a B2 planning permission or proposed use to accommodate the highest estimate of the total land area required for new in-building waste management facilities. In South East Wales there is a total of 734 developable hectares of land with a B2 planning permission or proposed use.	Natura 2000 sites have designated as absolute areas of constraint, constituting areas that are unsuitable for waste management facilities. In addition, impacts on designated sites as a result of placing waste management facilities nearby have been considered.
Biodiversity - The footprint of statutory designated sites, including Special Areas of Conservation, Ramsar sites, Sites of Special Scientific Interest, National Nature Reserves and Special Protection Areas have all been designated as absolute areas of constraint, constituting areas that are unsuitable for waste management facilities. These have subsequently been omitted from the search. In addition, impacts on designated sites as a result of placing waste management facilities nearby have been considered. This has been undertaken by applying buffer areas around the footprint of designated sites, which present areas of some constraint. As the distance from the designated sites increases, the level of constraint	

Regional	
The South East Wales Consultation Draft Regional Waste Plan 1 <sup>st</sup> Revision Oct 2007	
decreases as reflected by the lowering weighting. The buffer zones vary depending on the importance of the designated site; buffers have been derived from information held within current planning policy regarding siting development near such sites, the weightings are appropriate to this and reflect the distance from the designated site, as well as the type of waste facility. For biodiversity issues, the Areas of Search subsequently reflect areas that are considered to be constrained by virtue of planning policy, reflected at the broad, national level. By excluding sites of nature conservation importance and applying buffers around them representing constraints, the permanent negative effects on biodiversity, including flora and fauna, are minimised.	

Regional	
South East Wales Transport Alliance: Regional Transport Plan December 2009	
Plan Type	Regional Transport Plan
Plan Owner/ Competent Authority	South East Wales Transport Alliance
Currency	December 2009
Region/Geographic Coverage	South East Wales Transport Alliance (SEWTA) region
Sector	Transport
Related work SA/SEA HRA/AA	SEA Environmental Report June 2008
Document Details	Potential impacts that could cause 'in-combination' effects
The aim of this RTP is to improve regional transport in South East Wales and help deliver the social, economic and environmental objectives of the Wales Spatial Plan and the Wales Transport Strategy.	The key focus of the regional transport plan is to rebalance capital investment away from road building towards public transport, walking and cycling, this includes investment in travel planning measures.
	The overarching aim of this plan is to seek long term sustainable transport

#### Regional

### South East Wales Transport Alliance: Regional Transport Plan December 2009

The RTP vision is:

To provide a modern, integrated and sustainable transport system for South East Wales that increases opportunity, promotes prosperity and protects the environment; where public transport, walking, cycling and sustainable freight provide real travel alternatives.

Sewta's priorities build on the RTP's vision. They tackle Sewta's main problems and they set the general direction of the RTP, as follows:

- 1. To improve access to services, facilities and employment, particularly by public transport, walking and cycling;
- 2. To provide a transport system that increases the use of sustainable modes of travel;
- 3. To reduce the demand for travel;
- 4. To develop an efficient and reliable transport system with reduced levels of congestion and improved transport links within the Sewta region and to the rest of Wales, the UK and Europe;
- 5. To provide a transport system that encourages healthy and active lifestyles, is safer and supports local communities:
- 6. To reduce significantly the emission of greenhouse gases and air pollution from transport;
- 7. To ensure that land use development in South East Wales is supported by sustainable transport measures;
- 8. To make better use of the existing transport system;
- 9. To play a full role in regenerating South East Wales.

The document identifies a number of specific core activities and interventions that according to SEWTA are absolutely critical to achieving its vision.

- 1. Continuing investment into the regional rail system.
- 2. Improving quality of the bus services.
- 3. Developing of public transport integration.
- 4. Making better use of the existing road system.

solutions. Key objectives include seeking a modal shift for private and freight transports onto more sustainable modes, reducing the impact of the transport system on the natural environment, reducing greenhouse gas emissions from transport, and reducing traffic growth and congestion.

- The in-combination effects of the Regional Transport Plan with Local Development Plans are likely to be positive in the long-term.
- The shared approach of these plans to deliver more sustainable transport and travel solutions for commercial and private traffic provides strong support for overarching aims to reduce air pollution which can contribute to the reduction of damaging effects to habitats and species.

# Regional

### South East Wales Transport Alliance: Regional Transport Plan December 2009

5. Development of a Smarter Choice programme (including walking and cycling).

"Three 'Strategic Opportunity Areas" (SOAs) have been identified. These areas are: Development linked to the dualling of the Heads of the Valleys Road (A465);

The area around Llantrisant and North West Cardiff; and The development in the Vale of Glamorgan linked to the proposed St Athan military training academy.

#### The RTP objectives are:

- To ensure that communities have access to a good range of employment opportunities, particularly by public transport, walking and cycling
- To improve access to services and facilities, particularly by public transport, walking and cycling
- To achieve seamless interchange within and between modes of transport
- To achieve a modal shift towards more sustainable forms of transport for moving both people and freight
- To improve actual and perceived levels of personal security when travelling
- To improve the efficiency and reliability of the transport system
- To improve connections between the SEWTA region and the rest of Wales, the UK and Europe by improving transport links that do not have an adverse impact on climate change
- To reduce traffic growth and traffic congestion
- To make better use of the existing road system
- To ensure that land use developments in South East Wales are supported by sustainable transport measures
- To regenerate town centres, brown-field sites and local

Regional	
South East Wales Transport Alliance: Regional Transport Plan December 2009	
<ul> <li>communities through appropriate transport provision</li> <li>To reduce the number and severity of road traffic casualties</li> <li>To promote travel modes that provide for healthier lifestyles</li> <li>To reduce the dominance of motor traffic on the local street scene to the benefit of residents, pedestrians and cyclists</li> <li>To reduce the impact of the transport system on the natural and built environment</li> <li>To make the transport system more robust with respect to the consequences of climate change</li> <li>To reduce significantly the emission of greenhouse gases from transport</li> <li>To make the public more aware of the consequences of their travel choices on climate, the environment and health</li> </ul>	

Regional	
SEWTA Rail Strategy Study Jan 2006	
Plan Type	Rail Strategy
Plan Owner/ Competent Authority	South East Wales Transport Alliance
Currency	2009 - 2018
Region/Geographic Coverage	Wales – with regional sections Including South East Wales Transport Alliance (SEWTA) region
Sector	Transport
Related work SA/SEA HRA/AA	N/A
Document Details	Potential impacts that could cause 'in-combination' effects

#### Regional

#### **SEWTA Rail Strategy Study Jan 2006**

In summary the strategy includes:

- Additional rolling stock to strengthen peak trains to provide for passenger growth and to avoid overcrowding and rolling stock renewal:
- Station improvements including improved station facilities, information, security and access - including additional parking;
- Reliability and capacity improvements; changes to the network to reduce delays and improve the ability to cope with performance problems; specifically at Cardiff Central, Cardiff Queen Street, Barry, Cogan Junction and Llandaff;
- Frequency enhancements on existing lines; improving the levels of service on selected routes to meet passengers' expectations and increase the transfer of car trips to rail; specifically new services on the Abergavenny, Chepstow, Ebbw Vale, Rhymney Valley, Taff Vale and Vale of Glamorgan Lines. Additional services to the north of Cardiff are required to cope with the growth in passenger demand and will require a significant investment in the capacity of the network at and between Cardiff Queen Street and Cardiff Central stations;
- New stations on existing lines; improving access to the rail network and integrated with the development of improved services; specifically at Caerleon, Magor with Undy, Llanwern, Coedkernew and St Mellons. With those on the main line between Cardiff and Severn Tunnel sited on the Relief Lines;
- Network extensions and new stations; to investigate further improving access to the rail network through extending to Ebbw Vale Town and from Pontyclun to Beddau (with stations at Talbot Green, Llantrisant, Gwaun Meisgyn & Beddau); and
- Rail Link Bus Services; to extend the reach of the rail services to communities remote from the network, specifically providing access to the Valleys to the north of Cardiff and Newport.

Improvements to the rail network could lead to a reduction in car use and improvements to air quality in the region.

# **Regional outside SE Wales**

Catchment Abstraction Management Strategies The Thaw & Cadoxton Catchment Abstraction Management Strategy 2006	
Plan Type	Catchment Abstraction Management Strategy
Plan Owner/ Competent Authority	Environment Agency Wales
Currency	2006-2011
Region/Geographic Coverage	Thaw and Cadoxton Catchment
Sector	Water
Related work SA/SEA HRA/AA	N/A
Document Details	Potential impacts that could cause 'in-combination' effects
The document sets out how the Environment Agency Wales will	Under the Habitats Regulations the Environment Agency Wales has a duty to assess
manage water abstraction from the Thaw and Cadoxton catchment until 2011. The strategy provides the framework for	the effects of existing abstraction licences and any new applications to make sure they are not impacting on internationally important nature conservation sites. Water
any decision on an abstraction license application.	efficiency is also tested by the EA before a new license is granted. If the assessmen
, , , , , , , , , , , , , , , , , , , ,	of a new application shows that it could have an impact on a SAC/SPA the EA will
The Thaw & Cadoxton CAMS area encompasses approximately 159km2 of the distinctive lowland landscape of the Vale of	have to follow strict rules in setting a time limit for that license.
Glamorgan. The principal town in the catchment is Barry, with the	The catchment has been split into 5 Water Resource Management Units (WRMU)
market town of Cowbridge to the west and Penarth to the east.	and 5 Groundwater Management Units (GWMU). The document states that WRMU
Although some parts of the catchment are heavily industrialised	and all 5 of the GWMUs have 'water available'. WRMUs 2 to 4 are considered to
the catchment as a whole is predominantly rural with much of the land area used for agriculture.	have 'no water available', while WRMU 10 is assessed to be 'over abstracted'.
iana area asea for agriculture.	Both the River Thaw and the River Cadoxton ultimately flow into the Severn Estuary

	Therefore any impact to the Severn Estuary caused by changes to the water resource management of the catchment needs is considered as part of the CAMS process.
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Catchment Abstraction Management Strategies	
The Taff and Ely Catchment Abstraction Management Strategy	2006
Plan Type	Catchment Abstraction Management Strategy
Plan Owner/ Competent Authority	Environment Agency Wales
Currency	2006-2010
Region/Geographic Coverage	Taff and Ely Catchment
Sector	Water
Related work SA/SEA HRA/AA	N/A
Document Details	Potential impacts that could cause 'in-combination' effects
The document sets out how the Environment Agency Wales will manage water abstraction from the Taff and Ely catchment until 2010. The strategy provides the framework for any decision on an abstraction license application.  The Taff and Ely have a total catchment area of approximately 576 km2, which encompasses the River Taff, the River Ely and their respective tributaries. A large groundwater abstraction occurs at Ely Wells (in the lower Ely catchment) providing water for operations at Aberthaw Power Station. In the upper areas of the catchment there are carboniferous limestone and sandstone units (capable of supporting significant yields), which are currently not being used to their full potential.	Under the Habitats Regulations the Environment Agency Wales has a duty to assess the effects of existing abstraction licences and any new applications to make sure they are not impacting on internationally important nature conservation sites. Water efficiency is also tested by the EA before a new license is granted. If the assessment of a new application shows that it could have an impact on a SAC/SPA the EA will have to follow strict rules in setting a time limit for that license.  The catchment has been split into 3 Water Resource Management Units (WRMU) and 1 Groundwater Management Unit (GWMU). The document states that two of the WRMUs and the GWMU are over licensed. The WRMU that contains the River Ely has water available for abstraction.  Blaen Cynon SAC falls within WRMU 6 which according to the CAMS is over licensed. The Resource availability status of WRMU 6 is that there will be no water available by 2016. A reduction in the water table could affect the devil's-bit scabious, which prefers moist soils. The Marsh Fritillary Butterfly requires this plant species as it is their larval food.

Catchment Abstraction Management Strategies	
The Ebbw and Lwyd Catchment Abstraction Management Strat Plan Type	Catchment Abstraction Management Strategy
Plan Owner/ Competent Authority	Environment Agency Wales
Currency	2006-2010
Region/Geographic Coverage	Ebbw and Lwyd Catchment
Sector	Water
Related work SA/SEA HRA/AA	N/A
Document Details	Potential impacts that could cause 'in-combination' effects
The document sets out how the Environment Agency Wales will manage water abstraction from the Ebbw and Lwyd catchment until 2010. The strategy provides the framework for any decision on an abstraction license application.  The Ebbw and Lwyd CAMS cover an area of approximately 330 km2 and encompasses the River Ebbw, River Sirhowy and the River Lwyd as well as their respective tributaries. The area extends from the mountainous landscape and steep river channels in the north to the urbanised valley floors in the south. The main urban areas associated with the River Lwyd are Cwmbran and Blaenavon. The main urban areas, which are situated on the Ebbw River are Ebbw Vale and Risca. The River Sirhowy passes through the towns of Tredegar and Blackwood. In this CAMS area water is abstracted from both surface water and groundwater for agriculture, industry, domestic use and public water supply.	Under the Habitats Regulations the Environment Agency Wales has a duty to assess the effects of existing abstraction licences and any new applications to make sure they are not impacting on internationally important nature conservation sites. Water efficiency is also tested by the EA before a new license is granted. If the assessment of a new application shows that it could have an impact on a SAC/SPA the EA will have to follow strict rules in setting a time limit for that license.  The catchment has been split into 3 Water Resource Management Units (WRMU). The document states that WRMU 1 (Ebbw and Sirhowy) is over abstracted, WRMU 2 (Lwyd) has no water available and WRMU 3 (Lwyd) is over licensed.  The River Usk SAC lies outside the boundary of the Ebbw and Lwyd CAMS. The River Lwyd (WRMU 10 & 14) however is a tributary of the River Usk and could therefore have an influence on water flow within the lower reaches of the River Usk SAC. The site is sensitive to changes in water flow and eutrophication, which can both be influenced by levels of abstraction.
	The Severn Estuary SAC, SPA and Ramsar sites are all sensitive to changes in the hydrological regime. All CAMS in SE Wales drain into the Severn Estuary and therefore have the potential to affect the habitats and species reliant on the estuary.

06
Catchment Abstraction Management Strategy
Environment Agency Wales
2006-2010
Rhymney Catchment
Water
N/A
Potential impacts that could cause 'in-combination' effects
Under the Habitats Regulations the Environment Agency Wales has a duty to assess the effects of existing abstraction licences and any new applications to make sure they are not impacting on internationally important nature conservation sites. Water efficiency is also tested by the EA before a new license is granted. If the assessment of a new application shows that it could have an impact on a SAC/SPA the EA will have to follow strict rules in setting a time limit for that license.  The catchment has been split into 4 Water Resource Management Units (WRMU). The document states that WRMU 1, 2 and 3 all have water available. WRMU 6 has no water available. All the WRMUs are combined surface water/groundwater units.
Aberbargoed Grasslands SAC is situated within WRMU 3, which according to the CAMS has water available for abstraction. The CAMS states that the Aberbargoed Grasslands SAC "will be taken into consideration during the licence determination process for applications within its vicinity".

rgely natural course with many of the watercourses remaining ee-lined.
Vithin Cardiff, the Brook and its tributaries have been modified by nan including diversions, culverting, revetments and reprofiling.

Catchment Abstraction Management Strategies	
The Usk Catchment Abstraction Management Strategy 2006	
Plan Type	Catchment Abstraction Management Strategy
Plan Owner/ Competent Authority	Environment Agency Wales
Currency	2007-2013
Region/Geographic Coverage	Usk Catchment
Sector	Water
Related work SA/SEA HRA/AA	N/A
Document Details	Potential impacts that could cause 'in-combination' effects
The document sets out how the Environment Agency Wales will manage water abstraction from the Rhymney catchment until 2013. The strategy provides the framework for any decision on an abstraction license application.	Under the Habitats Regulations the Environment Agency Wales has a duty to assess the effects of existing abstraction licences and any new applications to make sure they are not impacting on internationally important nature conservation sites. Water efficiency is also tested by the EA before a new license is granted. If the assessment of a new application shows that it could have an impact on a SAC/SPA the EA will
The Usk CAMS covers an area of approximately 1169 km2 and encompasses the River Usk and its tributaries, but not the Usk Estuary. The main settlements within the catchment are Abergavenny, Brecon, Brynmawr, Crickhowell, Gilwern, Llanelly Hill, Llanfoist, Newport, Raglan, Sennybridge and Usk.	have to follow strict rules in setting a time limit for that license.  The catchment has been split into 3 Water Resource Management Units (WRMU).  The document states that WRMU 1 (Sor Brook) has water available, WRMU 2 (River Usk) is over licensed and WRMU 18 (Bettws/Malpas Brook) is over licensed.
In this CAMS area water is taken from both surface water and groundwater resources. Water is abstracted for public water supply, navigation, agriculture, commerce/industry, domestic use, spray irrigation, horticultural watering, lake/pond maintenance, fish	The River Usk SAC, Usk Bat Sites SAC and Coed y Cerrig SAC are situated within WRMU 2, which according to the CAMS is over licensed.  The River Usk SAC is sensitive to any changes in the hydrological regime, more

farming and hydropower generation.

The River Usk is a sandstone river of considerable ecological diversity, which provides an important wildlife corridor, an essential migration route and a key breeding area for many nationally and internationally important species.

The ecology of the River Usk SAC is currently affected by, or at risk of being affected by, a number of factors including abstraction. As a competent and relevant authority, the Environment Agency has a statutory duty, under the Habitats Regulations, to ensure that the integrity of the riverine ecosystem is maintained or restored through sustainable water resources management.

specifically any changes to water flow and quality.

Usk Bat Sites SAC are primarily designated for the population of Lesser Horseshoe Bats. Abstraction levels are unlikely to have a direct effect on the bat population but could have issues for the habitats the bats use for feeding. The Blanket Bog protected as a qualifying feature is sensitive to hydrological change.

Coed y Cerrig SACs naturally high, largely spring-fed water table is essential to the Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*.

Catchment Abstraction Management Strategies	
The Wye Catchment Abstraction Management Strategy March 2008	
Plan Type	Catchment Abstraction Management Strategy
Plan Owner/ Competent Authority	Environment Agency Wales
Currency	2008 - 2014
Region/Geographic Coverage	Wye Catchment
Sector	Water
Related work SA/SEA HRA/AA	N/A
Document Details	Potential impacts that could cause 'in-combination' effects
The document sets out how the Environment Agency Wales will manage water abstraction from Wye catchment until 2014. The strategy provides the framework for any decision on an abstraction license application.	Under the Habitats Regulations the Environment Agency Wales has a duty to assess the effects of existing abstraction licences and any new applications to make sure they are not impacting on internationally important nature conservation sites. Water efficiency is also tested by the EA before a new license is granted. If the assessment of a new application shows that it could have an impact on a SAC/SPA the EA will
TheWye CAMS covers an area of 4171 km2, encompasses the RiversWye, Lugg and their tributaries, and spans the border of	have to follow strict rules in setting a time limit for that license.

England andWales. The main urban areas within the catchment are Hereford, Monmouth, Leominster, Ross-on-Wye and Hay-on-Wye.

The Environment Agency has a statutory duty, to ensure that the integrity of the riverine SAC ecosystem is maintained or restored through sustainable water resources management. As part of this duty, they have to ensure that permissions (abstraction licences, discharge consents, radioactive substance authorisations, waste management licences and integrated pollution control (IPC) authorisations) do not have an adverse effect on the integrity of the designated SAC species.

The catchment has been split into 4 Water Resource Management Units (WRMU). The document states that all 4 WRMUs are assessed to have 'no water available'.

The River Wye ultimately flows into the Severn Estuary. Therefore any impact to the Severn Estuary caused by changes to the water resource management of the catchment needs is considered as part of the CAMS process.

Local Development Plans	
Blaenau Gwent County Borough Council Local Development Plan	
Plan Type	Local Development Plan
Plan Owner/ Competent Authority	Blaenau Gwent County Borough Council
Currency	Issues Consultation Apr - Dec 07, Preferred Strategy Sept-Nov 08
Region/Geographic Coverage	Blaenau Gwent County Borough Council administrative boundaries
Sector	Planning
Related work SA/SEA HRA/AA	SA/SEA Scoping Report
Document Details	Potential impacts that could cause 'in-combination' effects
LDP at vision and strategy options stage.	Overarching Development Pressures
Timetable: Early participation Apr – Dec07 Preferred Strategy Sep- Nov 08 Deposit Plan Sep-Nov 09 Examination Dec-Fev '11 Adoption Aug'11  Issues paper presented in July 2007 designed to focus debate on issues of strategic significance for the County Borough. Workshops held between July 2007 and Nov 2007 focused on developing option.	LDP impacts will be dependant on the Preferred Strategy options.  Generic effects related to development/ growth scenarios include:  Potential for land take/ habitat fragmentation Increased demand for water resources/ abstraction/ hydrological impacts Increased traffic movements, contributions to atmospheric pollution loading Growth in requirements for waste management facilities, increased demand for minerals Increased recreational pressure from existing/ new populations  SAC Specific Issues
Options presented:  1. UDP Regeneration (Decline – Urban Containment) 2. Growth and Regeneration (Growth - Head of Valleys focus) 3. Balanced and Interconnected Communities (Trend – equalise growth)	<ul> <li>Cym Clydach Woodlands SAC within the County Borough Boundary is vulnerable to urbanisation impacts (e.g. illegal waste dumping activities made possible by roads passing through the site) and increased recreational pressures (e.g. from greater access due to the construction of a cycle route through the site).</li> </ul>

Local Development Plans	
Blaenau Gwent County Borough Council Local Development Plan	
Alternative option – (main focus not indicated)	

Local Development Plans	
Brecon Beacons National Park Authority Interim Unitary Development Plan 2007	
Plan Type	Unitary Development Plan
Plan Owner/ Competent Authority	Brecon Beacons National Park Authority
Currency	2001 - 2016
Region/Geographic Coverage	Brecon Beacons National Park Authority administrative boundaries
Sector	Planning
Related work SA/SEA HRA/AA	N/A
Document Details	Potential impacts that could cause 'in-combination' effects
Part 1 Policy 11:  Ensuring Access to Employment Opportunities  Proposals for appropriate commercial development will be permitted where they: i. enable the creation and expansion of businesses which support and diversify the rural economy;  retain existing employment uses;  utilise redundant buildings or brownfield sites;  use local skills, products or resources including natural resources in a sustainable way;  use existing transport routes and facilitate the use of alternative modes of transport;  are reasonably accessible to adequate services and utilities;	<ul> <li>Overarching Development Pressures</li> <li>Enhanced growth implies potential land take and habitat fragmentation issues (the SA/SEA identified enhanced growth as resulting in higher environmental impacts on biodiversity and landscape). Land without statutory designation can act as corridors and linkages for protected habitats and species.</li> <li>Housing and employment growth - increased transport movements and associated air pollutants - e.g. as a result of development in the Heads of the Valleys Regeneration Area which may lead to commuting across administrative boundaries.</li> <li>Water abstraction for new development - potential to impact surface and groundwater.</li> <li>Recreational pressures from housing/ development that is close to European sites.</li> </ul>

### **Brecon Beacons National Park Authority Interim Unitary Development Plan 2007**

- facilitate mixed-use development; orsupport Welsh culture.
- ii. Development proposals that cause unacceptable adverse impacts to the commercial vitality and viability of the area will not be permitted.
- iii. A number of sites are allocated for commercial use under Policies SS4 and SS5. The supply and demand for land for commercial uses will be regularly reviewed.

#### Part 1 Policy 12:

Supply of Housing Land
The UDP will make provision for 1980 new dwellings.

Policy SS1: Housing Land in the First Tier Settlements Within the First Tier Settlements of Brecon, Hay-on-Wye, Crickhowell, Sennybridge, Talgarth, Gilwern, and Govilon, are allocated for residential development of 6 or more units.

The majority of development will be focused in the North and South East of the National Park.

# Policy Q1: Sites of European Importance

Proposals for development which may have an unacceptable impact on a European Site or potential European Site will not be permitted unless:

- i. the proposed development is directly connected with or necessary for the protection, enhancement and positive management of the site for conservation purposes;
- ii. the proposed development will not have an unacceptable impact on the conservation objectives associated with the site or the integrity of the site;
- iii. where the site supports priority habitats and/or species, there are reasons of public health or safety why the development should proceed;
- iv. where the site supports interests not identified as a priority, there are imperative reasons of overriding public interest why the development should proceed; and
- v. there is no alternative solution.

Local Development Plans	
Bridgend County Borough Council Local Development Plan Strategic Options and Preferred Strategy:	
Plan Type Local Development Plan	
Plan Owner/ Competent Authority	Bridgend County Borough Council
Currency	Draft Preferred Options May/June 2007
	Deposit LDP April 2008- May 2009
Region/Geographic Coverage	Bridgend County Borough Council administrative boundaries

Local Development Plans	
Bridgend County Borough Council Local Development Plan St	rategic Options and Preferred Strategy:
Sector	Planning
Related work SA/SEA HRA/AA	SA/SEA Report
Document Details	Potential impacts that could cause 'in-combination' effects
Spatial Assessment of Draft Strategic Growth Options – Nov 2007.	Overarching Development Pressures
Two Draft Strategic Growth Options recommended by the Council (June 2007).	LDP impacts will be dependant on the final Preferred Strategy option.
(Gallo 2007).	Generic effects related to development/ growth scenarios include:
<ul> <li>Trends-Based Growth Strategy</li> <li>Produces a dwelling requirement up to 2021 of 8,100 dwellings. Includes an implicit commitment to 6,930 dwellings.</li> <li>A 217ha supply of employment land is currently available (applies to both strategy options).</li> <li>UDP Growth Strategy</li> <li>Produces a dwelling requirement of 7,470 dwellings between 2006 and 2021.</li> </ul>	<ul> <li>Potential for land take/ habitat fragmentation</li> <li>Increased demand for water resources/ abstraction/ hydrological impacts</li> <li>Increased traffic movements, contributions to atmospheric pollution loading</li> <li>Growth in requirements for waste management facilities, increased demand for minerals</li> <li>Increased recreational pressure from existing/ new populations</li> </ul>
	SAC Specific Issues
<ul> <li>Options for pursuing the Trend Based Growth Strategy:         <ul> <li>1. Economic led – focusing development on Bridgend and other main settlements with available employment opportunities to optimise their locational economic advantages whilst reducing the need to travel. Dwellings accommodated within existing settlement boundaries.</li> <li>2. Regeneration Led – focusing development with the Valleys and Valley Gateway north of the M4 to promote the regeneration priorities of the County Borough. Development can be accommodated within existing settlement boundaries in Llynfi Valley and the Valleys gateway but may need relaxing in the Ogmore and Garw Valleys.</li> <li>3. Population Led – a dispersed pattern of development with</li> </ul> </li> </ul>	<ul> <li>Blackmill Woodlands SAC and Cefn Cribwr Grasslands SAC are both vulnerable to air pollution and development patterns that result in traffic growth near these sites have the potential to lead to significant effects.</li> </ul>
in the main urban areas optimizing the use of committed sites and allocating new development relative to the existing size of	

Local Development Plans	
Bridgend County Borough Council Local Development Plan Strategic Options and Preferred Strategy:	
the settlement. Dwellings can be accommodated within existing settlement boundaries.	

Local Development Plans	
Caerphilly County Borough Council Deposit LDP Consultation October 2008	
Plan Type	Local Development Plan
Plan Owner/ Competent Authority	Caerphilly County Borough Council
Currency	Deposit Plan Consultation (finished on 16 <sup>th</sup> November 2008)
Region/Geographic Coverage	Caerphilly County Borough Council administrative boundaries
Sector	Planning
Related work SA/SEA HRA/AA	SA/ SEA of the Deposit Plan HRA/ AA of the Deposit Plan
Document Details	Potential impacts that could cause 'in-combination' effects
The Deposit LDP is comprised of three parts, the first of which is the Development Strategy which sets the strategic framework and policies necessary to deliver land use planning in the County Borough. The Development Strategy splits the County Borough into three parts; The Heads of the Valleys Regeneration Area, the Northern Connections Corridor and the Southern Connections Corridors. Part two of the Deposit LDP comprises the criteria based policies (Countywide Policies) against which development proposals will be determine and part three contains the allocations where development is expected to be located and where areas of land use protection are to be found (Area Specific Policies).	Overarching Development Pressures  Generic effects related to development/ growth scenarios include:  Potential for land take/ habitat fragmentation Increased demand for water resources/ abstraction/ hydrological impacts Increased traffic movements, contributions to atmospheric pollution loading Growth in requirements for waste management facilities, increased demand for minerals Increased recreational pressure from existing/ new populations
Development Strategy for the LDP is based on three broad areas:	SAC Specific Issues:

### Caerphilly County Borough Council Deposit LDP Consultation October 2008

- The Heads of the Valleys Regeneration Area (HOVRA)
- The Northern Connections Corridor (NCC)
- The Southern Connections Corridor (SCC)

The Deposit LDP is underpinned by eight components which set a framework for the approach to - and the nature of - land use development. They are:

- 1. Target development to reflect the roles and functions of individual settlements
- 2. Allow for development opportunities in the Heads of the Valleys Regeneration Area
- 3. Promote a balanced approach to managing future growth
- 4. Exploit brownfield opportunities where appropriate
- 5. Promote resource efficient settlement patterns
- 6. Ensure development contributes towards necessary infrastructure improvements
- 7. Ensure development provides necessary community facilities
- 8. Reduce the impact of development upon the countryside

# **Settlement Strategy**

SP4 The Council will support existing settlements, which will be enhanced based on their role and function in the settlement strategy:

#### **Principal Towns:**

- Bargoed (HOVRA)
- Blackwood (NCC)
- Ystrad Mynach (NCC)
- Caerphilly (SCC)
- Risca / Pontymister (SCC)

# **Key Settlements**:

Rhymney (HOVRA)

- Cardiff Beech Woods is within 500m and is vulnerable to air pollution and recreational pressure.
- Aberbargoed Grasslands SAC covers an area of 42.5ha and lies on a southwest facing hillside in the Rhymney Valley, 1km east of Bargoed and adjacent to the A4049. The site is vulnerable to recreational pressure, air pollution and changes in water quantity and quality. The HRA Report of the Deposit LDP (July 2008) concluded that "impacts predicted to arise from the implementation of the plan when considered in-combination with the potential impacts from other surrounding plans and projects, would not significantly affect the integrity of the SAC".

Local Development Plans	
Caerphilly County Borough Council Deposit LDP Consultation	October 2008
Nelson (NCC)	
<ul><li>Newbridge (NCC)</li></ul>	
Bedwas (SCC)	
Residential Areas:  All other villages within settlement limits	
Total Housing Requirements SP16 The Council has made provision for the development of 8,625 new dwellings in the County Borough between 2006 and 2021.	
Managing Employment Growth SP18 The Council has made provision for the development of 104.3 hectares of employment land in the County Borough between 2006 and 2021. This requirement will be met principally through the development of a range of employment sites including the following: A Business Parks B Primary Industrial Estates C Secondary Industrial Estates	

Local Development Plans	
Merthyr Tydfil County Borough Council Local Development Plan 2006 – 2021 Deposit Plan 2008	
Plan Type	Local Development Plan
Plan Owner/ Competent Authority	Merthyr Tydfil County Borough Council
Currency	2006-2021

Local Development Plans	
Merthyr Tydfil County Borough Council Local Development Pla	n 2006 – 2021 Deposit Plan 2008
Region/Geographic Coverage	Merthyr Tydfil County Borough Council administrative boundary
Sector	Planning
Related work SA/SEA HRA/AA	SA of the Deposit Plan September 2008 HRA Screening of the Deposit Plan August 2008
Document Details	Potential impacts that could cause 'in-combination' effects
This document outlines the main development issues to be addressed in Merthyr Tydfil and sets out a vision and objectives for tackling these issues. It considers the spatial strategy options available and considers the development implications of following this particular route, including the major sites on which the strategy will depend.  The LDP is pursuing an Enhanced Growth Strategy that aims to "facilitate a reduction in current levels of out migration from the County Borough so that population levels stabilise by 2011 and a 10- year period of enhanced growth is achieved thereafter".	Overarching Development Pressures  Generic effects related to development/ growth scenarios include:  Potential for land take/ habitat fragmentation Increased demand for water resources/ abstraction/ hydrological impacts Increased traffic movements, contributions to atmospheric pollution loading Growth in requirements for waste management facilities, increased demand for minerals Increased recreational pressure from existing/ new populations
<ul> <li>Overall, the deposit plan aims to provide the basis for meeting the economic, social and environmental needs of the County Borough in order that they:         <ul> <li>Reflect local aspirations for Merthyr Tydfil based on the vision agreed by the local community and other stakeholders</li> <li>Provide a basis for rational and consistent development decisions</li> <li>Guide growth and change, while protecting local diversity, character and sensitive environments.</li> </ul> </li> <li>The three spatial zones have been directly translated in the Enhanced Growth Strategy into the following growth areas:         <ul> <li>Primary Growth Area comprising the northern sector communities of Pant, Dowlais, Penydarren, Galon Uchaf, Gurnos, Swansea Road, Heolgerrig, Cefn coed, Twynyrodyn,</li> </ul> </li> </ul>	<ul> <li>SAC Specific Issues</li> <li>There are no European sites within the County Borough Boundaries.</li> <li>Blaen Cynon SAC (approx 5km) and Cardiff Beech Woods SAC (12.1km) are situated adjacent to major transport routes (A 470, A465) which intersect within the County Borough. LDP policies seek to reduce road based transportation, and air quality assessments in the County Borough (2004 most recent figures) show that no air quality objectives are being exceeded.</li> <li>Improved emissions standards/ greater use of public transport likely to contribute to improvements in air quality - lessens likelihood of cumulative impacts at sensitive sites.</li> <li>The HRA screening concluded that the LDP Preferred Strategy policies in implementation will not have a significant effect on the N2K sites considered in the assessment.</li> </ul>

# **Local Development Plans** Merthyr Tydfil County Borough Council Local Development Plan 2006 - 2021 Deposit Plan 2008 Town Centre, Georgetown, Abercanaid and Pentrebach. Secondary Growth Area comprising the southern sector communities of Edwardsville, Treharris, Trelewis and Quakers Yard. Other Growth Areas comprising the mid valley communities of Troedyrhiw, Aberfan, Merthyr Vale and Bedlinog. Merthyr Tydfil is identified as a Primary Growth Area and will form the focus for the majority of development, with the town centre acting as the lynchpin for regeneration. **Policy BW13: Managing Housing Growth** During the plan period 2006-2021, land is allocated for the provision of approximately 3990 new dwellings in order to accommodate the anticipated needs of the population. **Policy BW14: Managing Employment Growth** During the plan period 2006-2021, 40 hectares of land is allocated to provide a suitable range of sites to accommodate the anticipated business and employment needs of the County Borough.

Local Development Plans	
Monmouthshire County Council Local Development Plan Options Report December 2008	
Plan Type Local Development Plan	
Plan Owner/ Competent Authority	Monmouthshire County Council
Currency	2011 - 2026
Region/Geographic Coverage	Monmouthshire County Council administrative boundary

Local Development Plans	
Monmouthshire County Council Local Development Plan Option Sector	Planning
Related work SA/SEA HRA/AA	SA Scoping Report March 2008
Document Details	Potential impacts that could cause 'in-combination' effects
The Monmouthshire Draft LDP Vision:	Overarching Development Pressures
By 2021, Monmouthshire will be a place where:	Generic effects related to development/ growth scenarios include:
<ol> <li>The distinctive character of its built heritage, countryside and environmental assets has been protected and enhanced.</li> <li>People live in more inclusive, cohesive, prosperous and vibrant communities, both urban and rural, where there is better access to local services, facilities and employment opportunities.</li> <li>People enjoy more sustainable lifestyles that give them opportunities for healthy activity, reduced reliance on the private motorcar and minimised impact on the global environment.</li> </ol>	<ul> <li>Potential for land take/ habitat fragmentation</li> <li>Increased demand for water resources/ abstraction/ hydrological impacts</li> <li>Increased traffic movements, contributions to atmospheric pollution loading</li> <li>Growth in requirements for waste management facilities, increased demand for minerals</li> <li>Increased recreational pressure from existing/ new populations</li> <li>SAC Specific Issues</li> <li>Monmouthshire County Council has 11 European sites within its administrative</li> </ul>
For the purposes of the public consultation three possible levels of growth are put forward for consideration:  Option 1 - 'Environmental Capacity' Option 250 dwellings per year. Option 2 - 'Regional Collaboration' Option 350 dwellings per year. Option 3 - 'Market Led Growth' Option 475 dwellings per year.  From a strategic point of view, however, it is considered that the main settlements in the County can be clearly identified: Main towns.	<ol> <li>Coed y Cerrig - SAC</li> <li>Cwm Clydach Woodlands - SAC</li> <li>River Usk - SAC</li> <li>River Wye/ Afon Gwy - SAC</li> <li>Severn Estuary - SAC</li> <li>Severn Estuary - Ramsar</li> <li>Severn Estuary - SPA</li> <li>Sugar Loaf Woodlands - SAC</li> <li>Usk Bat Sites - SAC</li> <li>Wye Valley Woodlands - SAC</li> <li>Wye Valley and Forest of Dean Bat Sites - SAC</li> </ol>

#### Monmouthshire County Council Local Development Plan Options Report December 2008

Abergavenny/Llanfoist Chepstow

Monmouth Caldicot/Portskewett

Secondary settlements.

Rural: Other 'Severnside' settlements:

Usk Magor/Undy

Raglan Rogiet

Penperlleni Sudbrook

It is these main settlements that will provide the focus of the suggested strategic spatial options. For the purposes of the public consultation four possible options for the spatial distribution of new housing development are put forward for consideration:

- A. Focus development within or adjoining the three main towns of Abergavenny, Chepstow and Monmouth where there is the best access to jobs, services and public transport.
- B. Focus development on the 'Severnside' area around the M4 corridor in an attempt to harness its strategic location to promote growth and achieve a 'critical mass' to boost public transport, employment, services and community facilities.
- C. Distribute development proportionately across rural and urban areas to meet housing needs evenly throughout the County, although focusing in rural areas on those small towns and main villages where there is a basic level of services and facilities.
- D. Focus development on sites and settlements where opportunities exist for large scale mixed development to enable new residential development to be accompanied by an associated increase in employment opportunities.

Local Development Plans		
Newport City Council Unitary Development Plan (Adopted May	2006)	
Plan Type	Local Development Plan	
Plan Owner/ Competent Authority	Newport City Council	
Currency	1996 – 2011 (Adopted May 2006)	
Region/Geographic Coverage	Newport City Council administrative boundary	
Sector	Planning	
Related work SA/SEA HRA/AA	N/A	
Document Details	Potential impacts that could cause 'in-combination' effects	
The main emphasis of the plan is a "Brownfield" strategy. Newport has a considerable quantity of regeneration sites, and their redevelopment is a key aim of the plan. As well as conserving land, this also helps to achieve the objective of reducing the need to travel, and thereby contributes to sustainability.  Housing  SP10 sufficient land will be made available to provide for additional dwellings as follows:  1996-2001: 1800 2001-2006: 2000	Overarching Development Pressures      Housing and employment growth - increased transport movements and associated air pollutants - e.g. as a result of development in the Heads of the Valleys Regeneration Area which may lead to commuting across administrative boundaries.      Water abstraction for new development – potential to impact surface and groundwater.      Recreational pressures from housing/ development that is close to European sites.	
<ul> <li>2006-2011: 3700</li> <li>Each period is to be regarded as self-contained, with excesses or deficits of house building not being carried over into the next period. The land will be provided primarily on previously developed land in the following ways: <ol> <li>existing commitments, sites under construction and completions since 1 january 1996;</li> <li>new allocations as set out in policy h1;</li> <li>infill and windfall site development within the settlement boundaries, not specifically allocated, to provide a further 400</li> </ol> </li> </ul>	<ul> <li>Development of Brownfield sites in close proximity to the River Usk SAC could have the potential to significantly affect water quality as a result of construction activities. This also has implications for the River Severn SPA/ Ramsar/ SAC as the River Usk flows into the Severn Estuary. Any development that would involve the building of a bridge across the River Usk SAC has the potential to have significant effects on migratory fish populations.</li> <li>Below are policies within the Plan that have specific reference to European sites.</li> </ul>	

### **Newport City Council Unitary Development Plan (Adopted May 2006)**

dwellings. Further major housing development outside existing settlement boundaries will not be permitted.

#### Major Road Schemes

**SP14** land will be safeguarded for the following strategic highway schemes:

- i. M4 relief road;
- ii. eastern extension of the southern distributor road along queensway through the llanwern steelworks site.

#### **Employment Land Requirement**

**SP15** provision will be made for about 200 hectares of employment land for the period 1996-2011.

#### **Employment Sites**

**SP16** new industrial and business development will be located mainly in the following areas:

- i. Duffryn/Cleppa park;
- ii. South-East Newport;
- iii. riverside, dock and urban areas.

### Eastern Expansion Area

**SP26** an expansion area is allocated to the east of the city, to include the redundant part of the llanwern steelworks and land to the north between the steelworks and the m4 motorway, to provide for 1,700 dwellings and a mix of business, commercial, leisure and community uses in accordance with a masterplan. Peripheral expansion elsewhere will not be permitted. The development of greenfield sites must not be allowed to do harm to the regeneration of inner urban sites.

**CE5** in the case of development proposals which would affect a European site or a Ramsar site:

- i. where there would be an adverse effect, the development will only be permitted if it is directly necessary for the beneficial management of the site, or if there are imperative reasons of over-riding public interest for the development and there is no alternative solution;
- ii. where the site also hosts a priority natural habitat or a priority species, development will only be permitted if it is directly necessary for human health, public safety or is directly connected with the beneficial management of the site.

**CE9** planning permission will not be granted for development which could disturb or adversely affect a species protected by European legislation unless:

- there is no alternative location for the proposed development and appropriate mitigation measures can be implemented;
- ii. it can be established on the advice of the relevant conservation bodies that the development proposed would not be detrimental to the protected species.

Local Development Plans			
The Vale of Glamorgan Council Local Development Draft Prefer	The Vale of Glamorgan Council Local Development Draft Preferred Strategy Dec 2007		
Plan Type	Local Development Plan		
Plan Owner/ Competent Authority	The Vale of Glamorgan Council		
Currency	Preferred Strategy January 2008		
Region/Geographic Coverage	The Vale of Glamorgan Council administrative boundaries		
Sector	Planning		
Related work SA/SEA HRA/AA	The Vale of Glamorgan Council Local Development Plan 2006 – 2021 Initial Sustainability Appraisal Report 2007  AA Screening of the Vale of Glamorgan Local Development Plan Preferred Strategy Dec 2007		
Document Details	Potential impacts that could cause 'in-combination' effects		
The document sets out the Vale of Glamorgan Council's strategic priorities for development between 2011 and 2026. It outlines a range of key issues affecting the Vale that the Draft Preferred Strategy will need to address and defines a vision of how the Vale of Glamorgan should develop. It identifies the general location of development, sets objectives and establishes a series of strategic policies that will guide future growth and development.  The Draft Preferred Spatial Strategy	The Habitats Regulations Assessment Screening for the Vale of Glamorgan LDP Draft Preferred Strategy has identified the potential for the Strategy to have a negative impact on 2 of the 6 European Sites identified within or in close proximity to the Vale of Glamorgan namely, the Severn Estuary SPA/SAC/RAMSAR and the Kenfig SAC. In addition, it is concluded that a precautionary approach be undertaken in respect of the other 4 sites and that further investigations be undertaken. It is therefore recommended that an Appropriate Assessment is undertaken to fully ascertain the effect of the LDP on the integrity of the sites identified.		
"To concentrate development opportunities in Barry and the South East Zone. The St Athan area to be a key development opportunity. Other sustainable settlements to accommodate further housing and associated development"  CSP4: Housing Need Provision for the development of 7500 new dwellings during the period 2011-2026. This provision will be met through:  existing committed sites with planning permission  the development of a range of strategic sites that accord with the council's strategic settlement hierarchy, and	<ul> <li>Severn Estuary SPA, Ramsar &amp; SAC</li> <li>Given the extent of the Severn Estuary and the diverse range of activities and operations that could result in adverse impact to the European Site, it is considered inevitable that the Draft Preferred Strategy will in some way, impact upon the designated site. While much of the development arising from the draft preferred strategy is likely to be located well away from the Severn Estuary, the south-eastern zone has been identified as a growth area and abuts the boundary of the designated site. Therefore, it is recommended that a more detailed assessment of the LDP be undertaken following consultation on the Draft Preferred Strategy to ascertain and mitigate against any likely significant effects to the SPA, SAC, RAMSAR.</li> </ul>		

### The Vale of Glamorgan Council Local Development Draft Preferred Strategy Dec 2007

 the subdivision of suitable dwellings, the appropriate reuse of vacant dwellings and buildings, and appropriate infill development.

To ensure a sustainable supply of housing land is maintained during the plan period, housing development will be phased as follows:

- 2011-2016 2500 dwellings
- 2016-2021 2500 dwellings
- 2021-2026 2500 dwellings

The phasing of sites will be considered in accordance with the council's strategic settlement hierarchy.

#### **CSP8: Employment**

The employment needs of the Vale of Glamorgan will be met through:

- the enhancement and improvement of existing employment sites:
- suitable extensions to existing employment sites;
- the safeguarding of existing employment sites from nonemployment uses, and
- favouring farm diversification, and tourism initiatives.

#### **CSP11: Strategic Transport Improvements**

Strategic transport improvements that serve the economic, social and environmental needs of the Vale of Glamorgan and the objectives of the South East Wales Regional Transport Plan will be favoured. In support of these objectives land will be safeguarded for:

the Barry Waterfront to Cardiff Link Road.

#### **Kenfig SAC**

The primary focus of the Draft Preferred Strategy will be in Barry and the south-eastern zone with St Athan being seen as a major development opportunity. Development resulting from the LDP in the proximity of the SAC is therefore unlikely to be of scale that would result in a detrimental impact upon the site. Notwithstanding this, there are three operational quarries (Ewenny, Pant, Lithalun) within 3 kilometres of the SAC. Mineral extraction and/or after use of the site could therefore impact upon the SAC as described above however this is considered to be unlikely due to the distance and ground contours. However, the site should be subject to a more detailed assessment at a later stage of the LDP development.

Local Development Plans			
The Vale of Glamorgan Council Local Development Draft Prefer	The Vale of Glamorgan Council Local Development Draft Preferred Strategy Dec 2007		
<ul> <li>Llysworney Bypass         Priority will be given to schemes that improve safety and accessibility, public transport, walking and cycling.     </li> </ul>			
CSP12: Sustainable Waste Management Proposals for the sustainable management of waste will be favoured where they support the objectives of the South East Wales Regional Waste Plan and the Council's Local Waste Management Strategy. In support of these objectives the following locations have been identified as being suitable for waste management facilities:  Atlantic trading estate.  the operational Port of Barry Docks.			

Local Development Plans		
Torfaen County Borough Council Local Development Plan Preferred Strategy 2006-2021 Consultation of Strategic Options and Preferred Strategy		
Plan Type Local Development Plan		
Plan Owner/ Competent Authority	Torfaen County Borough Council	
Currency	Preferred Strategy January 2008	
Region/Geographic Coverage	Torfaen County Borough Council administrative boundaries	
Sector	Planning	
Related work SA/SEA HRA/AA	Torfaen County Borough Council Local Development Plan 2006 – 2021 Initial Sustainability Appraisal Report 2008	
Document Details	Potential impacts that could cause 'in-combination' effects	

# Torfaen County Borough Council Local Development Plan Preferred Strategy 2006-2021 Consultation of Strategic Options and Preferred Strategy

This document sets out the Council's objectives and priorities for the development and use of land within Torfaen and its policies for implementing them.

The Network of Integrated Communities Strategy would aim to ensure a network of integrated communities, focusing particularly on the two key settlements of Cwmbran and Pontypool to ensure that they are successful and function as service hubs for the surrounding settlements. Development will be emphasised along key transport routes and expanded settlements could potentially include Greenfield land.

The LDP Preferred Strategy will make provision for 7,000 new dwellings in Torfaen over the period 2006 - 2021 primarily within the existing settlements and with a preference for brownfield sites,

- of which:
  - 900 dwellings in North Torfaen Housing Market Area (Blaenavon and Abersychan Wards);
  - o 2,800 dwellings in Pontypool Housing Market Area; and
  - o 3,300 dwellings in Cwmbran Housing Market Area.
- and made up from:
  - 2,800 dwellings on sites already allocated, permitted or under construction (Jan 2006 JHLAS);
  - 3,400 dwellings on New Site Allocations (10 or more dwellings);
  - o 400 dwellings in a 'Windfall Allowance'; and
  - o 400 dwellings on Small Sites (9 or less dwellings).
- with all Demolitions to be net against this target.

The LDP proposes the following Strategic Housing Sites, detailed in Figure 1. (of 100 or more dwellings): -

1. Boral Edenhall & Candlewick Sites, Blaenavon;

Generic effects related to development/ growth scenarios include:

- Increased demand for water resources/ abstraction/ hydrological impacts.
- Increased traffic movements, contributions to atmospheric pollution loading.
- Growth in requirements for waste management facilities, increased demand for minerals.
- Increased recreational pressure from existing/ new populations.

Measures within the LDP may help to offset or mitigate some of these generic effects through:

- Protecting and enhance important international, national, regional and local species and habitats, including:
  - European Protected Species;
  - Special Areas of Conservation (SAC);
  - Sites of Special Scientific Interest (SSSI);
  - Local Nature Reserves (LNR); and
  - Sites of Interest for Nature Conservation (SINC).
- Placing an emphasis on Public Transport, Cycling & Walking schemes rather than road improvements and trying to ensure that developments take measures to reduce the need to travel, reducing reliance on the motor car.
- Protecting formal leisure facilities and the various typologies of open space and ensure new provision from development sites, including the use of S106 contributions.
- Requiring a minimum 10% reduction in CO2 emissions (to the BREEAM Good level) from all major new developments;
- Requiring a financial contribution from all non BREEAM Excellent (40% reduction in CO2 emissions) developments to improve the carbon footprint of existing buildings;
- Requiring development to be resource efficient;
- Requiring development to consider small to medium renewable energy generation;

Torfaen County Borough Council Local Development Plan Preferred Strategy 2006-2021 Consultation of Strategic Options and Preferred Strategy

- 2. The British, Talywain;
- 3. Mamhilad New Village, Nr Pontypool;
- 4. Trevethin Comprehensive School;
- 5. Rear of Twmpath Road / Dog Pound, Tranch, Pontypool;
- 6. Pontypool College;
- 7 & 8. Possibly County Hospital or Panteg Steelworks;
- 9. South Sebastopol, Cwmbran;
- 10. County Hall, Cwmbran;
- 11. Cwmbran Town Centre
- 12. Former Police College & adjacent land, Cwmbran;
- 13. Llanfrechfa Grange Hospital;
- 14. Malthouse Lane, Llantarnam, Cwmbran; and

The LDP Preferred Strategy is that over the period 2006-2021 the plan will identify 60ha of land for general employment purposes within the urban area.

The LDP proposes the following Strategic Employment Sites:

- 1. Kays & Kears, Blaenavon;
- 2. The British, Pontypool;
- 3. Mamhilad, Pontypool;
- 4. Panteg Steelworks, (South), Pontypool;
- 5. Craig y Felin, Cwmbran;
- 6. Llantarnam, Cwmbran.

- Ensuring that developments are designed to be resilient to the likely future effects of climate change; and
- Maintaining habitat connectivity to allow wildlife to adapt to a changing climate.

### **SAC Specific Issues**

There are no European sites within the Count Borough Boundaries.

Local Development Plans		
Rhondda Cynon Taff County Borough Council Local Development Plan Preparation & Deposit		
Plan Type	Local Development Plan	

In Preparation & Deposit Ida Cynon Taf County Borough Council Ired Strategy January 2007 Ida Cynon Taf County Borough Council administrative boundaries Ing Ired Strategy SA/SEA Its Regulations Assessment Screening Ital impacts that could cause 'in-combination' effects Irching Development Pressures
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ching Development Pressures
ential for increased traffic movements and air pollution as a result of growth in d traffic in the Northern Area where enhanced is development sought. It promotion of commercial development in the southern transport corridors may be lead to induced traffic flows across the region with associated rises in kground and localised air pollution.  **Pecific Issues**  The Cynon SAC and Cardiff Beech Woods SAC, both within the County ough Boundary, lie adjacent to major transport routes (A465 and A470 pectively). In sites are easily accessible and Cardiff Beech Woods in particular has known herabilities to air pollution and recreational pressures.
de sole h

Local Development Plans		
Rhondda Cynon Taff County Borough Council Local Development Plan Preparation & Deposit		
area) for a range of mixed use developments.		

Local Development Plans		
Neath Port Talbot County Borough Council Unitary Development Plan (adopted March 2008)		
Plan Type	Unitary Development Plan	
Plan Owner/ Competent Authority	Neath Port Talbot County Borough Council	
Currency	Adopted March 2008 (Work on the LDP is programmed to start in September 2008)	
Region/Geographic Coverage	Neath Port Talbot County Borough Council administrative boundaries	
Sector	Planning	
Related work SA/SEA HRA/AA	AA of the Neath Port Talbot UDP June 2007 SEA of the Neath Port Talbot UDP	
Document Details	Potential impacts that could cause 'in-combination' effects	
The majority of significant development will be concentrated in the	Overarching Development Pressures	
Port Talbot-	<ul> <li>Housing and employment growth – direct land take and increased transport</li> </ul>	
Neath urban area and to a lesser extent Pontardawe.	movements and associated air pollutants.	
The main new housing allocation will result in the creation of the	<ul> <li>Water abstraction for expanding communities - potential to impact surface and groundwater.</li> </ul>	
Urban Village at Llandarcy on the site of the former BP refinery. It	Recreational pressures from housing/ development that is close to European	
will form an extension to the Greater Neath urban area at Skewen.	sites.	
Llandarcy will be a sustainable, fine grained, mixed-use community.		
Through its internal and external transport links it will encourage the use of public transport, cycling and walking rather than the car and	SAC Specific Issues	
make an important contribution to helping reduce overall traffic	Chimpling Dog CAC/ Democr. Coodydd Nedd o Mellte CAC aird Marifin CAC ar	
generation within the area. The Baglan Bay development will	<ul> <li>Crymlyn Bog SAC/ Ramsar, Coedydd Nedd a Mellte SAC and Kenfig SAC are</li> </ul>	

### Neath Port Talbot County Borough Council Unitary Development Plan (adopted March 2008)

accommodate a substantial portion of the Port Talbot area's housing needs in an extension to the main urban area that is well located and maximises the use of brownfield land.

The Urban Village and Baglan Bay allocations will make important contributions in terms of housing and employment and will have important implications throughout the Plan. In order that the proposals can be fully explained and considered they are addressed in separate chapters in addition to the specific allocations contained in the relevant topic chapters.

### Housing

Policy 7

In order to meet the County Borough's new housing needs, land will be made available for the development of approximately 6155 houses during the period mid 2001- mid 2016, distributed as follows:

Port Talbot - 1954 Greater Neath - 3335 Neath & Dulais - Valley 308 Upper Afan Valley - 35 Swansea Valley - 523

An overall capacity for the Llandarcy Urban Village of 4,000 dwellings is allocated, this will extend beyond the plan period.

### **Economy and Employment**

### Policy 8

The main sources of employment will be concentrated along the coastal belt within the urban area of Jersey Marine - Neath - Port Talbot.

#### **Transport**

Policy 12

partly within the County Borough's boundary.

- The AA Screening concludes that the sites that lie entirely outside the County Borough are unlikely to be significantly affected by any proposals in the Unitary Development Plan alone or in-combination. It also states that significant effects on Coedydd Nedd a Mellte as a result of the UDP either alone or incombination are also unlikely.
- An Appropriate Assessment in accordance with Article 6(3) of the Habitats Directive was considered necessary in relation to the likely effects of the Unitary Development Plan on the Crymlyn Bog SAC and Ramsar site and Kenfig SAC.
- The AA concluded that the application of regulatory policies within the respective UDPs, together with the Appropriate Assessment procedure provide a secure mechanism to ensure that allocations neither individually or incombination would create an adverse effect on the integrity of Crymlyn Bog SAC/ Ramsart and Kenfig SAC.

#### Neath Port Talbot County Borough Council Unitary Development Plan (adopted March 2008)

Improvements to the transport system will concentrate on:

- a) improving accessibility and highway safety and reducing congestion, pollution and disturbance generated by traffic;
- b) encouraging travel by public transport, cycling and walking as alternatives to the car; and
- encouraging the movement of freight by rail and sea as alternatives to road.

#### Retail

#### Policy 15

Neath, Port Talbot and Pontardawe, as the primary town centres, providing retail, leisure, commercial and cultural facilities serving the County Borough's communities will be protected and enhanced.

#### Minerals Policy 20

- A) Proposals for coal extraction will be favoured where they contribute to the County Borough's share of local, regional or national production subject to:
  - a) ensuring that the impacts on the environment and local communities are acceptable; and
  - b) securing appropriate, high quality and prompt restoration and aftercare to provide a beneficial after-use.
- B) Aggregates and dimension stone production will be catered for by the expansion of the Gilfach and Cwm Nant Lleuci guarries.

#### Waste

### Policy 25

The creation of a network of waste management facilities will be promoted through the plan in order to:

- a) meet the existing and future needs of the County Borough; and
- b) contribute to meeting the needs and potential new demands of the region.

Local Development Plans	
Neath Port Talbot County Borough Council Unitary Development Plan (adopted March 2008)	
Llandarcy Urban Village Policy 27 A new urban village will be created at Llandarcy providing a mixed use development on brownfield land as an extension to the Neath urban area at Skewen.  Port Talbot Docks and Industrial Estate Policy 28 The potential of the Port Talbot Docks and adjacent areas as a key regeneration area for the County Borough will be promoted.  Baglan Bay Development Policy 29 The potential of the Baglan Bay area as a key regeneration area for the County Borough will be promoted.	

Local Development Plans		
Powys Unitary Development Plan Deposit Draft 2004		
Powys Unitary Development Plan Proposed Modifications Nov 2007 to the Deposit Draft 2004		
Plan Type Unitary Development Plan		
Plan Owner/ Competent Authority	Powys	
Currency	2008 - 2016	
Region/Geographic Coverage	Powys administrative boundaries	
Sector	Planning	
Related work SA/SEA HRA/AA	HRA Screening of the Powys UDP Nov 2007	
	SA/SEA of the Powys UDP Oct 2007	
Document Details	Potential impacts that could cause 'in-combination' effects	

Powys Unitary Development Plan Deposit Draft 2004
Powys Unitary Development Plan Proposed Modifications Nov 2007 to the Deposit Draft 2004

Policy SP4 - Economic and Employment Developments
Up to 55 hectares of land is allocated for employment related aevelopments during the plan period, 2001-2016 and developments For these purposes on such allocated sites will be acceptable.

#### **Policy SP5 - Housing Developments**

Sufficient land is allocated, including appropriate existing allocations and commitments, to accommodate up to approximately 6140 additional dwellings (410 per annum) during the plan period mid 2001 - mid 2016, in accordance with the Council's strategic settlement hierarchy.

#### **Policy HP1 - Shire Housing Allocations**

Sufficient land is allocated to the three shires to accommodate 6750 new dwellings in the Powys UDP area between 2001-2016 as:

- Brecknockshire (ex BBNP)1240
- Montgomeryshire 4100
- Radnorshire 1410

#### **Policy T1 - Highway Improvement Schemes**

The council will protect programmed routes from development that would obstruct the undertaking of the planned highway improvement scheme,

### **Highway Improvement Schemes**

The following major improvements to the County Highway Network are proposed by the Council: Canal Road / Llanllwchaiarn Road, Newtown; Waterloo Road Link, Llandrindod. In addition to these, the Welsh Assembly Government in their Trunk Road Forward Programme 2002 has identified the following Trunk Road improvement schemes:

The HRA Screening of the Powys UDP (Oct 2007) concludes that the policies and proposals contained in the Powys UDP are not likely to give rise to any significant effects either alone or in-combination on any European site in Powys. It is therefore considered that a detailed appropriate assessment of the Powys UDP, or of any part of it, is not necessary.

Powys Unitary Development Plan Deposit Draft 2004
Powys Unitary Development Plan Proposed Modifications Nov 2007 to the Deposit Draft 2004

- Repair & Upgrade Schemes (£1M+): A483 Esgairdraenllwyn Bends; A470 Christmas Pitch; A470 Ysgiog; A487 Pont ar Ddyfi; A458 Nant y Dugoed; A458 Garreg Bank – Middletown.
- Technically ready for delivery before March 2005: Talgarth Relief Road.
- Could be ready to proceed by March 2008: A470 Cwmbach –
   Newbridge, A470 Alltmawr, and A483 Four Crosses Relief Road.
- Unlikely to proceed before April 2008: A470 Builth Wells; A470 Rhayader; A470 Llandinam; A483/A489 Newtown; A458 Buttington Cross – Middletown; A458 Sylfaen – Cyfronydd.
- No ranking applied: A470 Commins Coch; A470 Llangurig Wern Villa; A483 Brynsadwrn improvement

### **Minerals and Waste Strategies**

Minerals & Waste		
Caerphilly County Borough Council Municipal Waste Managem	ent Strategy & Litter Plan 2004	
Plan Type	Municipal Waste Strategy	
Plan Owner/ Competent Authority	Caerphilly County Borough Council	
Currency	2004	
Region/Geographic Coverage	Caerphilly County Borough Council administrative boundaries	
Sector	Waste	
Related work SA/SEA HRA/AA	N/A	
Document Details	Potential impacts that could cause 'in-combination' effects	
The Strategy describes the current waste situation within the authority, what targets and objectives the authority needs to achieve and how it proposes to achieve them.  Strategic aims for the period 2004/05 to 2006/07  1. Continually improve the services we provide in terms of efficiency, reliability and customer focus.	Recycling Air Pollution/ Disturbance Transport and energy emissions generated by collection, sorting and processing Dust, noise and odour associated with industrial process Composting	
<ol> <li>Adhere to the waste hierarchy in our management of waste issues.</li> <li>Divert 25% BMW from landfill by 2010 and start to make preparations for the later Landfill Directive targets of 50% diversion by 2013 and 65% diversion by 2020.</li> <li>Recycle and compost a minimum of 15% MSW by 2003/04, 25% by 2006/07 and 40% by 2009/10.</li> <li>Improve awareness raising programmes to reach a greater proportion of the population of Caerphilly County Borough.</li> <li>Increase participation rates in the kerbside recycling scheme and boost capture rates.</li> <li>Reduce the amount of waste that CCBC generates and</li> </ol>	Air/ Water Pollution, Introduced/Invasive Species  Odour, litter, possible vermin generation  Release of spores [non-native], requirement for buffer zones (at least 250 metres between composting operations and sensitive receptors)  Production of liquid pollutant  Potential for combustion  Mechanical Biological Treatment (MBT)  Air Pollution, Land Take, Hydrology  Emissions, traffic impacts, land take and wider environmental impacts analogous with industrial process  Processes produce residue  Refuse Derived Fuel (energy from waste)  Air Pollution	

#### Minerals & Waste

#### Caerphilly County Borough Council Municipal Waste Management Strategy & Litter Plan 2004

- set up schemes for the recycling and composting of council waste.
- 8. Make provision for the collection of special wastes at civic amenity sites.
- 9. Work closely with partners in all sectors to attain sustainable waste management.
- 10. Continue to consult and communicate with residents and other stakeholders on matters of service delivery.

Emission concerns, particulates and potentially dioxins

#### **Anaerobic Digestion (energy from Waste)**

#### Air/Water Pollution

- Emissions to air odour (during collection, transport and pre-treatment)
- Wastewater potential for high concentrations of metals, dissolved nitrogen and organic material

#### **Incineration with Energy Recovery**

#### Air/ Water Pollution

- Noise, dust, traffic, visual amenity, potential to impact fauna and flora
- Deposition of substances on surface water
- Solid, liquid emissions
- Gaseous emissions include odour, acid gas, heavy metals, particulates, organic compounds
- Ash residues comprising fine particles, [need to landfill ash/ scrap] dioxins, heavy metals salts, unreacted lime and carbon
- Contamination, accumulation of toxic substance (food chain)]

#### Landfill & Landraise

Air/ Water Pollution, Invasive Species, Land Take

- Methane and carbon monoxide emissions
- Leachate, salts, heavy metals, biodegradable and persistent organics
- Accumulation of hazardous substances in soil
- Topography alteration, visual intrusion
- Soil occupancy, prevention of other land uses
- Attraction of vermin
- Contamination, accumulation of toxic substances
- Potential exposure to hazardous substances
- Impact on surface water runoff, flood risk

#### **SAC Specific Issues**

Specific potential in-combination impacts cannot be explored in absence of specific waste locations.

### **Other Plans and Programmes**

Development Plan	
Brecon Beacons National Park Management Plan 2009-2014	
Plan Type	National Park Management Plan
Plan Owner/ Competent Authority	Brecon Beacons National Park Authority
Currency	2009 - 2014
Region/Geographic Coverage	Brecon Beacons National Park Authority administrative boundary
Sector	Planning
Related work SA/SEA HRA/AA	N/A
Document Details	Potential impacts that could cause 'in-combination' effects
The Plan sets a vision for the future of the Park and specifies actions and outcomes to pursue in the next five years to bring the Park closer to this shared vision. The Plan promotes coordinated implementation, monitoring, and evaluation of these activities collectively across a wide range of partners and stakeholders. In essence, it creates a framework for Park management, guiding decision-making and developing priorities.  Twenty-year Aims for Biodiversity  4. Ensure that sustainable management of designated sites maintains habitats and species populations in favourable condition. As examples of the best habitats and species within the National Park, it is critical to ensure designated sites (e.g., SSSIs, SACs, NNRs, etc.) are brought into, or remain, in favourable condition. The designations provide the means to ensure that these sites are managed with special regard to biodiversity conservation. However, these sites still need to be managed in a wider context, to be considered as the focal sites of developing functional ecosystems at a landscape scale. Their sustainable management can be a catalyst to achieving better habitat condition in the surrounding land.  Twenty-year Aims for Planning and Development	<ul> <li>Overarching Development Pressures</li> <li>Housing and employment growth - direct land take and increased transport movements and associated air pollutants.</li> <li>Water abstraction for expanding communities - potential to impact surface and groundwater.</li> <li>Recreational pressures from housing/ development that is close to European sites.</li> <li>SAC Specific Issues</li> <li>Specific potential in-combination impacts cannot be explored in absence of specific development locations.</li> </ul>

#### **Development Plan**

### **Brecon Beacons National Park Management Plan 2009-2014**

- Prepare an LDP which is responsive to drivers of change and enables development to meet identified needs. The NPA will prepare an LDP which is resilient and responsive to drivers of change and which is proactive in mitigating the effects of climate change where possible.
- 2. **Provide a first class planning service.** In order to make its services first class, the NPA will strive to improve consistency of decision making, increase public engagement in, understanding of, and satisfaction with the NPA's planning service, and improve relationships with partner organisations.
- 3. Ensure that there is sufficient land for market and affordable housing to meet the identified need. The NPA is not a housing authority; this is the role of the unitary authorities. Nonetheless the NPA works closely with the relevant Housing Authorities in the preparation of the Local Housing Market Assessments and Local Housing Strategies.
- 4. Allocate sufficient land for the provision of a variety and mix of employment opportunities to encourage a better link between the provision of employment and housing. The NPA and its partners will ensure the availability of land and investment in the Park is consistent with the special qualities of the area and avoids damage to important nature conservation sites and species.
- 5. Maintain and encourage the vitality and viability of the Park's communities and town centres. From the standpoint of local communities, this means that the NPA and its partners should encourage development which contributes to the creation of sustainable places, promotes integrated communities, with opportunities for living, working and socialising for all, and enables development that encourages a healthy and safe lifestyle and promotes well being.
- 6. Improve the physical quality, energy efficiency, accessibility and sustainable design and construction of all development throughout the park. In keeping with the National Park's commitments to sustainability and the climate change agenda, the

#### **Development Plan**

#### **Brecon Beacons National Park Management Plan 2009-2014**

NPA is producing up-to-date guidance on sustainable building design and materials in the National Park. This Sustainable Design Guide will become an exemplar in sustainable design.

7. **Minimise light and noise pollution.** Despite its proximity to urban centres such as Cardiff, Bristol, and Swansea, the Park boasts a dark night sky year round where, on clear nights, a plethora of stars can be seen. Similarly, its low population density and lack of major motorways limit light and noise pollution. These factors contribute significantly to the sense of tranquillity and remoteness so often cited as a key special quality of the Brecon Beacons National Park. The NPA and its partners will seek to maintain and enhance these attributes.

#### **Twenty-year Aims for Transport**

- 1. Reduce the need for travel by controlling the location and design of development. The NPA works closely with highway authorities in the production of integrated transport and land-use strategies and will be considering these factors as part of the development of the Park's forthcoming Local Plan.
- 2. Provide an integrated transport system that encourages healthy and active lifestyles, and supports local communities. The need to travel should be reduced, and the attractiveness of public transport increased, without adversely affecting the overall quality of people's lives. Better links between public transport, recreational travel, and access to the countryside would benefit tourists and residents alike.
- 3. Maintain and develop Beacons Bus as key delivery mechanism for visitor transport. The project should continue to grow in time and space with the aim of covering as much of the summer season as possible and increasing routes to meet demand.
- 4. **Encourage and support use of the weekday service network.** Achievable only by partnership working, this process needs to ensure that best use is made of existing services by ensuring that journeys are made easier for visitors with high quality

#### **Development Plan**

#### **Brecon Beacons National Park Management Plan 2009-2014**

marketing, information, and service provision including excellent customer care from transport operators.

- 5. Encourage the development of new services aimed at the visitor market.

  Partnership working to develop and market services with the needs of visitors in mind to provide transport to those attractions and outdoor activity locations that would especially benefit.
- Facilitate sustainable long distance transport to the National Park. The key to this
  process is integration with a need for rail/coach/bus interchanges to work efficiently for
  visitors.
- 7. Work with Transport Generators on Green Travel Plans. Public and private sector attractions, festivals, tourism businesses, and other organisations can minimise their impacts through the adoption of Green Travel Plans.
- 8. Support working practices and behaviour change initiatives that reduce the Park's greenhouse gas emissions and reduce people's dependency on fossil fuels for transport.
- 9. **Develop Sustainable Travel Marketing.** Whatever mechanisms are adopted, it is essential that they are attractively and consistently marketed to the visiting public.

### **Twenty-year Aims for Waste Management**

1. Promote the waste hierarchy of reduce, reuse, and recycle across all sectors of the National Park. The NPA and its partners should seek to minimize the production of waste and seek to contribute to sustainable waste solutions.

Masterplan Cardiff International Airport 2006 administrative boundary Planning N/A Potential impacts that could cause 'in-combination' effects Overarching Development Pressures Increased air traffic - increased levels of disturbance (noise), emissions and
2006 administrative boundary  Planning  N/A  Potential impacts that could cause 'in-combination' effects  Overarching Development Pressures
administrative boundary  Planning  N/A  Potential impacts that could cause 'in-combination' effects  Overarching Development Pressures
Planning N/A Potential impacts that could cause 'in-combination' effects Overarching Development Pressures
N/A  Potential impacts that could cause 'in-combination' effects  Overarching Development Pressures
Potential impacts that could cause 'in-combination' effects  Overarching Development Pressures
Overarching Development Pressures
<ul> <li>recreational pressure.</li> <li>Improvements to highways access - increase in recreational pressure as a result of improved access.</li> <li>SAC Specific Issues</li> <li>A greater number of planes and improved highways access has the potential to increase the levels of recreational pressure at Cardiff Beech Woods SAC and the Severn Estuary SPA/ Ramsar/ SAC.</li> <li>Severn Estuary SPA/ Ramsar/ SAC - overwintering birds can be disturbed by sudden movements and noises that can result in reduced food intake and/or increased energy expenditure.</li> <li>Cardiff Beech Woods SAC - All component SSSIs are used to a greater or lesser extent for recreation purposes. Castell Coch Woodlands and Fforestganol a Chwm Nofydd experience the most recreation pressure, and are popular for walking, climbing and mountain biking. The Taff train runs through part of the Castell Coch Woodlands site and the historic building of Castell Coch attracts many visitors, which increases the access pressure on the woodlands. The road section is becoming increasingly popular for climbing, and this is unlikely to be a problem for the geological interest of the site. However,</li> </ul>
•

#### **Cardiff International Airport Master Plan 2006**

#### Short-term

It was proposed in the Culverhouse Cross Study to implement a range of public transport and highway improvements, including the 'trunking' of the existing A48 between Culverhouse Cross and Bonvilston and the A4226 (Five Mile Lane) to the airport. Following the trunking of the route, highway improvements to the existing route were proposed, largely to improve safety.

#### Medium Term

In the Culverhouse Cross Study it is proposed to improve the A48/ Five Mile Lane route from the Culverhouse Cross junction to the airport, providing an alternative route to the current signed route via Wenvoe and north Barry. This would involve the following proposals:

- Junction capacity enhancement, (junction at south end A4226 Five Mile Lane / Waycock Road with A4050 in north Barry at Green Farm);
- Safety enhancements on Five Mile Lane / Waycock Road;
- Junction capacity and safety enhancements at the Five Mile Lane junction with A48 (Sycamore Cross).

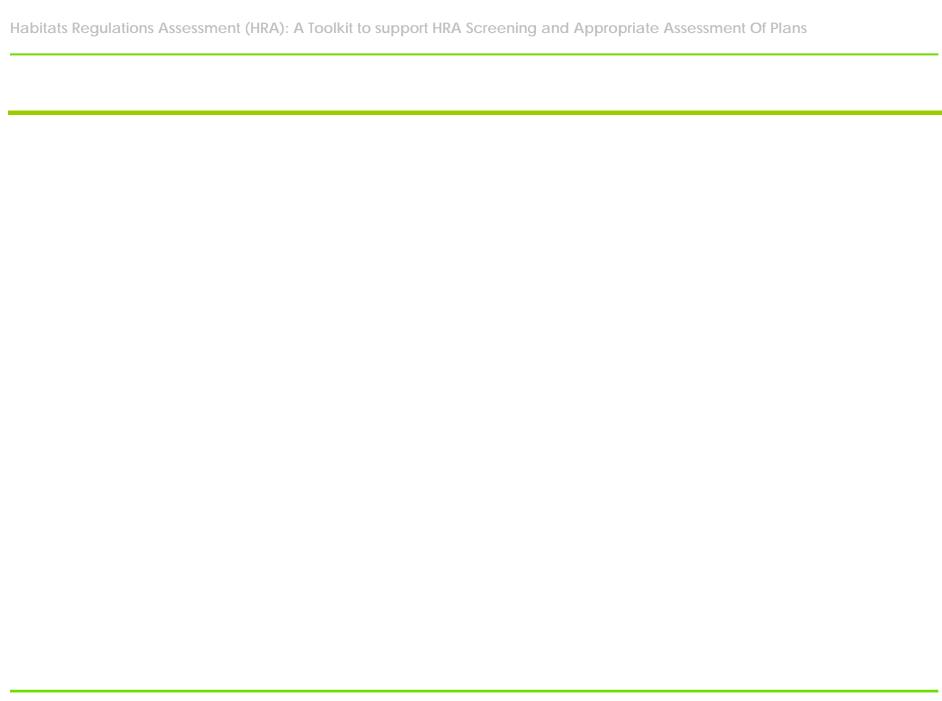
#### Longer Term

In the longer-term, further improvements of this route to allow airport traffic to avoid Culverhouse Cross were to be considered. The preferred option involved a new link to the airport from the M4 at Junction 34 to the A48 at Sycamore Cross. In conjunction with the new highway link, it would be possible to provide a strategic park and ride/modal interchange at Junction 34 of the M4.

These longer-term proposals are referred to in Phase 3 of the Trunk Road Forward Programme of the Welsh Assembly Government, which indicates a commencement of work after March 2010.

#### **Future Opportunities for Rail**

Cardiff International Airport Master Plan 2006	
A number of options for introducing enhanced services to Rhoose Cardiff International Airport station have been considered. The options generally revolve around the basic principle of two all-station Valley Lines services per hour on the Vale of Glamorgan line and at least one interurban service from Bristol.	





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Habitat Regulations Assessment Report: Appendix 10 - Test of Likely Significant Effect September 2013



## **Appendix 10 - TEST OF LIKELY SIGNIFICANT EFFECT SCREENING TABLE**

Where it has been identified in Appendix 8 that a screened-in policy has the potential to interact with a feature of a European site, via one or more of the factors to which that feature is sensitive, then that Policy is further assessed here to determine whether it is likely to have a significant effect upon that site.

Aberbargoed Grasslands SAC				
Policies with Potential Effects (From Appendix 8)	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?	
KP11: MINERALS AND AGGREGATES M1: MINERAL LIMESTONE RESERVES AND RESOURCES M3: QUARRY CLOSURES AND EXTENSION LIMITS M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS	Aggregates removal leading to aerial pollution	Cuarrying and associated activities are likely to generate dust, and whilst these activities in Cardiff will take place about 14 Km from the Aberbargoed Grasslands SAC, there is the potential for these dusts to be transported by wind to that site. However, the dispersal of dust particles is affected by the size of the particles emitted, and wind speed as well as their shape and density. Large dust particles (greater than 30µm), which make up the greatest proportion of dust emitted from mineral workings, will largely deposit within 100m of sources. Intermediate-sized particles (10–30µm) are likely to travel up to 200–500m. Smaller particles (less than 10 µm) which make up a small proportion of the dust emitted from most mineral workings are only deposited slowly but may travel 1000m or more". (Office of the Deputy Prime Minister: Minerals Policy Statement 2: Controlling and Mitigating the Environmental Effects of Minerals Extraction in England. Annex 1: Dust (March 2005): http://www.communities.gov.uk/documents/planningandbuilding/pdf/mps2annex1.pdf).  Therefore it is highly likely that these particulates will have dropped out of the atmosphere before reaching the Aberbargoed Grasslands SAC.  Furthermore, according to the National Atmospheric Emissions Inventory, overall emissions of particulates have fallen by 58% since 1990. If this downward trend continues, the total deposition of particulates at this site will gradually decrease, thereby reducing any impact upon the site's features. http://naei.defra.gov.uk/overview/pollutants?pollutant id=24  Implementation of policies aimed at minimising air pollution and managing air quality (KP18: Natural Resources; EN13: Air, Noise, Light Pollution and Contaminated Land) would counteract any increase in atmospheric pollution resulting from this policy. Policies relating to mineral extraction accord with Minerals Planning Policy Wales, which contains strong policies in regard to the protection of European Sites provided that planning conditions aimed at mitigating any ef		

**KP1: LEVEL OF GROWTH** Increased traffic The habitat features of this site are sensitive to acidification and deposition of nitrogen, and the source of these **KP2: STRATEGIC SITES** pollutants is predominantly road traffic. However, the effects of road traffic pollution are likely to be restricted to within movements approximately 200m of the road concerned, and the Aberbargoed Grasslands SAC is about 14Km from Cardiff. **KP6: NEW INFRASTRUCTURE** leading to aerial **KP9: RESPONDING TO EVIDENCED ECONOMIC** pollution **NEEDS (Employment)** Furthermore, the Deposit LDP contains policies intended to reduce dependency on car travel, facilitate and increase **KP10: CENTRAL AND BAY BUSINESS AREAS** use of sustainable and active modes of transport (Policies KP8, T1, T2, T3, T5), mitigate the effects of climate change (Policies KP15 and EN12), and promote the sustainable use of natural resources (Policies KP18, EN10 and EN11). In **KP11: MINERALS AND AGGREGATES** the long-term these measures will mitigate or off-set any increase in atmospheric pollution as a result of the LDP and **KP12: WASTE H1: NON STRATEGIC HOUSING SITES** should lead to gradual improvements in air quality. H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) Finally, levels of NO<sub>2</sub> across Wales are recorded as decreasing, and recorded areas of NO<sub>2</sub> pollution concern in Cardiff **H8: SITES FOR GYPSY AND TRAVELLER CARAVANS** are in the City Centre rather than near this SAC. **EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT** In-combination with other Plans, Projects and Programmes **T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE** Although there are local environmental factors which may affect this site, the distance of this site from Cardiff and the **R1: RETAIL PROVISION WITHIN STRATEGIC SITES** overall improving air quality in the area make it unlikely that this policy will have a significant effect in-combination with **C1: COMMUNITY FACILITIES** these factors upon this site. **C8: PLANNING FOR SCHOOLS. C9: NEW EDUCATIONAL FACILITIES** The Wales Spatial Plan (Update) 2008 and promotes developments in the region, however none of the three Strategic C10: HEALTH EMPLOYMENT NON STRATEGIC Opportunity Areas within that document entails land-take at this site, and any increase in aerial pollution due to traffic **ALLOCATION** movement is likely to be counteracted by other regional strategies such as the Wales Transport Strategy 2008, the M1: MINERAL LIMESTONE RESERVES AND SEWTA Regional Transport Plan Consultative Draft 2008 and the SEWTA Rail Strategy Study 2006, which promote **RESOURCES** sustainability of transport, reduction of aerial emissions and modal shift towards more sustainable forms of transport M3: QUARRY CLOSURES AND EXTENSION LIMITS such as public transport and cycling M5: RESTORATION AND AFTER USE OF MINERAL **WORKINGS** The HRA Report of the Caerphilly Deposit LDP (July 2008) states that "impacts predicted to arise from the implementation of the plan when considered in-combination with the potential impacts from other surrounding plans and W1: LAND FOR WASTE MANAGEMENT **W2: SITES FOR WASTE MANAGEMENT FACILITIES** projects, would not significantly affect the integrity of the SAC". Equally, the policies as left would not be likely to have a **W3: PROVISION FOR WASTE MANAGEMENT** significant effect upon this site in-combination with policies within the Caerphilly Deposit LDP. **FACILITIES IN DEVELOPMENT KP1: LEVEL OF GROWTH** Dust, noise, These policies have the potential to contribute to aerial pollution, via transport and minerals extraction, but as above, **KP2: STRATEGIC SITES** vibration, these effects are likely to be local to the source of the emissions, and would not significantly affect this site. Similarly, **KP6: NEW INFRASTRUCTURE** effects such as noise, vibration, movement and odour are likely to be localised and will not affect this site which is 14 movement and Km from Cardiff. **KP9: RESPONDING TO EVIDENCED ECONOMIC** odour associated with industrial and **NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS** construction Policies aimed at reducing aerial pollution, such as KP5 wherein; '(viii) Uses innovative approaches to achieve a **KP11: MINERALS AND AGGREGATES** resource efficient and climate responsive design that provides sustainable water and waste management solutions and processes minimise emissions from transport, homes and industry'., and EN13 wherein 'Development will not be permitted where **KP12: WASTE** leading to aerial **H1: NON STRATEGIC HOUSING SITES** it would cause or result in unacceptable harm to health, local amenity, the character and quality of the countryside, or pollution H7: ALLOCATION POLICY FOR GYPSY AND interests of nature conservation, landscape or built heritage importance because of air, noise, light pollution or the TRAVELLER SITE(S) presence of unacceptable levels of land contamination.', will serve to offset any increase in aerial emissions arising **EC1: EXISTING EMPLOYMENT LAND** from light industry, domestic heating systems, construction and other sources. Furthermore, there is a gradual **EC5: HOTEL DEVELOPMENT** reduction in UK-wide levels of pollutants such as Ammonia, NOx, SOx and particulates, which would serve to offset any **T7: STRATEGIC TRANSPORTATION** residual local increase in these pollutants arising from these policies. **INFRASTRUCTURE R1: RETAIL PROVISION WITHIN STRATEGIC SITES** In-combination with other Plans, Projects and Programmes **C1: COMMUNITY FACILITIES C8: PLANNING FOR SCHOOLS.** Although there are local environmental factors which may affect this site, the distance of this site from Cardiff and the

C9: NEW EDUCATIONAL FACILITIES	overall improving air quality in the area make it unlikely that this policy will have a significant effect in-combination with	
C10: HEALTH EMPLOYMENT NON STRATEGIC	these factors upon this site.	
ALLOCATION		
M1: MINERAL LIMESTONE RESERVES AND		
RESOURCES		
M3: QUARRY CLOSURES AND EXTENSION LIMITS		
M5: RESTORATION AND AFTER USE OF MINERAL		
WORKINGS		
W1: LAND FOR WASTE MANAGEMENT		
W2: SITES FOR WASTE MANAGEMENT FACILITIES		
W3: PROVISION FOR WASTE MANAGEMENT		
FACILITIES IN DEVELOPMENT		

Blackmill Woodlands SAC					
Strategic Policies, Outcomes, Objectives and Options	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?		
KP11: MINERALS AND AGGREGATES M1: MINERAL LIMESTONE RESERVES AND RESOURCES M3: QUARRY CLOSURES AND EXTENSION LIMITS M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS	Aggregates removal leading to aerial pollution	Ouarrying and associated activities are likely to generate dust, and whilst these activities in Cardiff will take place about 14 Km from the Blackmill Woodlands SAC, there is the potential for these dusts to be transported by wind to that site. However, the dispersal of dust particles is affected by the size of the particles emitted, and wind speed as well as their shape and density. Large dust particles (greater than 30µm), which make up the greatest proportion of dust emitted from mineral workings, will largely deposit within 100m of sources. Intermediate-sized particles (10–30µm) are likely to travel up to 200–500m. Smaller particles (less than 10 µm) which make up a small proportion of the dust emitted from most mineral workings are only deposited slowly but may travel 1000m or more." (Office of the Deputy Prime Minister: Minerals Policy Statement 2: Controlling and Mitigating the Environmental Effects of Minerals Extraction in England. Annex 1: Dust (March 2005): http://www.communities.gov.uk/documents/planningandbuilding/pdf/mps2annex1.pdf).  Therefore it is highly likely that these particulates will have dropped out of the atmosphere before reaching the Blackmill Woodlands SAC.  Furthermore, according to the National Atmospheric Emissions Inventory, overall emissions of particulates have fallen by 58% since 1990. If this downward trend continues, the total deposition of particulates at this site will gradually decrease, thereby reducing any impact upon the site's features. http://neei.defra.gov.uk/overview/pollutants?pollutant id=24  Implementation of policies aimed at minimising air pollution and managing air quality (KP18: Natural Resources; EN13: Air, Noise, Light Pollution and Contaminated Land) would counteract any increase in atmospheric pollution resulting from this policy. Policies relating to mineral extraction accord with Minerals Planning Policy Wales, which contains strong policies in regard to the protection of European Sites provided that planning conditions aimed at mitigating any effects			

**KP1: LEVEL OF GROWTH** Dust, noise, The habitat features of this site are sensitive to acidification and deposition of nitrogen, and the source of these **KP2: STRATEGIC SITES** pollutants is predominantly road traffic. However, the effects of road traffic pollution are likely to be restricted to within vibration, **KP6: NEW INFRASTRUCTURE** movement and approximately 200m of the road concerned, and the Blackmill Woodlands SAC is about 14Km from Cardiff. odour associated **KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment)** with industrial and Furthermore, the Deposit LDP contains policies intended to reduce dependency on car travel, facilitate and increase **KP10: CENTRAL AND BAY BUSINESS AREAS** construction use of sustainable and active modes of transport (Policies KP8, T1, T2, T3, T5), mitigate the effects of climate change (Policies KP15 and EN12), and promote the sustainable use of natural resources (Policies KP18, EN10 and EN11). In **KP11: MINERALS AND AGGREGATES** processes the long-term these measures will mitigate or off-set any increase in atmospheric pollution as a result of the LDP and **KP12: WASTE** leading to aerial **H1: NON STRATEGIC HOUSING SITES** pollution should lead to gradual improvements in air quality. H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) Finally, levels of NO<sub>2</sub> across Wales are recorded as decreasing, and recorded areas of NO<sub>2</sub> pollution concern in Cardiff **EC1: EXISTING EMPLOYMENT LAND** are in the City Centre rather than near this SAC. **EC5: HOTEL DEVELOPMENT T7: STRATEGIC TRANSPORTATION** In-combination with other Plans, Projects and Programmes **INFRASTRUCTURE R1: RETAIL PROVISION WITHIN STRATEGIC SITES** Although there are local environmental factors which may affect this site, the distance of this site from Cardiff and the **C1: COMMUNITY FACILITIES** overall improving air quality in the area make it unlikely that this policy will have a significant effect in-combination with **C8: PLANNING FOR SCHOOLS.** these factors upon this site. **C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION** M1: MINERAL LIMESTONE RESERVES AND **RESOURCES** M3: QUARRY CLOSURES AND EXTENSION LIMITS M5: RESTORATION AND AFTER USE OF MINERAL **WORKINGS** W1: LAND FOR WASTE MANAGEMENT **W2: SITES FOR WASTE MANAGEMENT FACILITIES W3: PROVISION FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT KP1: LEVEL OF GROWTH** Increased traffic These policies have the potential to contribute to aerial pollution, via transport and minerals extraction, but as above, **KP2: STRATEGIC SITES** movements these effects are likely to be local to the source of the emissions, and would not significantly affect this site. Similarly, **KP6: NEW INFRASTRUCTURE** leading to aerial effects such as noise, vibration, movement and odour are likely to be localised and will not affect this site which is 14 pollution **KP9: RESPONDING TO EVIDENCED ECONOMIC** Km from Cardiff. **NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS** Policies aimed at reducing aerial pollution, such as KP5 wherein; '(viii) Uses innovative approaches to achieve a **KP11: MINERALS AND AGGREGATES** resource efficient and climate responsive design that provides sustainable water and waste management solutions and **KP12: WASTE** minimise emissions from transport, homes and industry'., and EN13 wherein 'Development will not be permitted where it would cause or result in unacceptable harm to health, local amenity, the character and quality of the countryside, or **H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND** interests of nature conservation, landscape or built heritage importance because of air, noise, light pollution or the TRAVELLER SITE(S) presence of unacceptable levels of land contamination.', will serve to offset any increase in aerial emissions arising **H8: SITES FOR GYPSY AND TRAVELLER CARAVANS** from light industry, domestic heating systems, construction and other sources. Furthermore, there is a gradual **EC1: EXISTING EMPLOYMENT LAND** reduction in UK-wide levels of pollutants such as Ammonia, NOx, SOx and particulates, which would serve to offset any **EC5: HOTEL DEVELOPMENT** residual local increase in these pollutants arising from these policies. **T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE** In-combination with other Plans, Projects and Programmes **R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES** Although there are local environmental factors which may affect this site, the distance of this site from Cardiff and the **C8: PLANNING FOR SCHOOLS.** overall improving air quality in the area make it unlikely that this policy will have a significant effect in-combination with

C9: NEW EDUCATIONAL FACILITIES
C10: HEALTH EMPLOYMENT NON STRATEGIC
ALLOCATION
M1: MINERAL LIMESTONE RESERVES AND
RESOURCES
M3: QUARRY CLOSURES AND EXTENSION LIMITS
M5: RESTORATION AND AFTER USE OF MINERAL
WORKINGS

W1: LAND FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT FACILITIES W3: PROVISION FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT these factors upon this site.

The Wales Spatial Plan (Update) 2008 and promotes developments in the region, however none of the three Strategic Opportunity Areas within that document entails land-take at this site, and any increase in aerial pollution due to traffic movement is likely to be counteracted by other regional strategies such as the Wales Transport Strategy 2008, the SEWTA Regional Transport Plan Consultative Draft 2008 and the SEWTA Rail Strategy Study 2006, which promote sustainability of transport, reduction of aerial emissions and modal shift towards more sustainable forms of transport such as public transport and cycling

The HRA of the Bridgend Deposit LDP identifies reducing air quality as a factor that could adversely affect the features of this site. However, the HRA points out that there are policies elsewhere in the Bridgend Deposit LDP, which, together with regional policies identified above, will counteract any decrease in air quality arising from policies which prescribe development. Furthermore, decreases in air quality are attributed to increases in traffic movements, but these effects are likely to be restricted to within approximately 200m of the road concerned, because the principal pollutants arising from traffic tend to drop out of the atmosphere within this range. Therefore, due to the distance between Cardiff and this SAC, any cumulative effect between increased traffic in Cardiff and increased traffic along the road through this SAC is unlikely to be significant.

		Cardiff Beech Woods SAC	
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?

Cardiff Beech Woods SAC				
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?	
KP11: MINERALS AND AGGREGATES M1: MINERAL LIMESTONE RESERVES AND RESOURCES M3: QUARRY CLOSURES M5: RESTORATION M6: DREDGED AGGREGATE LANDING	Aggregates removal leading to aerial pollution and changes to local hydrology	All of the mineral extraction sites in Cardiff are immediately adjacent to, or very close to, the Cardiff Beech Woods SAC. There is therefore the potential for mineral extraction activities to cause deposition of dust and other pollutants on this site, or to affect the hydrology of the site, both of which could have impacts on the ground flora and the trees themselves.  • Quarrying and associated activities are likely to generate particulate aerial pollution in the form of dust, so there is the potential for these dusts to be transported by wind to the Cardiff Beech Woods SAC. However, the dispersal of dust particles is affected by the size of the particles emitted, and wind speed as well as their shape and density. Large dust particles (greater than 30µm), which make up the greatest proportion of dust emitted from mineral workings, will largely deposit within 100m of sources, Intermediate-sized particles (10-30µm) are likely to travel up to 200-500m. Smaller particles sets han 10 µm) which make up a small proportion of the dust emitted from most mineral workings are only deposited slowly but may travel 1000m or more. (Office of the Deputy Prime Minister: Minerals Policy Statement 2: Controlling and Mitigating the Environmental Effects of Minerals Extraction in England. Annex 1: Dust (March 2003): http://www.communities.gov.ulv/documents/planningandbuilding/pdf/mps2annex1.pdf). Therefore it is highly likely that the majority of these particulates will have dropped out of the atmosphere close to their source, thereby limiting the extent of the Cardiff Beech Woods SAC that could potentially be affected by these emissions.  • All of the mineral extraction sites in Cardiff benefit from existing consents, and these consents were subject to a Review of Consents process in 2010/11. The conclusions of this review were that none of the extant consents were likely to have a significant effect upon any European Sites provided that planning conditions aimed at mitigating any effects of aerial pollution, are implemented. If	No	

Cardiff Beech Woods SAC				
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?	
KP11: MINERALS AND AGGREGATES KP12: WASTE M1: MINERAL LIMESTONE RESERVES AND RESOURCES M3: QUARRY CLOSURES AND EXTENSION LIMITS M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS W1: LAND FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT FACILITIES W3: PROVISION FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT	Contamination, accumulation of toxic substances	In-combination with other Plans, Projects and Programmes  Minerals Planning Policy Wales 2001 does not specify any locations, therefore the risk of 'in combination' effects with this policy cannot be assessed. Furthermore, the document contains strong policies in relation to the protection of European sites.  The site is adjacent to the county boundaries with Caerphilly (CCBC) and Rhondda Cynon Taff (RCTCBC), but the HRA's of their respective LDPs have not indicated that mineral and aggregate extraction within their boundaries is likely to act in-combination with equivalent policies in Cardiff's previous draft LDP which did not progress, nor the Cardiff LDP Preferred Strategy from October 2012  Apart from the Blaengwynlais quarry, which is mostly within Cardiff but which does extend into Caerphilly, there are no other mineral or aggregate extraction sites within RCT or Caerphilly which are close to the Cardiff Beech Woods and therefore capable of acting in combination with Cardiff's Deposit LDP. The impacts of the Caerphilly section of Blaengwynlais Quarry can be said to be the same as the Cardiff section of that quarry, which has been dealt with alongside all other minerals and aggregate stres, above.  The location of the woodland on the top or side of raised ground means that, with the exception of Castell Coch Woodlands and Road Section, there are unlikely to be any issues arising from contamination. According to the Sites Issues Briefing for this site, this will be kept under review especially with respect to quarrying.  Sites proposed for waste management are not close to or in direct hydrological continuity with, this SAC, and so are unlikely to have a significant effect upon it.  In-combination with other Plans, Projects and Programmes  The potential effect as left could arise from policies relating to mineral and aggregate extraction, and from the treatment of waste, but as above, deposit LDP's of neighbouring authorities do not prescribe these activities close to Cardiff Beech Woods SAC, or within hydr		

Cardiff Beech Woods SAC					
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?		
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP6: NEW INFRASTRUCTURE KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS KP11: MINERALS AND AGGREGATES KP12: WASTE H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES C8: PLANNING FOR SCHOOLS C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION M1: MINERAL LIMESTONE RESERVES AND RESOURCES M3: QUARRY CLOSURES AND EXTENSION LIMITS M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS M6: DREDGED AGGREGATE LANDING W1: LAND FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT FACILITIES W3: PROVISION FOR WASTE MANAGEMENT FACILITIES IN	Dust, noise, vibration, movement and odour associated with industrial and construction processes leading to aerial pollution	These policies have the potential to contribute to aerial pollution, via transport and minerals extraction, but as above, these effects are likely to be localised, and offset by UK-wide reduction in serial pollutiants, and would not significantly affect this site. Effects such as noise, vibration, movement and odour are not likely to affect the woodland features of this site.  Policies aimed at reducing aerial pollution, such as KP5 wherein; '(viii) Uses innovative approaches to achieve a resource efficient and climate responsive design that provides sustainable water and waste management solutions and minimise emissions from transport, homes and industry', and EN13 wherein 'Development will not be permitted where it would cause or result in unacceptable harm to health, local amenity, the character and quality of the countryside, or interests of nature conservation, landscape or built heritage importance because of air, noise, light pollution or the presence of unacceptable levels of land contamination.', will serve to offset any increase in aerial emissions arising from light industry, domestic heating systems, construction and other sources.  In-combination with other Plans, Projects and Programmes  These potential effects are likely to be localised in nature, and there are no other plans, projects and programmes which would direct activities to this area, other than deposit LDPs of neighbouring authorities. Neither of these authorities have identified the potential effects as left as being relevant to the Cardiff Beech Woods SAC.	No		

	Cardiff Beech Woods SAC			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?	
DEVELOPMENT				
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS KP14: HEALTHY LIVING H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EN4: RIVER VALLEYS T8: STRATEGIC RECREATIONAL ROUTES	population and therefore recreation levels leading to	Increased housing provision may increase recreational pressures such as walking and climbing within the Cardiff Beech Woods SAC. Increased recreational pressure on the Cardiff Beech Woods has potential adverse implications for the ground flora and, depending on the scale of the proposals, the trees themselves.  Management of the recreational use of the woodlands should focus on maintaining the network of public footpaths and access routes. Regular maintenance of the footpaths and bridleways is essential to stop them spreading onto the adjacent woodland habitat. By restricting recreational use of the woodlands to ceratin areas and paths, natural woodland processes can be left to occur away from these areas of recreational use and without the need for intervention from a public health and safety perspective. The vision for these features are for them to have favourable conservation status, whereby the condition that recreational use of the site will continue to be managed so it does not damage the wildlife interest of the site, is satisfied. No limits are set for the performance indicators for factors affecting the features, pending a fuller understanding of current situation and impact on habitat. Considering that there is an already high level of recreation on site and that CCW views that most if not all aspects of the component sites are heading in the right direction in terms of condition, it is unlikely that these policies will have significant adverse effect on the site as a result of increased recreation.  Car parking facilities at the site are limited and the site is not easily accessed by public transport, which further limits the impact of recreation on the site. Alternative recreational facilities within and around Cardiff are more readily accessible to the existing and proposed resident population. Furthermore, implementation of policies designed to provide and protect public open space throughout Cardiff (Policies KPS, ENA, C3) would also serve to offset any increase in recreational pressure on the b	No	

Cardiff Beech Woods SAC			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
KP1: LEVEL OF GROWTH	Increased traffic	If these policies were to lead to an increase in road traffic movements, then this may result in an increased number of car journeys along	No
KP2: STRATEGIC SITES KP6: NEW INFRASTRUCTURE KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS KP11: MINERALS AND AGGREGATES KP12: WASTE H1: NON STRATEGIC HOUSING SITES	movements leading to aerial pollution	the A470 to and from the valleys to the north. The A470 runs between, and close to, the Cardiff Beech Woods SAC in the Taff's Well area, and the habitat features of this site are sensitive to acidification and deposition of nitrogen, the source of these pollutants being predominantly road traffic. Therefore the impact of any extra car journeys on the beech woods is a potential problem. However:  • The Candidate Sites near the Cardiff Beech Woods (e.g at Junction 33 and South of Creigiau) are predominantly Candidate Sites for housing rather than industry. Therefore it can be assumed that the bulk of any increased traffic movement will be directed southwards to and from the employment centres of Cardiff rather than north to the valleys region along the A470.  • The effects of road traffic pollution are likely to be restricted to within approximately 200m of the road concerned, because the principal pollutants arising from traffic tend to drop out of the atmosphere within this range. Approximately 6 Hectares of the Cardiff Beech Woods SAC (Approx. 5.2% of the SAC as a whole) are within 200m of the A470 at Tongwynlais, so the effects of an increase in road traffic pollution would be limited to a small proportion of the SAC.	
H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES		<ul> <li>The area of Cardiff Beech Woods SAC within 200m of the A470 at Tongwynlais supports one of the two European features of interest present in the SAC, namely, Asperulo-fagetum beech forest. The vision for this feature is for it to have favourable conservation status, whereby the condition that there are pockets of ground flora across the site, comprising species typical of lime-rich beech wood, including indicators of ancient woodland such as wood anemone, ramsons and sanicle, is satisfied. An assessment of conservation status contained within the Core Management Plan for this site describes the condition of the component SSSI at this section as 'favourable'. Also, the Core Management Plan for this site states that there is no evidence to date that atmospheric pollution has had an adverse impact on this feature. If it is that case that, with the A470 at capacity, the component SSSI is in favourable condition and there is no evidence that road traffic pollution is having an adverse impact upon the Asperulo-fagetum beech forest feature, then</li> <li>Cardiff Council Pollution Control Officers have indicated that the effect on atmospheric pollution of an increase in traffic resulting forms the property in the A470 is the effect on atmospheric pollution of an increase in traffic resulting</li> </ul>	
C8: PLANNING FOR SCHOOLS. C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION M1: MINERAL LIMESTONE RESERVES AND RESOURCES		<ul> <li>from these policies would not be measurable because the A470 is already at capacity.</li> <li>The LDP contains policies intended to reduce dependency on car travel, facilitate and increase use of sustainable and active modes of transport (Policies KP8, T1, T2, T3, T5), mitigate the effects of climate change (Policies KP15 and EN12), and promote the sustainable use of natural resources (Policies KP18, EN10 and EN11). In the long-term these measures will mitigate or off-set any increase in atmospheric pollution as a result of the LDP and should lead to gradual improvements in air quality.</li> <li>Levels of NO<sub>2</sub> across Wales are recorded as decreasing, and recorded areas of NO<sub>2</sub> pollution concern in Cardiff are in the City</li> </ul>	
M3: QUARRY CLOSURES AND EXTENSION LIMITS M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS M6: DREDGED AGGREGATE LANDING		Centre rather than near this SAC.  In-combination with other Plans, Projects and Programmes	

Cardiff Beech Woods SAC			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
W1: LAND FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT FACILITIES W3: PROVISION FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT		The Wales Spatial Plan (Update 2008) identifies three 'Strategic Opportunity Areas', one of which is the area around Llantrisant and North West Cardiff. Development within this area is likely to lead to an increase in traffic volume within the region. A proportion of this increased volume may use the M4 and A470 when travelling to and from the eastern South Wales Valleys. However, the construction of the Church Village by-pass between Upper Boat and Llantrisant will provide an alternative route, and subject to the availability of traffic movement prediction data, may alleviate increased traffic movements along the A470 at Tongwynlais caused by the Llantrisant and North West Cardiff Strategic Opportunity Area.  The Wales Spatial Plan (Update) 2008 and promotes developments in the region, however none of the three Strategic Opportunity Areas within that document entails land-take at this site, and any increase in aerial pollution due to traffic movement is likely to be counteracted by other regional strategies such as the Wales Transport Strategy 2008, the SEWTA Regional Transport Plan Consultative Draft 2008 and the SEWTA Rail Strategy Study 2006, which promote sustainability of transport, reduction of aerial emissions and modal shift towards more sustainable forms of transport such as public transport and cycling.  Development arising from policies in the Local Development Plan for neighbouring Rhondda Cynon Taf is likely to lead to an increase in traffic volume within the region. A proportion of this increased volume may use the M4 and A470 when travelling to and from the eastern South Wales Valleys. However, the construction of the Church Village by-pass between Upper Boat and Llantrisant will provide an alternative route, and subject to the availability of traffic movement prediction data, may alleviate increased traffic movements along the A470 at Tongwynlais caused by the RCT LDP policies.  Furthermore, both the RCT and Caerphilly Deposit LDP's contain policies to provide for housing and employments within	
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP6: NEW INFRASTRUCTURE KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS KP11: MINERALS AND AGGREGATES KP12: WASTE H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) H8: SITES FOR GYPSY AND	Land take	Whilst land-take would result from these policies, and land take within the SAC would be likely to significantly affect it, none of these policies direct land-take to within the boundaries of this site. Policies relating to the extraction of minerals, which in some cases are very close to the boundary of this SAC, have been considered above.  In-combination with other Plans, Projects and Programmes  There are no other plans, projects or programmes which would direct land-take to within the boundaries of this site	

Cardiff Beech Woods SAC			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES C8: PLANNING FOR SCHOOLS. C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION M1: MINERAL LIMESTONE RESERVES AND RESOURCES M3: QUARRY CLOSURES AND EXTENSION LIMITS M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS M6: DREDGED AGGREGATE LANDING W1: LAND FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT FACILITIES W3: PROVISION FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT			
KP6: NEW INFRASTRUCTURE T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE	Laying pipes and cables leading to changes in local hydrology	Whilst changes in local hydrology would result from these policies, and changes in local hydrology within the SAC would be likely to significantly affect it, none of these policies direct new infrastructure or strategic transport infrastructure to within the boundaries of this site, or even close to it.	No
		In-combination with other Plans, Projects and Programmes  There are no other plans, projects or programmes which would direct similar activities to within or close to the boundaries of this site	

River Usk SAC				
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?	
KP11: MINERALS AND AGGREGATES M1: MINERAL LIMESTONE RESERVES AND RESOURCES M3: QUARRY CLOSURES AND EXTENSION LIMITS M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS M6: DREDGED AGGREGATE LANDING AND DISTRIBUTION FACILITIES	Aggregates removal, leading to aerial pollution	<ul> <li>Quarrying and associated activities are likely to generate dust, and whilst these activities in Cardiff will take place about 14 Km from the River Usk SAC, there is the potential for these dusts to be transported by wind to that site. However:-         <ul> <li>The dispersal of dust particles is affected by the size of the particles emitted, and wind speed as well as their shape and density. Large dust particles (greater than 30µm), which make up the greatest proportion of dust emitted from mineral workings, will largely deposit within 100m of sources. Intermediate-sized particles (10-30µm) are likely to travel up to 200-500m. Smaller particles (less than 10 µm) which make up a small proportion of the dust emitted from most mineral workings are only deposited slowly but may travel 1000m or more". (Office of the Deputy Prime Minister: Minerals Policy Statement 2: Controlling and Mitigating the Environmental Effects of Minerals Extraction in England. Annex 1: Dust (March 2005):</li></ul></li></ul>		
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP6: NEW INFRASTRUCTURE KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS KP11: MINERALS AND	Dust, noise, vibration movement and odour associated with industrial and construction processes, leading to	These policies have the potential to contribute to aerial pollution, via transport and minerals extraction, but as above, these effects are likely to be local to the source of the emissions, and would not significantly affect this site. Similarly, effects such as noise, vibration, movement and odour are likely to be localised and will not affect this site which is 6 Km from Cardiff.  Policies aimed at reducing aerial pollution, such as KP5 wherein; '(viii) Uses innovative approaches to achieve a resource efficient and climate responsive design that provides sustainable water and waste management solutions and minimise emissions from transport, homes and industry'., and EN13 wherein 'Development will not be permitted where it would cause or result in unacceptable harm to health, local amenity, the character and quality of the countryside, or interests of nature conservation, landscape or built heritage importance because of air, noise, light pollution or the presence of unacceptable levels of land contamination.', will serve to offset any increase in aerial emissions arising from		

	River Usk SAC				
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?		
AGGREGATES KP12: WASTE H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES C3: PLANNING FOR SCHOOLS. C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION M1: MINERAL LIMESTONE RESERVES AND RESOURCES M3: QUARRY CLOSURES AND EXTENSION LIMITS M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS M6: DREDGED AGGREGATE LANDING AND DISTRIBUTION FACILITIES W1: LAND FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT M2: SITES FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT	eutrophication and aerial pollution	light industry, domestic heating systems, construction and other sources. Furthermore, there is a gradual reduction in UK-wide levels of pollutants such as Ammonia, NOx, SOx and particulates, which would serve to offset any residual local increase in these pollutants arising from these policies.  In-combination with other Plans, Projects and Programmes  These potential effects are likely to be localised in nature, and as this site is about 6 Km from Cardiff, effects arising from implementation of these policies in Cardiff's Deposit LDP are not likely to reach the River Usk SAC and therefore act in combination with other activities.			
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP6: NEW INFRASTRUCTURE KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS	Impacts on surface water run-off, leading to eutrophication	These policies direct development which may have impacts upon the quality and quantity of surface water discharge. Whilst there is the potential for contaminated surface-water to enter Cardiff's rivers, flow along them into the Severn Estuary, and thence migrate to tidal areas of the River Usk, in all likelihood any such pollution would be so diluted by the time it reached the River Usk that it would not be likely to significantly impact upon that site. Any individual project arising from these policies will be subject to regulation by NRW, thereby controlling any surface water run-off or discharges to controlled waters.	No		

River Usk SAC			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
(Employment) KP10: CENTRAL AND BAY BUSINESS AREAS H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES C8: PLANNING FOR SCHOOLS. C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION		Policies KP 18 Natural Resources, EN11 Protection of Water Resources and EN13 Air, Noise, Light Pollution, and Contaminated Land, when implemented, would serve to offset any increase in water-borne pollution arising from the policies listed to the left.  In-combination with other Plans, Projects and Programmes  Other plans and programmes in Local Authority areas upstream of Cardiff could contribute to poor water quality in the Rivers Taff, Ely and Rhymney, but as above, any such water-borne pollution would be regulated by NRW, and any accidental discharges outside the regulatory framework would be so diluted by the time it reached the River Usk (via the Severn Estuary), that a significant effect would be unlikely.  The River Usk at its nearest point to Cardiff flows through Newport, and Newport's LDP contains policies aimed at reducing pollution and protecting natural habitats. These policies will further reduce any adverse effects upon this SAC, and correspondingly reduce the scope for any in-combination impacts to a level which is not significant.	
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT R1: RETAIL PROVISION WITHIN	Increased demand for water resources, leading to increased abstraction levels	Much of the freshwater supplied to Cardiff is ultimately sourced from the River Usk SAC, and the qualifying features of this site is vulnerable to flow depletion caused by abstraction. Therefore there is a potential for policies which promote housing and employment growth (both of which require supplies of freshwater) to affect the conservation objectives of these features.  Dwr Cymru Welsh Water, who supply Cardiff's freshwater, have produced a Revised Draft Water Resources Management Plan (October 2011), which itself has been subject to Habitats Regulations Appraisal. In this document, and in meetings of the Cardiff LDP Collaborative Officer Working Group, DCWW have confirmed that proposals for additional growth in housing and employment will not be impacted, in terms of availability of water supply, by reductions in the volume of water licensed for abstraction from these two rivers. These licence reductions are measures that the Environment Agency have identified as being necessary to avoid adverse impact upon European sites as part of their Review of Consents process. DCWW have identified a series of measures to address the deficit in water supply caused by licence reductions.  These measures, together with Policies KP 18 Natural Resources and EN11 Protection of Water Resources, which are aimed in part at improving water resource use efficiency, will ensure adequate water supply without adverse impacts on the River Usk SAC.  In-combination with other Plans, Projects and Programmes  The Usk Catchment Abstraction Management Strategy March 2007 sets out how water abstraction from the River Usk will be managed until	No

River Usk SAC			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
STRATEGIC SITES C1: COMMUNITY FACILITIES C8: PLANNING FOR SCHOOLS. C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION		2013. It outlines where water is available, and also, if relevant, where current rates of abstraction need to be reduced. As a result of the Review of Consents process, flow targets have been set which are considered likely to significantly reduce or remove the impacts of abstraction on River Usk SAC features.  Under the Habitats Regulations, Natural Resources Wales (NRW) has a duty to assess the effects of existing abstraction licences and any new applications to make sure they are not impacting on internationally important nature conservation sites. Water efficiency is also tested by NRW before a new licence is granted. If the assessment of a new application shows that it could have an impact on a SAC, NRW will have to follow strict rules in setting a time limit for that licence.	
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP6: NEW INFRASTRUCTURE KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS KP11: MINERALS AND AGGREGATES KP12: WASTE H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES C8: PLANNING FOR SCHOOLS. C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION M3: QUARRY CLOSURES AND EXTENSION LIMITS	Increased traffic movements leading to aerial pollution	The habitat features of this site are sensitive to acidification and deposition of nitrogen, and the source of these pollutants is predominantly road traffic. However, the effects of road traffic pollution are likely to be restricted to within approximately 200m of the road concerned, and the River Usk SAC is about 7Km from Cardiff.  Furthermore, the Deposit LDP contains policies intended to reduce dependency on car travel, facilitate and increase use of sustainable and active modes of transport (Policies KP8, T1, T2, T3, T5), mitigate the effects of climate change (Policies KP15 and EN12), and promote the sustainable use of natural resources (Policies KP18, EN10 and EN11). In the long-term these measures will mitigate or off-set any increase in atmospheric pollution as a result of the LDP and should lead to gradual improvements in air quality.  Finally, levels of NO <sub>2</sub> across Wales are recorded as decreasing, and recorded areas of NO <sub>2</sub> pollution concern in Cardiff are in the City Centre rather than near this SAC.  In-combination with other Plans, Projects and Programmes  Although there are local environmental factors which may affect this site, the distance of this site from Cardiff and the overall improving air quality in the area make it unlikely that this policy will have a significant effect in-combination with these factors upon this site. Both Cardiff and Newport's deposit LDP's contain policies aimed at reducing traffic pollution and encouraging more sustainable modes of transport such as public transport and cycling, which when implemented will counteract any in-combination effect of aerial pollution upon this SAC.  The Wales Spatial Plan (Update) 2008 and promotes developments in the region, however none of the three Strategic Opportunity Areas within that document entails land-take at this site, and any increase in aerial pollution due to traffic movement is likely to be counteracted by other regional strategies such as the Wales Transport Strategy 2008, the SEWTA Regional Transport Plan 2009 and th	No

River Usk SAC				
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?	
M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS M6: DREDGED AGGREGATE LANDING AND DISTRIBUTION FACILITIES W1: LAND FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT FACILITIES W3: PROVISION FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT				
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP11: MINERALS AND AGGREGATES KP12: WASTE H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION M1: MINERAL LIMESTONE RESERVES AND RESOURCES M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS M6: DREDGED AGGREGATE LANDING AND DISTRIBUTION FACILITIES W1: LAND FOR WASTE	Wastewater and Sewage, leading to eutrophication	None of the candidate sites for housing is within a European Site. However, increased sewage arising from these housing provisions may increase discharge into the Severn Estuary. This could potentially lead to changes in nutrient and /or organic loading in the tidal reaches of the River Usk, which discharges into the Severn Estuary.  Sewage from Cardiff west of the River Taff is treated at the Cog Moors Sewage Treatment Works (STW), serving the Barry and Cardiff West catchments. This STW discharges to the Bristol Channel, via a long sea outfall, off Lavernock Point. Effluent is disinfected through ultra violet treatment, which reduces the environmental impact and protects water quality. Sewage from Cardiff east of the River Taff is treated at the WWTW at Tremorfa, and cleaned water is discharged via the outfall 4.2 km into the estuary at ST25527393. DCWW have confirmed that the WWTW at Tremorfa has sufficient capacity across the lifespan of the plan (2006 - 2026) to accommodate the domestic foul flows from all of the allocations in the Deposit LDP.  In terms of water quality issues the Severn Estuary is under greatest threat from point source pollution within the area of designation. The EA set very strict quality standards for the final effluent that can be returned to rivers, and Welsh Water achieved 99.85% compliance of wastewater treatment works in 2009. Given the regulatory compliance measures and the current favourable condition assessment for the Severn Estuary SSSIs that are components of the SAC, it is unlikely that development resulting from the Cardiff Deposit LDP will have a significant effect on the water quality of the Severn Estuary, SAC/SPA/Ramsar site.  In-combination with other Plans, Projects and Programmes  Other plans and programmes which result in increased sewage discharge at the South Wales Coast, may act in combination with this policy to exacerbate nutrient and /or organic loading in the Severn Estuary, which could impact on the River Usk. Development plans for all unitary authorities		

River Usk SAC			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
MANAGEMENT W2: SITES FOR WASTE MANAGEMENT FACILITIES W3: PROVISION FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT			

River Wye SAC				
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?	
KP11: MINERALS AND AGGREGATES M1: MINERAL LIMESTONE RESERVES AND RESOURCES M3: QUARRY CLOSURES AND EXTENSION LIMITS M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS M6: DREDGED AGGREGATE LANDING AND DISTRIBUTION FACILITIES	Aggregates removal, leading to aerial pollution	Quarrying and associated activities are likely to generate dust, and whilst these activities in Cardiff will take place about 30 Km from the River Wye SAC, there is the potential for these dusts to be transported by wind to that site. However:  • The dispersal of dust particles is affected by the size of the particles emitted, and wind speed as well as their shape and density. Large dust particles (greater than 30µm), which make up the greatest proportion of dust emitted from mineral workings, will largely deposit within 100m of sources. Intermediate-sized particles (10–30µm) are likely to travel up to 200–500m. Smaller particles (less than 10 µm) which make up a small proportion of the dust emitted from most mineral workings are only deposited slowly but may travel 1000m or more". (Office of the Deputy Prime Minister: Minerals Policy Statement 2: Controlling and Mitigating the Environmental Effects of Minerals Extraction in England. Annex 1: Dust (March 2005): <a href="http://www.communities.gov.uk/documents/planningandbuilding/pdf/mps2annex1.pdf">http://www.communities.gov.uk/documents/planningandbuilding/pdf/mps2annex1.pdf</a> ). Therefore it is highly likely that these particulates will have dropped out of the atmosphere before reaching the River Wye SAC.  • According to the National Atmospheric Emissions Inventory, overall emissions of particulates have fallen by 58% since 1990. If this downward trend continues, the total deposition of particulates at this site will gradually decrease, thereby reducing any impact upon the site's features. <a href="http://naei.defra.gov.uk/overview/pollutants?pollutant.id=24">http://naei.defra.gov.uk/overview/pollutants?pollutants?pollutant.id=24</a> • Implementation of policies aimed at minimising air pollution and managing air quality (KP18: Natural Resources; EN13: Air, Noise, Light Pollution and Contaminated Land) would counteract any increase in atmospheric pollution resulting from this policy. Policies relating to mineral extraction accord with Minerals Planning Polic	No	

River Wye SAC			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
		Review of Consents process in 2010/11. The conclusions of this review were that none of the extant consents were likely to have a significant effect upon any European Sites provided that planning conditions aimed at mitigating any effects of aerial pollution, are implemented. If these planning conditions continue to be implemented, and similarly-worded conditions are attached to any new minerals consents issued, then this absence of any significant effect will continue.  In-combination with other Plans, Projects and Programmes  Minerals Planning Policy Wales 2001 does not specify any locations, therefore the risk of 'in combination' effects with this policy cannot be assessed. Furthermore, the document contains strong policies in relation to the protection of European sites.	
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP6: NEW INFRASTRUCTURE KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS KP11: MINERALS AND AGGREGATES KP12: WASTE H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES C3: PLANNING FOR SCHOOLS. C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION M1: MINERAL LIMESTONE RESERVES AND RESOURCES M3: QUARRY CLOSURES AND EXTENSION LIMITS M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS M6: DREDGED AGGREGATE	Dust, noise, vibration movement and odour associated with industrial and construction processes, leading to eutrophication and aerial pollution	These policies have the potential to contribute to aerial pollution, via transport and minerals extraction, but as above, these effects are likely to be local to the source of the emissions, and would not significantly affect this site. Similarly, effects such as noise, vibration, movement and odour are likely to be localised and will not affect this site which is 30 Km from Cardiff.  Policies aimed at reducing aerial pollution, such as KP5 wherein; '(viii) Uses innovative approaches to achieve a resource efficient and climate responsive design that provides sustainable water and waste management solutions and minimise emissions from transport, homes and industry', and EN13 wherein 'Development will not be permitted where it would cause or result in unacceptable harm to health, local amenity, the character and quality of the countryside, or interests of nature conservation, landscape or built heritage importance because of air, noise, light pollution or the presence of unacceptable levels of land contamination.', will serve to offset any increase in aerial emissions arising from light industry, domestic heating systems, construction and other sources. Furthermore, there is a gradual reduction in UK-wide levels of pollutants such as Ammonia, NOx, SOx and particulates, which would serve to offset any residual local increase in these pollutants arising from these policies.  In-combination with other Plans, Projects and Programmes  These potential effects are likely to be localised in nature, and as this site is about 30 Km from Cardiff, effects arising from implementation of these policies in Cardiff's Deposit LDP are not likely to reach the River Wye SAC and therefore act in combination with other activities.	

	River Wye SAC			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?	
LANDING AND DISTRIBUTION FACILITIES W1: LAND FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT FACILITIES W3: PROVISION FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT				
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP6: NEW INFRASTRUCTURE KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES C8: PLANNING FOR SCHOOLS. C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION	Impacts on surface water run-off, leading to eutrophication	These policies direct development which may have impacts upon the quality and quantity of surface water discharge. Whilst there is the potential for contaminated surface-water to enter Cardiff's rivers, flow along them into the Severn Estuary, and thence migrate to tidal areas of the River Usk, in all likelihood any such pollution would be so diluted by the time it reached the River Usk that it would not be likely to significantly impact upon that site. Any individual project arising from these policies will be subject to regulation by NRW, thereby controlling any surface water run-off or discharges to controlled waters.  Policies KP 18 Natural Resources, EN11 Protection of Water Resources and EN13 Air, Noise, Light Pollution, and Contaminated Land, when implemented, would serve to offset any increase in water-borne pollution arising from the policies listed to the left.  In-combination with other Plans, Projects and Programmes  Other plans and programmes in Local Authority areas upstream of Cardiff could contribute to poor water quality in the Rivers Taff, Ely and Rhymney, but as above, any such water-borne pollution would be regulated by NRW, and any accidental discharges outside the regulatory framework would be so diluted by the time it reached the River Wye (via the Severn Estuary), that a significant effect would be unlikely.		
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S)	Increased demand for water resources, leading to increased abstraction levels	Much of the freshwater supplied to Cardiff is ultimately sourced from the River Wye SAC, and the qualifying features of this site is vulnerable to flow depletion caused by abstraction. Therefore there is a potential for policies which promote housing and employment growth (both of which require supplies of freshwater) to affect the conservation objectives of these features.  Dwr Cymru Welsh Water, who supply Cardiff's freshwater, have produced a Revised Draft Water Resources Management Plan (October 2011), which itself has been subject to Habitats Regulations Appraisal. In this document, and in meetings of the Cardiff LDP Collaborative Officer Working Group, DCWW have confirmed that proposals for	No	

River Wye SAC				
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?	
H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES C8: PLANNING FOR SCHOOLS. C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION		additional growth in housing and employment will not be impacted, in terms of availability of water supply, by reductions in the volume of water licensed for abstraction from these two rivers. These licence reductions are measures that the Environment Agency have identified as being necessary to avoid adverse impact upon European sites as part of their Review of Consents process. DCWW have identified a series of measures to address the deficit in water supply caused by licence reductions.  These measures, together with Policies KP 18 Natural Resources and EN11 Protection of Water Resources, which are aimed in part at improving water resource use efficiency, will ensure adequate water supply without adverse impacts on the River Wye SAC.  In-combination with other Plans, Projects and Programmes  The Wye Catchment Abstraction Management Strategy March 2008 sets out how water abstraction from the River Usk will be managed until 2013. It outlines where water is available, and also, if relevant, where current rates of abstraction need to be reduced. As a result of the Review of Consents process, flow targets have been set which are considered likely to significantly reduce or remove the impacts of abstraction on River Wye SAC features.		
		Under the Habitats Regulations, Natural Resources Wales (NRW) has a duty to assess the effects of existing abstraction licences and any new applications to make sure they are not impacting on internationally important nature conservation sites. Water efficiency is also tested by NRW before a new licence is granted. If the assessment of a new application shows that it could have an impact on a SAC, NRW will have to follow strict rules in setting a time limit for that licence.		
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP6: NEW INFRASTRUCTURE KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS KP11: MINERALS AND AGGREGATES KP12: WASTE H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE	Increased traffic movements leading to aerial pollution	The habitat features of this site are sensitive to acidification and deposition of nitrogen, and the source of these pollutants is predominantly road traffic. However, the effects of road traffic pollution are likely to be restricted to within approximately 200m of the road concerned, and the River Wye SAC is about 30 Km from Cardiff.  Furthermore, the Deposit LDP contains policies intended to reduce dependency on car travel, facilitate and increase use of sustainable and active modes of transport (Policies KP8, T1, T2, T3, T5), mitigate the effects of climate change (Policies KP15 and EN12), and promote the sustainable use of natural resources (Policies KP18, EN10 and EN11). In the long-term these measures will mitigate or off-set any increase in atmospheric pollution as a result of the LDP and should lead to gradual improvements in air quality.  Finally, levels of NO <sub>2</sub> across Wales are recorded as decreasing, and recorded areas of NO <sub>2</sub> pollution concern in Cardiff are in the City Centre rather than near this SAC.  In-combination with other Plans, Projects and Programmes  Although there are local environmental factors which may affect this site, the distance of this site from Cardiff and the overall improving air quality in the area make it unlikely that this policy will have a significant effect in-combination with		

		River Wye SAC	
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES C8: PLANNING FOR SCHOOLS. C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION M3: QUARRY CLOSURES AND EXTENSION LIMITS M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS M6: DREDGED AGGREGATE LANDING AND DISTRIBUTION FACILITIES W1: LAND FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT FACILITIES W3: PROVISION FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT		these factors upon this site. The Deposit LDP's of Cardiff and other Local Authorities through which the Wye flows contain policies aimed at reducing traffic pollution and encouraging more sustainable modes of transport such as public transport and cycling, which when implemented will counteract any in-combination effect of aerial pollution upon this SAC.  The Wales Spatial Plan (Update) 2008 and promotes developments in the region, however none of the three Strategic Opportunity Areas within that document entails land-take at this site, and any increase in aerial pollution due to traffic movement is likely to be counteracted by other regional strategies such as the Wales Transport Strategy 2008, the SEWTA Regional Transport Plan 2009 and the SEWTA Rail Strategy Study 2006, which promote sustainability of transport, reduction of aerial emissions and modal shift towards more sustainable forms of transport such as public transport and cycling.	
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP11: MINERALS AND AGGREGATES KP12: WASTE H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION M1: MINERAL LIMESTONE RESERVES AND RESOURCES M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS	Wastewater and Sewage, leading to eutrophication	None of the candidate sites for housing is within a European Site. However, increased sewage arising from these housing provisions may increase discharge into the Severn Estuary. This could potentially lead to changes in nutrient and /or organic loading in the tidal reaches of the River Wye, which discharges into the Severn Estuary.  Sewage from Cardiff west of the River Taff is treated at the Cog Moors Sewage Treatment Works (STW), serving the Barry and Cardiff West catchments. This STW discharges to the Bristol Channel, via a long sea outfall, off Lavernock Point. Effluent is disinfected through ultra violet treatment, which reduces the environmental impact and protects water quality. Sewage from Cardiff east of the River Taff is treated at the WWTW at Tremorfa, and cleaned water is discharged via the outfall 4.2 Km into the estuary at ST25257393. DCWW have confirmed that the WWTW at Tremorfa has sufficient capacity across the lifespan of the plan (2006 - 2026) to accommodate the domestic foul flows from all of the allocations in the Cardiff Deposit LDP.  In terms of water quality issues the Severn Estuary is under greatest threat from point source pollution within the area of designation. The EA set very strict quality standards for the final effluent that can be returned to rivers, and Welsh Water achieved 99.85% compliance of wastewater treatment works in 2009. Given the regulatory compliance measures and the current favourable condition assessment for the Severn Estuary SSSIs that are components of the SAC, it is unlikely that development resulting from the Cardiff Deposit LDP will have a significant effect on the water quality of the Severn Estuary SAC/SPA/ Ramsar site.	No

River Wye SAC			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
M6: DREDGED AGGREGATE LANDING AND DISTRIBUTION FACILITIES W1: LAND FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT FACILITIES W3: PROVISION FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT		In-combination with other Plans, Projects and Programmes  Other plans and programmes which result in increased sewage discharge at the South Wales Coast, may act in combination with this policy to exacerbate nutrient and /or organic loading in the Severn Estuary, which could impact on the River Wye. Development plans for all unitary authorities whose sewage discharges at the South Wales Coast such as Caerphilly, RCT, Blaenau Gwent and Merthyr Tydfil make provision for a combined allocation of over 30000 new dwellings in total. However, Dwr Cymru Welsh Water have had the opportunity to comment on these LDPs and the inclusion of these levels of housing allocation indicates that there is the capacity to treat the predicted increase in sewage,	
		Furthermore, all effluent is treated to meet the consent limits laid down by the environmental agency and subject to strict conditions which include HRA processes where the potential for impacts on the estuary are identified. Provided this continues to occur, there is not likely to be a significant effect on the River Wye by sewage outfall	

Severn Estuary SAC				
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?	
KP11: MINERALS AND AGGREGATES KP12: WASTE M1: MINERAL LIMESTONE RESERVES AND RESOURCES M3: QUARRY CLOSURES AND EXTENSION LIMITS M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS M6: DREDGED AGGREGATE LANDING AND DISTRIBUTION FACILITIES W1: LAND FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT FACILITIES W3: PROVISION FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT	Contamination, accumulation of toxic substances	Cuarrying and associated activities are likely to generate dust, and whilst these activities in Cardiff will take place about 10 Km from the Severn Estuary, there is the potential for these dusts to be transported by wind to that site. However, the dispersal of dust particles affected by the size of the particles emitted from mineral workings, will largely deposit within 100m of sources. Intermediate-sized particles (1-30µm) are likely to travel up to 200–500m. Smaller particles (less than 10 µm) which make up a small proportion of the dust emitted from most mineral workings are only deposited slowly but may travel 1000m or more". (Office of the Deputy Prime Minister: Minerals Policy Statement 2: Controlling and Mitigating the Environmental Effects of Minerals Extraction in England. Annex 1: Dust (March 2005): <a href="http://www.communities.gov.uk/documents/planningandbuilding/pdf/mps2annex1.pdf">http://www.communities.gov.uk/documents/planningandbuilding/pdf/mps2annex1.pdf</a> ).  Therefore it is highly likely that these particulates will have dropped out of the atmosphere before reaching the Severn Estuary.  Furthermore, according to the National Atmospheric Emissions Inventory, overall emissions of particulates have fallen by 58% since 1990. If this downward trend continues, the total deposition of particulates at this site will gradually decrease, thereby reducing any impact upon the site's features. http://maei.defar.gov.uk/overvew/pollutanis/Pollutani. die-24  Implementation of policies aimed at minimising air pollution and managing air quality (KP18: Natural Resources; EN13: Air, Noise, Light Pollution and Contaminated Land) would counteract any increase in atmospheric pollution resulting from this policy. Policies relating to mineral extraction sites in Cardiff benefit from existing consents, and these consents were subject to a Review of Consents process in 2010/11. The conclusions of this review were that none of the extant consents were subject to Review of Consents process in 2010/11. The conclu		

Severn Estuary SAC			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES	Dust, noise, vibration,	In-combination with other Plans, Projects and Programmes  Regional strategies such as the TraCC Regional Transport Plan 2009, the SEWTA Rail Strategy Study Jan 2006 and the South East Wales Transport Alliance: Regional Transport Plan 2009 all seek a modal shift for private and freight transports onto more sustainable modes, reducing the impact of the transport system on the natural environment, reducing greenhouse gas emissions from transport, and reducing traffic growth and congestion. These strategies will serve to reduce and offset the effects of any atmospheric pollution acting in combination with that arising from the Deposit LDP.  The potential effects of dust, noise, vibration, movement and odour are localised in nature, and only those activities close to the foreshore which give rise to these effects have the potential to affect the SAC. This excludes mineral extraction activities to the north of Cardiff, and	
KP6: NEW INFRASTRUCTURE KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS KP11: MINERALS AND AGGREGATES KP12: WASTE H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT	movement and odour associated with industrial and construction processes leading to changes in nutrient and/or organic loading	allocations for housing and industry which are not situated near the foreshore.  Construction and operation of waste management facilities on industrial land adjacent to the Severn Estuary has the potential to have an effect upon the Severn Estuary European site. However, the site allocated in this policy already supports existing planning consents which have been the subject of previous Habitats Regulations Appraisals. In all cases, these assessments found there to be no likely significant effect on the Severn Estuary. Therefore, any effect on the Severn Estuary arising from this allocation will have already been taken account of in previous planning consents. Any new consents arising from these policies will be subject to individual Habitats Regulations Assessments These consents will only be considered to conform to the LDP if it can be demonstrated that they will not have an adverse effect on the integrity of this SAC.  As no clearly defined route for the Eastern Bay Link Road is provided with Policy T7, or on the Proposals Map, there is insufficient information to assess the impacts of such a policy upon the Severn Estuary SAC. The effects of the construction and operation of this road will therefore have to be considered in a Habitats Regulations Assessment at the project stage, when more details become available. Consent for such a project will only be considered to conform to the LDP if it can be demonstrated that it will not have an adverse effect on the integrity of this SAC.  In-combination with other Plans, Projects and Programmes	
T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES C8: PLANNING FOR SCHOOLS. C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION M1: MINERAL LIMESTONE RESERVES AND RESOURCES M3: QUARRY CLOSURES AND EXTENSION LIMITS		These potential effects are localised in nature, so only plans, projects and programmes which are close to those within Cardiff could act in combination with these policies. Along the foreshore, neither of Cardiff's neighbouring authorities (Vale of Glamorgan and Newport) have policies which direct development to the foreshore adjacent to the respective county boundaries with Cardiff which could cause dust, noise, vibration, movement and odour associated with industrial and construction processes.	

	Severn Estuary SAC			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?	
M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS M6: DREDGED AGGREGATE LANDING W1: LAND FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT FACILITIES W3: PROVISION FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT				
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP6: NEW INFRASTRUCTURE KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES C8: PLANNING FOR SCHOOLS. C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION	Impacts on surface water run-off leading to contamination and changes in nutrient and/or organic loading	The potential effects of surface water run-off are localised in nature, and only those activities close to the foreshore or to Cardiff Bay which give rise to these effects have the potential to affect the Severn Estuary SAC. This excludes mineral extraction activities to the north of Cardiff, and allocations for housing and industry which are not situated near the foreshore.  Construction and operation of waste management facilities on industrial land adjacent to the Severn Estuary has the potential to have an effect upon the Severn Estuary European site. However, the site allocated in this policy already supports existing planning consents which have been the subject of previous Habitats Regulations Appraisals. In all cases, these assessments found there to be no likely significant effect on the Severn Estuary. Therefore, any effect on the Severn Estuary arising from this allocation will have already been taken account of in previous planning consents. Any new consents arising from these policies will be subject to individual Habitats Regulations Assessments These consents will only be considered to conform to the LDP if it can be demonstrated that they will not have an adverse effect on the integrity of this SAC.  Where policies direct development towards Cardiff Bay and the rivers that feed into it, they could potentially lead to pollution from a number of sources, including oil and chemical spills from industrial and commercial premises and vessels. If this pollution were to enter the Severn Estuary, there is a potential for harm to the designated features of Severn Estuary SAC.  In view of Cardiff Bay's proximity to the Severn Estuary European site, Cardiff Harbour Authority (CHA) has prepared an Oil Spill Contingency Plan in accordance with Clause 3(1)(d) of the Merchant Shipping (Oil Pollution Preparedness Response and Co-operation Convention) Regulations 1998, SI 1998 No 1056. The equipment for managing oil spills (and blue green algal scums) is the largest collection of its type in South East Wales. Th		

		Severn Estuary SAC	
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
		therefore have to be considered in a Habitats Regulations Assessment at the project stage, when more details become available. Consent for such a project will only be considered to conform to the LDP if it can be demonstrated that it will not have an adverse effect on the integrity of this SAC.	
		In-combination with other Plans, Projects and Programmes	
		Other plans and programmes which result in increased sewage discharge at the South Wales Coast, may act in combination with this policy to exacerbate nutrient and /or organic loading in the Severn Estuary, which could impact upon it. Development plans for all unitary authorities whose sewage discharges at the South Wales Coast such as Caerphilly, RCT, Blaenau Gwent and Merthyr Tydfil make provision for a combined allocation of over 30000 new dwellings in total. However, Dwr Cymru Welsh Water have had the opportunity to comment on these LDPs and the inclusion of these levels of housing allocation indicates that there is the capacity to treat the predicted increase in sewage,	
		Furthermore, all effluent is treated to meet the consent limits laid down by the Environmental Agency and subject to strict conditions which include HRA processes where the potential for impacts on the estuary are identified. Provided this continues to occur, there is not likely to be an in-combination significant effect on the Severn Estuary SAC by sewage outfall.	
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP6: NEW INFRASTRUCTURE KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS KP11: MINERALS AND AGGREGATES KP12: WASTE H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER	Increased traffic movements leading to contamination	The LDP contains policies intended to reduce dependency on car travel, facilitate and increase use of sustainable and active modes of transport (Policies KP8, T1, T2, T3, T5), mitigate the effects of climate change (Policies KP15 and EN12), and promote the sustainable use of natural resources (Policies KP18, EN10 and EN11). In the long-term these measures will mitigate or off-set any increase in atmospheric pollution as a result of the LDP and should lead to gradual improvements in air quality.  Furthermore, levels of NO <sub>2</sub> across Wales are recorded as decreasing, and recorded areas of NO <sub>2</sub> pollution concern in Cardiff are in the City Centre rather than near the foreshore. Similarly, according to the National Atmospheric Emissions Inventory, overall emissions of particulates have fallen by 58% since 1990. If this downward trend continues, the total deposition of particulates at this site will gradually decrease, thereby reducing any impact upon the site's features. <a href="http://naei.defra.gov.uk/overview/pollutants?pollutant_id=24">http://naei.defra.gov.uk/overview/pollutants?pollutant_id=24</a> As no clearly defined route for the Eastern Bay Link Road is provided with Policy T7, or on the Proposals Map, there is insufficient information to assess the impacts of such a policy upon the Severn Estuary Ramsar site. The effects of the construction and operation of this road will therefore have to be considered in a Habitats Regulations Assessment at the project stage, when more details become available. Consent for such a project will only be considered to conform to the LDP if it can be demonstrated that it will not have an adverse effect on the integrity of this SAC.	
SITE(S) H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT T7: STRATEGIC		In-combination with other Plans, Projects and Programmes  The Wales Spatial Plan (Update) 2008 and promotes developments in the region, however none of the three Strategic Opportunity Areas within that document entails land-take at this site, and any increase in aerial pollution due to traffic movement is likely to be counteracted by other regional strategies such as the Wales Transport Strategy 2008, the SEWTA Regional Transport Plan 2009 and the SEWTA Rail Strategy Study 2006. These strategies all seek a modal shift for private and freight transports onto more sustainable modes, reducing the	
TRANSPORTATION INFRASTRUCTURE R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES		impact of the transport system on the natural environment, reducing greenhouse gas emissions from transport, and reducing traffic growth and congestion. These strategies will serve to reduce and offset the effects of any atmospheric pollution acting in combination with that arising from the Preferred Construction and operation of waste management facilities on industrial land adjacent to the Severn Estuary have the potential to have an effect upon the Severn Estuary International site. Visual and noise disturbance during construction may cause disturbance to waterfowl such as Shelduck, Oystercatcher, Dunlin, Curlew, Pintail and Redshank which are designatory features of the SPA	

Severn Estuary SAC			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
C8: PLANNING FOR SCHOOLS. C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION M3: QUARRY CLOSURES AND EXTENSION LIMITS M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS M6: DREDGED AGGREGATE LANDING W1: LAND FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT FACILITIES W3: PROVISION FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT		and which form part of one of the notable estuarine species assemblages of the estuary feature of the SAC.  However, the site allocated in this policy already supports existing planning consents which have been the subject of previous Habitats Regulations Appraisals. In all cases, these assessments found there to be no likely significant effect on the Severn Estuary. Therefore, any effect on the Severn Estuary arising from this allocation will have already been taken account of in previous planning consents.	
KP15: CLIMATE CHANGE EN12: RENEWABLE ENERGY AND LOW CARBON TECHNOLOGIES	Installation of wind turbines leading to physical loss of supporting habitats	As no specific locations for wind turbines are provided with these policies, on the Proposals map, their effects cannot be assessed at this stage. However, where wind turbines are proposed for locations along the Cardiff foreshore, effects of disturbance caused by construction and operation of wind turbines will be considered in a Habitats Regulations Assessment at the individual project stage. Consent for such projects will only be considered to conform to the LDP if it can be demonstrated that they will not have an adverse effect on the integrity of this SAC.  In-combination with other Plans, Projects and Programmes  No other plans projects and programmes which could lead to the construction and operation of wind turbines around the Cardiff foreshore have been identified. Other Local Authorities in the region have developed LDP policies which promote the use of renewable energy sources, which would include wind turbines, but no locations for these turbines are specified, so their in-combination effects cannot be assessed. Where individual projects elsewhere in the Severn Estuary involve the operation of wind turbines within this site, those projects would be each subject to an individual HRA.	No
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP6: NEW INFRASTRUCTURE KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS KP11: MINERALS AND	Land take, leading to loss of habitat	Whilst land-take would result from these policies, and land take within the Severn Estuary SAC would be likely to significantly affect it, none of these policies direct land-take to within the boundaries of this site. No clearly defined route for the Eastern Bay Link Road is provided with Policy T7, or on the Proposals Map. Therefore there remains the potential that such a project would incur land-take within the Severn Estuary SAC if an Estuary Route option were selected. If this were the case, the effects of land-take caused by construction and operation of this road will be considered in a Habitats Regulations Assessment at the project stage, when more details become available. Consent for such a project will only be considered to conform to the LDP if it can be demonstrated that it will not have an adverse effect on the integrity of this SAC.	No

	Severn Estuary SAC			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?	
AGGREGATES KP12: WASTE H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES C8: PLANNING FOR SCHOOLS. C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION M3: QUARRY CLOSURES AND EXTENSION LIMITS M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS M6: DREDGED AGGREGATE LANDING W1: LAND FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT FACILITIES W3: PROVISION FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT		In-combination with other Plans, Projects and Programmes  No other plans projects and programmes which could lead to land-take around the Cardiff foreshore have been identified. Where individual projects elsewhere in the Severn Estuary involve land take within this site, those projects would be each subject to an individual HRA.		
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP11: MINERALS AND AGGREGATES KP12: WASTE H1: NON STRATEGIC HOUSING SITES	Wastewater and sewage leading to contamination and changes in nutrient and/or	None of the candidate sites for housing is within a European Site. However, increased sewage arising from these housing provisions may increase discharge into the Severn Estuary. This could potentially lead to changes in nutrient and /or organic loading, which could change the species composition of Saltmarsh plants and cause excessive algal growth on mudflats. This could subsequently deny wetland birds access to their invertebrate prey. At the current time there is no evidence to show that this is the case at this site, but the estuary is vulnerable to oil spills and JNCC states that there is a continuous discharge of toxins into the estuary, some of which bind to the sediments, although no specific sources or locations are identified. NE and CCW identify this is an area which requires further assessment. They also identify	No	

Severn Estuary SAC			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION M1: MINERAL LIMESTONE RESERVES AND RESOURCES M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS M6: DREDGED AGGREGATE LANDING W1: LAND FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT FACILITIES W3: PROVISION FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT	organic loading	Bewick's swans as currently moderately vulnerable to toxic contamination.  Sewage from Cardiff west of the River Taff is treated at the Cog Moors Sewage Treatment Works (STW), serving the Barry and Cardiff West catchments. This STW discharges to the Bristol Channel, via a long sea outfall, off Lavernock Point. Effluent is disinfected through ultra violet treatment, which reduces the environmental impact and protects water quality. Sewage from Cardiff east of the River Taff is treated at the WWTW at Tremorfa, and cleaned water is discharged via the outfall 4.2 km into the estuary at ST25257393. DCWW have confirmed that the WWTW at Tremorfa has sufficient capacity across the lifespan of the plan (2006 - 2026) to accommodate the domestic foul flows from all of the allocations in the Deposit LDP.  In terms of water quality issues the Severn Estuary is under greatest threat from point source pollution within the area of designation. The EA set very strict quality standards for the final effluent that can be returned to rivers, and Welsh Water achieved 99.85% compliance of wastewater treatment works in 2009. Given the regulatory compliance measures and the current favourable condition assessment for the Severn Estuary SSSIs that are components of the SAC, it is unlikely that development resulting from the Cardiff Deposit LDP will have a significant effect on the water quality of the Severn Estuary SAC/SPA/ Ramsar site.  In-combination with other Plans, Projects and Programmes  Other plans and programmes which result in increased sewage discharge at the South Wales Coast, may act in combination with this policy to exacerbate nutrient and /or organic loading in the Severn Estuary, which could impact on the River Usk. Development plans for all unitary authorities whose sewage discharges at the South Wales Coast such as Caephilly, RCT, Blaenau Gwent and Merthyr Tydfil make provision for a combined allocation of over 30000 new dwellings in total. However, Dwr Cymru Welsh Water have had the opportunity to comment on these	
M6: DREDGED AGGREGATE LANDING	Aggregates removal, leading to damage by abrasion or selective abstraction	Construction and operation of waste management facilities on industrial land adjacent to the Severn Estuary have the potential to have an effect upon the Severn Estuary European site. Polluted surface water runoff and aerial pollution during construction and operation may harm certain habitat features of the Severn Estuary SAC such as mudflats and saltmarsh, and key supporting habitats for the waterfowl such as intertidal mudflats and sandflats, saltmarsh, shingle and rocky shore, wet coastal grazing marsh, and improved grassland and open standing waters.  However, one of the sites allocated in this policy which is close to the Severn Estuary European site already supports existing planning consents which have been the subject of previous Habitats Regulations Appraisals. In all cases, these assessments found there to be no likely significant effect on the Severn Estuary. Therefore, any effect on the Severn Estuary arising from this allocation will have already been taken account of in previous planning consents.  In-combination with other Plans, Projects and Programmes  Regional strategies such as the TraCC Regional Transport Plan 2009, the SEWTA Rail Strategy Study Jan 2006 and the South East Wales Transport Alliance: Regional Transport Plan 2009 all seek a modal shift for private and freight transports onto more sustainable modes,	

Severn Estuary SAC			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
		reducing the impact of the transport system on the natural environment, reducing greenhouse gas emissions from transport, and reducing traffic growth and congestion. These strategies will serve to reduce and offset the effects of any atmospheric pollution acting in combination with that arising from the Deposit LDP.  Construction and operation of waste management facilities on industrial land adjacent to the Severn Estuary have the potential to have an effect upon the Severn Estuary International site. Visual and noise disturbance during construction may cause disturbance to waterfowl such as Shelduck, Oystercatcher, Dunlin, Curlew, Pintail and Redshank which are designatory features of the SPA and which form part of one of the notable estuarine species assemblages of the estuary feature of the SAC.  However, one of the sites allocated in this policy which is close to the Severn Estuary European site already supports existing planning consents which have been the subject of previous Habitats Regulations Appraisals. In all cases, these assessments found there to be no	
		consents which have been the subject of previous Habitats Regulations Appraisals. In all cases, these assessments found there to be no likely significant effect on the Severn Estuary. Therefore, any effect on the Severn Estuary arising from this allocation will have already been taken account of in previous planning consents.	

	Severn Estuary SPA			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?	

	Severn Estuary SPA				
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?		
KP11: MINERALS AND AGGREGATES KP12: WASTE M1: MINERAL LIMESTONE RESERVES AND RESOURCES M3: QUARRY CLOSURES AND EXTENSION LIMITS M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS M6: DREDGED AGGREGATE LANDING AND DISTRIBUTION FACILITIES W1: LAND FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT FACILITIES W3: PROVISION FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT	Contamination, accumulation of toxic substances	Ouarrying and associated activities are likely to generate dust, and whilst these activities in Cardiff will take place about 10 Km from the Severn Estuary, there is the potential for these dusts to be transported by wind to that site. However, the dispersal of dust particles is affected by the size of the particles entired, and wind speed as well as their shape and density. Large dust particles (and wind speed as well as their shape and density. Large dust particles (and wind speed as well as their shape and density. Large dust particles (and wind particles) (as their shape and density). Large dust particles (and their shape and particles) (as their shape and density) and sources. Intermediate-sized particles (10–30µm) which make up a small propriot of the dust entired from most mineral workings are only deposited slowly but may travel 1000m or more". (Office of the Deputy Prime Minister: Minerals Policy Statement 2: Controlling and Mitigating the Environmental Effects of Minerals Extraction in England. Annex 1: Dust (March 2005): http://www.communities.gov.uk/documents/planningandbuilding/pdf/mps2annex1.pdf).  Therefore It is highly likely that these particulates will have dropped out of the atmosphere before reaching the Severn Estuary.  Furthermore, according to the National Atmospheric Emissions Inventory, overall emissions of particulates have fallen by 59% since 1990. If this downward trend continues, the total deposition of particulates at this site will gradually decrease, thereby reducing any impact upon the site s'leatures.			

	Severn Estuary SPA			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?	
		Regional strategies such as the TraCC Regional Transport Plan 2009, the SEWTA Rail Strategy Study Jan 2006 and the South East Wales Transport Alliance: Regional Transport Plan 2009 all seek a modal shift for private and freight transports onto more sustainable modes, reducing the impact of the transport system on the natural environment, reducing greenhouse gas emissions from transport, and reducing traffic growth and congestion. These strategies will serve to reduce and offset the effects of any atmospheric pollution acting in combination with that arising from the Deposit LDP.		
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP6: NEW INFRASTRUCTURE KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS KP11: MINERALS AND AGGREGATES KP12: WASTE H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES C8: PLANNING FOR SCHOOLS. C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION M1: MINERAL LIMESTONE	Dust, noise, vibration movement and odour associated with industrial and construction processes, leading to disturbance of species and changes in nutrient and/or organic loading	The potential effects of dust, noise, vibration, movement and odour are localised in nature, and only those activities close to the foreshore which give rise to these effects have the potential to affect the SPA. This excludes mineral extraction activities to the north of Cardiff, and allocations for housing and industry which are not situated near the foreshore.  Construction and operation of waste management facilities on industrial land adjacent to the Severn Estuary has the potential to have an effect upon the Severn Estuary European site. However, the site allocated in this policy already supports existing planning consents which have been the subject of previous Habitats Regulations Appraisals. In all cases, these assessments found there to be no likely significant effect on the Severn Estuary. Therefore, any effect on the Severn Estuary arising from this allocation will have already been taken account of in previous planning consents. Any new consents arising from these policies will be subject to individual Habitats Regulations Assessments These consents will only be considered to conform to the LDP if it can be demonstrated that they will not have an adverse effect on the integrity of this SPA.  As no clearly defined route for the Eastern Bay Link Road is provided with Policy T7, or on the Proposals Map, there is insufficient information to assess the impacts of such a policy upon the Severn Estuary SPA. The effects of the construction and operation of this road will therefore have to be considered in a Habitats Regulations Assessment at the project stage, when more details become available. Consent for such a project will only be considered to conform to the LDP if it can be demonstrated that it will not have an adverse effect on the integrity of this SPA.  In-combination with other Plans, Projects and Programmes  These potential effects are localised in nature, so only plans, projects and programmes which are close to those within Cardiff which could cause dust, noise, vibration, movement and odour a		

	Severn Estuary SPA			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?	
RESERVES AND RESOURCES M3: QUARRY CLOSURES AND EXTENSION LIMITS M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS M6: DREDGED AGGREGATE LANDING AND DISTRIBUTION FACILITIES W1: LAND FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT FACILITIES W3: PROVISION FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT				
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP6: NEW INFRASTRUCTURE KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT T7: STRATEGIC TRANSPORTATION	Impacts on surface water run-off, leading to contamination and changes in nutrient and/or organic loading	The potential effects of surface water run-off are localised in nature, and only those activities close to the foreshore or to Cardiff Bay which give rise to these effects have the potential to affect the Ramsar site. This excludes mineral extraction activities to the north of Cardiff, and allocations for housing and industry which are not situated near the foreshore.  Construction and operation of waste management facilities on industrial land adjacent to the Severn Estuary has the potential to have an effect upon the Severn Estuary European site. However, the site allocated in this policy already supports existing planning consents which have been the subject of previous Habitats Regulations Appraisals. In all cases, these assessments found there to be no likely significant effect on the Severn Estuary. Therefore, any effect on the Severn Estuary arising from this allocation will have already been taken account of in previous planning consents. Any new consents arising from these policies will be subject to individual Habitats Regulations Assessments These consents will only be considered to conform to the LDP if it can be demonstrated that they will not have an adverse effect on the integrity of this Ramsar site.  Where policies direct development towards Cardiff Bay and the rivers that feed into it, they could potentially lead to pollution from a number of sources, including oil and chemical spills from industrial and commercial premises and vessels. If this pollution were to enter the Severn Estuary, there is a potential for harm to the designated features of Severn Estuary SPA.  In view of Cardiff Bay's proximity to the Severn Estuary European site, Cardiff Harbour Authority (CHA) has prepared an Oil Spill Contingency Plan in accordance with Clause 3(1)(d) of the Merchant Shipping (Oil Pollution Preparedness Response and Co-operation Convention) Regulations 1998, SI 1998 No 1056. The equipment for managing oil spills (and blue green algal scums) is the largest collection of its type in South East Wales. T		

Severn Estuary SPA			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
INFRASTRUCTURE R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES C8: PLANNING FOR SCHOOLS. C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION		pollution equipment to minimise the impact of any spills. A contingency plan that is effective for oil pollution will have much in common with plans required to combat other pollutants. The hazards, and techniques for cleaning-up, will vary, but command and control procedures will be very similar.  With these measures in place it is unlikely that development arising from these policies will have a significant on the Severn Estuary SPA.  As no clearly defined route for the Eastern Bay Link Road is provided with Policy T7, or on the Proposals Map, there is insufficient information to assess the impacts of such a policy upon the Severn Estuary SPA. The effects of the construction and operation of this road will therefore have to be considered in a Habitats Regulations Assessment at the project stage, when more details become available. Consent for such a project will only be considered to conform to the LDP if it can be demonstrated that it will not have an adverse effect on the integrity of this SPA.  In-combination with other Plans, Projects and Programmes  Other plans and programmes which result in increased sewage discharge at the South Wales Coast, may act in combination with this policy to exacerbate nutrient and for organic loading in the Severn Estuary, which could impact upon it. Development plans for all unitary authorities whose sewage discharges at the South Wales Coast such as Caerphilly, RCT, Blaenau Gwent and Merthyr Tydfil make provision for a combined allocation of over 30000 new dwellings in total. However, Dwr Cymru Welsh Water have had the opportunity to comment on these LDPs and the inclusion of these levels of housing allocation indicates that there is the capacity to treat the predicted increase in sewage,  Furthermore, all effluent is treated to meet the consent limits laid down by the Environmental Agency and subject to strict conditions which include HRA processes where the potential for impacts on the estuary are identified. Provided this continues to occur, there is not likely to be an	
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS KP14: HEALTHY LIVING H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EN4: RIVER VALLEYS T8: STRATEGIC RECREATIONAL ROUTES	Increase in population and therefore recreation levels, leading to disturbance of species	The National Coastal Path has already been subject to an Appropriate Assessment, which concluded no adverse effect on the integrity of the Severn Estuary European sites, subject to the implementation of mitigation measures. This mitigation, which includes restricting access to sensitive habitats and natural screening to avoid disturbance to wetland birds, will ensure that this policy is not likely to have a significant effect upon these sites.  Whilst there are policies which seek to encourage active lifestyles and outdoor recreation, including along the Wales Coastal Path, it is equally the case that citizens are more likely to make use of outdoor access and recreation facilities closer to where they live. None of the proposed housing allocations on the Proposals Maps are close to the Wales Coastal Path, and for each such allocation there are alternative access and recreational facilities closer by, which will serve to mitigate any increase in recreational activity along the foreshore.  In-combination with other Plans, Projects and Programmes  Welsh Coastal Tourism Strategy 2008. The purpose of the Welsh Coastal Tourism Strategy 2008 is to identify a clear way forward for the development of Coastal Tourism, which realises and builds on the economic potential of the coastline of Wales whilst respecting its environmental quality and recognising the importance of achieving community benefits. The strategy provides spatial guidance for the future allocation of funds to support coastal tourism in the regions of Wales through the Spatial Plan.  However, as no specific locations are specified, no assessment of in-combination effects can be made at this stage.	No

Severn Estuary SPA			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES C8: PLANNING FOR SCHOOLS. C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION	Increased noise and light pollution, leading to disturbance of species	The potential effects of noise and light pollution are localised in nature, and only those activities directly adjacent to the foreshore which give rise to these effects have the potential to affect the Ramsar site. This excludes mineral extraction activities to the north of Cardiff, and allocations for industry which are not situated near the foreshore, and all allocations for housing.  Construction and operation of waste management facilities on industrial land adjacent to the Severn Estuary has the potential to have an effect upon the Severn Estuary European site. However, the site allocated in this policy already supports existing planning consents which have been the subject of previous Habitats Regulations Appraisals. In all cases, these assessments found there to be no likely significant effect on the Severn Estuary. Therefore, any effect on the Severn Estuary arising from this allocation will have already been taken account of in previous planning consents. Any new consents arising from these policies will be subject to individual Habitats Regulations Assessments These consents will only be considered to conform to the LDP if it can be demonstrated that they will not have an adverse effect on the integrity of this SPA.  In-combination with other Plans, Projects and Programmes  These potential effects are localised in nature, so only plans, projects and programmes which are close to those within Cardiff could act in combination with these policies. Along the foreshore, neither of Cardiff's neighbouring authorities (Vale of Glamorgan and Newport) have policies which direct development to the foreshore adjacent to the respective county boundaries with Cardiff, which could cause noise and light pollution.	
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP6: NEW INFRASTRUCTURE KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS KP11: MINERALS AND	Increased traffic movements, leading to disturbance of species and contamination of habitats	The LDP contains policies intended to reduce dependency on car travel, facilitate and increase use of sustainable and active modes of transport (Policies KP8, T1, T2, T3, T5), mitigate the effects of climate change (Policies KP15 and EN12), and promote the sustainable use of natural resources (Policies KP18, EN10 and EN11). In the long-term these measures will mitigate or off-set any increase in atmospheric pollution as a result of the LDP and should lead to gradual improvements in air quality.  Furthermore, levels of NO <sub>2</sub> across Wales are recorded as decreasing, and recorded areas of NO <sub>2</sub> pollution concern in Cardiff are in the City Centre rather than near the foreshore. Similarly, according to the National Atmospheric Emissions Inventory, overall emissions of particulates have fallen by 58% since 1990. If this downward trend continues, the total deposition of particulates at this site will gradually decrease, thereby reducing any impact upon the site's features. <a href="http://naei.defra.gov.uk/overview/pollutants?pollutant_id=24">http://naei.defra.gov.uk/overview/pollutants?pollutant_id=24</a>	No

Severn Estuary SPA			
Policies	ential effects	Test of Likely Significant Effect (LSE)	Likely Significan Effect?
AGGREGATES KP12: WASTE H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES C8: PLANNING FOR SCHOOLS. C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION M3: QUARRY CLOSURES AND EXTENSION LIMITS M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS M6: DREDGED AGGREGATE LANDING AND DISTRIBUTION FACILITIES W1: LAND FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT		As no clearly defined route for the Eastern Bay Link Road is provided with Policy T7, or on the Proposals Map, there is insufficient information to assess the impacts of such a policy upon the Severn Estuary Ramsar site. The effects of the construction and operation of this road will therefore have to be considered in a Habitats Regulations Assessment at the project stage, when more available. Consent for such a project will only be considered to conform to the LDP if it can be demonstrated that it will not have an adverse effect on the integrity of this SPA.  In-combination with other Plans, Projects and Programmes  The Wales Spatial Plan (Update) 2008 and promotes developments in the region, however none of the three Strategic Opportunity Areas within that document entails land-take at this site, and any increase in aerial pollution due to traffic movement is likely to be counteracted by other regional strategies such as the Wales Transport Strategy 2008, the SEVATA Regional Transport Plan 2009 and the SEWTA Rail Strategy Study 2006. These strategies with as the Wales Transport Strategy 2008, the SEVATA Regional Transport Plan 2009 and the SEWTA Rail Strategy Study 2006. These strategies will as the Wales Transport Strategy Study 2006. These strategies will as the Wales Transport Strategy Study 2006. These strategies will ask the Wales Transport Strategy Study 2006. These strategies will ask the Wales Transport Strategy Study 2006. These strategies will seve to reduce and offset the effects of any atmospheric pollution acting in combination with that arising from the Preferred Construction and operation of waste management facilities on industrial land adjacent to the Severn Estuary have the potential to have an effect upon the Severn Estuary International site. Visual and noise disturbance during construction may cause disturbance to waterfowl such as Sheltuck, Oystercatcher, Dunlin, Curlew, Pintail and Redshark which are designatory features to the SPA and which form part of the noise studies and provided t	

Severn Estuary SPA			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
KP15: CLIMATE CHANGE EN12: RENEWABLE ENERGY AND LOW CARBON TECHNOLOGIES	Installation of wind turbines leading to physical loss of habitats and direct harm to bird species	As no specific locations for wind turbines are provided with these policies, on the Proposals map, their effects cannot be assessed at this stage. However, where wind turbines are proposed for locations along the Cardiff foreshore, effects of disturbance caused by construction and operation of wind turbines will be considered in a Habitats Regulations Assessment at the individual project stage. Consent for such projects will only be considered to conform to the LDP if it can be demonstrated that they will not have an adverse effect on the integrity of this SPA.  In-combination with other Plans, Projects and Programmes  No other plans projects and programmes which could lead to the construction and operation of wind turbines around the Cardiff foreshore have been identified. Other Local Authorities in the region have developed LDP policies which promote the use of renewable energy sources, which would include wind turbines, but no locations for these turbines are specified, so their in-combination effects cannot be assessed. Where individual projects elsewhere in the Severn Estuary involve the operation of wind turbines within this site, those projects would be each subject to an individual HRA.	No
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP6: NEW INFRASTRUCTURE KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS KP11: MINERALS AND AGGREGATES KP12: WASTE H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE R1: RETAIL PROVISION WITHIN STRATEGIC SITES	Land take, leading to loss of habitat	Whilst land-take would result from these policies, and land take within the Severn Estuary SPA would be likely to significantly affect it, none of these policies direct land-take to within the boundaries of this site. No clearly defined route for the Eastern Bay Link Road is provided with Policy T7, or on the Proposals Map. Therefore there remains the potential that such a project would incur land-take within the Severn Estuary SPA if an Estuary Route option were selected. If this were the case, the effects of land-take caused by construction and operation of this road will be considered in a Habitats Regulations Assessment at the project stage, when more details become available Consent for such a project will only be considered to conform to the LDP if it can be demonstrated that it will not have an adverse effect on the integrity of this SPA.  In-combination with other Plans, Projects and Programmes  No other plans projects and programmes which could lead to land-take around the Cardiff foreshore have been identified. Where individual projects elsewhere in the Severn Estuary involve land take within this site, those projects would be each subject to an individual HRA.	No

	Severn Estuary SPA			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?	
C1: COMMUNITY FACILITIES C8: PLANNING FOR SCHOOLS. C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION M3: QUARRY CLOSURES AND EXTENSION LIMITS M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS M6: DREDGED AGGREGATE LANDING AND DISTRIBUTION FACILITIES W1: LAND FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT FACILITIES W3: PROVISION FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT				
KP6: NEW INFRASTRUCTURE T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE	Laying pipes and cables, leading to disturbance of species	Laying pipes and cables within the Severn Estuary SPA would be likely to significantly affect it, none of these policies direct land-take to within the boundaries of this site. No clearly defined route for the Eastern Bay Link Road is provided with Policy T7, or on the Proposals Map. Therefore there remains the potential that such a project would result in these activities within the Severn Estuary SPA if an Estuary Route option were selected. If this were the case, the effects of Laying pipes and cables ancillary to construction and operation of this road will be considered in a Habitats Regulations Assessment at the project stage, when more details become available. Consent for such a project will only be considered to conform to the LDP if it can be demonstrated that it will not have an adverse effect on the integrity of this SPA.  In-combination with other Plans, Projects and Programmes  No other plans projects and programmes which could lead to the laying of pipes and cables around the Cardiff foreshore have been identified.	No	
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP11: MINERALS AND AGGREGATES	Wastewater and sewage, leading to contamination and changes in nutrient	None of the candidate sites for housing is within a European Site. However, increased sewage arising from these housing provisions may increase discharge into the Severn Estuary. This could potentially lead to changes in nutrient and /or organic loading, which could change the species composition of Saltmarsh plants and cause excessive algal growth on mudflats. This could subsequently deny wetland birds access to their invertebrate prey. At the current time there is no evidence to show that this is the case at this site, but the estuary is vulnerable to oil spills	No	

Severn Estuary SPA			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
KP12: WASTE H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION M1: MINERAL LIMESTONE RESERVES AND RESOURCES M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS M6: DREDGED AGGREGATE LANDING AND DISTRIBUTION FACILITIES W1: LAND FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT	and/or organic loading	and JNCC states that there is a continuous discharge of toxins into the estuary, some of which bind to the sediments, although no specific sources or locations are identified. NE and CCW identify this is an area which requires further assessment. They also identify Bewick's swans as currently moderately vulnerable to toxic contamination.  Sewage from Cardiff west of the River Taff is treated at the Cog Moors Sewage Treatment Works (STW), serving the Barry and Cardiff West catchments. This STW discharges to the Bristol Channel, via a long sea outfall, off Lavermock Point. Effluent is disinfected through ultra violet treatment, which reduces the environmental impact and protects water quality. Sewage from Cardiff east of the River Taff is treated at the WWTW at Tremorfa, and cleaned water is discharged via the outfall 4.2 Km into the estuary at ST25257393. DCWW have confirmed that the WWTW at Tremorfa has sufficient capacity across the lifespan of the plan (2006 - 2026) to accommodate the domestic foul flows from all of the allocations in the Deposit LDP.  In terms of water quality issues the Severn Estuary is under greatest threat from point source pollution within the area of designation. The EA set very strict quality standards for the final effluent that can be returned to rivers, and Welsh Water achieved 99.85% compliance of wastewater treatment works in 2009. Given the regulatory compliance measures and the current favourable condition assessment for the Severn Estuary SSSIs that are components of the SAC/SPA/Ramsar site.  In-combination with other Plans, Projects and Programmes  Other plans and programmes which result in increased sewage discharge at the South Wales Coast, may act in combination with this policy to exacerbate nutrient and /or organic loading in the Severn Estuary, which could impact on the River USk. Development plans for all unitary authorities whose sewage discharges at the South Wales Coast such, RCT, Blazena Gwent and Merthyr Tyffil make provision for a combined allocation of over 3000	

Severn Estuary SPA			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
M6: DREDGED AGGREGATE LANDING	Aggregates removal, leading to damage by abrasion or selective abstraction	The features of the Severn Estuary SPA may indirectly be sensitive to marine aggregates dredging, and whilst this activity is outside the control of Cardiff Council, the draft LDP contains a policy (M6) which protects sand wharves as shown on the Proposals Map against development which would prejudice their ability to land marine dredged sand and gravel. The operation of these wharves is ongoing and Policy M6 would not lead to new wharves or increased capacity, so the policy (and thereby the draft LDP in this respect) would not have a significant effect upon the Severn Estuary SPA, above and beyond that which is already occurring.  In-combination with other Plans, Projects and Programmes  Whilst there are other plans, projects and programmes in the Severn Estuary area which may increase the dredging of aggregates, none of these would affect the landing facilities at Cardiff Docks.	

Severn Estuary Ramsar			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?

Severn Estuary Ramsar				
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?	
KP11: MINERALS AND AGGREGATES KP12: WASTE M1: MINERAL LIMESTONE RESERVES AND RESOURCES M3: QUARRY CLOSURES AND EXTENSION LIMITS M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS M6: DREDGED AGGREGATE LANDING AND DISTRIBUTION FACILITIES W1: LAND FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT FACILITIES W3: PROVISION FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT	Contamination, accumulation of toxic substances	Quarrying and associated activities are likely to generate dust, and whilst these activities in Cardiff will take place about 10 Km from the Severn Estuary, there is the potential for these dusts to be transported by wind to that site. However, the dispersal of dust particles is affected by the size of the particles entitled, and wind speed as well as their shape and density. Large dust particles (greater than 30µm), which make up the greatest proportion of dust emitted from mineral workings, will largely deposit within 100m of sources. Intermediate-sized particles (10-30µm) are likely to travel up to 200–500m. Smaller particles (less than 10 µm) which make up a small proportion of the dust emitted from most mineral workings are only deposited slowly but may travel 1000m or more." (Office of the Deputy Prime Minister: Minerals Policy Statement and particles are particulated slowly but may travel 1000m or more." (Office of the Deputy Prime Minister: Minerals Policy Statement 2. Controlling and Mitigating the Environmental Effects of Minerals Extraction in England. Annex 1: Dust (March 2005): http://www.communities.gov.uk/documents/planingandbuilding/pd//mps2annex1.pdf).  Therefore it is highly likely that these particulates will have dropped out of the atmosphere before reaching the Severn Estuary.  Furthermore, according to the National Atmospheric Emissions Inventory, overall emissions of particulates have fallen by 58% since 1990. If this downward trend continues, the total deposition of particulates at this site will gradually decrease, thereby reducing any impact upon the site's features. http://naei.defra.gov.uk/overview/pollutants/pollutant id=24  Implementation of policies aimed at minimising air pollution and managing air quality (KP18: Natural Resources; EN13: Air, Noise, Light Pollution and Contaminated Land) would counteract any increase in atmospheric pollution resulting from this policy. Policies relating to mineral extraction sites in Cardiff benefit from existing consents, and these consents were		

Severn Estuary Ramsar			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
		These consents will only be considered to conform to the LDP if it can be demonstrated that they will not have an adverse effect on the integrity of this Ramsar site.  In-combination with other Plans, Projects and Programmes  Regional strategies such as the TraCC Regional Transport Plan 2009, the SEWTA Rail Strategy Study Jan 2006 and the South East Wales Transport Alliance: Regional Transport Plan 2009 all seek a modal shift for private and freight transports onto more sustainable modes, reducing the impact of the transport system on the natural environment, reducing greenhouse gas emissions from transport, and reducing traffic growth and congestion. These strategies will serve to reduce and offset the effects of any atmospheric pollution acting in combination with that arising from the Deposit LDP.	No
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP6: NEW INFRASTRUCTURE KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS KP11: MINERALS AND AGGREGATES KP12: WASTE H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES C8: PLANNING FOR SCHOOLS. C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION M1: MINERAL LIMESTONE	Dust, noise, vibration, movement and odour associated with industrial and construction processes, leading to disturbance to species and changes in nutrient and/or organic loading to habitats	The potential effects of dust, noise, vibration, movement and odour are localised in nature, and only those activities close to the foreshore which give rise to these effects have the potential to affect the Ramsar site. This excludes mineral extraction activities to the north of Cardiff, and allocations for housing and industry which are not situated near the foreshore.  Construction and operation of waste management facilities on industrial land adjacent to the Severn Estuary has the potential to have an effect upon the Severn Estuary European site. However, the site allocated in this policy already supports existing planning consents which have been the subject of previous Habitats Regulations Appraisals. In all cases, these assessments found there to be no likely significant effect on the Severn Estuary. Therefore, any effect on the Severn Estuary arising from this allocation will have already been taken account of in previous planning consents. Any new consents arising from these policies will be subject to individual Habitats Regulations Assessments These consents will only be considered to conform to the LDP if it can be demonstrated that they will not have an adverse effect on the integrity of this Ramsar site.  As no clearly defined route for the Eastern Bay Link Road is provided with Policy T7, or on the Proposals Map, there is insufficient information to assess the impacts of such a policy upon the Severn Estuary Ramsar site. The effects of the construction and operation of this road will therefore have to be considered in a Habitats Regulations Assessment at the project stage, when more details become available. Consent for such a project will only be considered to conform to the LDP if it can be demonstrated that it will not have an adverse effect on the integrity of this Ramsar site.  In-combination with other Plans, Projects and Programmes  These potential effects are localised in nature, so only plans, projects and programmes which are close to those within Cardiff which could cause dust, noise,	

Severn Estuary Ramsar				
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?	
RESERVES AND RESOURCES M3: QUARRY CLOSURES AND EXTENSION LIMITS M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS M6: DREDGED AGGREGATE LANDING AND DISTRIBUTION FACILITIES W1: LAND FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT FACILITIES W3: PROVISION FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT				
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP6: NEW INFRASTRUCTURE KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES C8: PLANNING FOR SCHOOLS. C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON	Impacts on surface water run-off, leading to contamination and changes in nutrient and/or organic loading	The potential effects of surface water run-off are localised in nature, and only those activities close to the foreshore or to Cardiff Bay which give rise to these effects have the potential to affect the Ramsar site. This excludes mineral extraction activities to the north of Cardiff, and allocations for housing and industry which are not situated near the foreshore.  Construction and operation of waste management facilities on industrial land adjacent to the Severn Estuary has the potential to have an effect upon the Severn Estuary European site. However, the site allocated in this policy already supports existing planning consents which have been the subject of previous Habitats Regulations Appraisals. In all cases, these assessments found there to be no likely significant effect on the Severn Estuary. Therefore, any effect on the Severn Estuary arising from this allocation will have already been taken account of in previous planning consents. Any new consents arising from these policies will be subject to individual Habitats Regulations Assessments These consents will only be considered to conform to the LDP if it can be demonstrated that they will not have an adverse effect on the integrity of this Ramsar site.  Where policies direct development towards Cardiff Bay and the rivers that feed into it, they could potentially lead to pollution from a number of sources, including oil and chemical spills from industrial and commercial premises and vessels. If this pollution were to enter the Severn Estuary, there is a potential for harm to the designated features of Severn Estuary Ramsar site.  In view of Cardiff Bay's proximity to the Severn Estuary European site, Cardiff Harbour Authority (CHA) has prepared an Oil Spill Contingency Plan in accordance with Clause 3(1)(d) of the Merchant Shipping (Oil Pollution Preparedness Response and Cooperation Convention) Regulations 1998, SI 1998 No 1056. The equipment for managing oil spills (and blue green algal scums) is the largest collection of its type in South East W		

Severn Estuary Ramsar			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
STRATEGIC ALLOCATION		With these measures in place it is unlikely that development arising from these policies will have a significant on the Severn Estuary Ramsar site  As no clearly defined route for the Eastern Bay Link Road is provided with Policy T7, or on the Proposals Map, there is insufficient information to assess the impacts of such a policy upon the Severn Estuary Ramsar site. The effects of the construction and operation of this road will therefore have to be considered in a Habitats Regulations Assessment at the project stage, when more details become available. Consent for such a project will only be considered to conform to the LDP if it can be demonstrated that it will not have an adverse effect on the integrity of this Ramsar site.  In-combination with other Plans, Projects and Programmes  Other plans and programmes which result in increased sewage discharge at the South Wales Coast, may act in combination with this policy to exacerbate nutrient and /or organic loading in the Severn Estuary, which could impact upon it. Development plans for all unitary authorities whose sewage discharges at the South Wales Coast such as Caerphilly, RCT, Blaenau Gwent and Merthyr Tydfil make provision for a combined allocation of over 30000 new dwellings in total. However, Dwr Cymru Welsh Water have had the opportunity to comment on these LDPs and the inclusion of these levels of housing allocation indicates that there is the capacity to treat the predicted increase in sewage,  Furthermore, all effluent is treated to meet the consent limits laid down by the Environmental Agency and subject to strict conditions which include HRA processes where the potential for impacts on the estuary are identified. Provided this continues to occur, there is not likely to be an in-combination significant effect on the Ramsar Site by sewage outfall.	
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS KP14: HEALTHY LIVING H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EN4: RIVER VALLEYS T8: STRATEGIC RECREATIONAL ROUTES	Increase in population and therefore recreation levels, leading to disturbance of species	The National Coastal Path has already been subject to an Appropriate Assessment, which concluded no adverse effect on the integrity of the Severn Estuary European sites, subject to the implementation of mitigation measures. This mitigation, which includes restricting access to sensitive habitats and natural screening to avoid disturbance to wetland birds, will ensure that this policy is not likely to have a significant effect upon these sites.  Whilst there are policies which seek to encourage active lifestyles and outdoor recreation, including along the Wales Coastal Path, it is equally the case that citizens are more likely to make use of outdoor access and recreation facilities closer to where they live. None of the proposed housing allocations on the Proposals Maps are close to the Wales Coastal Path, and for each such allocation there are alternative access and recreational facilities closer by, which will serve to mitigate any increase in recreational activity along the foreshore.  In-combination with other Plans, Projects and Programmes  Welsh Coastal Tourism Strategy 2008. The purpose of the Welsh Coastal Tourism Strategy 2008 is to identify a clear way forward for the development of Coastal Tourism, which realises and builds on the economic potential of the coastline of Wales whilst respecting its environmental quality and recognising the importance of achieving community benefits. The strategy provides spatial guidance for the future allocation of funds to support coastal tourism in the regions of Wales through the Spatial Plan.  However, as no specific locations are specified, no assessment of in-combination effects can be made at this stage.	

Severn Estuary Ramsar			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES C8: PLANNING FOR SCHOOLS. C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION	Increased noise and light pollution, leading to disturbance of species	The potential effects of noise and light pollution are localised in nature, and only those activities directly adjacent to the foreshore which give rise to these effects have the potential to affect the Ramsar site. This excludes mineral extraction activities to the north of Cardiff, and allocations for industry which are not situated near the foreshore, and all allocations for housing.  Construction and operation of waste management facilities on industrial land adjacent to the Severn Estuary has the potential to have an effect upon the Severn Estuary European site. However, the site allocated in this policy already supports existing planning consents which have been the subject of previous Habitats Regulations Appraisals. In all cases, these assessments found there to be no likely significant effect on the Severn Estuary. Therefore, any effect on the Severn Estuary arising from this allocation will have already been taken account of in previous planning consents. Any new consents arising from these policies will be subject to individual Habitats Regulations Assessments These consents will only be considered to conform to the LDP if it can be demonstrated that they will not have an adverse effect on the integrity of this Ramsar site.  In-combination with other Plans, Projects and Programmes  These potential effects are localised in nature, so only plans, projects and programmes which are close to those within Cardiff could act in combination with these policies. Along the foreshore, neither of Cardiff's neighbouring authorities (Vale of Glamorgan and Newport) have policies which direct development to the foreshore adjacent to the respective county boundaries with Cardiff which could cause noise and light pollution.	No
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP6: NEW INFRASTRUCTURE KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS KP11: MINERALS AND AGGREGATES KP12: WASTE H1: NON STRATEGIC HOUSING SITES	Increased traffic movements, leading to disturbance of species and contamination of habitats	The LDP contains policies intended to reduce dependency on car travel, facilitate and increase use of sustainable and active modes of transport (Policies KP8, T1, T2, T3, T5), mitigate the effects of climate change (Policies KP15 and EN12), and promote the sustainable use of natural resources (Policies KP18, EN10 and EN11). In the long-term these measures will mitigate or off-set any increase in atmospheric pollution as a result of the LDP and should lead to gradual improvements in air quality.  Furthermore, levels of NO <sub>2</sub> across Wales are recorded as decreasing, and recorded areas of NO <sub>2</sub> pollution concern in Cardiff are in the City Centre rather than near the foreshore. Similarly, according to the National Atmospheric Emissions Inventory, overall emissions of particulates have fallen by 58% since 1990. If this downward trend continues, the total deposition of particulates at this site will gradually decrease, thereby reducing any impact upon the site's features. <a href="http://naei.defra.gov.uk/overview/pollutants?pollutant_id=24">http://naei.defra.gov.uk/overview/pollutants?pollutant_id=24</a> As no clearly defined route for the Eastern Bay Link Road is provided with Policy T7, or on the Proposals Map, there is insufficient information to assess the impacts of such a policy upon the Severn Estuary Ramsar site. The effects of the construction and	No

Severn Estuary Ramsar			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES C8: PLANNING FOR SCHOOLS. C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION M1: MINERAL LIMESTONE RESERVES AND RESOURCES M3: QUARRY CLOSURES AND EXTENSION LIMITS M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS M6: DREDGED AGGREGATE LANDING AND DISTRIBUTION FACILITIES W1: LAND FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT		operation of this road will therefore have to be considered in a Habitats Regulations Assessment at the project stage, when more details become available. Consent for such a project will only be considered to conform to the LDP if it can be demonstrated that it will not have an adverse effect on the integrity of this Ramsar site.  In-combination with other Plans, Projects and Programmes  The Wales Spatial Plan (Update) 2008 and promotes developments in the region, however none of the three Strategic Opportunity Areas within that document entails land-take at this site, and any increase in aerial pollution due to traffic movement is likely to be counteracted by other regional strategies such as the Wales Transport Strategy 2008, the SEWTA Regional Transport Plan 2009 and the SEWTA Rail Strategy Study 2006. These strategies all seek a modal shift for private and freight transports onto more sustainable modes, reducing the impact of the transport system on the natural environment, reducing greenhouse gas emissions from transport, and reducing traffic growth and congestion. These strategies will serve to reduce and offset the effects of any atmospheric pollution acting in combination with that arising from the Preferred Construction and operation of waste management facilities on industrial land adjacent to the Severn Estuary have the potential to have an effect upon the Severn Estuary International site. Visual and noise disturbance during construction may cause disturbance to waterfowl such as Shelduck, Oystercatcher, Dunlin, Curlew, Pintail and Redshank which are designatory features of the SPA and which form part of one of the notable estuarine species assemblages of the estuary feature of the SAC.  However, the site allocated in this policy already supports existing planning consents which have been the subject of previous Planning consents.  However, the site allocated in this policy already supports existing planning consents which have already been taken account of in previous planning consents.	
KP15: CLIMATE CHANGE EN12: RENEWABLE ENERGY AND LOW CARBON TECHNOLOGIES	Installation of wind turbines leading to disturbance and direct harm to species	As no specific locations for wind turbines are provided with these policies, on the Proposals map, their effects cannot be assessed at this stage. However, where wind turbines are proposed for locations along the Cardiff foreshore, effects of disturbance caused by construction and operation of wind turbines will be considered in a Habitats Regulations Assessment at the individual project stage. Consent for such projects will only be considered to conform to the LDP if it can be demonstrated that they will not have an adverse effect on the integrity of this Ramsar site.  In-combination with other Plans, Projects and Programmes	No

Severn Estuary Ramsar			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
		No other plans projects and programmes which could lead to the construction and operation of wind turbines around the Cardiff foreshore have been identified. Other Local Authorities in the region have developed LDP policies which promote the use of renewable energy sources, which would include wind turbines, but no locations for these turbines are specified, so their incombination effects cannot be assessed. Where individual projects elsewhere in the Severn Estuary involve the operation of wind turbines within this site, those projects would be each subject to an individual HRA.	
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP6: NEW INFRASTRUCTURE KP9: RESPONDING TO EVIDENCED ECONOMIC NEEDS (Employment) KP10: CENTRAL AND BAY BUSINESS AREAS KP11: MINERALS AND AGGREGATES KP12: WASTE H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES C8: PLANNING FOR SCHOOLS. C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION M1: MINERAL LIMESTONE RESERVES AND RESOURCES M3: QUARRY CLOSURES AND EXTENSION LIMITS M5: RESTORATION AND AFTER	Land take, leading to physical loss of supporting habitats	Whilst land-take would result from these policies, and land take within the Ramsar site would be likely to significantly affect it, none of these policies direct land-take to within the boundaries of this site. No clearly defined route for the Eastern Bay Link Road is provided with Policy T7, or on the Proposals Map. Therefore there remains the potential that such a project would incur land-take within the Ramsar Site if an Estuary Route option were selected. If this were the case, the effects of land-take caused by construction and operation of this road will be considered in a Habitats Regulations Assessment at the project stage, when more details become available. Consent for such a project will only be considered to conform to the LDP if it can be demonstrated that it will not have an adverse effect on the integrity of this Ramsar site  In-combination with other Plans, Projects and Programmes  No other plans projects and programmes which could lead to land-take around the Cardiff foreshore have been identified. Where individual projects elsewhere in the Severn Estuary involve land take within this site, those projects would be each subject to an individual HRA.	

Severn Estuary Ramsar			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
USE OF MINERAL WORKINGS M6: DREDGED AGGREGATE LANDING AND DISTRIBUTION FACILITIES W1: LAND FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT FACILITIES W3: PROVISION FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT			
KP6: NEW INFRASTRUCTURE T7: STRATEGIC TRANSPORTATION INFRASTRUCTURE	Laying pipes and cables, leading to disturbance to species	Laying pipes and cables within the Ramsar site would be likely to significantly affect it, none of these policies direct land-take to within the boundaries of this site. However, no clearly defined route for the Eastern Bay Link Road is provided with Policy T7, or on the Proposals Map. Therefore there remains the potential that such a project would result in these activities within the Ramsar Site if an Estuary Route option were selected. If this were the case, the effects of Laying pipes and cables ancillary to construction and operation of this road will be considered in a Habitats Regulations Assessment at the project stage, when more details become available. Consent for such a project will only be considered to conform to the LDP if it can be demonstrated that it will not have an adverse effect on the integrity of this Ramsar site  In-combination with other Plans, Projects and Programmes  No other plans projects and programmes which could lead to the laying of pipes and cables around the Cardiff foreshore have been identified.	No
KP1: LEVEL OF GROWTH KP2: STRATEGIC SITES KP11: MINERALS AND AGGREGATES KP12: WASTE H1: NON STRATEGIC HOUSING SITES H7: ALLOCATION POLICY FOR GYPSY AND TRAVELLER SITE(S) H8: SITES FOR GYPSY AND TRAVELLER CARAVANS EC1: EXISTING EMPLOYMENT LAND EC5: HOTEL DEVELOPMENT R1: RETAIL PROVISION WITHIN STRATEGIC SITES C1: COMMUNITY FACILITIES	Wastewater and sewage, leading to contamination and changes in nutrient and/or organic loading	None of the candidate sites for housing is within a European Site. However, increased sewage arising from these housing provisions may increase discharge into the Severn Estuary. This could potentially lead to changes in nutrient and /or organic loading, which could change the species composition of Saltmarsh plants and cause excessive algal growth on mudflats. This could subsequently deny wetland birds access to their invertebrate prey. At the current time there is no evidence to show that this is the case at this site, but the estuary is vulnerable to oil spills and JNCC states that there is a continuous discharge of toxins into the estuary, some of which bind to the sediments, although no specific sources or locations are identified. NE and CCW identify this is an area which requires further assessment. They also identify Bewick's swans as currently moderately vulnerable to toxic contamination.  Sewage from Cardiff west of the River Taff is treated at the Cog Moors Sewage Treatment Works (STW), serving the Barry and Cardiff West catchments. This STW discharges to the Bristol Channel, via a long sea outfall, off Lavernock Point. Effluent is disinfected through ultra violet treatment, which reduces the environmental impact and protects water quality. Sewage from Cardiff east of the River Taff is treated at the WWTW at Tremorfa, and cleaned water is discharged via the outfall 4.2 Km into the estuary at ST25257393. DCWW have confirmed that the WWTW at Tremorfa has sufficient capacity across the lifespan of the plan (2006 - 2026) to accommodate the domestic foul flows from all of the allocations in the Deposit LDP.  In terms of water quality issues the Severn Estuary is under greatest threat from point source pollution within the area of designation. The EA set very strict quality standards for the final effluent that can be returned to rivers, and Welsh Water achieved	

Severn Estuary Ramsar			
Policies	Potential effects	Test of Likely Significant Effect (LSE)	Likely Significant Effect?
C9: NEW EDUCATIONAL FACILITIES C10: HEALTH EMPLOYMENT NON STRATEGIC ALLOCATION M1: MINERAL LIMESTONE RESERVES AND RESOURCES M3: QUARRY CLOSURES AND EXTENSION LIMITS M5: RESTORATION AND AFTER USE OF MINERAL WORKINGS M6: DREDGED AGGREGATE LANDING AND DISTRIBUTION FACILITIES W1: LAND FOR WASTE MANAGEMENT W2: SITES FOR WASTE MANAGEMENT FACILITIES W3: PROVISION FOR WASTE MANAGEMENT FACILITIES IN DEVELOPMENT		99.85% compliance of wastewater treatment works in 2009. Given the regulatory compliance measures and the current favourable condition assessment for the Severn Estuary SSSIs that are components of the SAC, it is unlikely that development resulting from the Cardiff Deposit LDP will have a significant effect on the water quality of the Severn Estuary SAC/SPA/ Ramsar site.  In-combination with other Plans, Projects and Programmes  Other plans and programmes which result in increased sewage discharge at the South Wales Coast, may act in combination with this policy to exacerbate nutrient and /or organic loading in the Severn Estuary, which could impact on the River Usk. Development plans for all unitary authorities whose sewage discharges at the South Wales Coast such as Caerphilly, RCT, Blaenau Gwent and Merthyr Tydfil make provision for a combined allocation of over 30000 new dwellings in total. However, Dwr Cymru Welsh Water have had the opportunity to comment on these LDPs and the inclusion of these levels of housing allocation indicates that there is the capacity to treat the predicted increase in sewage,  Furthermore, all effluent is treated to meet the consent limits laid down by NRW and subject to strict conditions which include HRA processes where the potential for impacts on the estuary are identified. Provided this continues to occur, there is not likely to be a significant effect on the Severn Estuary Ramsar by sewage outfall.	
M6: DREDGED AGGREGATE LANDING	Aggregates removal, leading to damage by abrasion or selective abstraction	The features of the Severn Estuary Ramsar site are sensitive to marine aggregates dredging, and whilst this activity is outside the control of Cardiff Council, the draft LDP contains a policy (M6) which protects sand wharves as shown on the Proposals Map against development which would prejudice their ability to land marine dredged sand and gravel. The operation of these wharves is ongoing and Policy M6 would not lead to new wharves or increased capacity, so the policy (and thereby the draft LDP in this respect) would not have a significant effect upon the Severn Estuary Ramsar, above and beyond that which is already occurring.  In-combination with other Plans, Projects and Programmes  Whilst there are other plans, projects and programmes in the Severn Estuary area which may increase the dredging of aggregates, none of these would affect the landing facilities at Cardiff Docks.	



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