Rhondda Cynon Taf County Borough Council

Revised Local Development Plan: Preferred Strategy Habitats Regulations Assessment Screening Report

Final report
January 2024

Rhondda Cynon Taf County Borough Council

Revised Local Development Plan: Preferred Strategy
Habitats Regulations Assessment Screening Report

Project Number
11226

Version	Status	Prepared	Checked	Approved	Date
1.	Draft HRA Screening Report	R. Chavan J. Bernard	R. Turner	K. Nicholls	10.01.2024
2.	Final HRA Screening Report	R. Chavan J. Bernard	R. Turner	K. Nicholls	17.01.2024

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EMS566057
OHS627041

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Chapter 1
Introduction

1.1 LUC has been commissioned by Rhondda Cynon Taf County Borough Council (hereafter referred to as 'the Council') to carry out a Habitats Regulations Assessment (HRA) in relation to the Revised Rhondda Cynon Taf (RCT) Local Development Plan (LDP) 2022-2037. A Screening Assessment of the LDP Preferred Strategy has been undertaken and presented in this report. A HRA Scoping Report was previously prepared by LUC in November 2020 and subject to consultation. That report and the outcomes of the consultation have informed the preparation of this Screening report.

1.2 The purpose of the Screening stage of the HRA is to identify which European sites have the potential to be affected by the Revised LDP, collate information on these sites, outline the pathways by which they could be affected, and set out the requirements for any subsequent Appropriate Assessment. The Appropriate Assessment will be undertaken at the Deposit stage, once the Revised LDP is at a more advanced stage.

The Revised Local Development Plan

1.3 The Council adopted its current LDP in March 2011, which set out the planning strategy for the County Borough (excluding the National Park) up to 2021. The Council is now working on the revision of the LDP, following the preparation of a Review Report on the adopted LDP in November 2019. The Council is following the full revision procedure as set out in the LDP Regulations[1] and the Development Plan Manual[2].

1.4 The Delivery Agreement for the Revised LDP was due to be submitted to Welsh Government for approval in June 2020; however, this was delayed by the Coronavirus pandemic. The Delivery Agreement was formally approved by Welsh Government in September 2020. From that time, the Council began to prepare an initial Revision of the LDP which would have been for the Plan Period 2020-2030. It was decided in March 2022 to cease all work on this Revised LDP and to begin work on a new Revised LDP for the Plan Period 2022 – 2037. The Delivery Agreement for the Revised LDP 2022-2037 was formally approved by Welsh Government in April 2022.

1.5 The Revised LDP will include a Vision and Objectives for the Plan area, an overall strategy for development within RCT,

[1] The Town and Country Planning (Local Development Plan) (Wales) Regulations 2005.

[2] Welsh Government (March 2020) Development Plans Manual (Edition 3).

site allocations for different types of development including housing and employment, and development-management style policies for managing applications that come forward. As with the adopted LDP, the Revised LDP will not cover the parts of RCT that lie within the National Park. The current Preferred Strategy consultation document includes a Vision and Objectives, the Preferred Strategy (which identifies the amount and distribution of development including four Proposed Key Sites) and nine strategic policies.

The requirement to undertake Habitat Regulations Assessment of Development Plans

1.6 The requirement to undertake HRA of development plans was confirmed by the amendments to the Habitats Regulations published for England and Wales in 2007[3]; the currently applicable version is the Habitats Regulations 2017, as amended[4]. When preparing the development plans, the Council is therefore required by law to carry out an HRA. The Council can commission consultants to undertake HRA work on its behalf and this (the work documented in this report) is then reported to and considered by the Council as the 'competent authority'. The Council will consider this work and would usually only progress a Plan if it considers that the Plan will not adversely affect the integrity[5] of any 'European site', as defined below (the exception to this would be where 'imperative reasons of overriding public interest' can be demonstrated; see **Chapter 3**). The requirement for authorities to comply with the Habitats Regulations when preparing a Plan is also noted in Welsh Government's Development Plans Manual.

1.7 HRA refers to the assessment of the potential effects of a development plan on one or more sites afforded the highest level of protection in the UK: SPAs and SACs. These were classified under European Union (EU) legislation but since 1 January 2021 are protected in the UK by the Habitats Regulations 2017[2] (as amended). Although the EU Directives from which the UK's Habitats Regulations originally derived are no longer binding, the Regulations still make reference to the lists of habitats and species that the sites were designated for, which are listed in annexes to the EU Directives:

- SACs are designated for particular habitat types (specified in Annex 1 of the EU Habitats Directive[6]) and species (Annex II). The listed habitat types and species (excluding birds) are those considered to be most in need of conservation at a European level. Before EU exit day, designation of SACs also had regard to the coherence of the 'Natura 2000' network of European sites. After EU exit day, regard is had to the importance of such sites for the coherence of the UK's 'national site network'.
- SPAs are classified for rare and vulnerable birds (Annex I of the EU Birds Directive[7]), and for regularly occurring migratory species not listed in Annex I.

1.8 The term 'European sites' has been commonly used in HRA to refer to 'Natura 2000' sites[8] and Ramsar sites (international designated under the Ramsar Convention). However, a Government Policy Paper[9] on changes to the Habitats Regulations 2017 post-Brexit states that:

- Any references to Natura 2000 in the 2017 Regulations and in guidance now refer to the new 'national site network'.
- The national site network includes existing SACs and SPAs; and new SACs and SPAs designated under these Regulations.
- Designated Wetlands of International Importance (known as Ramsar sites) do not form part of the national site network. Many Ramsar sites overlap with SACs and SPAs and may be designated for the same or different species and habitats.

1.9 Although Ramsar sites do not form part of the new national site network, Government guidance covering England and Wales[10] states that:

> *"Any proposals affecting the following sites would also require an HRA because these are protected by government policy:*
>
> - *proposed SACs*
> - *potential SPAs*

3 The Conservation (Natural Habitats, &c.) (Amendment) Regulations 2007 (2007) SI No. 2007/1843. TSO (The Stationery Office), London.
4 The Conservation of Habitats and Species Regulations 2017 (2017) SI No. 2017/1012, as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579).
5 The integrity of a site is the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was designated. (Source: UK Government Planning Practice Guidance)
6 Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the 'Habitats Directive')
7 Directive 2009/147/EC of 30 November 2009 on the conservation of wild birds (the 'Birds Directive')
8 The network of protected areas identified by the EU: https://ec.europa.eu/environment/nature/natura2000/index_en.htm
9 https://www.gov.uk/government/publications/changes-to-the-habitats-regulations-2017/changes-to-the-habitats-regulations-2017
10 Defra, Natural England, Natural resources Wales and Welsh Government (2021) Guidance - Habitats regulations assessments: protecting a European site, https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site

- *Ramsar sites - wetlands of international importance (both listed and proposed)*
- *areas secured as sites compensating for damage to a European site."*

1.10 Furthermore, practice guidance[11] currently states that competent authorities responsible for carrying out HRA should treat Ramsar sites in the same way as SACs and SPAs. The legislative requirement for HRA does not apply to other nationally designated wildlife sites such as Sites of Special Scientific Interest or National Nature Reserves.

1.11 For simplicity, this report uses the term 'European site' to refer to all types of designated site for which Government guidance[12] requires an HRA.

1.12 The overall purpose of an HRA is to conclude whether or not a proposal or policy, or a whole development plan would adversely affect the integrity of the European site in question. This is judged in terms of the implications of the plan for a site's 'qualifying features' (i.e. those Annex I habitats, Annex II species, and Annex I bird populations for which it has been designated). Significantly, HRA is based on the precautionary principle. Where uncertainty or doubt remains, an adverse effect should be assumed.

Previous HRA work

1.13 HRA of RCT's adopted Local Development Plan (2006-2021) was undertaken during its preparation, with the Appropriate Assessment Report for the Deposit Plan being published in 2010[13].

1.14 The Appropriate Assessment considered the potential for adverse effects arising from the implementation of the LDP at one European site; Blaen Cynon SAC. The adverse effects were in relation to fragmentation of suitable habitat for marsh fritillary butterfly *Euphydryas aurinia* and changes in the hydrological regime.

1.15 The Appropriate Assessment concluded that there will not be an adverse effect on the integrity of the Blaen Cynon SAC from the plan alone or in-combination with other plans, when the proposed avoidance and mitigation measures, recommendations for LDP policy, and specific plan monitoring measures are put in place. The conclusions and recommendations reflected the advice received from the Countryside Council for Wales[14] throughout the HRA process.

1.16 Although the 2010 HRA Report provides useful background information for the HRA of the Revised LDP, this Screening Report revisits and fully updates the information drawn from it, to ensure that data sources are as recent as possible, and to acknowledge the latest HRA case law, in particular the 'People Over Wind' judgement, which requires that mitigation is not taken into account during the screening process. Further information about this is presented in **Chapter 3**.

1.17 The first stage in the HRA of the Revised LDP was the preparation of the HRA Scoping Report in November 2020. This report set out the parameters of the HRA for the Revised LDP, identifying the European sites that would be included and the approach that would be taken to the assessment. This HRA Scoping Report was subject to consultation with Natural Resources Wales and other stakeholders[15] and internally within the Council, and the responses received have informed the preparation of this Screening Report. The comment received are detailed in **Appendix A** along with LUC's response to each.

Structure of this report

1.18 This chapter (**Chapter 1**) has described the background to the revision of the LDP and the requirement to undertake HRA. The remainder of the report is structured into the following sections:

- **Chapter 2** outlines the contents of the Preferred Strategy consultation document.
- **Chapter 3** describes the approach to the HRA. It also describes recent case law, summarises the key issues that will need to be considered during the HRA and identifies the European sites in and around RCT that could be affected by the Revised LDP.
- **Chapter 4** describes the European sites in and around RCT and their key vulnerabilities.
- **Chapter 5** reports the findings of the Screening Stage of the HRA.

[11] The HRA Handbook, Section A3. David Tyldesley & Associates, a subscription based online guidance document: https://www.dtapublications.co.uk/handbook/European

[12] Defra, Natural England, Natural resources Wales and Welsh Government (2021) Guidance - Habitats regulations assessments: protecting a European site, https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site

[13] Enfusion (January 2010) Habitats Regulations Assessment (Appropriate Assessment) Report. Rhondda Cynon Taf County Borough Council: Deposit Local Development Plan.

[14] At the time that HRA was carried out for the adopted LDP, Natural Resources Wales had not been formed and the statutory consultation body was the Countryside Council for Wales (CCW).

[15] Including NHS, Public Health Wales, CADW, Glamorgan-Gwent Archaeological Trust, Welsh Language Commissioner, Well-being of Future Generations Commissioner.

- **Chapter 6** describes the next steps that will be carried out in the HRA of the Revised LDP.

1.19 The information in the main body of the report is supported by the following appendices:

- **Appendix A** presents the HRA Scoping consultation comments.
- **Appendix B** presents a map showing the European sites within RCT (+15km).
- **Appendix C** sets out detailed information about the European sites that are the focus of the HRA.
- **Appendix D** presents the HRA Screening matrix.
- **Appendix E** presents a map of the strategic roads within 200m of the European sites in and around RCT.

Chapter 2
Revised LDP - Preferred Strategy

2.1 The Revised LDP Preferred Strategy is fundamentally the Council's pre-deposit proposals' and is prepared prior to formulating the final iteration of the RLDP, known as the 'Deposit Plan'.

2.2 The Preferred Strategy identifies the amount and distribution of development proposed to be delivered in RCT, including Key Sites, identified as being integral to the delivery of the Revised LDP. It does not include site-specific allocations at this stage apart from four proposed Key Sites.

Vision and Objectives

2.3 The Vision and a set of supporting Objectives are presented in **Section 4** of the Preferred Strategy. The Vision is as follows.

"The vision by 2037 is for a more resilient and sustainable RCT:

- An area of sustainable, cohesive communities who are healthy, well connected and who have equal access to high quality homes, jobs, services and facilities.
- An area more resilient and considerate to the challenges of climate change with protected and enhanced biodiversity and green spaces and a well-connected sustainable transport system.
- An area with a diverse and healthy economy, supported by vibrant and viable town centres and a flourishing tourism sector. An RCT that celebrates its heritage and is resilient for the future."

2.4 The Vision will be delivered through the Plan's Objectives, which are summarised below.

- **Objective 1**: Mitigate and adapt to the effects of climate change and reduce flood risk.
- **Objective 2**: Provide an appropriate amount and mix of housing to meet local needs.
- **Objective 3**: Promote vibrant communities, with opportunities for living, working and socialising for all.
- **Objective 4**: Encourage healthy and safe lifestyles that promote well-being and improve overall health levels in RCT.

- **Objective 5**: Reduce the need to travel and promote more sustainable modes of transport.
- **Objective 6**: Promote, protect and enhance cultural heritage and the built environment.
- **Objective 7**: Promote the use of the Welsh language.
- **Objective 8**: Protect and enhance the quality and character of the landscape.
- **Objective 9**: Protect and enhance biodiversity.
- **Objective 10**: Protect the quality and quantity of RCT's water resources.
- **Objective 11**: Protect and enhance air quality and ensure appropriate soundscapes.
- **Objective 12**: Promote the efficient use of land, soils and minerals.
- **Objective 13**: Continue to minimise waste generation and promote more sustainable waste management.
- **Objective 14**: Provide for a sustainable economy.
- **Objective 15**: Provide for a diverse range of job opportunities.
- **Objective 16**: Promote vibrant, adaptable and resilient Town Centres.
- **Objective 17**: Address the impacts of the mining legacy in RCT.
- **Objective 18**: To support the growth of the tourism and leisure sector.

Growth and Spatial Options

2.5 Alternative options for the amount and distribution of growth are set out in Sections 6 and 7 of the Revised LDP Preferred Strategy. These options have not been subject to HRA; rather the HRA focuses on the Preferred Strategy which represents the Council's intentions regarding which option(s) to take forward.

Preferred Strategy

2.6 Section 8 of the Preferred Strategy presents the overall strategy for the Revised LDP. This involves the delivery of 8,450 homes over the Plan period (564 per annum) and 3,990 jobs (266 per year). The distribution strategy represents a combination of the most positive aspects of the Spatial Strategy Options that were considered by the Council. It was determined that the fundamental elements of the current LDP Spatial Strategy remain appropriate as a foundation for the Revised LDP.

2.7 The current LDP strategy area is divided into two distinct parts, North Strategy Area (NSA) and South Strategy Area (SSA) where a different policy approach is taken for each. The evidence base suggests that there remains a clear need for the continuation of this distinct difference in strategy approach for the north and the south of the County Borough, with the levels of housing growth in the north lower than in the south.

2.8 The Revised LDP Preferred Strategy is therefore defined as a combined 'Northern Sustainable Communities and Southern Sustainable Growth Strategy' for the distinct Northern and Southern Strategy Areas.

Chapter 3
Approach to the HRA

Stages in HRA

3.1 The HRA of development plans is undertaken in stages (as described below) and should conclude whether or not a proposal would adversely affect the integrity of the European site in question.

3.2 The HRA should be undertaken by the 'competent authority', in this case Rhondda Cynon Taf County Borough Council. LUC has been commissioned by the Council to carry out HRA work on its behalf, although this is to be reported to and considered by the Council as the competent authority, before adopting the Revised LDP.

3.3 The HRA also requires close working with Natural Resources Wales as the statutory nature conservation body[16] to obtain the necessary information, agree the process, outcomes, and mitigation proposals.

Requirements of the Habitats Regulations

3.4 In assessing the effects of a Plan in accordance with Regulation 105 of the Conservation of Habitats and Species Regulations 2017 (as amended), there are potentially two tests to be applied by the competent authority: a 'Significance Test', followed if necessary by an Appropriate Assessment which would inform the 'Integrity Test'. The relevant sequence of questions is as follows:

- Step 1: Under Reg. 105(1)(b), consider whether the plan is directly connected with or necessary to the management of the sites. If not, then the considerations proceed to Step 2.
- Step 2: Under Reg. 105(1)(a) consider whether the plan is likely to have a significant effect on a European site, either alone or in combination with other plans or projects (the 'Significance Test'). If yes, proceed to Step 3.
  - [Steps 1 and 2 are undertaken as part of Stage 1: HRA Screening in shown in typical stages section]
- Step 3: Under Reg. 105(1), make an Appropriate Assessment of the implications for the European site in view of its current conservation objectives (the 'Integrity Test'). In so doing, it is mandatory under Reg. 105(2) to

[16] Regulation 5 of the Habitats Regulations 2017.

consult Natural Resources Wales, and optional under Reg. 105(3) to take the opinion of the general public.

  - [This step is undertaken during Stage 2: Appropriate Assessment shown in typical stages section]

- Step 4: In accordance with Reg. 105(4), but subject to Reg. 107, give effect to the land use plan only after having ascertained that the plan would not adversely affect the integrity of a European site.

  - [This step follows Stage 2 where a finding of 'no adverse effect' is concluded. If it cannot be it proceeds to Step 5 as part of Stage 3 of the HRA process]

- Step 5: Under Reg. 107, if Step 4 is unable to rule out adverse effects on the integrity of a European site and no alternative solutions exist then the competent authority may nevertheless agree to the plan or project if it must be carried out for 'imperative reasons of overriding public interest' (IROPI).

  - [This step is undertaken during Stage 3: Assessment where no alternatives exist and adverse impacts remain taking into account mitigation shown in typical stages section]

Typical stages

3.5 **Table 3.1** summarises the stages and associated tasks and outcomes typically involved in carrying out a full HRA of a development plan, based on various guidance documents[17,18,19].

3.6 This HRA Report presents the output of the third task of Stage 1: HRA Screening, which is the test of likely significant effects.

Table 3.1: Stages of HRA

Stage	Task	Outcome
Stage 1: HRA Screening	Description of the development plan and confirmation that it is not directly connected with or necessary to the management of European sites. Identification of potentially affected European sites and their conservation objectives[20]. Assessment of likely significant effects of the development plan alone or in combination with other plans and projects, prior to consideration of avoidance or reduction ('mitigation') measures[21].	Where effects are unlikely, prepare a 'finding of no significant effect report'. Where effects judged likely, or lack of information to prove otherwise, proceed to Stage 2.
Stage 2: Appropriate Assessment (where Stage 1 does not rule out likely significant effects)	Information gathering (development plan and European Sites[22]). Impact prediction. Evaluation of development plan impacts in view of conservation objectives of European sites.	Appropriate assessment report describing the plan, European site baseline conditions, the adverse effects of the plan on the European site, how these effects will be avoided or reduced, including the mechanisms and

[17] European Commission (2001) Assessment of plans and projects significantly affecting European Sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC.
[18] Welsh Assembly Government, Planning Policy Wales, Technical Advice Note, 5. Nature Conservation and Planning, available from https://gov.wales/sites/default/files/publications/2018-09/tan5-nature-conservation.pdf
[19] The HRA Handbook. David Tyldesley & Associates, a subscription based online guidance document: https://www.dtapublications.co.uk/handbook/European
[20] Conservation objectives are published by Natural England for SACs and SPAs: http://publications.naturalengland.org.uk/category/6490068894089216
[21] In line with the CJEU judgment in Case C-323/17 People Over Wind v Coillte Teoranta, mitigation must only be taken into consideration at this stage and not during Stage 1: HRA Screening.
[22] In addition to European site citations and conservation objectives, key information sources for understanding factors contributing to the integrity of European sites include (where available) conservation objectives supplementary advice and Site Improvement Plans prepared by Natural England: http://publications.naturalengland.org.uk/category/5458594975711232

Stage	Task	Outcome
	Where impacts are considered to directly or indirectly affect qualifying features of European sites, identify how these effects will be avoided or reduced ('mitigation').	timescale for these mitigation measures. If effects remain after all alternatives and mitigation measures have been considered proceed to Stage 3.
Stage 3: Assessment where no alternatives exist and adverse impacts remain taking into account mitigation	Identify 'imperative reasons of overriding public interest' (IROPI). Demonstrate no alternatives exist. Identify potential compensatory measures.	This stage should be avoided if at all possible. The test of IROPI and the requirements for compensation are extremely onerous.

3.7 It is normally anticipated that an emphasis on Stages 1 and 2 of this process will, through a series of iterations, help ensure that potential adverse effects are identified and eliminated through the inclusion of mitigation measures designed to avoid, reduce or abate effects. The need to consider alternatives could imply more onerous changes to a plan document. It is generally understood that so called IROPI are likely to be justified only very occasionally and would involve engagement with the Government.

Recent Case Law Changes

3.8 This HRA will be prepared in accordance with relevant case law findings, including most notably the 'People over Wind' and 'Holohan' rulings from the Court of Justice for the European Union (CJEU).

3.9 The *People over Wind, Peter Sweetman v Coillte Teoranta* (April 2018) judgment ruled that Article 6(3) of the Habitats Directive should be interpreted as meaning that mitigation measures should be assessed as part of an Appropriate Assessment and should not be taken into account at the screening stage. The precise wording of the ruling is as follows:

> "Article 6(3) ……must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of measures intended to avoid or reduce the harmful effects of the plan or project on that site."

3.10 In light of the above, the HRA Screening stage will not rely upon avoidance or mitigation measures to draw conclusions as to whether the Revised LDP could result in 'likely significant effects' on European sites, with any such measures being considered at the Appropriate Assessment stage as relevant.

3.11 The HRA will also fully consider the *Holohan v An Bord Pleanala* (November 2018) judgement which stated that:

> "Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora must be interpreted as meaning that an 'appropriate assessment' must, on the one hand, catalogue the entirety of habitat types and species for which a site is protected, and, on the other, identify and examine both the implications of the proposed project for the species present on that site, and for which that site has not been listed, and the implications for habitat types and species to be found outside the boundaries of that site, provided that those implications are liable to affect the conservation objectives of the site."

3.12 LUC will fully consider the potential for effects on species and habitats, including those not listed as qualifying features, to result in secondary effects upon the qualifying features of European sites, including the potential for complex interactions and dependencies. In addition, the potential for offsite impacts, such as through impacts to functionally linked habitat, and or species and habitats located beyond the boundaries of European site, but which may be important in supporting the ecological processes of the qualifying features, will also be fully considered in this HRA.

3.13 Similarly, effects on both qualifying and supporting habitats and species on functionally linked land (FLL) or habitat have been considered in the HRA, in line with the High Court judgment in RSPB and others v Secretary of State and London Ashford Airport Ltd [2014 EWHC 1523 Admin] (paragraph 27), which stated that:

> "There is no authority on the significance of the non-statutory status of the FLL. However, the fact that the FLL was not within a protected site does not mean that the effect which a deterioration in its quality or function could have on a protected site is to be ignored. The indirect effect was still protected. Although the question

of its legal status was mooted, I am satisfied …. that while no particular legal status attaches to FLL, the fact that land is functionally linked to protected land means that the indirectly adverse effects on a protected site, produced by effects on FLL, are scrutinised in the same legal framework just as are the direct effects of acts carried out on the protected site itself. That is the only sensible and purposive approach where a species or effect is not confined by a line on a map or boundary fence. This is particularly important where the boundaries of designated sites are drawn tightly as may be the UK practice."

3.14 In addition to this, the HRA takes into consideration the 'Wealden' judgement from the CJEU.

3.15 *Wealden District Council v Secretary of State for Communities and Local Government, Lewes District Council and South Downs National Park Authority* (2017) ruled that it was not appropriate to scope out the need for a detailed assessment for an individual plan or project based on the annual average daily traffic (AADT) figures detailed in the Design Manual for Roads and Bridges or the critical loads used by Defra or Environmental Agency without considering the in-combination impacts with other plans and projects.

3.16 In light of this judgement, the HRA therefore considers traffic growth based on the effects of development from the Revised LDP in combination with other drivers of growth such as development proposed in neighbouring areas and demographic change.

3.17 The HRA also takes into account the *Grace and Sweetman* (July 2018) judgement from the CJEU which stated that:

- "There is a distinction to be drawn between protective measures forming part of a project and intended avoid or reduce any direct adverse effects that may be caused by the project in order to ensure that the project does not adversely affect the integrity of the area, which are covered by Article 6(3), and measures which, in accordance with Article 6(4), are aimed at compensating for the negative effects of the project on a protected area and cannot be taken into account in the assessment of the implications of the project."
- "As a general rule, any positive effects of the future creation of a new habitat, which is aimed at compensating for the loss of area and quality of that habitat type in a protected area, are highly difficult to forecast with any degree of certainty or will be visible only in the future."
- "A mitigation strategy may only be taken into account at AA (a.6(3)) where the competent authority is "sufficiently certain that a measure will make an effective contribution to avoiding harm, guaranteeing beyond all reasonable doubt that the project will not adversely affect the integrity of the area"."
- Otherwise it falls to be considered to be a compensatory measure to be considered under a.6(4) only where there are "imperative reasons of overriding public interest".

3.18 The Appropriate Assessment of the Revised LDP therefore only considers the existence of measures to avoid or reduce its direct adverse effects (mitigation) if the expected benefits of those measures are beyond reasonable doubt at the time of the assessment.

HRA Screening methodology

3.19 HRA Screening of the Revised LDP is being undertaken in line with current available guidance and seeks to meet the requirements of the Habitats Regulations. The tasks that have been undertaken during the Screening stage of the HRA are described in detail below.

3.20 The purpose of the Screening stage is to:

- Identify all aspects of the plan which would have no effect on a European Site, so that they can be eliminated from further consideration in respect of this and other plans.
- Identify all aspects of the plan which would not be likely to have a significant effect on a European site (i.e. would have some effect, because of links/connectivity, but which are not significant), either alone or in combination with other aspects of the same plan or other plans or projects, which therefore do not require 'Appropriate Assessment'.
- Identify those aspects of the plan where it is not possible to rule out the risk of significant effects on a European site, either alone or in combination with other plans or projects. This provides a clear scope for the parts of the plan that will require Appropriate Assessment.

Identification of European sites which may be affected by the Revised LDP

3.21 To initiate the search of European sites that could potentially be affected by the Revised LDP, it is established practice in HRAs to consider European sites within the local planning authority area covered by a Plan, and also within a buffer distance from the boundary of the Plan area.

3.22 A distance of 15km from the RCT boundary was used as a starting point to identify European sites that could be

affected by impacts relating to the Revised LDP. In addition to this, consideration was also given to European sites potentially connected to the plan area beyond this distance, for example through hydrological pathways or recreational visits by residents of RCT.

3.23 Information about the European sites considered in this HRA is provided in **Chapter 4**.

Assessment of 'likely significant effects' of the Revised LDP

3.24 Regulation 105 of The Conservation of Habitats and Species Regulations 2017 (the 'Habitats Regulations') requires an assessment of the 'likely significant effects' of the policy approaches and site allocations set out within the Revised LDP.

3.25 The Screening assessment considers the potential for likely significant effects to result from each component of the Revised LDP. The Screening assessment is conducted without taking mitigation (e.g. embedded in policy) into account, in accordance with the 'People over Wind' judgment.

3.26 A risk-based approach involving the application of the precautionary principle has been adopted in the assessment, such that a conclusion of 'no significant effect' will only be reached where it is considered very unlikely, based on current knowledge and the information available, that a proposal in the Revised LDP would have a significant effect on the integrity of a European site.

3.27 Consideration will be given to the potential for the development proposed as part of the Revised LDP to result in significant effects associated with:

- **Physical loss of or damage to habitats** e.g. from development or activities within the European sites themselves or at functionally -linked sites;
- **Fragmentation or severance of habitats** e.g. from development between a European site and functionally-linked sites;
- **Non-physical disturbance e.g. noise, vibration or light** from construction or development in close proximity to sensitive species;
- **Recreation pressure and urban edge effects** e.g. dog walking, cycling, trampling, littering, fire, or predation by pets;
- **Air pollution** from changes in traffic volumes on roads close to sensitive habitats or from other sources of emissions such as industrial activities; and
- **Changes in water quality or quantity** e.g. changes in flow caused by abstraction/discharge, accidental pollution, or increase nutrient loading from sewage treatment.

3.28 These impacts could occur directly at the European sites or indirectly, for example at habitats relied on by qualifying species from the European sites – known as 'functionally linked habitat'.

3.29 This thematic/impact category approach will allow for consideration to be given to the cumulative effects of the growth proposed through the Revised LDP rather than focussing exclusively on individual developments provided for.

3.30 For some types of impacts, the potential for likely significant effects can been determined on a proximity basis, using GIS data to determine the proximity of potential development locations to the European sites that are the subject of the assessment. However, there are many uncertainties associated with using set distances as there are very few standards available as a guide to how far impacts will travel. Therefore, where assumptions have been made or where additional information has been utilised to determine whether the Revised LDP is likely to have a significant effect, these are set out in **Chapter 5**.

Interpretation of 'likely significant effect'

3.31 Relevant case law helps to interpret when effects should be considered as being likely to result in a significant effect, when carrying out HRA of a Plan.

3.32 In the Waddenzee case[23], the European Court of Justice ruled on the interpretation of Article 6(3) of the Habitats Directive (translated into Reg. 102 in the Habitats Regulations), including that:

- An effect should be considered 'likely', "if it cannot be excluded, on the basis of objective information, that it will have a significant effect on the site" (para 44).
- An effect should be considered 'significant', "if it undermines the conservation objectives" (para 48).
- Where a plan or project has an effect on a site "but is not likely to undermine its conservation objectives, it cannot be considered likely to have a significant effect on the site concerned" (para 47).

3.33 An opinion delivered to the Court of Justice of the European Union commented that:

[23] European Court of Justice in Case C-127/02 Landelijke Vereniging tot Behoud van de Waddenzee

"The requirement that an effect in question be 'significant' exists in order to lay down a de minimis threshold. Plans or projects that have no appreciable effect on the site are thereby excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill."

3.34 This opinion (the 'Sweetman' case) therefore allows for the authorisation of plans and projects whose possible effects, alone or in combination, can be considered 'trivial' or de minimis; referring to such cases as those "which have no appreciable effect on the site". In practice such effects could be screened out as having no likely significant effect; they would be 'insignificant'.

3.35 The HRA Screening assessment therefore considers whether the Revised LDP could have likely significant effects either alone or in combination.

Mitigation Provided by the Revised LDP

3.36 Some of the potential effects of the plan could be mitigated through the implementation of other policies in the plan itself, such as the provision of green infrastructure within new developments (which could help mitigate increased pressure from recreation activities at European sites). Nevertheless, in accordance with the 'People over Wind' judgment, avoidance and mitigation measures cannot be relied upon at the Screening stage, and therefore, where such measures exist, they will be considered at the Appropriate Assessment stage for impacts and policies where likely significant effects, either alone or in-combination, could not be ruled out.

In-combination effects

3.37 Regulation 105 of the Habitats Regulations 2017 requires an Appropriate Assessment where *"a land use plan is likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and is not directly connected with or necessary to the management of the site"*. Therefore, where likely significant effects are identified for the Revised LDP it will be necessary to consider whether there may also be significant effects in combination with other plans or projects.

3.38 Where the Revised LDP is likely to have an effect on its own e.g. due to water pollution (due to impact pathways being present), but it is not likely to be significant, the in-combination assessment at Screening stage will need to determine whether there may also be the same types of effect from other plans or projects that could combine with the Revised LDP to produce a significant effect. If so, this likely significant effect (e.g., water pollution) arising from the Revised LDP in combination with other plans or projects, would then need to be considered through the Appropriate Assessment stage (for example to determine if water pollution would have an adverse effect on integrity of the relevant European site). Where the Screening assessment has concluded that there is no impact pathway between development proposed in the Revised LDP and the conditions necessary to maintain qualifying features of a European site, then there will be no in-combination effects to assess at the Screening or Appropriate Assessment stage. This approach accords with recent guidance on HRA[24].

3.39 If impact pathways are found to exist for a particular effect but it is not likely to be significant from the Revised LDP alone, the in-combination assessment will identify which other plans and programmes could result in the same impact on the same European site. This will focus on planned growth (including housing, employment, transport, minerals and waste) around the affected site, or along the impact corridor, for example, if impacts could arise as a result of changes to a waterway, then planned growth in local authorities along that waterway will be considered.

3.40 The potential for in-combination impacts will therefore focus on plans prepared by local authorities that overlap with European sites that are within the scope of this HRA. The findings of any associated HRA work for those plans will be reviewed where available. Where relevant, any strategic projects in the area that could have in-combination effects with the Revised LDP will also be identified and reviewed.

3.41 The online HRA Handbook suggests the following plans and projects may be relevant to consider as part of the in-combination assessment:

- Applications lodged but not yet determined, including refusals subject to an outstanding appeal or legal challenge;
- Projects subject to periodic review e.g. annual licences, during the time that their renewal is under consideration;
- Projects authorised but not yet started;
- Projects started but not yet completed;
- Known projects that do not require external authorisation;
- Proposals in adopted plans; and

[24] David Tyldesley and Associates (undated) The HRA Handbook (Section A3) (A subscription based online guidance document)

- Proposals in draft plans formally published or submitted for final consultation, examination or adoption.

3.42 The need for in-combination assessment also arises at the Appropriate Assessment stage, as discussed in the section below.

3.43 The following projects have been identified as requiring consideration (others may be identified when the in-combination effects assessment is carried out during the next stage of the HRA):

- Dualling of the A465: Works are being carried out to dual this road between Dowlais Top on the eastern side of Merthyr Tydfil and Hirwaun to the west, with works due to conclude in mid-2025. The section of the road extends partly within the boundary of RCT.
- Enviroparks, Hirwaun: This proposal is for a sustainable waste resource recovery and energy production park at land on Hirwaun Industrial Estate. The site straddles the Council planning authority area and the Brecon Beacons National Park Authority area. The original application was approved in 2010 and a further application was approved in 2015. An application in 2021 to double the height of the chimney stack was rejected. The scheme involves the development of 27,562m^2 of buildings and structures, process buildings; a gatehouse and weighbridge; a visitor centre and administrative building; a 20MW net capacity combianed heat and power plant; a 40 metre high ventilation stack; external anaerobic digestion, liquid and gas holding tanks; 30,352m^2 of internal roads and hard-standings; vehicular parking; external security lighting; 17,497m^2 of landscaping; vehicular ingress and egress from Fifth and Ninth Avenues, and associated utilities infrastructure.
- Porth Transport Hub: The application for a new single storey transport hub with link to overhead railway bridge and a new seven bay bus station was approved in March 2021. Construction began in Spring 2022 and is still in the process of being constructed. The project is part of the Metro Plus programme which is funded via the Cardiff Capital Region City Deal and Welsh Government's Local Transport Fund.
- Tidal Lagoon Cardiff: The application of a tidal lagoon electricity generating station with a potential generating capacity of 1800MW up to a possible 2800MW. The proposed site is located 2km from the River Usk mouth and 8k from the foreshore of the Severn Estuary. The project is at the pre-application stage with no timetable available.

Appropriate Assessment methodology

3.44 Following the Screening stage, if likely significant effects on European sites are unable to be ruled out, the plan-making authority is required under Regulation 105 of the Habitats Regulations 2017 to make an 'Appropriate Assessment' of the implications of the plan for European sites, in view of their conservation objectives. EC Guidance states that the Appropriate Assessment should consider the impacts of the plan (either alone or in combination with other projects or plans) on the integrity of European sites with respect to their conservation objectives and to their structure and function. The Appropriate Assessment then focuses on those policies / options / site allocations that have been screened in.

Assessing the effects on site integrity

3.45 A site's integrity depends on it being able to sustain its 'qualifying features' (i.e. those Annex 1 habitats, Annex II species, and Annex 1 bird populations for which it has been designated) and to ensure their continued viability. A high degree of integrity is considered to exist where the potential to meet a site's conservation objectives is realised and where the site is capable of self-repair and renewal with a minimum of external management support.

3.46 A conclusion needs to be reached as to whether or not the Revised LDP would adversely affect the integrity of a European site. As stated in the EC Guidance, assessing the effects on the site(s) integrity involves considering whether the predicted impacts of the Revised LDP policies (either alone or in combination) have the potential to:

- Cause delays to the achievement of conservation objectives for the site.
- Interrupt progress towards the achievement of conservation objectives for the site.
- Disrupt those factors that help to maintain the favourable conditions of the site.
- Interfere with the balance, distribution and density of key species that are the indicators of the favourable condition of the site.
- Cause changes to the vital defining aspects (e.g. nutrient balance) that determine how the site functions as a habitat or ecosystem.
- Change the dynamics of relationships that define the structure or function of the site (e.g. relationships between soil and water, or animals and plants).
- Interfere with anticipated natural changes to the site.
- Reduce the extent of key habitats or the population of key species.

- Reduce the diversity of the site.
- Result in disturbance that could affect the population, density or balance between key species.
- Result in fragmentation.
- Result in the loss of key features.

3.47 The conservation objectives for each European site (**Appendix C**) are generally to maintain the qualifying features in favourable condition. The Natura 2000 Standard Data forms, Core Management Plan (Wales) and Site Improvement Plans (England) for each European site provide a high-level overview of the issues (both current and predicted) affecting the condition of the European features on the site(s) and outline the priority measures required to improve the condition of the features. These will be drawn on to help to understand what is needed to maintain the integrity of the European sites.

3.48 For each European site where an uncertain or likely significant effect is identified in relation to the Revised LDP at the Screening Stage, further assessment will be required at Appropriate Assessment in the next iteration of the HRA.

Chapter 4
European sites in and around Rhondda Cynon Taf

4.1 Geographical Information Systems (GIS) data have been used to map the locations and boundaries of European sites within 15km of the RCT boundary (**Appendix B**), using publicly available data from Natural Resources Wales and Natural England. All European sites lying partially or wholly within 15km have been included, along with any further-distant European sites that could be significantly affected by development within RCT, e.g. if functionally connected.

4.2 The following European sites are partly within the area of RCT covered by the Revised LDP, i.e. outside of the Bannau Brycheiniog National Park:

- Coedydd Nedd a Mellte SAC;
- Cardiff Beech Woods SAC; and
- Blaen Cynon SAC.

4.3 The following European site is within RCT but lies entirely within the Bannau Brycheiniog National Park and so is not within the boundary of the area covered by the Revised LDP:

- Cwm Cadlan SAC.

4.4 The following European sites are within 15km of the RCT boundary:

- Aberbargoed Grasslands SAC (7.6km east);
- Blackmill Woodlands SAC (3.4km west);
- Bannau Brycheiniog SAC (4.1km north);
- Dunraven Bay SAC (10.7km southwest);
- Glaswelltiroedd Cefn Cribwr SAC (9.8km west);
- Kenfig SAC (9.5km southwest);
- Severn Estuary SAC (12.1km southeast);
- Severn Estuary SPA and Ramsar (12.1km southeast); and
- River Usk SAC (8.4km north).

4.5 The Usk Bat Sites SAC is located just over 15km from the RCT boundary and has been screened out of consideration. Whilst it is designated for a mobile species, likely significant effects on the site only need to be considered

within the 10km buffer set by Natural Resources Wales[25]. Therefore, as development within RCT will not affect land within that 10km buffer, this SAC is not considered any further.

4.6 The attributes of these sites which contribute to and define their integrity have been described (**Appendix C**). In doing so, reference was made to the Natura 2000 standard data forms, Core Management Plans (Wales), Site Improvement Plans (England), and Conservation Objectives Supplementary Advice (England) as relevant. This analysis enables European site interest features to be identified, along with the features of each site which determine site integrity and the specific sensitivities of the site. This information will allow an analysis of how the potential impacts of the Revised LDP may affect the integrity of each site.

[25] Countryside Council for Wales: Justification for the use of a 10km buffer around the Usk Bat Sites SAC (undated).

Chapter 5
HRA Screening Assessment

This Screening Assessment considers the Preferred Strategy consultation document. With the exception of the Proposed Key Sites, site allocations are not included in the Preferred Strategy and these will therefore be considered at the next stage of the HRA for the Deposit Plan.

Screening of Revised LDP

5.1 This section presents the HRA Screening findings for the proposals included in the Preferred Strategy consultation document, including the overall strategy itself and the nine strategic policies.

No 'Likely Significant Effect' Predicted

5.2 The following strategic policies are not expected to directly result in new development and therefore will not result in significant effects on European sites:

- SP2: Placemaking and Sustainable Communities
- SP3: Flood Risk Management
- SP8: Settlement Centres

5.3 The following policies will not result in development and will contribute to ensuring the safeguarding of European sites (although any mitigation provided by these policies has not been taken into account to inform the Screening conclusions for other policies, in line with the People over Wind judgement):

- SP1: Climate Change and Carbon
- SP4: Biodiversity and the Natural Environment
- SP5: Green Infrastructure and Open Space

Likely Significant Effects predicted

5.4 The following components of the Preferred Strategy document are highlighted as resulting in development and having potential impact pathways to European sites. Therefore, Likely Significant Effects cannot be ruled out:

- Preferred Strategy (i.e. the overall amount and distribution of growth)
- Key Site 1 – Penrhys Village, Tylorstown
- Key Site 2 – Land South of Hirwaun
- Key Site 3 – Land at Llanilid
- Key Site 4 – Llanilltud Faerdref/Efail Isaf
- SP6: Housing
- SP7: Employment Land and the Economy
- SP9: Tourism

Screening of Impacts

5.5 For some types of impacts, screening for Likely Significant Effects has been determined on a proximity basis, using GIS data to determine the proximity of potential development locations to the European sites that are the subject of the assessment. However, there are many uncertainties associated with using set distances as there are very few standards available as a guide to how far impacts will travel. Therefore, during the screening stage a number of assumptions have been applied in relation to assessing the Likely Significant Effects on European sites that may result from the plan, as described below.

Physical damage and loss of habitat (onsite)

5.6 Any development resulting from the Revised LDP would take place within the LDP area. Therefore, only European Sites within the RCT boundary (excluding the National Park) could be affected by physical damage or loss of habitat from within the boundaries of European sites. The following European sites are located within the Plan area's boundaries:

- Coedydd Nedd a Mellte SAC;
- Cardiff Beech Woods SAC and
- Blaen Cynon SAC.

5.7 All other European sites are located outside of the area covered by the Revised LDP and are therefore screened out of the assessment in relation to onsite habitat damage or loss.

5.8 No Key Sites proposed in the Revised LDP lie within the boundaries of these European sites.

Therefore, no likely significant effects on European sites are predicted as a result of onsite physical damage or loss of habitat from development proposed in the Revised LDP, either alone or in-combination with other plans and projects.

Physical loss of habitat - functionally linked habitat

5.9 Habitat loss from development in areas outside of the European site boundaries may also result in likely significant effects where that habitat contributes towards maintaining the interest feature for which the European site is designated. This includes land which may provide offsite movement corridors or feeding and sheltering habitat for mobile species such as bats, birds and fish (usually referred to as 'functionally linked' habitat).

5.10 The following European sites have been screened out of the assessment as they do not support qualifying features susceptible to offsite habitat loss:

- Coedydd Nedd a Mellte SAC
- Blackmill Woodlands SAC
- Bannau Brycheiniog (Formerly Brecon Beacons) SAC
- Dunraven Bay SAC
- Glaswelltiroedd Cefn Cribwr SAC
- Kenfig SAC

5.11 The potential for impacts on functionally linked habitat has been considered where European sites are designated for qualifying species that are mobile. This includes:

- Blaen Cynon SAC – Marsh fritillary butterfly
- Aberbargoed Grasslands SAC – Marsh fritillary butterfly
- Severn Estuary SPA and Ramsar – Bird assemblage
- Severn Estuary SAC – Fish assemblage
- River Usk SAC – Fish assemblage; otter

Physical loss of habitat – functionally linked habitat – birds assemblage

5.12 From our experience of HRA work elsewhere, the recognised distance for the consideration of offsite functionally linked habitat for birds is generally 2km, but for certain species, including most notably, golden plover and lapwing *Vanellus vanellus*, a greater distance of 15km may be appropriate. Increased distances may be appropriate where significant landscape scale features provide important functional linkages with European sites, for example, where river catchment floodplains and valleys extend considerable distances from a European site.

5.13 The only European site supporting qualifying bird species within 15km of the RCT boundary is the Severn Estuary SPA and Ramsar. Extensive work has been undertaken by Natural England on the use of functionally linked land by qualifying bird species of the Severn Estuary SPA and Ramsar. From this, it has been identified that many of the species for which the SPA and Ramsar site is designated for rely on functionally linked land in the wider Severn and Avon landscape, which is subject to extensive flooding by the River Severn and River Avon. The Local Plan area is located to north-west of the Severn Estuary SPA and Ramsar site and is located outside of the Severn and Avon landscape at approximately 40km to the east at the closest point. As the qualifying bird species of the Severn Estuary SPA and Ramsar do not include golden plover or lapwing and RCT does not fall within the Severn and Avon landscape, the 2km distance has been applied. As the Severn Estuary SPA and Ramsar site are located over 2km from the RCT boundary (12.1km southeast), they have been screened out from impacts on functionally linked habitat.

Physical loss of habitat - functionally linked habitat – Invertebrates – Marsh fritillary butterfly

5.14 The conservation objectives in relation to marsh fritillary butterfly include the statement that the site should contribute towards supporting a sustainable metapopulation of the marsh fritillary in the Penderyn / Hirwaun and Aberbargoed areas. It is indicated that this will require a minimum of 50ha of suitable habitat, of which at least 10ha must be in good condition. Suitable habitat includes damp grasslands dominated by tussock forming grasses, chalk grasslands and shorter coastal grasslands. It is reasoned that not all of this habitat is expected to be found within the SAC and that some will be on nearby land within a radius of about 2km.

Blaen Cynon SAC

5.15 Blaen Cynon SAC is located within the RCT boundary and is designated for its population of marsh fritillary butterfly.

5.16 Key Site 2 is within 2km of Blaen Cynon SAC and therefore there is potential for development at this key site to result in physical loss and damage to offsite habitats of importance to arsh fritillary butterfly either alone or in-combination with other plans and projects.

Aberbargoed Grasslands SAC

5.17 Aberbargoed Grasslands SAC is located over 4km away from the RCT boundary (i.e. twice the distance considered in relation to the metapopulation requirements). However, recent information about the role of metapopulation dynamics for the marsh fritillary butterfly indicates that there are sites within RCT which provide critical links between the east and west. These sites with suitable habitat for marsh fritillary butterfly have been designated as Sites of Importance for Nature Conservation (SINCs) and provide a network of functionally linked land within RCT. Given the extensive network of SINCs within RCT, further assessment is required to determine the potential for likely significant effects on Aberbargoed Grasslands SAC as a result of loss of or damage to functionally linked habitat.

Physical loss of habitat – functionally linked habitat – fish assemblage

5.18 The populations of qualifying migratory fish (twaite shad, river and sea lamprey) depend upon the freshwater habitats of the Rivers Usk, Wye and Severn as well as the estuarine habitats of the Severn Estuary during their lifetime[26]. Given the distance of these rivers from the RCT boundary and physical separation from the River Usk catchment due to topography with the Bannau Brycheiniog to the north, the potential for development within RCT to affect fish migration in the River Usk, Wye or Severn is screened out (for both the Severn Estuary SAC and River Usk SAC).

Physical loss of habitat – functionally linked habitat – Otter

5.19 Any development resulting from the LDP will be located within the RCT boundary. The River Usk SAC is located 8.4km and 17km away from the RCT boundary in the north and east respectively. Furthermore, the River Usk SAC is separated from the RCT boundary by the Bannau Brycheiniog to the north and multiple urban developments to the east.

5.20 Otter are highly dependent on (and therefore likely to be found within close proximity of) aquatic/riverine habitats. Given the distance between the RCT boundary and the River Usk SAC, and the surrounding landscape, the otter population associated with the River Usk SAC is unlikely to be affected by development coming forward as part of the plan. In this way, the loss of functionally linked habitat in relation to otter can be screened out.

Therefore the following European sites have been screened in for Appropriate Assessment in relation to physical damage and loss at functionally linked habitat:

- **Blaen Cynon SAC; and**

[26] Severn Estuary SAC, SPA and Ramsar Site: Regulation 33 Advice from CCW and Natural England, June 2009.

- **Aberbargoed Grasslands SAC.**

Non-physical disturbance

5.21 Noise and vibration effects, e.g. during the construction of new housing or other development, are most likely to disturb bird species and are thus a key consideration with respect to European sites where birds are the qualifying features, although such effects may also impact upon some mammals and fish species. Artificial lighting at night (e.g. from street lamps, flood lighting and security lights) is most likely to affect bat populations and some nocturnal bird species, and therefore have an adverse effect on the integrity of European sites where bats or nocturnal birds are a qualifying feature.

5.22 It has been assumed (on a precautionary basis and based on our experience of previous HRAs and consultation with statutory bodies) that the effects of noise, vibration and light pollution are capable of causing an adverse effect if development takes place within 500m of a European site (or functionally linked habitat) with qualifying features sensitive to these disturbances. This approach has been applied to HRA of Local Plans for numerous local authorities in the UK and it has been considered the application of this buffer is appropriate and in line with a precautionary principle. No European sites susceptible to impacts from non-physical disturbance were recorded within 500m of RCT and therefore this impact has been screened out from further assessment.

Therefore, no likely significant effect on European sites is predicted as a result of non-physical disturbance from development proposed in the Revised LDP either alone or in-combination with other plans and projects.

Non-physical disturbance – functionally linked habitat

5.23 Non-physical disturbance may also adversely affect qualifying species at functionally linked habitat. It was established in the **Physical Loss of Habitat – Functionally Linked Habitat** section above that the following qualifying species may use functionally linked habitat within the RCT boundary:

- Blaen Cynon SAC – Marsh fritillary butterfly
- Aberbargoed Grasslands SAC – Marsh fritillary butterfly
- Severn Estuary SPA and Ramsar – Bird assemblage
- Severn Estuary SAC – Fish assemblage
- River Usk SAC – Fish assemblage; Otter

5.24 All other European sites did not support qualifying features that rely on functionally linked habitat.

5.25 Marsh fritillary butterfly are not vulnerable to noise, vibration and/or light pollution and therefore Blaen Cynon SAC and Aberbargoed Grasslands SAC have been screened out.

5.26 It was established in the **Physical Loss of Habitat – Functionally Linked Habitat** section above that given the distance of the Severn Estuary SAC SPA and Ramsar and the River Usk SAC and the surrounding landscape, it was highly unlikely for qualifying fish, otter and bird assemblages to be affected by development coming forward as part of the plan. Given that non-physical disturbance only impacts up to 500m from development, the distance remains too large for there to be an impact and therefore these sites have been screened out in relation to non-physical disturbance at functionally linked habitat.

Therefore, no likely significant effect to European sites is predicted as a result of non-physical disturbance at functionally linked habitat from development proposed in the Revised LDP either alone or in-combination with other plans and projects.

Non-toxic contamination

5.27 Non-toxic contamination can include the creation of dust which can smother habitats preventing natural processes, and may also lead to effects associated with increased sediment and dust which can potentially affect the turbidity of aquatic habitats, and can also contribute to nutrient enrichment which can lead to changes in the rate of vegetation succession and habitat composition.

5.28 The effects of non-toxic contamination are most likely to be significant if development takes place within 500m of a European site which qualifying features sensitive to these disturbances, such as riparian and wetland habitats, or sites designated for habitats and plant species. This is the distance that, in our experience, provides a robust assessment of effects in plan-level HRA.

5.29 The only European site within 500m of any of the Key Sites is Blaen Cynon SAC, which lies adjacent to Key Site 2: Land South of Hirwaun. This SAC is designated for its population of marsh fritillary butterfly which, although themselves are not susceptible to non-toxic contamination, the habitats on site which they rely on, including lowland bog, marshy grassland, neutral grassland and damp pastures and heaths are sensitive to impacts from non-toxic contamination.

5.30 Therefore, there is potential for development at Key Site 2 to result in non-toxic contamination to habitats of importance

to marsh fritillary butterfly either alone or in-combination with other plans and projects.

Therefore the following European sites have been screened in for assessment at the appropriate assessment stage in relation to non-toxic contamination:

- Blaen Cynon SAC

Non-toxic contamination – functionally linked habitat

5.31 Non-toxic contamination may also adversely affect qualifying features at functionally linked habitats. It was established in the **Physical Loss of Habitat – Functionally Linked Habitat** section above that the following qualifying species may use functionally linked habitat within the RCT boundary:

- Blaen Cynon SAC – Marsh fritillary butterfly
- Aberbargoed Grasslands SAC – Marsh fritillary butterfly
- Severn Estuary SPA and Ramsar – Bird assemblage
- Severn Estuary SAC – Fish assemblage
- River Usk SAC – Fish assemblage; Otter

Blaen Cynon SAC and Aberbargoed Grasslands SAC

5.32 Habitat preferences for the qualifying marsh fritillary butterfly include lowland bog, marshy grassland, neutral grassland and damp pastures and heaths which are sensitive to impacts from non-toxic contamination.

5.33 As established in the **Physical Loss of Habitat – Functionally Linked Habitat** section above, Aberbargoed Grasslands SAC is located over 4km away from the RCT boundary (i.e. twice the distance considered in relation to the metapopulation requirements). However, recent information about the role of metapopulation dynamics for the marsh fritillary butterfly indicates that there are sites within RCT which provide critical links between the east and west. These sites with suitable habitat for marsh fritillary butterfly have been designated as Sites of Importance for Nature Conservation (SINCs) and provide a network of functionally linked land within RCT. Given the extensive network of SINCs within RCT, further assessment is required to determine the potential for likely significant effects on Aberbargoed Grasslands SAC and Blaen Cynon SAC as result of non-toxic contamination to functionally linked habitat.

Severn Estuary SPA and Ramsar

5.34 Habitat for qualifying bird species include farmland, grassland, lakes, ponds, wetlands and rivers. Aquatic habitats are sensitive to non-toxic contamination. As established in the **Physical Loss of Habitat – Functionally Linked Habitat** section above, given the distance of the European site from the RCT boundary, this site can be screened out. Therefore, no likely significant effect to Severn Estuary SPA and Ramsar is predicted as a result of non-toxic contamination at functionally linked habitat either alone or in-combination with other plans and projects.

Severn Estuary SAC and River Usk SAC

5.35 Habitat preferences for qualifying fish species include aquatic and wetland habitats. Aquatic habitats are sensitive to non-toxic contamination.

5.36 It was established in the **Physical Loss of Habitat – Functionally Linked Habitat** section above that given the distance of the Severn Estuary SAC and the River Usk SAC and the surrounding landscape, it was highly unlikely for qualifying fish and otter assemblages to be affected by development coming forward as part of the plan. Given non-toxic contamination only impacts up to 500m from development, the distance remains too large for there to be an impact and therefore these sites have been screened out in relation to non-physical disturbance at functionally linked habitat.

Therefore, the following European site has been screened in for Appropriate Assessment in relation to non-toxic contamination at functionally linked habitat:

- **Aberbargoed Grasslands SAC; and**
- **Blaen Cynon SAC**

Air Pollution

5.37 Air pollution is most likely to affect European sites where plant, soil and water habitats are the qualifying features, but some qualifying animal species may also be affected, either directly or indirectly, by any deterioration in habitat as a result of air pollution. Deposition of pollutants to the ground and vegetation can alter the characteristics of the soil, affecting the pH and nitrogen (N) availability that can then affect plant health, productivity and species composition. All of the sites have plant and/or water habitats or species as their qualifying feature.

5.38 The majority of the European sites being considered as part of this assessment are identified through their Site

Improvement Plans/Core Management Plans as being sensitive to air pollution:

- Blaen Cynon SAC;
- Coedydd Nedd a Mellte SAC;
- Cwm Cadlan SAC;
- Aberbargoed Grasslands SAC;
- Blackmill Woodlands SAC;
- Bannau Brycheiniog SAC;
- Cardiff Beech Woods SAC;
- Glaswelltiroedd Cefn Cribwr SAC;
- Kenfig SAC;
- Severn Estuary SAC; and
- Severn Estuary SPA/Ramsar.

5.39 In terms of vehicle traffic, nitrogen oxides (NOx, i.e. NO and NO2) are considered to be the key pollutants. Deposition of nitrogen compounds may lead to both soil and freshwater acidification, and NOx can cause eutrophication of soils and water. The HRA will refer to the UK Air Pollution Information System[27] to determine whether concentrations of NOx at the European sites are currently exceeding critical loads or not.

5.40 Based on the Highways Agency Design for Road and Bridges (DMRB) LA 105: Air Quality[28] (which sets out the requirements for assessing and reporting the effects of highway projects on air quality), it is assumed that air pollution from roads is unlikely to be significant beyond 200m from the road itself. Where increases in traffic volumes are forecast, this 200m buffer needs to be applied to the relevant roads in order to make a judgement about the likely geographical extent of air pollution impacts.

5.41 The DMRB Guidance for the assessment of local air quality in relation to highways developments provides criteria that should be applied to ascertain whether there are likely to be significant impacts associated with routes or corridors. Based on the DMRB guidance, affected roads which should be assessed are those where:

- Daily traffic flows will change by 1,000 AADT (Annual Average Daily Traffic) or more; or
- Heavy duty vehicle (HDV) flows will change by 200 AADT or more; or
- Daily average speed will change by 10 km/hr or more; or
- Peak hour speed will change by 20 km/hr or more; or
- Road alignment will change by 5 m or more.

5.42 In line with the Wealden judgment[29], statutory consultees now expect to see in-combination air pollution effects assessed. The implication of the judgment is that, where the road traffic effects of other plans or projects are known or can be reasonably estimated (including those of adopted plans or consented projects), then these should be included in road traffic modelling by the local authority whose local plan or project is being assessed. The screening criteria of 1,000 AADT should then be applied to the traffic flows of the plans in combination.

5.43 It has been assumed that only those roads forming part of the primary road network (motorways and 'A' roads) might be likely to experience any significant increases in vehicle traffic as a result of development (i.e. greater than 1,000 AADT etc.). As such, where a site is within 200m of only minor roads, no significant effect from traffic-related air pollution is considered to be the likely outcome.

5.44 Traffic forecast data (based on the planned level of growth) will therefore be needed to determine if increases in vehicle traffic in and around RCT are likely to be significant as a result of the Revised LDP, either alone or in combination with other plans or projects.

5.45 For each of the European sites identified as being sensitive to air pollution, GIS analysis has been used to assess whether they (or their functionally-linked habitats, if relevant) are within 200m of a major road. In some cases, it may be possible to screen out sites if it is obvious that significant volumes of traffic generated from within RCT are unlikely to pass the site (for example using data[30] on commuting patterns).

5.46 Strategic roads within the RCT boundary and a 15km buffer include the motorway M4 and 47 'A' roads, which are highlighted in **Figure E-1, Appendix E.** European sites which are situated within 200m of a strategic road are provided in **Table 5.1** below.

Table 5.1: European sites situated within 200m of a strategic road

European site	Strategic road
Blaen Cynon SAC	A4059

[27] http://www.apis.ac.uk/

[28] https://www.standardsforhighways.co.uk/dmrb/search?discipline=SUSTAINABILITY_AND_ENVIRONMENT

[29] Wealden District Council v. (1) Secretary of State for Communities and Local Government; (2) Lewes District Council; (3) South Downs National Park Authority and Natural England

[30] UCLThe River Uk DataShine Commute data: https://commute.datashine.org.uk/

European site	Strategic road
	A465
Coedydd Need a Mellte SAC	A4109
	A465
Aberbargoed Grasslands SAC	A4049
Blackmill Woodlands SAC	A4061
	A4093
Bannau Brycheiniog SAC	A470
Cardiff Beech Woods SAC	A4054
	A470
Glaswelltiroedd Cefn Cribwr SAC	M4
Severn Estuary SAC SPA and Ramsar	A4232

5.47 All of the other European sites are situated over 200m from strategic roads and are therefore screened out.

Traffic data

5.48 To determine the impacts of air pollution in relation to proposed development within the Revised LDP, road traffic AADT figures are required for the following roads where they pass within 200m of the above European sites: A4059, A465, A4109, A4049, A4061, A4093, A470, A4054, M4 and A4232.

5.49 Traffic data modelling on a county wide scale will be required to inform the Appropriate Assessment. It will then be possible to determine whether the screening thresholds are exceeded either from the Revised LDP alone or in-combination with other plans and projects. If AADT thresholds are exceeded, air quality modelling will be required to understand whether the Revised LDP will result in adverse effect on integrity and whether avoidance and mitigation measures can be applied which would prevent adverse effects on integrity.

Therefore, the following European sites have been screened in for Appropriate Assessment in relation to air pollution:

- Blaen Cynon SAC;
- Coedydd Nedd a Mellte SAC;
- Aberbargoed Grasslands SAC;
- Blackmill Woodlands SAC;
- Bannau Brycheiniog SAC;
- Cardiff Beech Woods SAC;
- Glaswelltiroedd Cefn Cribwr SAC;
- Severn Estuary SAC; and
- Severn Estuary SPA/Ramsar.

Air pollution – functionally linked habitat

5.50 Air pollution may also adversely affect qualifying features at functionally linked habitats. It was established in the **Physical Loss of Habitat – Functionally Linked Habitat** section above that the following qualifying species may use functionally linked habitat within the RCT boundary:

- Blaen Cynon SAC – Marsh fritillary butterfly
- Aberbargoed Grasslands SAC – Marsh fritillary butterfly
- Severn Estuary SPA and Ramsar – Bird assemblage
- Severn Estuary SAC – Fish assemblage
- River Usk SAC – Fish assemblage; Otter

5.51 The River Usk SAC has been screened out of this assessment as it has not been identified as being sensitive to air pollution.

5.52 The Severn Estuary SAC has been screened out as it was established in the **Physical Loss of Habitat – Functionally Linked Habitat** section above that given the distance of the Severn Estuary SAC and the surrounding landscape, it was highly unlikely for qualifying fish and otter assemblages to be affected by development coming forward as part of the plan.

5.53 A review of strategic roads identified the following European sites with strategic roads within 200m of the 2km established in the **Physical Loss of Habitat – Functionally Linked Habitat** section above:

Table 5.2: European sites situated within 2.2km of a strategic road

European site	Strategic road
Blaen Cynon SAC	A4061
Aberbargoed Grasslands SAC	A4048
	A469
Severn Estuary SPA and Ramsar	M4
	A4055

European site	Strategic road
	A4119
	A4160
	A4161
	A4234
	A466
	A469
	A470
	A48
	M48

Traffic data

5.54 In addition to the roads identified within **paragraph 5.48,** to determine the impacts of air pollution on functionally linked land in relation to proposed development within the Revised LDP, road traffic AADT figures are required for the following roads where they pass within 2.2km of the European sites in **Table 5.2** above: A4061, A4048, A469,M4, A4055, A4119, A4160, A4161, A4234, A466, A469, A470, A48 and M48.

Therefore, the following European sites have been screened in for assessment at the appropriate assessment stage in relation to air pollution on functionally linked habitat:

- Blaen Cynon SAC;
- Aberbargoed Grasslands SAC; and
- Severn Estuary SPA and Ramsar.

Recreation and urban impacts

5.55 Recreational activities and human presence can result in significant effects on European sites as a result of erosion and trampling, associated impacts such as fire and vandalism or disturbance to sensitive features, such as birds through both terrestrial and water-based forms of recreation.

5.56 The Revised LDP will result in housing growth and associated population increase within the RCT boundary. Where increases in population are likely to result in significant increases in recreation at a European site, either alone or in-combination, the potential for likely significant effects will require assessment. The Preferred Strategy specifies new housing requirements of 8,450 across the Revised LDP plan period.

5.57 European sites with qualifying bird species are likely to be particularly susceptible to recreational disturbances from walking, dog walking, angling, illegal use of off-road vehicles and motorbikes, wildfowling and water sports. An increase in recreational pressure from development therefore has the potential to disturb bird populations of SPA and Ramsar sites as a result of both terrestrial and water-based recreation.

5.58 In addition, recreation can physically damage habitat as a result of trampling and also through erosion associated with boat wash and terrestrial activities such as use of vehicles.

5.59 Each European site will typically have a 'Zone of Influence' (ZOI) within which increases in population would be expected to result in likely significant effects. ZOIs are usually established following targeted visitor surveys and the findings are therefore typically specific to each European site (and often to specific areas within a European site). The findings are likely to be influenced by a number of complex and interacting factors and therefore it is not always appropriate to apply a generic or non-specific ZOI to a European site. This is particularly the case in relation to coastal European sites, which have the potential to draw large numbers of visitors from areas much further afield.

5.60 In contrast to coastal European sites, the ZOI for non-coastal European sites are typically less variable, with visitors travelling from areas more local to a site. Although these sites are unique in their own right, they tend to not have the same draw as coastal sites and with recreational activities more easily managed and directed to alternative greenspace in the area. Using a precautionary approach and based on the Wales Outdoor Recreation Survey 2014[31], a ZOI of 8km was used for non-coastal European sites where an alternative ZOI is not available. The 8km ZOI derived from the Outdoor Recreation Survey data relates to the distance of '1 to 5 miles' that 75% of visitors from Wales travel to reach a natural environment. ZOIs are typically based on the distance that 75% of visitors travel from; therefore, 8km is considered likely to represent a highly precautionary ZOI in this assessment, and one which may be modified following the emergence of new information.

5.61 The following European sites were screened out of further assessment based upon either lack of sensitivity or distance, relevant experience and professional judgement:

- Dunraven Bay SAC;

[31]Natural Resources Wales (2015). Wales Outdoor Recreation Survey 2014: Final Report. Published: July 2015

- Glaswelltiroedd Cefn Cribwr SAC; and
- River Usk SAC.

5.62 Existing visitor survey work available for all other European sites is summarised in **Table 5.1 below.**

Table 5.3: Zone of Influence (ZOI) derived from existing visitor survey work

European site	ZOI
Coedydd Nedd a Mellte SAC	8km*
Blaen Cynon SAC	8km*
Cwm Cadlan SAC	8km*
Blackmill Woodlands SAC	8km*
Aberbargoed Grasslands SAC	8km*
Bannau Brycheiniog SAC	8km*
Cardiff Beech Woods SAC	8km*
Kenfig SAC	8km*
Severn Estuary SAC	7.7km[32]
Severn Estuary SPA and Ramsar	7.7km[35]

*Assumed 8km as detailed in **paragraph 5.48.**

5.63 The Severn Estuary SAC, SPA and Ramsar lies 12.1km southeast of the RCT boundary and Kenfig SAC lies 9.5km southwest of the boundary. Therefore, the ZOIs for these sites do not extend into the RCT boundary so these sites have been screened out of the assessment.

5.64 A review of the remaining European sites and their recreational ZOI determined that the following European sites do not have a recreational ZOI that extend to the key sites and can therefore be screened out of further assessment:

- Aberbargoed Grasslands SAC

5.65 All other European sites have a ZOI that includes at least one Key Site as shown in **Table 5.2:**

Table 5.4: Key Sites which fall within European sites ZOI

European site	Key Site
Coedydd Nedd a Mellte SAC	Key Site 2 – Land South of Hirwaun
Blaen Cynon SAC	Key Site 2 – Land South of Hirwaun
Cwm Cadlan SAC	Key Site 2 – Land South of Hirwaun
Bannau Brycheiniog SAC	Key Site 2 – Land South of Hirwaun
Blackmill Woodlands SAC	Key Site 3 – Land at Llanilid
Cardiff Beech Woods SAC	Key Site 4 – Llanilltud Faerdref/Efail Isaf

5.66 A visitor survey for Bannau Brycheiniog SAC[33] recorded that 8% of the Welsh visitors came from RCT, with visitors coming from all across Wales, England and overseas. Given the small proportion of visitors which travelled from RCT, it is considered unlikely that the proposed development within the Revised LDP will significantly increase recreational disturbance at this Site. However, this site has been screened in at this stage until further evidence can be reviewed, and mitigation has been considered at the Appropriate Assessment stage, given the draw of the site to visitors.

Therefore, the following European sites have been screened in for Appropriate Assessment stage in relation to recreational pressure:

- **Coedydd Nedd a Mellte SAC;**
- **Blaen Cynon SAC;**
- **Cwm Cadlan SAC;**
- **Blackmill Woodlands SAC; and**
- **Cardiff Beech Woods SAC.**

Water quantity

5.67 An increase in demand for water abstraction resulting from the growth proposed in the Revised LDP could result in changes in hydrology at European sites. Depending on the qualifying features and particular vulnerabilities of the European sites, this could result in likely significant effects, for example due to changes in environmental or biotic conditions, water chemistry and the extent and distribution of preferred habitat conditions.

[32] EPR (2016) Severn Estuary (Stroud District) Visitor Survey Report

[33] Strategic Research and Insight Ltd (2017). Brecon Beacons National Park Visitor Survey 2016-17.

5.68 The following sites have qualifying features that are sensitive to changes in water quantity:

- Blaen Cynon SAC;
- Coedydd Nedd a Mellte SAC;
- Cwm Cadlan SAC;
- Aberbargoed Grasslands SAC;
- Glaswelltiroedd Cefn Cribwr SAC;
- Kenfig SAC;
- Severn Estuary SAC;
- Severn Estuary SPA and Ramsar site; and
- River Usk SAC.

5.69 All other European sites were screened out as their qualifying features are not considered sensitive to changes in water quantity.

5.70 European sites with potential to be affected by changes in water quantity or quality are likely to be sites that lie within the RCT boundary or those that are hydrologically connected to Key Sites within the Revised LDP. All of the above European sites either lie within the RCT boundary or hydrological connections to the RCT boundary could not be ruled out.

Blaen Cynon SAC and Aberbargoed Grasslands SAC

5.71 Blaen Cynon SAC and Aberbargoed Grasslands SAC support the marsh fritillary butterfly, which relies on damp grasslands dominated by tussock forming grasses, chalk grasslands and shorter coastal grasslands. These habitats are hydrologically connected to watercourses within RCT and are therefore susceptible to changes in water quantity as a result of increased demand in water abstraction from proposed growth within RCT.

5.72 Therefore, there is potential for likely significant effects from changes in water quantity to occur at Blaen Cynon SAC and Aberbargoed Grasslands SAC and this therefore requires further consideration as part of the Appropriate Assessment.

Coedydd Nedd a Mellte SAC

5.73 The SAC supports old sessile oak woods and Tilio-Acerion forests of slopes, screes and ravines. These qualifying habitats depend upon soils with impeded drainage or flushing, marshy grassland and wet heath. These habitats are hydrologically connected to watercourses within RCT and are therefore susceptible to changes in water quantity as a result of increased demand in water abstraction from proposed growth within RCT.

5.74 Therefore, there is potential for likely significant effects from changes in water quantity to occur at Coedydd Need a Mellte SAC and therefore requires further consideration as part of the Appropriate Assessment.

Cwm Cadlan SAC

5.75 The SAC supports *Molinia* meadows on calcareous, peaty or clayey silt-laden soils and alkaline fens. These habitats are hydrologically connected to watercourses within RCT and are therefore susceptible to changes in water quantity as a result of increased demand in water abstraction from proposed growth within RCT.

5.76 Therefore, there is potential for likely significant effects from changes in water quantity to occur at Cwm Cadlan SAC and therefore requires further consideration as part of the Appropriate Assessment.

Glaswelltiroedd Cefn Cribwr SAC

5.77 The SAC supports *Molinia* fen meadows which are susceptible to changes in water quantity as a result of increased demand in water abstraction from proposed growth within RCT.

5.78 Therefore, there is potential for likely significant effects from changes in water quantity to occur at Glaswelltiroedd Cefn Cribwr SAC and therefore requires further consideration as part of the Appropriate Assessment.

Kenfig SAC

5.79 Kenfig SAC supports dunes, a coastal alkaline lake and salt meadows which support species including petalwort and fen orchid. These habitats are hydrologically connected to watercourses within RCT and are therefore susceptible to changes in water quantity as a result of increased demand in water abstraction from proposed growth within RCT.

5.80 Therefore, there is potential for likely significant effects from changes in water quantity to occur Kenfig SAC and therefore requires further consideration as part of the Appropriate Assessment.

Severn Estuary SAC and River Usk SAC

5.81 The Severn Estuary SAC is designated for estuaries, mudflats, sandflats, salt meadows and reefs, which support fish including sea lamprey, river lamprey and twaite shad. The River Usk SAC is designated for its fish assemblages and watercourse habitat. These habitats are hydrologically connected to watercourses within RCT and are therefore susceptible to changes in water quantity as a result of increased demand in water abstraction from proposed growth within RCT.

5.82 Therefore, there is potential for likely significant effects from changes in water quantity to occur Severn Estuary SAC and River Usk SAC and this requires further consideration as part of the Appropriate Assessment.

Severn Estuary SPA and Ramsar

5.83 The SPA is designated for its waterbird assemblage including populations of Bewick's swan, common shelduck, gadwall, dunlin, common redshank and greater white-fronted goose. The Ramsar site is designated for its wetland habitat and the species it supports. These habitats are hydrologically connected to watercourses within RCT and are therefore susceptible to changes in water quantity as a result of increased demand in water abstraction from proposed growth within RCT.

5.84 Therefore, there is potential for likely significant effects from changes in water quantity to occur Severn Estuary SPA and Ramsar and this requires further consideration as part of the Appropriate Assessment.

5.85 To fully understand the potential impacts on water quantity from the Revised LDP on the European sites listed above, a review of relevant Water Cycle Studies (WCS) and liaison with NRW and relevant water companies will be required. This will need to determine where Welsh Water will be abstracting from and whether these locations are hydrologically connected to the European sites above, as well as any required mitigation measures.

Therefore, the following European sites have been screened in for assessment at the appropriate assessment stage in relation to water quantity:

- **Blaen Cynon SAC;**
- **Coedydd Nedd a Mellte SAC;**
- **Cwm Cadlan SAC;**
- **Aberbargoed Grasslands SAC;**
- **Glaswelltiroedd Cefn Cribwr SAC;**
- **Kenfig SAC;**
- **Severn Estuary SAC;**
- **Severn Estuary SPA and Ramsar site; and**
- **River Usk SAC.**

Water Quality

5.86 The European sites identified within the water quantity section are also sensitive to changes in water quality (see **para 5.55**). All other European sites were screened out as their qualifying features are not considered sensitive to changes in water quality.

5.87 Natural Resources Wales (NRW) has identified a number of European sites in unfavourable condition due to excessive nutrients, which require nutrient neutrality as mitigation[34] and therefore are sensitive to changes in water quality resulting from proposed development within the LDP. A review of European sites identified by NRW identified the River Usk to be in unfavourable condition and as such requiring avoidance and mitigation measures in place to demonstrate nutrient neutrality. No further European sites identified in this Screening Assessment were identified by NRW and as such have been screened out from further consideration in relation to water quality.

5.88 A review of the catchment areas within RCT boundary identified Tawe to Cadoxton and South East Valleys[35], which are not considered to be hydrologically connected to the catchment of the River Usk SAC and as such no likely significant effect is predicted as a result of increased demand for water treatment as a result of development within the Local Plan. Therefore, this European site has been screened out from further assessment.

Therefore, no likely significant effect to European sites is predicted as a result of water quality from proposed development in the Revised LDP either alone or in-combination with other plans and projects.

Summary of the Screening Assessment

5.89 **Table 5.1** summarises the key impact considerations of each European site based upon the assumptions set out in this chapter.

[34] https://naturalresources.wales/guidance-and-advice/business-sectors/planning-and-development/our-role-in-planning-and-development/principles-of-nutrient-neutrality-in-relation-to-development-or-water-discharge-permit-proposals/?lang=en Accessed on 03/01/2023

[35] https://waterwatchwales.naturalresourceswales.gov.uk/en/ Accessed on 03/01/2023

Table 5.5: Key impact considerations screened into the HRA

European Site	Physical Loss / Damage (onsite)	Non-physical disturbance	Non-toxic contamination	Air pollution	Impacts of recreation	Water quantity	Water quality
Blaen Cynon SAC	Potential LSE^	No LSE	Potential LSE*	Potential LSE*	Potential LSE	Potential LSE	No LSE
Coedydd Nedd a Mellte SAC	No LSE	No LSE	No LSE	Potential LSE	Potential LSE	Potential LSE	No LSE
Cwm Cadlan SAC	No LSE	No LSE	No LSE	No LSE	Potential LSE	Potential LSE	No LSE
Aberbargoed Grasslands SAC	Potential LSE^	No LSE	Potential LSE^	Potential LSE*	No LSE	Potential LSE	No LSE
Blackmill Woodlands SAC	No LSE	No LSE	No LSE	Potential LSE	Potential LSE	No LSE	No LSE
Bannau Brycheiniog SAC	No LSE	No LSE	No LSE	Potential LSE	Potential LSE	No LSE	No LSE
Cardiff Beech Woods SAC	No LSE	No LSE	No LSE	Potential LSE	Potential LSE	No LSE	No LSE
Dunraven Bay SAC	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE	No LSE
Glaswelltiroed d Cefn Cribwr SAC	No LSE	No LSE	No LSE	Potential LSE	No LSE	Potential LSE	No LSE
Kenfig SAC	No LSE	No LSE	No LSE	No LSE	No LSE	Potential LSE	No LSE
Severn Estuary SAC	No LSE	No LSE	No LSE	Potential LSE	No LSE	Potential LSE	No LSE
Severn Estuary SPA and Ramsar	No LSE	No LSE	No LSE	Potential LSE*	No LSE	Potential LSE	No LSE
River Usk SAC	No LSE	No LSE	No LSE	No LSE	No LSE	Potential LSE	No LSE

*Including functionally linked habitat

^Including functionally linked habitat only

Chapter 6
Conclusion and next steps

6.1 At the Screening stage, likely significant effects on European sites, either alone or in combination with other policies and proposals, were identified for the overall Preferred Strategy, the four key sites and the following strategic policies:

- SP6 Housing
- SP7 Employment Land and the Economy
- SP9 Tourism

6.2 The findings of the HRA Screening determined that the Revised LDP could result in likely significant effects in relation to:

- **Physical damage and loss** – Blaen Cynon SAC (offsite only) and Aberbargoed Grasslands SAC (offsite only).
- **Non-toxic contamination –** Blaen Cynon SAC (onsite and offsite) and Aberbargoed Grasslands SAC (offsite only).
- **Air pollution -** Blaen Cynon SAC (onsite and offsite); Coedydd Nedd a Mellte SAC; Aberbargoed Grasslands SAC (onsite and offsite); Blackmill Woodlands SAC; Bannau Brycheiniog SAC; Cardiff Beech Woods SAC; Glaswelltiroedd Cefn Cribwr SAC; Severn Estuary SAC; and Severn Estuary SPA/Ramsar (onsite and offsite).
- **Impacts of recreation -** Coedydd Nedd a Mellte SAC, Blaen Cynon SAC, Cwm Cadlan SAC, Bannau Brycheiniog SAC, Blackmill Woodlands SAC and Cardiff Beech Woods SAC.
- **Water quantity -** Blaen Cynon SAC; Coedydd Nedd a Mellte SAC; Cwm Cadlan SAC; Aberbargoed Grasslands SAC; Glaswelltiroedd Cefn Cribwr SAC; Kenfig SAC; Severn Estuary SAC; Severn Estuary SPA and Ramsar site; and River Usk SAC.

Next Steps

6.3 The next stage of the HRA process (Appropriate Assessment) will determine whether the Revised LDP will result in any adverse effects on Integrity (AEoI) of the European sites screened into further assessment. This will include a review of the suitability of allocated sites for qualifying species of European sites.

6.4 Alongside the next iteration of the Revised LDP, the following key pieces of information will be required from the Council for review within the Appropriate Assessment stage:

- Existing avoidance and mitigation strategies for European sites.
- Map of SINCs designated for supporting habitat suitable for marsh fritillary butterfly.
- Visitor survey data (if available).
- Water cycle study or equivalent.
- Traffic modelling data in relation to European sites near major roads.

6.5 HRA is an iterative process and as such is expected to be updated in light of newly available evidence and comments from key consultees. This report will be subject to consultation with Natural Resources Wales to confirm that the conclusions of the assessment are considered appropriate at this stage of plan-making.

LUC
January 2024

Appendix A

HRA Scoping consultation comments

Table A.1: Consultation responses received in relation to the HRA Scoping Report for the Revised LDP 2020-2030

Component of HRA[36]	Summary of Consultee Comment	Response
Natural Resources Wales		
General	We consider that the European sites that should be scoped in to the HRA of the LDP have been correctly identified, and generally the proposed approach to the HRA of the LDP reasonable.	Noted, no action required.
Chapter 4	Chapter 4 addresses the functionally linked habitat in relation to marsh fritillary butterfly. However, it does not describe or define what would be recognised as suitable habitat for the species. It is important that this is defined in order to ensure that non-designated functional habitat can be appropriately recognised. Connectivity between the designated and non-designated habitats should also be addressed and defined.	Noted. This information will be added in the HRA Screening Report for the Preferred Strategy.
Table 4.1	We suggest water quantity be scoped in for Blaen Cynon SAC, Cwn Cadlan SAC, Coedydd Nedd a Mellte SAC and Aberbargoed Grasslands SAC, as habitats within these protected sites would be sensitive to changes in water levels.	Noted, these sites will be scoped in as suggested in relation to water quantity in the HRA Screening Report for the Preferred Strategy.
Table 4.1	While Cwm Cadlan SAC and Coedydd Nedd a Mellte SAC are not officially designated for Marsh Fritillary, there are records within and nearby these SACs, therefore we suggest that Physical Loss/Damage (functionally linked habitat) be scoped in.	Noted, however Cwm Cadlan SAC and Coedydd Nedd a Mellte SAC are not designated for Marsh Fritillary. We have scoped in Physical Loss/Damage (functionally linked habitat) for Blaen Cynon SAC and Aberbargoed Grasslands SAC (which are Designated for Marsh Fritillary), this therefore covers functionally linked habitat for this species and thereby the functionally linked habitat within Cwm Cadlan SAC and Coedydd Nedd a Mellte SAC.
Table 4.1	Although the following sites currently have less recreational pressure than those scoped in, Blaen Cynon SAC, Cwm Cadlan SAC and Blackmill SAC should also be considered due to their various individual attributes such as public rights of way, easily accessed woodlands and status of National Nature Reserves.	Noted, these sites will be scoped in as suggested in relation to recreation in the HRA Screening Report for the Preferred Strategy.
Appendix C	Section 2.26 identifies a number of ongoing projects including the bypass route between Llwycoed and Penywaun. However, it appears that the A465 Heads of the Valleys Section 5 and 6 dualling project is omitted	Noted, this scheme will be added to the assessment of in-combination effects in the HRA Screening Report for the Preferred Strategy.

[36] Note that references in this column refer to the section of the HRA Scoping Report being commented on, not this HRA Screening Report.

Component of HRA[36]	Summary of Consultee Comment	Response
	from consideration. Given the scheme assessment identified likely significant effects on Blaen Cynon SAC and Usk Bats Site SAC and includes substantial mitigation commitments in and around the LDP area, this project needs to be included for consideration in the assessment of potential in-combination effects.	
Countryside and Parks		
Paragraph 2.5	Refs to European Commission as a consultee remains. I can't believe this is required after 31st Dec 2020.	In the HRA Screening Report for the Preferred Strategy, this text will be updated to 'appropriate authority' in line with the Regulations post-Brexit.
Paragraph 2.6-2.10	This section seems to represent a change of approach from previously. It seems to imply that the assessment must include: ■ habitats and species on the site additional for those it was designated for, and ■ areas outside the site as they contribute to the conservation of the designated habitats and species. If this is the case, all the 'meta-population' work that has been undertaken with regard to the marsh fritillary butterfly since the last LDP will become very relevant. The importance of the SSSI and SINC network (and potentially other intervening sites) that contribute to the sites with marsh fritillary as a feature (Blaencynon, and Cwm Cadlan BBNP, Aberbargoed grasslands Caerphilly and Cefn Cribbwr Bridgend) as well as SSSI etc in Merthyr, NPT, Bridgend and Caerphilly as well as RCT. In particular in the south of RCT, the Ely Valley /Rhos Tonyrefail/ Llantrisant Common/ Llantwit Fardre Marsh sites and habitats are probably the closest extant sites and populations to Aberbargoed and Cefn Cribbwr. We have evidence relating to this as do NRW and Butterfly Conservation. There is the parasitic wasp of the marsh fritillary, which is actually rarer than MFs, and just as worthy of protection. Also narrow bordered bee hawk moths uses very much the same habitat and populations in the Hirwaun area are using the SAC and adjacent sites. Also see comments below about curlew and snipe on Blaencynon SAC, they were dependant on the same wet grasslands as the MFs- if still present those species might count as additional associate species. Further work has also been undertaken on bog and peatland sites and species since the last HRA and habitat connectivity is an important issue here. There is an important raised bog on the Blaencynon SAC, which although not the primary SAC designation feature, is fundamental habitat in the SAC. The associated peatland flora and fauna of the bog is partly supported in adjacent peatbogs, which are therefore important to the ecological context of that site.	Comment and information noted. As stated in paragraph 2.6, the proposed approach to this HRA reflects the relatively recent Holohan ruling.

Component of HRA[36]	Summary of Consultee Comment	Response
Paragraph 2.15	Note that industrial emissions added to this para, would prefer 'such as agricultural or industrial activities' given recent concerns re outdoor poultry in particular.	Noted, reference to agricultural activities will be added to the 'air pollution' bullet point in the HRA Screening Report for the Preferred Strategy.
Paragraph 2.26	In light of 2.6-10 above. Aberdare link road has been added, why has the dualling of the A465 been omitted? Please rectify this. Roads in Ely valley and Llanharan bypass could have impacts on the MF site network in the south of the County Borough (linking Aberbargoed and Cefn Cribbwr vis Llantrisant and Rhos Tonyrefail). Powys poultry farms could impact the northern sites.	Noted, the A465 dualling scheme will be added to the assessment of in-combination effects in the HRA Screening Report for the Preferred Strategy. This part of the report relates to other development schemes that could have in-combination effects, rather than existing traffic on local roads, which form part of the baseline.
Paragraph 2.34-2.35	In light of 2.6 -2.10 above, the integrity of the European site will also depend on the supporting meta-population sites.	Noted, no changes required.
Paragraph 3.4	Isn't a small part of the Cardiff Beechwoods SAC actually in RCT (see attached consent review document from 2013). The consultants may not have seen this document, but it may be useful to them.	This has been checked and a very small fragment of the SAC does indeed cross the boundary into RCT – the HRA Screening Report for the Preferred Strategy will reflect this.
Paragraph 4.6	Cwm Cadlan (fen meadow with purple moor grass and devil's bit scabious) and Cefn Cribbwr (fen meadow with purple moor grass and devil's bit scabious, contributing to MF) are meta pop sites for MF (see appendix B), Cwm Cadlan now has MFs and will be part of the Hirwaun meta-popuation. Cefn Cribwr if it functions and links to the Ely Valley population, might have some capacity to interact with the Hirwaun meta-population (see comments below).	Noted. These sites will be considered as part of the functionally linked habitat for Marsh Fritillary.
Paragraph 4.7-4.9	The south crop meta-pop isn't mentioned at all, because none of the European sites are in RCT but the intervening RCT sites will affect European sites in Caerphilly and Bridgend. Note the Cefn Cribwr site is identified as a mf site in appendix B and should be mentioned in this section as well. Given the Ely Valley sites are potentially a key link in the chain of MF habitat (between Cefn Cribwr to the West and Aberbargoed to the East) along the southern edge of the coalfield. Certainly, the future of both those SACs is dependent on the capacity to reconnect them into functioning habitat networks, and given there is more MF habitat in southern RCT than in either of the immediate SAC landscapes, this deserves consideration. Also it is important not to forget that MFs turned up in the Rhondda this year, and the physical distance is not too great between the Tonyrefail part of Ely Valley Populations and Hirwaun. One of the RCT objectives will be (using the Rhondda and Lower Cynon Valleys) to try and link those two metapoulation areas. Periodically they may still connect so even today.	Noted. These sites will be considered as part of the functionally linked habitat for Marsh Fritillary.
Paragraph 4.18	Note that the Blaencynon SAC is already in excedence in terms of NOx deposition.	Noted.

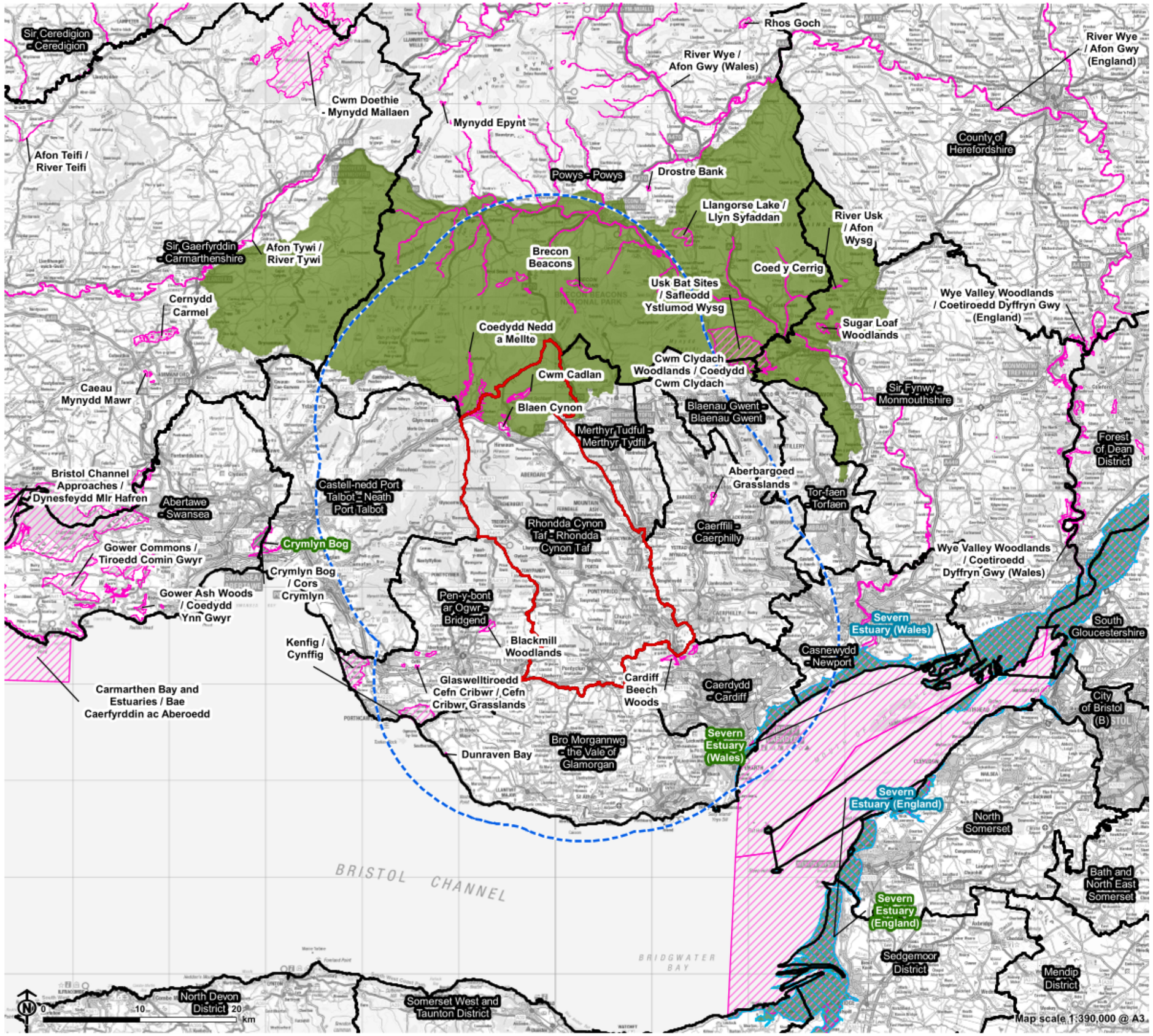
Component of HRA[36]	Summary of Consultee Comment	Response
Paragraph 4.27-4.28	Air pollution is not just from traffic, text should also refer to potential industrial emissions, and nitrogen deposition from agriculture. There was survey work done for some of the Hirwaun planning applications.	Noted, reference will be added to other sources of emissions.
Paragraph 4.30	Blaencynon should be on this list, see comments re: table 4.1 below.	Noted, Blaen Cynon SAC will be scoped in for recreational impacts in the HRA Screening Report for the Preferred Strategy.
Paragraph 4.39	No mention is made to SUDs which are mandatory for new development in Wales (but not in England). Some wastewater will be accommodated on site and not discharged via WW sewerage with potential impacts (quality and quantity) on European sites.	Noted.
Table 4.1	All of Blaencynon, Coedydd Nedd A Mellte, Cwm Cadlan and Aberbargoed should have a tick for water quantity impacts. All have sensitive hydrology's that could be compromised by offsite abstraction or drainage impacts. Blaen Cynon SAC should have an urban edge tick -- parts of the SAC are very close to the urban edge of Hirwaun, and potentially could be impacted by urban/recreational uses. Grass fire impacts are very much a rhos pasture threat, and an urban edge syndrome. Also, in terms of other species, Blaen Cynon SAC used to have breeding snipe and curlew, both of which could be affected by non-physical or recreational impacts. If either of those species still breed there that could again require a tick. Col 2 includes functionally linked habitat: all mf / rhos pasture sites should have a tick. Col 5 see 4.30 above. Col 6/7 see 4.39 above.	Noted, consideration will be given to whether Blaen Cynon SAC, Cwn Cadlan SAC, Coedydd Nedd a Mellte SAC and Aberbargoed Grasslands SAC should be scoped in and screened for potential effects on water quantity. Blaen Cynon SAC will be scoped in and screened for recreational impacts in the HRA Screening Report for the Preferred Strategy. Effects on bird species will not fall within the scope of the HRA as these are not the qualifying features of the SAC.
Appendix C	We have not checked the detail of these. We have had no involvement with other LDP HRAs.	Comment noted.

Appendix B

Map of European sites within 15km of Rhondda Cynon Taf

LUC

Figure B.1: European sites within 15km of Rhondda Cynon Taf County Borough



- RCT County Borough boundary
- RCT County Borough boundary 15km buffer
- Brecon Beacons National Park
- Local authority boundary
- SAC
- SPA
- Ramsar

CB: EB:llott_J LUC 11226_000_r0_Local_Plan_Europe_Sites_30k_A3L 10/11/2020
Source: OS, NE, RCT

Appendix C

Attributes of European Sites

Table C.1: Attributes of European Sites

European site	Area (ha)	Location in relation to the RCT boundary	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
Blaen Cynon SAC	66.62	Within the RCT boundary, in the central north of the county. Lies partly within the Bannau Brycheiniog National Park.	Annex II Species primary reason for selection: Marsh fritillary butterfly *Euphydryas (Eurodryas, Hypodryas) aurinia*	The Blaen Cynon SAC is notified as two component SSSIs: Cors Bryn-y-Gaer SSSI and Woodland Park and Pontpren SSSI Lowland bog at Cors Bryn-y-gaer is actively peat forming. The vegetation is characterised by a carpet of bog moss *Sphagnum cuspidatum*, together with species such as deergrass *Trichophorum cespitosum*, hare's tail cottongrass *Eriophorum vaginatum* and round-leaved sundew *Drosera rotundifolia*. In slightly drier areas cross-leaved heath *Erica tetralix* becomes more abundant and there is a greater range of bog moss species *Sphagnum spp*., whilst in the wettest areas common cottongrass *Eriophorum angustifolium* is frequent. Areas of marshy grassland dominated by rushes such as soft rush *Juncus effusus* and sharpflowered rush are also present throughout Cors Bryn-y-gaer. Associated species include frequent marsh bedstraw *Galium palustre*, devil's-bit scabious *Succisa pratensis* and greater bird's-foot trefoil *Lotus pedunculatus*. The neutral grassland is characterised by a range of grasses including common bent *Agrostis capillaris*, red fescue *Festuca rubra* and crested dog's tail *Cynosurus cristatus*, together with common knapweed *Centaurea nigra* and common bird's-foot trefoil *Lotus corniculatus*. On the lower slopes of the drumlins this community often grades into the more extensive acid grassland community, containing frequent sheep's fescue Festuca ovina and bird's-foot trefoil.	**Conservation objectives:** ■ The site will contribute towards supporting a sustainable metapopulation of the marsh fritillary in the Penderyn/Hirwaun area. This will require a minimum of 50ha of suitable habitat, of which at least 10ha must be in good condition, although not all is expected to be found within the SAC. Some will be on nearby land within a radius of about 2km. ■ The population will be viable in the long term, acknowledging the extreme population fluctuations of the species. ■ A minimum of 30% of the total site area will be grassland suitable for supporting marsh fritillary. (As the total area of the SAC is 66.62 ha, 30% represents approximately 20 ha.) ■ At least 40% of the suitable habitat (approximately 8 ha) must be in optimal condition for breeding marsh fritillary. ■ Suitable marsh fritillary habitat is defined as stands of grassland where *Succisa pratensis* is present and where scrub more than 1 metre tall covers no more than 10% of the stands ■ Optimal marsh fritillary breeding habitat will be characterised by grassland where the vegetation height is 10-20 cm, with abundant purple moor-grass *Molinia caerulea*, frequent "large-leaved" devil's-bit *scabious Succisa* pratensis suitable for marsh fritillaries to lay their eggs and only

European site	Area (ha)	Location in relation to the RCT boundary	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
				Woodland Park and Pontpren SSSI Extensive complex of damp pastures and heaths supporting the largest metapopulation of marsh fritillary *Euphydryas aurinia* on the southern edge of the Bannau Brycheiniog National Park. The marsh fritillary butterfly *Euphydryas aurinia* is found in a range of habitats in which its larval food plant, devil's-bit scabious *Succisa pratensis*, occurs. Marshy grassland, and flush and spring are of particular importance as they provide habitat for the marsh fritillary. Also present are areas of raised bog, species-rich neutral grassland, acid grassland and semi-natural broadleaved woodland.	occasional scrub. In peak years, a density of 200 larval webs per hectare of optimal habitat will be found across the site. (Fowles 20042) **Pressures and threats:** **Invasive species:** Gradually remove planted trees and invasive scrub, particularly where it is encroaching into habitat used by marsh fritillary caterpillars. **Grazing:** Both overgrazing and undergrazing would lead to unwanted changes in the vegetation structure and a decline in species diversity as coarse grasses and weed species become prevalent. The levels and timing of grazing are vital to maintain the vegetation structure and species diversity at the site. Habitat conditions should be maintained through the appropriate management regime of light grazing by cattle and/or ponies over the summer months. **Drainage:** The lowland bog and wet grassland communities are strongly influenced by the quantity and quality of water feeding and draining the site. Any increases in the amount of drainage would cause the site to become drier and alter the vegetation communities present. The existing drainage and overall hydrological regime at the site appear to be suitable to maintain these habitats. However, limited ditch blocking may be desirable. **Scrub:** The spread of scrub beyond existing levels may be indicative of insufficient grazing or the drying out of the site. Increased scrub cover can lead to a reduction in the area of wetland habitats. Ensuring the correct grazing levels at the site and maintaining the existing hydrological conditions should prevent the further

European site	Area (ha)	Location in relation to the RCT boundary	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
					spread of scrub. However, this management may need to be supplemented by a programme of scrub control. The Natura 2000 Standard Data Form for the Site also indicates the following additional pressures/threats: ■ Changes in abiotic conditions; ■ Air pollution, air-borne pollutants; ■ Pollution to groundwater (point sources and diffuse sources); and ■ Other ecosystem modifications.
Cardiff Beech Woods SAC	114.45	Slightly within the south eastern boundary of RCT.	Annex I habitats that are a primary reason for selection of this site: ■ Asperulo-Fagetum beech forests Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: ■ *Tilio*-Acerion forests of slopes, screes and ravines	The woods show mosaics and transitions to other types, including more acidic beech woodland and oak Quercus and ash Fraxinus excelsior woodland. Characteristic and notable species in the ground flora include ramsons *Allium ursinum*, sanicle *Sanicula europaea*, bird's-nest orchid *Neottia nidus-avis* and yellow bird's-nest *Monotropa hypopitys*. These woods consist of ash Fraxinus excelsior, wych elm *Ulmus glabra* and lime (mainly small-leaved lime *Tilia cordata* but more rarely large-leaved lime *T. platyphyllos*). Introduced sycamore *Acer pseudoplatanus* is often present. The habitat type is found on calcareous substrates. The main types are the 'western' forms (*Fraxinus excelsior – Acer campestre-Mercurialis perennis* woodland, and the equivalent north-western community *Fraxinus excelsior – Sorbus aucuparia – Mercurialis* perennis woodland Underpinned by three component Sites of Special Scientific Interest (SSSIs):	**Conservation objectives:** ■ 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. ■ 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.

European site	Area (ha)	Location in relation to the RCT boundary	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
				■ Garth Wood SSSI - supports a nationally rare cave dwelling spider Porrhoma rosenhaueri ■ Fforestganol a Chwm Nofydd SSSI ■ Castell Coch Woodlands and Road Section SSSI - supports geological exposures.	■ 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. ■ The existing *Tilio-acerion* forest will be maintained. ■ At least 95% of canopy forming trees will be locally native species (sycamore included). **Pressures and threats:** **Recreational Use:** The woodlands, especially Castell Coch and Fforestganol a Chwm Nofydd, experience heavy recreational pressure and certain areas are managed for this purpose **Atmospheric pollution:** The location of the woodland in industrialised South Wales, together with the presence of nearby quarrying and associated activities, means that there is the potential for localised atmospheric pollution. **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. **Commercial forestry:** Commercial forestry in the vicinity of Castell Coch may have implications for surface water supply and quality. **Mineral extraction:** There are a number of active and disused limestone quarries in the area. Garth Wood

European site	Area (ha)	Location in relation to the RCT boundary	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
					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. **Scrub encroachment:** Growth of scrub and other vegetation on the rock face/ledges and floor has the potential to cover the exposures **Natural Erosion and Deposition Processes:** Weathering and erosion of the rock face, mass movement of scree, wash of soil from the top of exposures, solution, and karstification may also cover the exposures. This can be followed by growth of vegetation. The Natura 2000 Standard Data Form for the Site also indicates the following additional pressures/threats: ■ Interspecific floral relations; and ■ Invasive non-native species.
Coedydd Nedd a Mellte SAC	376.32	Overlapping the RCT boundary, in the north west and partly within the Bannau Brycheiniog National Park.	Annex I habitats that are a primary reason for selection of this site: Old sessile oak woods with Ilex and Blechnum in the British Isles Habitats present as a qualifying feature, but not a primary reason for selection of this site:	Large areas of the site have a woodland canopy dominated by oak intermediate in character between the sessile oak *Quercus petraea* and the pedunculate oak *Q. robur*, with a little downy birch *Betula pubescens* and small-leaved lime *Tilia cordata* in places. Small stands of woodland, particularly along steep tributary stream valleys are dominated by ash with a dense shrub layer of hazel, a little hawthorn and locally frequent rowan. The high humidity of much of the woodland has a strong influence on its botanical diversity. Trees and	**<u>Conservation objectives:</u>** ■ Sessile oak woodland will occupy at least 175 ha and Upland ash woodland will occupy at least 18 ha of the total site area. ■ Ferns will be common ground flora species. ■ Bryophytes will continue to be abundant and the bryophyte flora will continue to include those the edge of their geographical range will continue to be present.

European site	Area (ha)	Location in relation to the RCT boundary	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
			Tilio-Acerion forests of slopes, screes and ravines	rocks support a diverse assemblage of plant species largely confined in their distribution to the Atlantic Seaboard of Europe. These Atlantic species include green spleenwort *Asplenium viride*, Tunbridge filmy-fern *H. tunbridgense*, hay-scented buckler-fern *Dryopteris aemula*, all of which are rare in south Wales, liverworts, such as *Bazzania trilobata, Jubula hutchinsiae* and the scarce *Anastrophyllum hellerianum*, *Colura calyptrifolia, Jamesoniella autumnalis* and *Sphenolobopsis pearsonii*, mosses, such as *Isothecium holtii, Dichodontium denudatum* and the scarce *Bartramia hallerana* and Seligera acutifolius, lichens, such as *Enterographa hutchinsii, Micarea alabastrites*, the rare *Micarea hedlundii*, and the scarce *Micarea stipitata* and *Phyllopsora roseñ*. Soils with impeded drainage or flushing support an extensive area of alder Alnus glutinosa-dominated woodland, in a range of topographical situations. Wet flushes within this type of woodland provide the most southerly known locality in Britain for marsh hawk's-beard *Crepis paludosa* The dry neutral grassland (hay-meadow and pasture) has a range of grasses such as common bent, sweet vernal-grass and crested dog's-tail and herbs including common knapweed, yellow-rattle, great burnet, rough hawkbit, greater butterfly orchid and common spotted-orchid. Calcareous grassland has a range of typical species such as sheep's-fescue, wild thyme, salad burnet, common rock-rose, limestone bedstraw, mountain everlasting and moonwort. Where the grassland is more open and rocky, species such as carline thistle and soft-leaved sedge occur.	■ Heathy species such as bilberry and common heather *Calluna vulgaris* will be common in some areas. ■ Introduced invasive species will be absent and any conifers seeding in from adjoining plantations will be removed whilst at the seedling/sapling stage. ■ Damage to the ground flora and soil erosion due to public pressure will be at a minimum. ■ All factors affecting the achievement of these conditions are under control. **Pressures and threats:** **Woodland Management:** To restore and maintain an uneven age structure in the woodland, natural ecological processes should be allowed to operate. In time, natural clearings should occur, followed by natural regeneration of trees and shrubs. There should also be a steady accumulation of both standing and fallen deadwood, which is an essential habitat in a natural woodland system for insects, fungi, small mammals and an array of other typical woodland species. On the steeper slopes and rock outcrops, natural canopy gaps can be expected to occur on a regular basis as the larger trees become unstable and fall. Elsewhere felling and coppicing could be considered if suitable areas can be identified and where removal of trees would benefit the species composition, diversity of age and structure of the wood and, importantly, where extraction would not be damaging to the ground flora. Such management should incorporate measures

European site	Area (ha)	Location in relation to the RCT boundary	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
				The marshy grassland in general has a high cover of purple moor-grass or rushes. Some of this is species-rich with a prominence of plants such as meadow thistle, tawny sedge, flea sedge, devil's-bit scabious and bog pimpernel. Wet heath has a range of typical species including cross-leaved heath, heather, deer-grass, bilberry and lichens.	to protect the important geological exposures where necessary, as these can be easily obscured. Areas of dense scrub, wet flushes, riverbanks and valley bottom (where there is constant high humidity) should be left unmanaged, except for the removal of fallen trees that may be blocking footpaths or obscuring geology. This will help protect and avoid disturbance to uncommon plants and other wildlife. Management of adjoining conifer plantation should carefully considered so that felling operations do not affect drainage or result in wind throw of native woodland. **Overgrazing:** Overgrazing can limit the woodland's ability to regenerate naturally and is particularly damaging to ash woodland ground flora. Wet woodland and upland oak woodland may be able to withstand light or occasional grazing pressure but many ash woodland plants are very sensitive to grazing damage. Grazing on steep slopes can also cause vegetation loss and soil erosion. Consequently, the majority of the woodland should be protected from grazing stock, although this would be reviewed from time-to-time as in certain circumstances, occasional light grazing in autumn or winter may be desirable to control the spread of the more competitive elements of the ground flora, like bramble. Sensitive woodland plants and tree saplings are less vulnerable to grazing damage at this time of year when they have lost their leaves. **Invasive plants:** Alien plants, such as rhododendron and Japanese knotweed, can form dense stands, displacing native plants and reducing wildlife interest. They generally provide a poor habitat for insects, birds and most mammals and the risk of stream bank erosion

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					can be increased when knotweed dies back in the autumn. These alien species will need to be controlled and removed if they become established within the site; however, they can be difficult to control and can easily spread from sites upstream. **Access and Recreation:** The 'Waterfalls area' has become increasingly popular with walkers, recreational groups and tourists in recent years. Rights-of-way/footpaths need to be well designed and well maintained to prevent erosion to soils and rock outcrops and to avoid creating drainage problems. Regular monitoring of the footpath system should be carried out and problems quickly rectified. Recreational activities such as gorge walking, climbing and canoeing need to be carefully considered and managed, as such activities may not be appropriate in parts of the site. Camping and lighting of campfires, which has resulted in damage to ground flora and to trees and shrubs being cut for firewood, should not be tolerated. **Engineering Works:** This is a steep site, which is crossed by footpaths and roads. In places there is considerable visitor pressure. Engineering works, such as maintaining/ repairing footpaths, access tracks, bridges and bank revetments need to be carefully considered so as not to cause damage to habitat, disturb soils or cause erosion problems. **Fly-tipping/dumping of waste materials:** Rubbish and other dumped materials such as garden waste and imported soils can cause habitat damage, pollution, obscure the geological interest and introduce undesirable species such as Japanese knotweed. Any significant rubbish should be cleared from the site, and

European site	Area (ha)	Location in relation to the RCT boundary	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
					appropriate measures taken to prevent further dumping. **Acidification/Pollution:** These include acidification of rain and soils, due to atmospheric pollution, and nutrient enrichment (especially increased nitrogen and phosphorus), through a combination of atmospheric pollution and other inputs from diffuse sources. Mosses, liverworts and lichens may be particularly vulnerable to pollution from atmospheric sources. Polluted or nutrient-enriched, water should not be channelled into the site, as this could cause damage to aquatic species. Much of this atmospheric pollution comes from distant, diffuse sources, such as traffic and domestic emissions, but some can be attributed to large point sources, such as major power stations or industrial processes. The impact of the industrialisation of the south Wales valleys in the nineteenth century has had a lasting effect on upland vegetation. The Natura 2000 Standard Data Form for the Site also indicates the following additional pressures/threats: ■ Interspecific floral relations; and ■ Problematic native species. RCT County Borough Council officers have noted that gorge walking is a growing issue at this site, especially in light of the Council's focus on tourism /outdoor sport relating to Zipworld, and that diffuse air pollution is also an issue.
Cwm Cadlan SAC	83.9	Within the RCT boundary but entirely within the Bannau	Annex I habitats present as a qualifying feature,	The main component of this habitat type is fen-meadow, which is characterised by the prominence of purple-moor grass *Molinia caerulea*, meadow *thistle Cirsium dissectum*, tawny sedge *Carex hostiana* and	**Conservation objectives:** ■ Fen-meadow will occupy at least 26 ha of a total area of marshy grassland habitat which itself will

European site	Area (ha)	Location in relation to the RCT boundary	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
		Brycheiniog National Park.	but not a primary reason for selection of this site: ■ Molinia meadows on calcareous, peaty or clayey silt-laden soils (*Molinion caeruleae*) ■ Alkaline Fens	flea sedge *Carex pulicaris*. Associated species include sweet vernal-grass A*nthoxanthum odoratum*, quaking grass , sharp-flowered rush Juncus acutiflorus, bog pimpernel *Anagallis tenella*, *tormentil Potentilla erecta* and devil's-bit scabious *Succisa pratensis*. Flushes are scattered throughout the site. Most of these are alkaline-rich and are distinguished by the presence of species such as butterwort Pinguicula vulgaris, marsh arrowgrass *Triglochin palustris*, bogbean *Menyanthes trifoliata* and, more locally, long-stalked yellow sedge *Carex viridula* ssp. *brachyrrhyncha*, marsh helleborine *Epipactis palustris*, broad-leaved cottongrass *Eriophorum latifolium* and knotted pearlwort *Sagina nodosa*. Neutral grassland occurs in a few well-drained areas and is characterised by grasses such as red fescue Festuca rubra, common bent *Agrostis capillaris*, crested dog's-tail *Cynosurus cristatus* and sweet vernal-grass, with a variety of herbs including common bird's-foot trefoil *Lotus corniculatus*, common knapweed *Centaurea nigra*, greater burnet *Sanguisorba officinalis*, Lady's mantle *Alchemilla spp*. and red clover *Trifolium pratense*.	cover at least 42 ha. Alkaline Fen will occupy about 11 ha or more. ■ The remainder of the site will mainly consist of other semi-natural habitat, including alkaline fen. ■ Typical fen-meadow plants and alkaline fen plants will be common. ■ Plants indicating agricultural modification or alteration to hydrology and drying of soils will be absent or present at only low cover. ■ Although rushes are frequent, the more bulky species will not exceed 33% cover. ■ Bare ground will generally not exceed 5% cover and vegetation litter 25%. ■ Dense scrub will be largely absent from the fen-meadow, but it is probably desirable for invertebrates and birds to have a sparse scattering of shrubs or trees. ■ At selected springheads, water should flow in all but the most severe drought conditions. **Pressures and threats:** **Grazing**: Grazing solely by sheep, or grazing at inappropriate times of the year, could eliminate sensitive species, such as globeflower and orchids. Heavy grazing could cause localised physical damage to the sward leading to invasion by "weedy" species such as creeping buttercup and creeping thistle. The marshy grassland, flushes and wet heath are particularly vulnerable to damage by excessive stock trampling.

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					Nutrient input: The application of any manure, fertilizers (including lime) and fertiliser drift or run-off from surrounding fields will upset this natural balance, having a detrimental effect on the habitats and reducing the diversity of plant species. **Scrub encroachment:** Woodland and scrub should not encroach further into the unimproved grassland, in particular the communities of highest conservation value (alkaline fen, fen meadow and neutral grassland). **Trampling:** Stock feeding should not be carried out within or close to the areas of important habitats, as it will lead to excessive trampling and localised nutrient enrichment, which can reduce species diversity. **Drainage:** The marshy grassland, alkaline fen and associated acidic flush and wet heath are found in areas of impeded drainage or around natural springs. The high-water table and springs are crucial for maintaining the species diversity of these habitats No artificial drainage work should be carried out within these areas. In the past, deep ditches have been dug in parts of the site, particularly on the Natural Resources Wales land and this has affected the natural hydrology in some areas. A long-term aim would be to attempt to restore the natural hydrology in some of these areas by allowing ditches to infill naturally or actively blocking them The Natura 2000 Standard Data Form for the Site also indicates the following additional pressures/threats: ■ Air pollution, air-borne pollutants ■ Problematic native species

European site	Area (ha)	Location in relation to the RCT boundary	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
Aberbargoed Grasslands SAC	39.64	7.6km East of the RCT boundary.	Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: ■ Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) Annex II species that are a primary reason for selection of this site: ■ Marsh fritillary butterfly *Euphydryas (Eurodryas, Hypodryas) aurinia*	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*.	**Conservation objectives:** ■ 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. ■ At least 6.25ha will be good marsh fritillary breeding habitat, dominated by purple moor-grass *Molinia caerulea*, with *S. pratensis* present throughout and a vegetation height of 10-20cm over the winter period. ■ 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. ■ The population will be viable in the long term, acknowledging the extreme population fluctuations of the species. ■ Habitats on the site will be in optimal condition to support the metapopulation. **Pressures and threats:** **Grazing and scrub encroachment:** 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.

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					Anti-social behaviours: In previous years anti-social behaviour such as off-roading and burning have occurred at Aberbargoed grasslands. The Natura 2000 Standard Data Form for the Site also indicates the following additional pressures/threats: ■ Air pollution, air-borne pollutants; and ■ Other ecosystem modifications.
Blackmill Woodlands SAC	71.01	3.4km west at the closest point to the RCT boundary.	Annex I habitats that are a primary reason for selection of this site: ■ Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles	The ground flora is restricted by the relative dryness of the site, but the main habitat features of sessile oak *Quercus petraea* canopy - acidic ground flora of bilberry Vaccinium myrtillus and wavy hair-grass *Deschampsia flexuosa*, and moderate fern and bryophyte cover - are present.	**Conservation objectives:** ■ 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. **Pressures and threats:** **Grazing:** 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 woodland. Excessive sheep grazing leads to a severely

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					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. **Non-native species:** Invasive non-native shrubs in the understorey or shrub layer **Air pollution:** Possible in-combination effects from surrounding areas. The Natura 2000 Standard Data Form for the Site also indicates the following additional pressures/threats: ■ Forestry activities not referred to above. RCTCBC Officers have also noted the potential effects on bryophytes from air pollution.
Bannau Brycheiniog (Formerly Brecon Beacons) SAC	268.63	4.1km north (at the closest point) of the RCT boundary, within the National Park	Annex I habitats that are a primary reason for selection of this site: ■ Calcareous rocky slopes with chasmophytic vegetation ■ Siliceous rocky slopes with chasmophytic vegetation	The relatively high base-status of the actively eroding rocky slopes has resulted in a chasmophytic flora which is comparatively rich for this southerly site. Species include purple saxifrage *Saxifraga oppositifolia* at its most southerly British location, green spleenwort Asplenium viride, brittle bladder-fern *Cystopteris fragilis* and several rare *Hieracium spp*. Nationally scarce bryophyte species include *Plagiopus oederianus* and *Scapania aequiloba*. The more siliceous sites are often towards the top of the cliffs, where the calcareous cements have been leached out, with a transition to more calcareous chasmophytic vegetation lower down the face. Species	**Conservation objectives:** ■ The base-rich sandstone cliffs, including crevices, scree and associated patches of thin soil remains free from disturbance and support typical plants, including mosses and liverworts. ■ A variety of rare and scarce plants thrive in these areas, including purple saxifrage, green spleenwort, Oeder's apple-moss, lesser rough earwort and several rare hawkweeds. ■ Populations of these species are sufficiently large and widespread to be sustained into the future (currently some populations may be critically low).

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			Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: ■ European dry heaths ■ Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	found in this habitat include fir clubmoss *Huperzia selago*, serrated wintergreen *Orthilia secunda* and the nationally scarce bryophytes *Brachydontium trichodes and Rhabdoweisia crenulata*. Hydrophilous tall herb communities occur on some of the ledges. This vegetation is scattered across the entire site where conditions are suitable, but is most visible on the higher cliffs of the main north and east facing slopes Heath is largely dominated by single species stands of heather *Calluna vulgaris* and bilberry *Vaccinium myrtillus*, although some stands have crowberry *Empetrum nigrum*. Heather and biberry also grow on the cliff ledges and are sometimes joined by cowberry *Vaccinium vitis-idaea*.	■ The acidic sandstone rocks, including crevices and scree, remain free from disturbance to and support typical plants, including mosses, ferns and lichens. ■ A variety of rare and scarce plants thrive in these areas, including fir clubmoss, dwarf willow, and greater streak-moss. ■ The extent, quality and diversity of heath vegetation are maintained and, where possible, degraded heath is restored to good condition. ■ The main heathland areas within the SAC and SSSI have a varied age structure with a mosaic of young heath, mature heath and degenerate heath. ■ The cliff ledges with less acidic soil remain largely free from grazing, such that the typical flowering plants can flourish and flower freely. ■ Several uncommon plants thrive in these areas, including serrated wintergreen and rare hawkweeds. ■ The populations of these plants are sufficiently large and widespread to be sustained into the future. **Pressures and threats:** **Grazing:** Heavy grazing limits the extent and diversity of calcareous chasmophytic vegetation. The tall herb communities are most susceptible to grazing damage and they are largely confined to ledges that cannot easily be reached by sheep.

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					Erosion: Calcareous chasmophytic vegetation may be damaged by erosion caused by trampling by people and livestock, both directly and by smothering with material washed down from above. Natural rockfalls occur and allow some of the less competitive species to thrive **Rock climbing:** Although most of the rocks at this site are too soft or unstable for climbing, intensive use can dislodge plants and disturb breeding birds. These impacts may be avoided if climbing is subject to specific agreements, which include a code of conduct. **Air quality:** High levels of any of these are believed to be damaging, especially on dwarf shrubs mosses and lichens, and there may be combined effects The Natura 2000 Standard Data Form for the Site also indicates the following additional pressures/threats: Fire and fire suppression.
Dunraven Bay SAC	6.45	10.7km southwest from the closest point to the RCT boundary.	Annex II species that are a primary reason for selection of this site: ■ Shore dock Rumex rupestris	Only remnant of the species' former Bristol Channel range. The species has disappeared through loss of damp dune-slacks and shingle banks - coastline is generally eroding and the 20 or so plants of shore dock growing here on damp coastal limestone. This has now declined to six individuals due to cliff falls removing plants Part of a much larger SSSI, Southerdown Coast SSSI.	**Conservation objectives:** ■ There are at least 10 mature plants at the site ■ The plant present are flowering and setting seed ■ The population is stable and viable in the long term. **Pressures and threats:** **Erosion:** Further loss of coastal limestone through further eroding of dunes and shingle banks.

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					Scrub encroachment: There is the potential for scrub to spread onto areas where shore dock grows, shading it out.
Glaswelltiroedd Cefn Cribwr SAC	57.92	9.8km west at the closest point to the RCT boundary.	Annex I habitats that are a primary reason for selection of this site: ■ Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)	Extensive stands of Molinia – *Cirsium dissectum* fen-meadow, including the heathy sub-type with crossleaved heath *Erica tetralix* as well as other forms with a stronger representation of native grasses, rushes and small sedges. Transitions to stands of more acidic *Molinia and Juncus pasture*, dry neutral grassland and wet scrub vegetation are well represented. Uncommon and declining species associated with the Molinia meadows at this site include the nationally rare viper's-grass *Scorzonera humilis* and the nationally scarce soft-leaved sedge *Carex montana*. Comprises four component SSSIs: ■ Caeau Cefn Cribwr; ■ Pen y Castell, Cefn Cribwr; ■ Bryn-bach, Cefn Cribwr; and ■ Waun-fawr, Cefn Cribwr.	**Conservation objectives:** ■ eu-Molinion marshy grassland will occupy between 50% and 55% 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 eu-Molinion marshy grassland: purple moor-grass *Molinia caerulea*; meadow thistle *Cirsium dissectum*; *Carex hostiana; Carex pulicaris*; devil's bit scabious *Succisa pratensis; carnation sedge Carex panicea; saw wort Serratula tinctoria and; tormentil Potentilla erecta.* ■ 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 clover *Trifolium repens* will be largely absent from the eu-Molinion marshy grassland. ■ Scrub species such as willow Salix (excluding Salix repens) and birch Betula will also be largely absent from the eu-Molinion marshy grassland. ■ The site will contribute towards supporting a sustainable metapopulation of the marsh fritillary in the Cefn Cribwr area. This will require a minimum of 50ha of suitable habitat, of which at

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					least 10ha must be in good condition, although not all is expected to be found within the SAC. ■ The population will be viable in the long term, acknowledging the extreme population fluctuations of the species. ■ Habitats on the site will be in optimal condition to support the metapopulation. ■ At least 40ha within the SAC & associated SSSI will be marshy grassland suitable for supporting marsh fritillary, with Succisa pratensis present and only a low cover of scrub. ■ At least 8ha will be marsh fritillary breeding habitat in good condition, dominated by purple moor-grass Molinia caerulea, with S. pratensis present throughout and a vegetation height of 10-20cm over the winter period. ■ Suitable marsh fritillary habitat is defined as stands of grassland where Succisa pratensis is present and where scrub more than 1 metre tall covers no more than 10% of the stands ■ Optimal marsh fritillary breeding habitat will be characterised by grassland where the vegetation height is 10-20 cm, with abundant purple moor-grass Molinia caerulea, frequent “large-leaved” devil’s-bit scabious Succisa pratensis suitable for marsh fritillaries to lay their eggs and only occasional scrub. In peak years, a density of 200 larval webs per hectare of optimal habitat will be found across the site.

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					■ The marshy grassland will be well sheltered by hedgerows and mature trees. **<u>Pressures and threats:</u>** **Grazing and scrub encroachment:** The eu-Molinion marshy grassland has been maintained through traditional farming practices. Without an appropriate grazing regime, the grassland would 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. **Hydrological regime:** The marshy grassland communities are strongly influenced by the quantity and base status of the groundwater. Reductions in the quality and quantity of the water in the springs and watercourses feeding the site may lead to a loss of marshy grassland or changes in species composition. Conversely, reduced/impeded drainage may lead to ground-water stagnation and a different change in species composition, e.g. increased abundance of rushes. **Adjacent land use:** Two of the component SSSIs lie close to opencast coal workings and other active mineral workings. These may have indirect effects on the hydrological regime **Shelter belts:** Hedgerows, woodland and mature trees in and around the site provide the sheltered conditions which the marsh fritillary require. These should be retained and managed. The Natura 2000 Standard Data Form for the Site also indicates the following additional pressures/threats:

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					■ Other ecosystem modifications; ■ Invasive non-native species; ■ Forestry activities not referred to above; and ■ Air pollution, air-borne pollutants.
Kenfig SAC	1189.14	9.5km southwest from the closest point to the RCT boundary.	Annex I habitats that are a primary reason for selection of this site: ■ Fixed coastal dunes with herbaceous vegetation (""grey dunes"")" * Priority feature ■ Dunes with Salix repens ssp. argentea (*Salicion arenariae*) ■ Humid dune slacks ■ Hard oligo-mesotrophic waters with benthic vegetation of *Chara spp*. Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: ■ Atlantic salt meadows (Glauco-	Fixed dune vegetation with red fescue Festuca rubra and lady's bedstraw *Galium verum* and semi-fixed dune grassland with marram *Ammophila arenaria* and red fescue. There is also a relatively large area of more acidic vegetation dominated by sand sedge *Carex arenaria*, sheep's-fescue *Festuca ovina* and common bent *Agrostis capillaris*. The dune slacks are species-rich and there are extensive areas of dunes with Salix *repens ssp. argentea*, which represent a mature phase in dune slack development. These calcareous dune slacks are also amongst the most species-rich in the UK, supporting communities dominated by a variety of mosses and a number of rare plants, notably 1903 Fen orchid *Liparis loeselii*, for which the site is also selected. Coastal, alkaline lake with a moderate nutrient status. High alkalinity, conductivity, sodium and chloride values reflect this marine influence. Elevated calcium values are probably derived from marine shell remains in the sandy substrate. Large stands of common reed *Phragmites australis* are found on the pool's seaward side. Grey club-rush *Scirpus lacustris ssp. tabernaemontani*, sea club-rush *Scirpus maritimus*, branched bur-reed *Sparganium erectum* and yellow iris *Iris pseudacorus* are also present. A sheltered bay	**<u>Conservation objectives:</u>** ■ Dunes with *Salix repens* and humid dune slacks will occur as part of the dune system, their location will be determined by natural processes and appropriate grazing management ■ A range of successional stages will be found in both features ■ Fixed dunes with herbaceous vegetation (grey dunes) will occur where older, shifting dunes become more stabilised and in early successional stages become colonised by lichens and other species indicative of the transition from less mobile habitat. ■ The habitat will encompass a range of successional stages throughout the area, determined by patterns of natural factors and grazing. ■ Grey dunes will comprise a significant part of the dune system but will increase and decrease in extent and location as natural processes determine the landscape of the dune systems. ■ Submerged Chara beds (mainly *Chara aspera* and *C. virgata*) growing in relatively shallow water

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			Puccinellietalia maritimae) Annex II species that are a primary reason for selection of this site ■ Petalwort Petalophyllum ralfsii ■ Fen orchid Liparis loeselii	supports a plant association dominated by shining pondweed *Potamogeton lucens* and curled pondweed *P. crispus*. Hairlike pondweed *P. trichoides* is locally dominant in the north end and the south end has abundant rigid hornwort *Ceratophyllum demersum*, Canadian waterweed Elodea canadensis, fan-leaved water-crowfoot *Ranunculus circinatus*, spiked water-milfoil *Myriophyllum spicatum* and the charophytes *Chara aspera var. aspera and Nitella flexilis var. flexilis*. Shoreweed *Littorella uniflora* can be found growing in association with C. aspera and the aquatic moss *Fontinalis antipyretica* along the sandy shore section. C. aspera also dominates the substrate off the grazed landward shoreline. For petalwort *Petalophyllum ralfsii* in south Wales and supports a large population of the species, numbering thousands of thalli. The calcareous dune system has many dune slacks that include the early successional, open slack vegetation this species requires. Largest populations of fen orchid *Liparis loeselii* in the UK, comprising about 50% of the UK resource- . var. ovata, which is currently known to occur only in Wales and on the coast of Brittany, as well as in the past at Braunton Burrows, Devon, England.	form the predominant submerged macrophyte vegetation throughout most of the lake. ■ Chara occur at more than 50% frequency along regular surveillance transects within the Western and Central arms. ■ Charophyte species and uncommon pondweeds such as *Potamogeton gramineus* and *P. x nitens* are present in other embayments and pools, including *Tolypella glomerata* in dune pools. ■ The lake is spring-fed so nutrient levels remain low. One of the main nutrients (phosphorus) reaches no more than 25 micrograms per litre in regular sampling areas. Nitrogen levels in the water are low (less than 1 milligram per litre) and declining or stable. ■ The lake water is clear, but well vegetated with dense beds of submerged and marginal plants. A Secchi disc is visible on the lake bed in the deepest part of the lake (2.6m). ■ Water depth is relatively stable, fluctuating naturally with groundwater. ■ Reed, swamp and fringing bur-reed are restricted to shallow zones – covering not more than 10 % of the site. **Pressures and threats:** **Grazing:** Important for the maintenance of the slack vegetation. Both low numbers of rabbits and livestock graze the slacks at Kenfig SSSI and rabbits only at Merthyr Mawr SSSI.

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					Undergrazing can lead to the dune slack vegetation becoming dominated by rank grasses or bushy Salix repens leading to a loss of species diversity and to scrub invasion leading to drying out of the slacks and total loss of the slack habitat as it is shaded out by the scrub. Overgrazing can lead to loss of species diversity as herbs are grazed out and are replaced by grasses. Trampling of the vegetation can lead to physical damage to the vegetation and soil structure and invasion by weed species. **Water Level and Water Quality:** The slack vegetation is influenced and maintained by both a high-water table and maintenance of suitable water quality. The major water quality concerns are related to elevated macro-nutrient levels. Elevated levels of nitrogen have been found and there is also some indication that dune slacks are becoming increasingly eutrophic. The nature of the underlying limestone aquifer means that off-site activities a considerable distance away can potentially have an impact on the SAC. This effect may occur both spatially and temporally. **Natural coastal processes:** Dune mobility is essential for the development of embryonic and successionally young slacks. Embryonic slacks form at the base of eroding dunes but slacks can also be destroyed by the advance of a mobile dune or modified as layers of sand are deposited on the slack **Recreational and visitor pressure:** Vehicles or pressure from visitors including camping can cause damage or loss of to slack vegetation, compaction and erosion. Illegal off road motorcycling and use of 4X4s.

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					Uncontrolled horse riding may cause damage to vegetation and protected species **Scrub encroachment:** The removal of scrub helps prevents the loss of slack habitats to scrub and woodland. **Air quality:** Potentially sensitive to air quality impacts, either directly from high levels of ethylene/ethane or indirectly through changes to water chemistry through deposition of atmospheric nitrogen. Atmospheric nitrogen oxide (NOx) levels may be exceeded due to proximity of several nearby sources including industrial (steel works/chemical works/power station), agricultural (chicken farms – ammonia), old landfill sites (methane), transport and wind blown particulates (adjacent tips) **Water quality and agricultural run-off:** Run-off of nitrates and sediment from surrounding areas **Fishery management:** Large populations of coarse fish (such as introduced carp for example) can distort the balance between the plant community, nutrient levels and the coarse fish population by eating small microscopic animals (zooplankton) that feed on tiny algae (phytoplankton). **Introduction of invasive or alien species:** Non-native invasive species can fundamentally and irreversibly disrupt ecosystem structure and function. Nonnative invasive species often out compete native counterparts, especially under disturbed conditions. **Erosion:** Bank erosion / deposition may result due to changes in the river channel, and peak river flow caused by upstream canalisation.

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					The Natura 2000 Standard Data Form for the Site also indicates the following additional pressures/threats: ■ Changes in abiotic conditions; ■ Other ecosystem modifications; and Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.).
Severn Estuary SAC / SPA / Ramsar	73,714.11 SAC 24,662.98 SPA and Ramsar	12km south east from the closest point to the RCT boundary.	Qualifying Features of the SAC: ■ Annex I habitats that are a primary reason for selection of this site: – Estuaries – Mudflats and sandflats not covered by seawater at low tide; Intertidal mudflats and sandflats – Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	Sandbanks which are slightly covered by sea water all the time: Sandbanks are composed of well-sorted sandy sediments, with muddier and more gravelly sediments in the troughs between banks, and the upper crests of some of the larger banks dry out at low tide. The banks are tidally-influenced estuary mouth sandbanks. Fauna of the bank crests is characteristic of species-poor, mobile sand environments, and is dominated by polychaete worms and amphipods. Within the troughs and on the bank slopes a higher diversity of polychaetes, crustacea, molluscs and echinoderms are found. Mobile epifauna includes crabs and brown shrimp, along with squid and commercially important fish species such as sole and herring. Estuaries: There is a gradient of salinity from freshwater in the river to increasingly marine conditions towards the open sea. The input of sediment from the river, the shelter of the estuary from wave action, and the often	**Conservation Objectives:** Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring: ■ The extent and distribution of qualifying natural habitats and habitats of qualifying species ■ The structure and function (including typical species) of qualifying natural habitats ■ The structure and function of the habitats of qualifying species ■ The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely ■ The populations of qualifying species, and, ■ The distribution of qualifying species within the site.

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			■ Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: – Sandbanks which are slightly covered by sea water all the time; Subtidal sandbanks – Reefs ■ Annex II species that are a primary reason for selection of this site: – Petromyzon marinus; Sea lamprey – Lampetra fluviatilis; River lamprey – Alosa fallax; Twaite shad ■ Qualifying Features of the SPA: – Bewick's swan Cygnus	low current flows typically lead to the presence of extensive intertidal sediment flats and sediment-filled subtidal channels. There is usually only a limited extent of rocky habitat. The intertidal and subtidal sediments of estuaries support biological communities that vary according to the type of sediment and salinity gradients within the estuary, together with geographic location and the strength of tidal streams. The parts of estuaries furthest away from the open sea are usually characterised by soft sediments and the salinity is more strongly influenced by riverine freshwater input. Here the sediment-living animal communities are typically dominated by oligochaete worms, with few other invertebrates. Where rock occurs, there may be communities characteristic of brackish flowing water, consisting of green unicellular algae, sparse fucoid seaweeds, and species of barnacle and hydroid. The silt content of the sediment decreases towards the mouth of the estuary, and the water gradually becomes more saline. Here the animal communities of the sediments are dominated by species such as ragworms, bivalves and sandhopper-like crustaceans. In the outer estuary, closer to the open sea, the substrate is often composed of fine sandy sediment, and supports more marine communities of bivalves, polychaete worms and amphipod crustaceans. Where rock occurs, a range of species more characteristic of the open coast is found. The upper reaches of estuaries often support saltmarsh at the top of the shore, whilst nearer the estuary mouth this may be replaced by sand dune systems.	**Pressures and threats:** **Public Access/Disturbance:** Pressure / threat to qualifying bird species, habitats and waterbird assemblages. **Physical modification:** Threat to sea lamprey, river lamprey and twaite shad. **Impacts of development:** Pressure / threat to qualifying bird species, habitats, sea lamprey, river lamprey, twaite shad and waterbird assemblages. **Coastal squeeze:** Pressure / threat to qualifying bird species, habitats, and waterbird assemblages. **Change in land Management:** Pressure / threat to qualifying bird species, habitats, and waterbird assemblages. **Changes in species distributions:** Threat to qualifying bird species, habitats, and waterbird assemblages. **Water Pollution:** Pressure / threat to qualifying bird species, habitats, sea lamprey, river lamprey, twaite shad and waterbird assemblages **Air Pollution: impact of atmospheric nitrogen deposition:** Pressure to qualifying bird species, habitats, sea lamprey, river lamprey, twaite shad and waterbird assemblages. **Marine consents and permits: minerals and waste:** Pressure / threat to habitats, sea lamprey, river lamprey and twaite shad **Fisheries: Recreational marine and estuarine:** Pressure to qualifying bird species, habitats, sea

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			columbianus bewickii (Non-breeding) – Common shelduck Tadorna tadorna (Non-breeding) – Gadwall Anas strepera (Non-breeding) – Dunlin Calidris alpina alpina (Non-breeding) – Common redshank Tringa totanus (Non-breeding) – Greater white-fronted goose Anser albifrons albifrons (Non-breeding) – Waterbird assemblage Ramsar selection criteria: ■ A wetland should be considered internationally important if it	<u>Mudflats and sandflats not covered by seawater at low tide; Intertidal mudflats and sandflats:</u> Intertidal mudflats and sandflats are submerged at high tide and exposed at low tide. The physical structure of the intertidal flats ranges from mobile, coarse-sand beaches on wave-exposed coasts to stable, fine-sediment mudflats in estuaries and other marine inlets. This habitat type can be divided into three broad categories (clean sands, muddy sands and muds), although in practice there is a continuous gradation between them. <u>Reefs:</u> Reefs on soft chalk along the shore. Thanet has sublittoral chalk platforms that extend into the littoral and form chalk cliffs. They are an unusual feature because of the scarcity of hard substrates in the area. The subtidal chalk platforms extend offshore in a series of steps dissected by gullies. Species present include an unusually rich littoral algal flora, essentially of chalk-boring algae. Thanet remains the sole known location for some algal species. <u>Atlantic salt meadows</u> These develop when halophytic vegetation colonises soft intertidal sediments of mud and sand in areas protected from strong wave action. This vegetation forms the middle and upper reaches of saltmarshes, where tidal inundation still occurs but with decreasing frequency and duration. A wide range of community types is represented and the saltmarshes can cover large areas, especially where there has been little or no enclosure on the landward side. The vegetation varies	lamprey, river lamprey, twaite shad and waterbird assemblages. **Fisheries: Commercial marine and estuarine:** Threat to qualifying bird species, habitats, Sea Lamprey, River Lamprey, Twaite shad and waterbird assemblages. **Invasive species:** Threat to habitats. **Marine litter:** Pressure / threat to qualifying bird species, habitats, Sea Lamprey, River Lamprey, Twaite shad and waterbird assemblages. **Marine pollution incidents:** Threat to qualifying bird species, habitats, Sea Lamprey, River Lamprey, Twaite shad and waterbird assemblages.

European site	Area (ha)	Location in relation to the RCT boundary	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
			contains a representative, rare, or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region (Sandbanks which are slightly covered by sea water all the time; Estuaries; Mudflats and sandflats not covered by seawater at low tide; and Atlantic salt meadows (Glauco-Puccinellietalia maritimae) ■ A wetland should be considered internationally important if it supports populations of plant and/or animal species important for maintaining the biological diversity of a particular biogeographic	with climate and the frequency and duration of tidal inundation. Grazing by domestic livestock is particularly significant in determining the structure and species composition of the habitat type and in determining its relative value for plants, for invertebrates and for wintering or breeding waterfowl. Sea lamprey *Petromyzon marinus* and River lamprey *Lampetra fluviatilis* Distribution of supporting habitat: Restore the distribution and continuity of the feature and its supporting habitat, including where applicable its component vegetation types and associated transitional vegetation types, across the site Biological connectivity: See general advice for river habitat (H3260) Biotope mosaic: See general advice for river habitat (H3260) Flow regime: See general advice for river habitat (H3260). Integrity of off-site habitats: See general advice for river habitat (H3260) Riparian zone: See general advice for river habitat (H3260) Screening of intakes and discharges: See general advice for river habitat (H3260) Sediment regime: See general advice for river habitat (H3260) Soils, substrate and nutrient cycling: Restore the properties of the underlying soil types, including	

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			region (Due to unusual estuarine communities, reduced diversity and high productivity). ■ A wetland should be considered internationally important if it supports plant and/or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions (migration of Salmon *Salmo salar*, sea trout *Salmo trutta*, sea lamprey *Petromyzon marinus*, river lamprey *Lampetra fluviatilis*, allis shad *Alosa alosa*, twaite shad *Alosa. fallax*, and eel *Anguilla anguilla*. It is also of particular importance for migratory birds	structure, bulk density, total carbon, pH, soil nutrient status and fungal: bacterial ratio, within typical values for the supporting habitat Water quality – acidification: See general advice for river habitat (H3260) Water quality – nutrients: Restore the natural nutrient regime of the rivers, with any anthropogenic enrichment above natural/background concentrations limited to levels at which adverse effects on the feature are unlikely. Woody debris: See general advice for river habitat (H3260) Adaptation and resilience: Restore] the feature's ability, and that of its supporting habitat, to adapt or evolve to wider environmental change, either within or external to the site Conservation measures: Restore the management measures which are necessary to restore the structure, functions and supporting processes associated with the feature and/or its supporting habitats. Water quantity/quality: Where the feature or its supporting habitat is dependent on surface water and/or groundwater restore water quality and quantity to a standard which provides the necessary conditions to support the feature Twaite shad Alosa fallax Distribution of supporting habitat: Restore the distribution and continuity of the feature and its supporting habitat, including where applicable its	

European site	Area (ha)	Location in relation to the RCT boundary	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
			during spring and autumn). ■ A wetland should be considered internationally important if it regularly supports 20,000 or more waterbirds (species with peak counts in winter: 70,919 waterfowl) ■ A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird (lesser black-backed gull *Larus fuscus graell*, ringed plover *Charadrius hiaticula*, eurasian teal *Anas crecca*, northern pintail *Anas acuta*). ■ A wetland should be considered	component vegetation types and associated transitional vegetation types, across the site Biological connectivity: See general advice for river habitat (H3260) Biotope mosaic: See general advice for river habitat (H3260) Flow regime: See general advice for river habitat (H3260) Riparian zone: See general advice for river habitat (H3260) Sediment regime: See general advice for river habitat (H3260) Soils, substrate and nutrient cycling: Restore the properties of the underlying soil types, including structure, bulk density, total carbon, pH, soil nutrient status and fungal: bacterial ratio, within typical values for the supporting habitat Vegetation composition: invasive non-native species: See general advice for river habitat (H3260) Water quality – nutrients: Restore the natural nutrient regime of the rivers, with any anthropogenic enrichment above natural/background concentrations limited to levels at which adverse effects on the feature are unlikely. Woody debris: See general advice for river habitat (H3260) Adaptation and resilience: Restore the feature's ability, and that of its supporting habitat, to adapt or evolve to	

European site	Area (ha)	Location in relation to the RCT boundary	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
			internationally important if it is an important source of food for fishes, spawning ground, nursery and/or migration path on which fish stocks, either within the wetland or elsewhere, depend (The fish of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded).	wider environmental change, either within or external to the site Conservation measures: Restore the management measures (either within and/or outside the site boundary as appropriate) which are necessary to restore the structure, functions and supporting processes associated with the feature and/or its supporting habitats. Integrity of off-site habitats: See general advice for river habitat (H3260) Vegetation structure: cover of submerged macrophytes: See general advice for river habitat (H3260) Water quantity/ quality: Where the feature or its supporting habitat is dependent on surface water and/or groundwater restore water quality and quantity to a standard which provides the necessary conditions to support the feature Bewick's swan (Non-breeding) Habitat preference: shallow tidal waters, coastal lagoons, inland freshwater lakes and marshes and flooded pastures Diet: seeds, roots, and stems of aquatic plants, occasional small invertebrate, including mollusks and arthropods, and polycheate worms, and also some grass growing on dry land. Common shelduck (Non-breeding) Habitat preference: freshwater, coastal and wetlands. Diet: Invertebrates, small shellfish and aquatic snails	

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				Gadwall (Non-breeding) Habitat preference – Marshes, lakes, on migration also rivers, estuaries Diet – Leaves, shoots, mostly while swimming with head under water Dunlin (Non-breeding) Habitat preference: coastal all year round, preferring estuaries; in winter it feeds in large flocks and roosts in nearby fields and saltmarshes Diet: Insects, snails and worms Common redshank (Non-breeding) Habitat preference: estuaries and coastal lagoons Diet: insects, earthworms, molluscs and crustaceans Greater white-fronted goose (Non-breeding) Habitat preference: coastal wetlands, freshwater and farmland. Diet: Grass, clover, grain, winter wheat and potatoes.	
River Usk SAC	967.97	17km to the east of the RCT boundary.	Annex II species that are a primary reason for selection of this site: ■ Sea lamprey Petromyzon marinus ■ Brook lamprey Lampetra planeri	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation Riparian zone: Restore a patchy mosaic of natural woody and herbaceous (tall and short swards) riparian vegetation (except in upland areas above the natural tree line). The riparian zone should be sufficiently wide to act as a healthy and functional habitat zone within the river corridor.	**Conservation objectives:** ■ 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

European site	Area (ha)	Location in relation to the RCT boundary	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
			■ River lamprey Lampetra fluviatilis ■ Twaite shad Alosa fallax ■ Atlantic salmon Salmo salar ■ Bullhead Cottus gobio ■ Otter Lutra lutra Annex II species present as a qualifying feature, but not a primary reason for site selection: ■ Allis shad *Alosa alosa* Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: ■ Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	Woody debris: Restore the presence of coarse woody debris within the structure of the channel (except in upland areas above the natural tree line). In smaller watercourses, temporary debris dams should be a feature of channel dynamics. Water course flow: Restore the natural flow regime of the river, with daily flows as close to what would be expected in the absence of abstractions and discharges (the naturalised flow). Sediment regime: Restore the natural supply of coarse and fine sediment to the river Thermal regime: Restore a natural thermal regime to the river subject to a changing climate, ensuring that water temperatures should not be significantly artificially elevated Biological connectivity: The movement of characteristic biota should not be artificially constrained. Key structural, influential and/or distinctive species: Restore the abundance of the species listed to enable each of them to be a viable component of the Annex I habitat feature. Fisheries: Restore fish densities at or to a level at or below the natural environmental carrying capacity of the river, and below historical levels (this means no stocking to previously unstocked rivers or river sections). Trout stocking should not elevate densities of adult trout (stocked plus natural) to more than 1-3 fish 100m-2, this being the estimated range of natural trout densities in SAC rivers.	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. In the case of the Usk Tributaries SSSI, the SAC habitat is not

European site	Area (ha)	Location in relation to the RCT boundary	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
				Vegetation structure: riparian zone: Restore grazing activity in the riparian zone and in the river channel at or to suitably low levels. Vegetation structure: cover of submerged macrophytes: Restore a sufficient proportion of all aquatic macrophytes to allow them to reproduce in suitable habitat and remain unaffected by river management practices. Coverage and composition and aquatic plants should reflect un-impacted or minimally impacted conditions Screening of intakes and discharges: All intakes and discharges likely to trap a significant number of individuals of characteristic species are being adequately screened. Supporting off-site habitat: Habitats beyond the site boundary upon which characteristic biological communities of the site depend should be restored to a state that does not impair the full expression of the characteristic biota within the site. Water chemistry – alkalinity: Maintain natural levels of alkalinity Water quality – nutrients: The natural nutrient regime of the river should be protected, with any anthropogenic enrichment above natural/background concentrations should be limited to levels at which adverse effects on characteristic biodiversity are unlikely. Water quality - organic pollution: Organic pollution levels should be controlled to levels that have minimal impact on the characteristic biota Water quality – acidification: Maintain levels of acidity to those which reflect unimpacted conditions [adviser to	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. ■ 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. ■ 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 2of this document.

European site	Area (ha)	Location in relation to the RCT boundary	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
				add values of Acid Neutralising Capacity (ANC) and pH used within FCTs (these are the same numerical values as used to protect high ecological status under the WFD in the UK)]. Water quality - other pollutants: Achieve at least 'Good' chemical status (i.e. compliance with relevant Environmental Quality Standards). Sea lamprey *Petromyzon marinus*, Brook lamprey *Lampetra planeri*, and River lamprey *Lampetra fluviatilis* Distribution of supporting habitat: Restore the distribution and continuity of the feature and its supporting habitat, including where applicable its component vegetation types and associated transitional vegetation types, across the site. Extent of supporting habitat: Restore the total extent of the habitat(s) H3260 (2147.64 hectares). Biological connectivity: See general advice for river habitat (H3260). Biotope mosaic: See general advice for river habitat (H3260). Flow regime: See general advice for river habitat (H3260). Integrity of off-site habitats: See general advice for river habitat (H3260). Riparian zone: See general advice for river habitat (H3260). Screening of intakes and discharges: See general advice for river habitat (H3260).	■ 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 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. ■ 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

European site	Area (ha)	Location in relation to the RCT boundary	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
				Sediment regime: See general advice for river habitat (H3260). Soils, substrate and nutrient cycling: Restore the properties of the underlying soil types, including structure, bulk density, total carbon, pH, soil nutrient status and fungal: bacterial ratio, within typical values for the supporting habitat. Water quality – acidification: See general advice for river habitat (H3260). Water quality – nutrients: Restore the natural nutrient regime of the rivers, with any anthropogenic enrichment above natural/background concentrations limited to levels at which adverse effects on the feature are unlikely. Woody debris: See general advice for river habitat (H3260). Adaptation and resilience: Restore] the feature's ability, and that of its supporting habitat, to adapt or evolve to wider environmental change, either within or external to the site Conservation measures: Restore the management measures which are necessary to restore the structure, functions and supporting processes associated with the feature and/or its supporting habitats. Water quantity/quality: Where the feature or its supporting habitat is dependent on surface water and/or groundwater restore water quality and quantity to a standard which provides the necessary conditions to support the feature Twaite shad *Alosa fallax* and Allis shad *Alosa alosa*	supply (as described in sections 2.2 and 5). 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 4.2.4 ■ 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. **Pressures and threats:** **Barriers:** Physical modification of barriers is required where depth/velocity/duration of flows is unsuitable to allow passage. Management to reduce or remove the effect of this barrier is a high priority for the River Usk SAC. Barriers resulting from vibration, chemicals, low dissolved oxygen and artificially high sediment levels must be prevented at key times (generally March to June). **Development:** Development pressure in the lower catchment can cause temporary physical, acoustic, chemical and sediment barrier effects. 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). **Noise:** The impact of acoustic (ie noise/vibration) and sediment/chemical barriers arising from plans or projects . When arising from construction or other development related activities it may be necessary to

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				Distribution of supporting habitat: Restore the distribution and continuity of the feature and its supporting habitat, including where applicable its component vegetation types and associated transitional vegetation types, across the site Extent of supporting habitat: Restore the total extent of the H3260 habitat which support the feature (2147.64 hectares) Biological connectivity: See general advice for river habitat (H3260) Biotope mosaic: See general advice for river habitat (H3260) Flow regime: See general advice for river habitat (H3260) Riparian zone: See general advice for river habitat (H3260) Sediment regime: See general advice for river habitat (H3260) Soils, substrate and nutrient cycling: Restore the properties of the underlying soil types, including structure, bulk density, total carbon, pH, soil nutrient status and fungal: bacterial ratio, within typical values for the supporting habitat Vegetation composition: invasive non-native species: See general advice for river habitat (H3260) Water quality – nutrients: Restore the natural nutrient regime of the rivers, with any anthropogenic enrichment above natural/background concentrations limited to	restrict the timing of such activities. 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 migration. **Flow:** The impact of flow depletion resulting from a small number of major abstractions. Flow targets have been set which are considered likely to significantly reduce or remove the impacts on SAC features. There are also requirements for screening of intakes to reduce or remove the impact of impingement and entrainment on juvenile fish migrating downstream. **Entrainment:** Entrainment in water abstractions directly impacts on population dynamics through reduced recruitment and survival rates. **Fishing**: Anglers occasionally fish for shad, and they are sometimes taken in quite large numbers. Commercial fishermen also take shad as a by-catch, with whitebait and shrimp fishing being of particular concern. 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. **Pollution:** Sources of diffuse pollution and siltation are from agriculture, including fertiliser run-off, livestock manure, silage effluent and soil erosion from ploughed land. Among toxic pollutants, sheep dip and silage effluent present a particular threat to aquatic animals in this predominantly rural area **Tree management:** Maintenance of intermittent tree cover in conjunction with retention of woody debris helps to ensure that habitat conditions are suitable. At

European site	Area (ha)	Location in relation to the RCT boundary	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
				levels at which adverse effects on the feature are unlikely. Woody debris: See general advice for river habitat (H3260) Adaptation and resilience: Restore the feature's ability, and that of its supporting habitat, to adapt or evolve to wider environmental change, either within or external to the site Conservation measures: Restore the management measures (either within and/or outside the site boundary as appropriate) which are necessary to restore the structure, functions and supporting processes associated with the feature and/or its supporting habitats. Integrity of off-site habitats: See general advice for river habitat (H3260) Vegetation structure: cover of submerged macrophytes: See general advice for river habitat (H3260) Water quantity/ quality: Where the feature or its supporting habitat is dependent on surface water and/or groundwater restore water quality and quantity to a standard which provides the necessary conditions to support the feature <u>Atlantic salmon *Salmo salar*</u> Distribution of supporting habitat : Restore the distribution and continuity of the feature and its supporting habitat, including where applicable its component vegetation types and associated	least 50% high canopy cover to the water course/banks should be maintained, where appropriate. **Invasive non-native plants:** Giant hogweed, Himalayan balsam and Japanese knotweed should be actively managed to control their spread and hopefully reduce their extent in the SAC. The Natura 2000 Standard Data Form for the Site also indicates the following additional pressures/threats: ■ Grazing; and ■ Other ecosystem modifications.

European site	Area (ha)	Location in relation to the RCT boundary	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
				transitional vegetation types, across the site. See general advice for river habitat (H3260) Extent of supporting habitat: Restore the total extent of the H3260 habitat (2147.64 hectares). See general advice for river habitat (H3260). Biological connectivity: See general advice for river habitat (H3260). Biotope mosaic: See general advice for river habitat (H3260) Flow regime: See general advice for river habitat (H3260) Riparian zone: See general advice for river habitat (H3260) Sediment regime: See general advice for river habitat (H3260) Soils, substrate and nutrient cycling: Restore the properties of the underlying soil types, including structure, bulk density, total carbon, pH, soil nutrient status and fungal: bacterial ratio, within typical values for the supporting habitat. See general advice for river habitat (H3260) Thermal regime: See general advice for river habitat (H3260) Vegetation composition: invasive non-native species: See general advice for river habitat (H3260) Water quality - acidification: See general advice for river habitat (H3260) Water quality – nutrients: Restore the natural nutrient regime of the river with any anthropogenic enrichment	

European site	Area (ha)	Location in relation to the RCT boundary	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
				above natural/background concentrations limited to levels at which adverse effects on the feature are unlikely. Woody debris: See general advice for river habitat (H3260) Adaptation and resilience: Restore the feature's ability, and that of its supporting habitat, to adapt or evolve to wider environmental change, either within or external to the site. See general advice for river habitat (H3260). Conservation measures: Restore the management measures (either within and/or outside the site boundary as appropriate) which are necessary to restore the structure, functions and supporting processes associated with the feature and/or its supporting habitats. See advice for river habitat (H3260) Integrity of off-site habitats: See general advice for river habitat (H3260). Vegetation structure: cover of submerged macrophytes: See general advice for river habitat (H3260). Water quantity / quality: Where the feature or its supporting habitat is dependent on surface water and/or groundwater, restore water quality and quantity to a standard which provides the necessary conditions to support the feature [adviser to provide site-specific standards where available]. <u>Bullhead *Cottus gobio*</u> Distribution of supporting habitat: Restore the distribution and continuity of the feature and its	

European site	Area (ha)	Location in relation to the RCT boundary	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
				supporting habitat, including where applicable its component vegetation types and associated transitional vegetation types, across the site. See general advice for river habitat (H3260). Extent of supporting habitat: Restore the total extent of the H3260 habitats (2147.64 ha). See general advice for river habitat (H3260). Biological connectivity: See general advice for river habitat (H3260). Biotope mosaic: See general advice for river habitat (H3260). Flow regime: See general advice for river habitat (H3260). Integrity of off-site habitats: See general advice for river habitat (H3260). Riparian zone: See general advice for river habitat (H3260). Sediment regime: See general advice for river habitat (H3260). Soils, substrate and nutrient cycling: Restore the properties of the underlying soil types, including structure, bulk density, total carbon, pH, soil nutrient status and fungal: bacterial ratio, within typical values for the supporting habitat. Vegetation composition: invasive non-native species: See general advice for river habitat (H3260). Vegetation structure: cover of submerged macrophytes: See general advice for river habitat (H3260).	

European site	Area (ha)	Location in relation to the RCT boundary	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
				Water quality – acidification: See general advice for river habitat (H3260). Water quality - nutrients: Restore the natural nutrient regime of the rivers, with any anthropogenic enrichment above natural/background concentrations limited to levels at which adverse effects on the feature are unlikely. Woody debris: See general advice for river habitat (H3260) Adaptation and resilience: Restore the feature's ability, and that of its supporting habitat, to adapt or evolve to wider environmental change, either within or external to the site. Conservation measures: Restore the management measures (either within and/or outside the site boundary as appropriate) which are necessary to restore the structure, functions and supporting processes associated with the feature and/or its supporting habitats. See general advice for river habitat (H3260). Water quantity / quality: Where the feature or its supporting habitat is dependent on surface water and/or groundwater, Restore water quality and quantity to a standard which provides the necessary conditions to support the feature <u>Otter *Lutra lutra*</u> Distribution of supporting habitat: Restore the distribution and continuity of the feature and its supporting habitat, including where applicable its	

European site	Area (ha)	Location in relation to the RCT boundary	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
				component vegetation types and associated transitional vegetation types, across the site. Extent of supporting habitat: Restore the total extent of the H3260 habitat 2147.64ha See : general advice for river habitat (H3260). Abundance of breeding and resting places: Restore an abundance of natural breeding and resting sites within the site. See general advice for river habitat (H3260). Availability of refugia: Restore an abundance of dense bankside vegetation to limit significant disturbance to animals. See general advice for river habitat (H3260). Food availability: Restore fish biomass within expected natural levels for the supporting habitat (subject to natural fluctuations). See general advice for river habitat (H3260). Habitat quality - coastal habitat: Restore the quality of supporting [coastal] habitat features. Habitat quality - river habitat: Restore the quality of supporting river habitat features, based on the advice for H3260 habitat, based on natural river function, which provides a characteristic biotope mosaic that caters for otters. See general advice for river habitat (H3260). Habitat quality - waterway habitat: Restore the quality of supporting waterways habitat features. Habitat quality [coastal sites]: Freshwater availability: Restore the overall availability and quality of supporting freshwater habitat (i.e. the number of streams or water bodies on or near the site) See general advice for river habitat (H3260).	

European site	Area (ha)	Location in relation to the RCT boundary	Qualifying features	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend	Key vulnerabilities and environmental conditions to support site integrity
				Soils, substrate and nutrient cycling: Restore the properties of the underlying soil types, including structure, bulk density, total carbon, pH, soil nutrient status and fungal: bacterial ratio, within typical values for the supporting habitat. Water flow [rivers]: Restore the natural flow regime of the river to that close to what would be expected in the absence of abstractions and discharges (the 'naturalised' flow). See general advice for river habitat (H3260). Water quality / quantity: Restore water quality and quantity to a standard which provides the necessary conditions to support the feature See general advice for river habitat (H3260). Adaptation and resilience: Restore the feature's ability, and that of its supporting habitat, to adapt or evolve to wider environmental change, either within or external to the site. Connectivity within and to the site: Ensure there are no significant artificial barriers to the safe passage and movement of otters into, within and away from the site. See general advice for river habitat (H3260). Conservation measures: Restore the management measures (either within and/or outside the site boundary as appropriate) which are necessary to restore the structure, functions and supporting processes associated with the feature and/or its supporting habitats. See general advice for river habitat (H3260).	

Appendix D

Screening matrix

D.1 The table below shows which types of impacts on European sites could potentially result from each of the elements of the Revised LDP. Where a component of the consultation document is not expected to have a particular type of impact, the relevant cell is shaded green. Where there could potentially be a certain type of impact, this is shown in orange. The final column sets out the nature of the potential significant effects if they were to arise. Where uncertain or likely significant effects are identified, these are required to be considered further via the Appropriate Assessment.

Table D.1: Screening matrix

Component of the Preferred Strategy consultation document	Likely activities (operation) to result as a consequence of the proposal	Potential effects if proposal implemented	Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?
Preferred Strategy	Development of 8,450 new homes. Employment development (3,990 jobs). Increase in vehicle traffic. Increased demand for water abstraction/treatment. Increased recreation activities.	Physical damage and loss of habitat. Non-physical disturbance. Non-toxic contamination. Air pollution. Erosion/trampling. Interruption to hydrological regimes.	Yes. The overall scale of new development proposed is likely to result in likely significant effects as detailed.
Potential Key Site 1 – Penrhys Village (NSA)	Advance plans in place for the redevelopment of the village of Penrhys, including replacing the existing housing with up to 700 new dwellings (500 within the plan period), alongside the replacement and improvement of public facilities and services.	Air pollution Water quantity	Yes. This policy makes provision for up to 700 new dwellings (500 within the plan period) and therefore may contribute to effects including air pollution and changes to water quantity. All other impacts are screened out due to the site's distance from any European site.
Potential Key Site 2- Land South of Hirwaun NSA)	Proposals include 15-20ha of employment land and 30-40ha of land appropriate for future tourism opportunities and investment. This will partly be delivered through SP7 and SP9 (see below).	Physical damage and loss (offsite only) Non-toxic contamination Air pollution Recreational pressures Water quantity	Yes. This policy makes provision for employment land and tourism opportunities and therefore may contribute to effects including physical damage and loss (offsite only), non-toxic contamination, air pollution, recreational

Component of the Preferred Strategy consultation document	Likely activities (operation) to result as a consequence of the proposal	Potential effects if proposal implemented	Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?
			pressures and changes in water quantity.
Potential Key Site 3 – Land at Llanilid (SSA)	Proposals to create a sustainable mixed-use development with potential for over 3,000 houses although only a maximum of 1,500 will come forward during the plan period to 2037.	Air pollution Recreation Water quantity	Yes. This policy makes provision for over 3000 new dwellings and therefore may contribute to effects including air pollution, recreational pressures and changes in water quantity. All other impacts have been screened out due to the distance of the site from any European site.
Potential Key Site 4 – Llanilltud Faerdref/Efail Isaf (SSA)	Proposals for up to 1,000 new homes, as well as a new school, local shops, shared working hub, playing fields and green infrastructure networks.	Air pollution Recreation Water quality	Yes. This policy makes provision for 1000 new dwellings and local facilities and therefore may contribute to effects including air pollution, recreational pressures and changes in water quantity. All other impacts have been screened out due to the distance of the site from any European site.
SP1 Climate Change and Carbon	None – this policy outlines the requirement for development proposals to demonstrate climate consideration and reduce carbon emissions, including choosing development sites in sustainable locations.	N/A	No
SP2 Placemaking and Sustainable Communities	None – this policy outlines the expectation for development to contribute to the vision of the future of RCT, creating sustainable places that promote the prosperity, health, happiness and well-being of the community.	N/A	No
SP3 Flood Risk Management	None – this policy outlines the requirement for new developments to be located in places which would not put them at an unacceptable risk of flooding, whilst ensuring all development is appropriately flood resilient and resistant.	N/A	No

Component of the Preferred Strategy consultation document	Likely activities (operation) to result as a consequence of the proposal	Potential effects if proposal implemented	Is the policy likely to have significant effects and therefore need to be scoped into the Appropriate Assessment?
SP4 Biodiversity and the Natural Environment	None – this policy outlines how the Revised LDP will seek to maintain and enhance the priority habitats and species within RCT and enhance biodiversity.	N/A	No
SP5 Green Infrastructure and Open Space	None – this policy outlines the responsibility of the Revised LDP to protect, manage and enhance green infrastructure within RCT.	N/A	No
SP6 - Housing	This policy outlines the housing requirement of 9,295 dwellings within the plan period 2022-2037	Physical damage and loss Non-physical disturbance Non-toxic contamination Air pollution Recreational pressure Water quantity	Yes. This policy makes provision for 9,295 dwellings and therefore may contribute to effects, including physical damage and loss, non-physical disturbance, non-toxic contamination, air pollution, recreational pressure and changes in water quantity.
SP7 Employment Land and the Economy	This policy outlines the support for new and expanding RCT businesses and development proposals for B1, B2 and B8 use classes. The policy includes employment allocations and land within existing employment landbank sites.	Physical damage and loss Non-physical disturbance Non-toxic contamination Air pollution Water quantity	Yes. This policy allocates land for employment uses and therefore may contribute to effects including physical damage and loss, non-physical disturbance, non-toxic contamination, air pollution and changes in water quantity.
SP8 Settlement Centres	None – this policy outlines the role of settlement centres in RCT and sets out the types of developments that will be appropriate within those centres but does not directly allocate land for development.	N/A	No
SP 9 Tourism	The policy outlines the support of the Revised LDP for tourism developments and includes the Key Site of Land South of Hirwaun.	Physical damage and loss (offsite only) Non-toxic contamination Air pollution Recreational pressures Water quantity	Yes. This policy supports tourism developments, including Key Site 2 and therefore may contribute to effects including physical damage and loss (offsite only), non-toxic contamination, air pollution, recreational pressures and changes in water quantity.

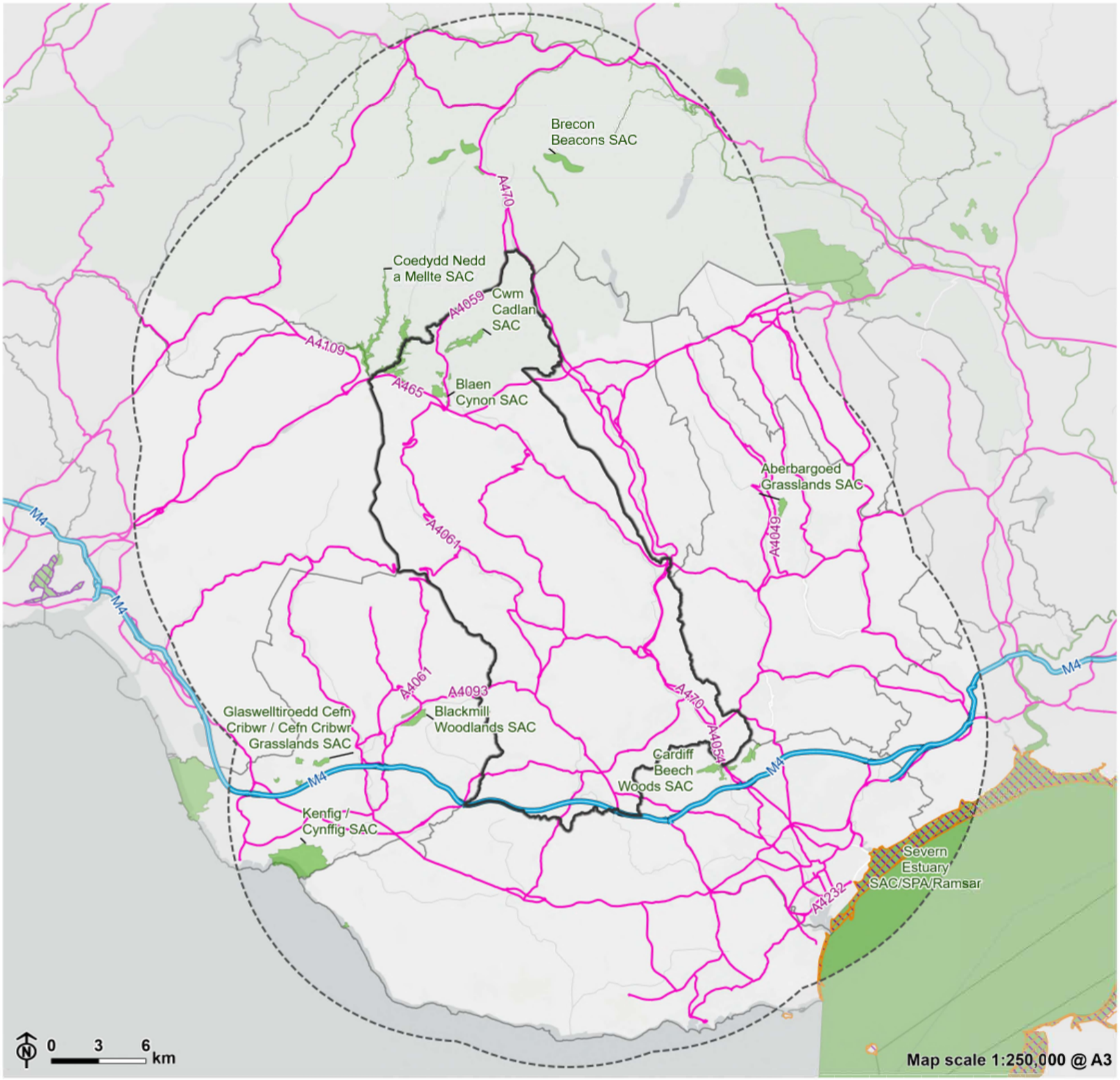
Appendix E

Map of Strategic Roads within 200m of European sites

Rhondda Cynon Taf: SA and HRA of Local Plan
Rhondda Cynon Taf Council

LUC

Figure E.1: European sites and strategic roads within 15km



Rhondda Cynon Taf boundary
15km buffer
Neighbouring Local Authority
Special Protection Area
Ramsar site
Special Area of Conservation
Motorway
A road

04/01/2024EB:Horton_K