Neath Port Talbot Replacement Local Development Plan

Habitats Regulations Assessment: Preferred Strategy

On behalf of **Neath Port Talbot Council**

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Neath Port Talbot Council

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Contents

Figures

Tables

Appendices

Executive Summary

Introduction

Stantec has been commissioned by Neath Port Talbot Council (NPTC), to undertake an Integrated Sustainability Appraisal (ISA) of the emerging Replacement Local Development Plan (RLDP), a Strategic Environmental Assessment (SEA) and a Habitats Regulations Assessment (HRA). This report comprises the HRA. The objective of the HRA is to identify potential impact pathways of the RLDP that may result in Likely Significant Effect(s) (LSEs) and, where relevant, lead to adverse effect(s) on the integrity of European Sites, including Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites. This HRA examines potential impacts from policies within the RLDP alone, as well as in-combination (i.e. the Plan), and in-combination with other Plans and Projects. Where appropriate, mitigation measures are detailed. With due consideration of the current stage of development of the RLDP, including refinement of policy wording and/or certainty of site allocation, the Appropriate Assessment (HRA: Stage 2) should be revisited at the Deposit Plan stage.

Legislative context

Under the Conservation Habitats and Species Regulations 2017 (as amended), there is a requirement to assess the impacts on European Sites. To examine whether a Plan or Project is at risk of affecting the integrity of a European Site, HRA must be carried out by a competent authority, including AA, where necessary, prior to approval of the Plan or Project.

HRA process

The assessment was undertaken in accordance with national HRA guidance. A search radius of 15km from the NPT area was carried out to identify European Sites within and surrounding the RLDP. Following this a search of potential impact pathways were assessed to ‘screen out’ European Sites that did not have a linkage to the RLDP area, including hydrological and functional linkages. The following four European Designated Sites have been screened in and included in the HRA AA:

- Kenfig / Cynffig SAC
- Crymlyn Bog / Cors Crymlyn SAC
- Crymlyn Bog / Cors Crymlyn Ramsar
- Glaswelltiroedd Cefn Cribwr / Cefn Cribwr Grasslands SAC

Findings

NPTC detailed 18 Strategic Policies under the emerging RLDP. These Strategic Policies were assessed alone, in-combination (i.e. The Plan) and in-combination with other Plans and Projects. The following Strategic Policies within the emerging NPT RLDP have been Screened In for Appropriate Assessment:

- SP6 Strategy Areas;
- SP8 Housing;
- SP9 Retail and Commercial Centres;
- SP10 Tourism; and
- SP11 Economic Recovery

A range of potential impact pathways were considered during this assessment. Four of the Strategic Policies with the RLDP protect against adverse effect, therefore the following impact pathways were screened out from further assessment: direct disturbance to species and habitat, direct modification of European Site habitats, loss of functionally linked habitat and noise and vibration impacts. The following impact pathways were identified within the RLDP:

- Atmospheric pollution - Potential for increased soil and air pollution through construction activities and increase in traffic.
- Recreational pressures - Increased disturbance through human activity as a result of the following; outdoor sports and leisure activities for recreational use; risk of fire and spread of invasive non-native species and/or problematic native species;
- Water quality - Potential for pollution to surface waters (limnic & terrestrial, marine & brackish), groundwater (point sources and diffuse sources) and marine water pollution; and
- Water quantity, level and flow (hydrology) - Human-induced changes in hydraulic conditions.

Based on available data, LSEs could be excluded for some of the identified impact pathways with regards to the four European Sites screened in for AA. The following impact pathways were screened in for AA with respect the European Sites assessed:

- Kenfig / Cynffig SAC
  - Recreational Pressure
  - Water Quality
  - Hydrology
  - Atmospheric Pollution
- Crymlyn Bog / Cors Crymlyn SAC and Ramsar
  - Water Quality
  - Water Quantity
  - Atmospheric Pollution
- Glaswelltiroedd Cefn Cribwr / Cefn Cribwr Grasslands SAC
  - Water Quality
  - Water Quantify
  - Atmospheric Pollution

In-combination effects with other Plans and Projects have been considered and LSE cannot be excluded on the basis that many of the Plans and Projects assessed share potential impact pathways with the RLDP.

Conclusion of Appropriate Assessment

The Appropriate Assessment concludes that adverse effect of site integrity cannot be excluded at the Preferred Strategy stage of the Plan for Kenfig SAC in relation to recreational pressure and water quality and for Cefn Cribwr Grasslands SAC in relation to water quality, and that these impact pathways will need to be revisited at the Deposit Plan stage, with further information in relation to policy wording and allocation of development sites.

Other impact pathways in relation to the European Sites should be reassessed at the Deposit Plan stage to ensure that the assessment of no adverse effect on site integrity can be concluded.

1. Introduction

1.1 Overview

1.1.1 Stantec has been commissioned by Neath Port Talbot Council (NPTC), to undertake an Integrated Sustainability Appraisal (ISA) of the Replacement Local Development Plan (RLDP), a Strategic Environmental Assessment (SEA) and a Habitats Regulations Assessment (HRA).

1.1.2 The Neath Port Talbot (NPT) Local Development Plan (LDP) (2011-2026) details the strategic policies proposed for the region and was adopted in 2016. Following review and further engagement with stakeholders, revisions to the LDP were considered necessary and a RLDP is therefore being prepared.

1.1.3 The objective of the HRA is to identify any aspects of the RLDP that could result in Likely Significant Effects (LSEs) and, where relevant adverse effects on the integrity of European Sites, including Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and, as a matter of Government policy, Ramsar sites. The HRA assesses potential environmental impacts from the RLDP alone, as well as in-combination with other plans and projects, advising on appropriate policy mechanisms for delivering mitigation where required.

1.1.4 This HRA Screening report comprises the first stage of the HRA process (detailed in Section 2.2 below). The purpose of this HRA Screening Report is to test whether the RLDP proposed for the NPTC (hereafter referred to as 'the Plan') is likely to have significant effects on the integrity of sites designated of European level biodiversity interest, either alone, or in combination with other plans or projects.

1.1.5 The conclusions of the HRA Screening Report will be discussed with NPTC and Natural Resources Wales (NRW) and may inform changes to the RLDP as it is further revised.

1.2 Terminology

1.2.1 For the avoidance of doubt, the following terminology will be used throughout the HRA Report:

- The Plan: the proposed RLDP 2023-2038 for NPTC.
- The Options: the Strategic Policies proposed for the RLDP 2023-2038 for NPT.
- European Sites: for the purposes of the HRA Screening Report, 'European Sites' relates to Special Areas of Conservation (SAC), Special Protection Areas (SPA), both considered now to be part of the National Site Network, and Ramsar sites.

1.3 Plan Description

1.3.1 The LDP (2011-2026) for the area was adopted by NPTC in 2016. **Appendix A** includes a map showing the NPT Area.

1.3.2 NPTC has undertaken regular monitoring of the LDP since 2016 and prepared a LDP Review Report (July 2020) which concluded that the LDP was subject to a 'Full Review' in accordance with applicable statutory provisions. In particular, a RLDP is needed to take account of a range of new Acts, policy frameworks, initiatives, evidence and spatial issues at national, regional and local levels since the adoption of the existing LDP. The HRA Screening Report will consider each of the Strategic Policies proposed for the RLDP (hereafter 'Options') in isolation, the Options in-combination with one another (i.e. consideration of the Plan), and the Plan in-combination with other Plans or Projects.

1.4 Legislative Context

1.4.1 The 'Conservation of Habitats and Species Regulations 2017 (as amended)' (the 'Habitats Regulations') transposed certain aspects of 'the Habitats Directive' (Council Directive 92/43/EEC) and 'the Wild Birds Directive' (Directive 2009/147/EC) (together known as the 'Nature Directives') (including various amendments) into domestic law.

1.4.2 To make such legislation operable following the UK departure from the European Union (i.e. from 1st January 2021), changes have been made to the Conservation of Habitats and Species Regulations 2017 (as amended) by the 'Conservation of Habitats and Species (Amendment) (EU Exit) Regulations, 2019'. Most of these changes relate to the transfer of functions from the European Commission to the relevant domestic authorities, with all other processes and terms remaining unchanged, such that the strict protection afforded to sites, habitats and species, including wild birds, continues through the Conservation of Habitats and Species Regulations 2017 (as amended).

1.4.3 The Conservation of Habitats and Species Regulations 2017 (as amended), with changes made by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations, 2019, provides for the designation and protection of important ecological sites already designated under the Nature Directives including SAC and SPA and any further sites designated under these Regulations (together forming a new 'National Site Network' in the UK), as well as Ramsar Sites (which do not form part of the National Site Network, but remain protected in the same way as SAC and SPA in accordance with national planning policy).

1.4.4 Where there is a risk of the Plan resulting in adverse effects on European Sites, there is also requirement (in accordance with Regulation 105 of the of the Conservation of Habitats and Species Regulations 2017 (as amended), for the plan-making authority (NPTC) to make an 'AA' of the Plan on a European Site, in view of that European Site's Conservation Objectives; i.e., to undertake a HRA. Regulation 105 goes on to say that '*the plan-making authority must give effect to the land-use plan only after having ascertained that it will not adversely affect the integrity of the European Site…*'. The HRA process (as detailed within **Section 2**) involves the completion of an initial 'Screening Stage', followed by an 'AA' if the Plan is considered likely to have a significant impact on a European Site. Where it is not possible to identify suitable measures to address the LSE, or uncertainty remains, consideration of Stage 3 (Alternative Solutions) is required.

1.4.5 Habitats Regulations Assessment (HRA) refers to the assessment of the potential effects of a development project on one or more European Sites, including SPAs and SACs. The Government also expects potential SPAs (pSPAs), candidate (cSACs), and any confirmed HRA compensatory habitat to be considered in the same way.

1.4.6 For the purposes of this HRA Screening Report and in accordance with the Habitats Regulations and Welsh Government Policy (Technical Advice Note 5, September 2009), 'European Sites' are defined as:

- Special Protection Areas (SPAs) are classified under the European Council Directive 'on the conservation of wild birds' (2009/147/EC) (the 'Wild Birds Directive') for the protection of wild birds and their habitats (including particularly rare and vulnerable species listed in Annex 1 of the Directive, and migratory species).
- and Special Areas of Conservation (SACs) are designated under the Habitats Directive (92/43/EEC) and target particular habitats and/or species identified as being of European importance (sites which are part of the Natura 2000 network or 'National Site Network');
- Candidate Special Areas of Conservation (cSACs) proposed to the Commission by the Welsh Ministers or the Secretary of State under Article 4(1) of the Habitats Directive;
- Sites of Community Importance (SCIs) adopted by the Commission under Article 4(2) of the EC Habitats Directive;

- Sites hosting priority natural habitat types or priority species in respect of which consultation has been initiated under Article 5(1) of the Habitats Directive;
- Potential SPAs and possible SACs being considered by the Secretary of State for classification as a SPA/ SAC; and
- Ramsar Sites and proposed Ramsar Sites (Wetlands of International Importance listed under the Ramsar Convention 1971).
- European offshore marine sites as defined in regulation 15 of the Offshore Marine Nature Conservation (Natural Habitats, &c.) Regulations 2007 (S.I. 2007/1842).

1.5 Purpose of HRA

1.5.1 As outlined in Section 1.4, in accordance with Regulation 105 of the Conservation of Habitats and Species Regulations 2017 (as amended), it is the responsibility of the plan-making authority (in this case NPTC) to determine whether the Plan will have a significant effect on a European Site (whether alone or 'in-combination' with other Plans or Projects), in view of that European Site's Conservation Objectives, i.e., to undertake a HRA. This report considers the initial stage of the HRA process: Stage 1: Screening. This report is intended to provide preliminary information to NPTC, as the plan-making authority, and other stakeholders, to inform further discussion with regard to the policies proposed within the RLDP and associated mitigation that may be required. The findings of this report and subsequent discussions may inform changes to the RLDP as it is further revised; and / or provide the basis from which a future project-level HRAs may be produced.

1.6 Quality Assurance

1.6.1 The HRA Report was completed, reviewed and authorised by experienced ecologists, all of whom are members of the Chartered Institute of Ecology and Environmental Management (CIEEM) and bound by the Code of Professional Conduct of CIEEM.

1.7 Consultation

1.7.1 At this stage, consultation has not been undertaken regarding this HRA screening report specifically. However public consultation will be undertaken alongside the Preferred Strategy on the Integrated Sustainability Appraisal, Strategic Environmental Assessment, Candidate Sites Register and HRA for the RLDP.

2. Methodology

2.1 Overview

2.1.1 This document has been prepared based on the methodology for HRA set out in national guidance (Development Plans Manual (DPM) Edition 3, 2020). The guidance sets out a four-stage approach to HRA (as listed below) and emphasises the iterative nature of the process:

- Stage 1: Screening for Likely Significant Effects (LSE)
- Stage 2: Appropriate Assessment and the Integrity Test
- Stage 3; Alternative Solutions
- Stage 4: Imperative Reasons of Overriding Public Interest and Compensatory Measures

2.2 Guidance documents

2.2.1 The following guidance documents were followed and referred to throughout this assessment:

- Development Plans Manual (DPM) Edition 3 (GOV.WALES, 2020);
- DTA HRA Handbook (Tyldesley and Chapman, 2013);
- Technical Advice Note (TAN) 5: nature conservation and planning (GOV.WALES, 2009); and
- Welsh Government Guidance, 'Habitats regulations assessments: protecting a European site' (gov.wales/habitats-regulations-assessments-protecting-european-site-html), published 2021.

2.3 HRA Stages

Stage 1: Screening

2.3.1 Following evidence gathering stage to determine the European Sites which could potentially be affected by the Plan and their determining interests; the first stage of the HRA is a screening process to consider if the policies and proposals in the Plan may be likely to have a significant effect on the qualifying features of a European site.

2.3.2 In line with national guidance, the screening exercise is not limited to the Authority's area, but also identifies all European Sites within a reasonable distance of the Plan making authority boundary, or where there is a pathway that could result in an impact (i.e. watercourses).

2.3.3 For each European site, the following has been identified:

- The site's qualifying feature(s), and
- What impacts the qualifying feature(s) could be sensitive to (e.g. air pollution, recreational disturbance).

2.3.4 The European Court of Justice ruled on the interpretation of Article 6(3) in Waddenzee case (Case C-127/02) 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" (Paragraph 44);
- An effect should be considered 'significant', "if it undermines the conservation objectives" (Paragraph 48); and

- 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” (Paragraph 47).

2.3.5 A precautionary approach will be taken. The screening procedure will assess each policy and proposal in the plan to consider its likely effect, both on its own and ‘in combination’ with the effects of other plans and projects affecting the same European site. The likelihood of a significant effect will be assessed for each qualifying feature for which the designation was made, and for each designation where a site is designated, classified or listed under more than one international obligation.

2.3.6 In line with national guidance, an appropriate screening category will be developed and a reasoned conclusion against each policy/ proposal will identify the likely significant effect and focus the AA if required.

2.3.7 The outcome of the screening stage will be a clear statement of whether the Plan alone, or in combination with other Plans or projects, is likely to have a significant effect on the qualifying feature of any European site or not.

2.3.8 HRA case law (the 'Dilly Lane' case, 2008) determined that mitigation measures that were 'incorporated into the Project' or which 'formed part of the Project' could be taken into account at the Screening 'LSE' test stage of HRA (as long as they were effective). The ruling judge accepted that certain facets of a Project, which are intended to avoid or reduce negative impacts on a European Site (i.e. mitigation), can still be regarded as 'incorporated into the Project' if they are promoted that way by the developer.

2.3.9 However, a more recent ruling (Court of Justice of the European Union ('CJEU') People Over Wind and Sweetman v Coillte Teoranta (C-323/17) concluded that mitigation measures intended to avoid or reduce impacts on a European Site could not be regarded as part of 'the Project' and thus should not be taken into account at the Screening Stage of HRA when judging whether LSE on the integrity of a European Site could occur.

2.3.10 Whilst the above case law relates specifically to Projects (rather than Plans), it is now generally accepted that any measures inherently part of the scheme design (described as 'embedded mitigation' in this report) which are not specifically incorporated into the scheme for ecological reasons, but nonetheless reduce ecological effects, can be considered at the HRA Screening Stage. Measures which have been specifically added to the Project to achieve the purpose of avoiding or reducing its harmful effects on a European Site (described as 'additional mitigation' in this report) should not be considered at the Screening Stage and an AA is required. This approach is supported by articles in a recent HRA Journal (DTA Publications, 2018).

2.3.11 In the event that LSEs are identified at the Screening Stage, on the basis of objective information and in the absence of mitigation/ avoidance measures, the Competent Authority should proceed to the next stage of assessment (Stage 2: AA).

Stage 2: Appropriate Assessment and the Integrity Test

2.3.12 Where it is determined that LSEs cannot be excluded, the analysis must proceed to the next stage of HRA known as Appropriate Assessment (AA). Case law has clarified that AA is not a technical term. In other words, there are no particular technical analyses, or level of technical analysis, that are classified by law as belonging to the AA rather than the screening for LSEs.

2.3.13 The purpose of Stage 2 (AA), is to establish whether the Plan, by itself or in conjunction with other Plans and Projects, will adversely effect the conservation objectives of the site’s qualifying features, based on best scientific knowledge.

2.3.14 National guidance states that the scope and content of an AA will depend on the nature, location, duration and scale of the proposed Plan and the qualifying features of the European site. This will involve testing whether the Plan alone, or in combination, will affect the environmental factors needed to maintain site integrity, i.e. whether the Plan increases air pollution, increased recreational disturbance etc.

2.3.15 Taking account of the conclusions of the AA of the Plan's effects on the conservation objectives and having sought and had regard to the advice of the statutory consultees (NRW, Natural England, JNCC, as appropriate), the Competent Authority must determine whether the Plan will adversely affect the integrity of the European site.

2.3.16 TAN 5 says that "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 for which it was classified or listed".

2.3.17 The Plan making authority must therefore consider the Plan's likely and reasonably foreseeable effects to conclude whether it will have an adverse effect on the integrity of the European site. In doing so, account can be taken of the way in which the proposal or policy is intended to be carried out and whether conditions or other legally enforceable restrictions can be put in place to ensure site integrity will not be adversely affected.

2.3.18 National guidance is clear that the decision must be definite that the plan would not have an adverse effect. There are certain circumstances where it can be more appropriate to delay some aspects of HRA to a lower tier plan or project level assessment, although the plan level assessment must have entered the appropriate assessment stage before this can happen. To ascertain that there would be no adverse effect on the integrity of a European site, a plan-making body may only rely on mitigation measures in a lower tier plan or project if the following three criteria are all met: and the HRA of the lower tier plan or project is required as a matter of law or Government policy. The higher-level plan assessment cannot reasonably predict the effect on a European site in a meaningful way; whereas the lower tier plan or project level, which will identify more precisely the nature, timing, duration, scale or location of development, and thus its potential effects, will have the necessary flexibility over the exact nature, timing, duration, scale and location of the proposal to enable an adverse effect on site integrity to be avoided.

Stage 3: Alternative Solutions

2.3.19 Where the assessment has been unable to rule out adverse effects, they will need to be addressed by either of the following options:

- Changes made to the plan (delete policy/ proposal, relocate proposals beyond a zone of influence, change the scale, timing, duration or nature of the proposal, keep proposal below significance/ thresholds or limits).
- Incorporate 'mitigation measures'; The detail of proposed mitigation measures should be included in a site specific policy.

Step 4: Imperative Reasons of Overriding Public Interest and Compensatory Measures

2.3.20 If it can be demonstrated there are no alternative solutions, the competent authority may consider whether there are any imperative reasons of overriding public interest (IROPI) to justify why the plan must proceed despite the likely negative effect on site integrity.

2.3.21 This stage is only reached where an AA cannot rule out an adverse effect on the integrity of a European site and the LPA has decided not to amend and re-assess the proposal. In this situation it is not legal to enact or adopt the proposal unless three conditions are all met, namely that there are no alternative solutions, that there are imperative reasons of over-riding

public interest (IROPI), and compensatory measures are secured. The first test is a consideration of alternative solutions (that still deliver the objective of the proposal) and whether any of these have a lesser impact on European Sites. Only where it can be demonstrated that these alternative solutions do not have a lesser impact can the proposal progress to the second test of IROPI.

2.3.22 National guidance is clear that the Plan should only be adopted if the proposal or policy has to be carried out for IROPI.

2.3.23 TAN 5 is clear that in general, projects of national importance are most likely to support IROPI, whilst projects of a local significance are less likely to be considered to override the potential harm to the European site. Where the importance of development is judged to be of IROPI, compensatory measures must be secured to protect the overall coherence of the European Sites network.

2.3.24 The HRA, and specifically the detailed Appropriate Assessment stage, supports a decision by a 'Competent Authority' as to whether a proposed plan or project would have an adverse effect on the “integrity” of a designated site; Gov.UK (2019) guidance[1] takes this to mean “the coherence of the site’s 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 classified”.

2.3.25 The decision is based upon the implications of a project on the conservation objectives of the site. These objectives set out the physical, chemical and biological thresholds, and limits of activity and disturbance, which must be met to maintain integrity. An adverse effect on integrity (AEOI) is likely to be one that results in a deterioration of conservation status with regard to the qualifying feature(s) for which it was designated.

2.4 Assessment Approach

2.4.1 The objective of this HRA is to establish whether the Preferred Strategy is likely to have a significant effect on European Sites, either alone or in-combination with other Plans and Projects.

2.4.2 Given the above methodology, the following sections will follow the stepwise process outlined for HRA:

- **Section 3** firstly details the European Sites considered for the assessment, through coarse screening.
- **Section 4** details the Strategic Policies to be assessed within the NPT RLDP (i.e. the Plan).
- **Section 5** provides an overview of the allocated sites that support the RLDP, both Key Sites and European Sites are discussed.
- **Section 6** identifies the possible impact pathways that could results from the RLDP, in relation to the known European Sites.
- **Section 7** a test for Likely Significant Effect (LSE) is completed on RLDP Strategic policies and impact pathways.
- **Section 8** provides detail on in-combination assessment.
- **Section 9** an Appropriate Assessment is completed.
- **Section 10** provides a conclusion of the assessments and sets out next steps.

[1] See Paragraph 003 Reference ID: 65-003-20190722 of the appropriate assessment guidance (GOV.UK, 2019)

2.4.3 The approach for the in-combination assessment is such that where no impact pathways are identified and / or there is no appreciable effect resulting from each of the Options, then there is no mechanism by which perceivable in-combination effects with other Options, Projects or Plans could occur. Where impact pathways or appreciable effects are identified, the potential for LSEs in-combination with other Options, Plans and Projects is considered. Conclusions are then drawn as to whether LSEs on the identified European Sites are anticipated. Where LSEs cannot be ruled out, further assessment (Stage 2: AA) to determine whether there would be an adverse effect on the integrity of the European Site concerned, is undertaken.

2.5 Screening Categories

2.5.1 The emerging RLDP contains a series of Strategic Policies which have been screened to identify those which have the potential for LSE on the features for which the European Sites are designated. The assessment of LSE was undertaken in accordance with the TAN5 guidance whereby the policies outlined within the emerging RLDP were systematically checked and assigned to a category from A-M outlined in the DTA HRA handbook (Tyldesley and Chapman, 2013), according to the potential for effects, this is outlined in **Table 2-1** below.

Table 2-1. Pre-screening categories of potential for effects of RLDP Strategic Policies as per DTA HRA handbook.

Category	Description	Screening outcome
A	General statement of policy / general aspiration	Screened out
B	Policy listing general criteria for testing the acceptability / sustainability of proposals	Screened out
C	Proposal referred to but not proposed by the plan	Screened out
D	General plan-wide environmental protection site safeguarding / threshold policies	Screened out
E	Policies or proposals which steer change in such a way as to protect European Sites from adverse effects	Screened out
F	Policy that cannot lead to development or other change	Screened out
G	Policy or proposal that could not have any conceivable effect on a site	Screened out
H	Policy or proposal the (actual or theoretical) effects of which cannot undermine the conservation objectives (either alone or in-combination with other aspects of this of other plans or projects)	Screened out
I	Policy or proposal which may have a likely significant effect on a site alone	Screened in
J	Policy or proposal with an effect on a site but unlikely to be significant alone, so need to check for likely significant effects in-combination	To be determined following in-combination assessment
K	Policy or proposal unlikely to have a significant effect either alone or in-combination	Screened out following in-combination assessment
L	Policy or proposal which might be likely to have a significant effect in-combination	Screened in following in-combination assessment

Category	Description	Screening outcome
M	Bespoke area, site or case-specific policies or proposals intended to avoid or reduce harmful effects on a European Site	Screened in

2.6 Geographical Scope

2.6.1 There are no standard criteria for determining the geographical scope of an HRA. Rather, the source-pathway-receptor model is typically used to determine whether there are potential linking impact pathways connecting to development allocated in the Plan document. Based on an initial scoping exercise (coarse screening), as detailed in **Section 3** the following European site were scoped into the assessment:

- Kenfig / Cynffig SAC
- Coedydd Nedd a Mellte SAC
- Crymlyn Bog / Cors Crymlyn SAC/Ramsar
- Caeau Mynydd Mawr SAC
- Glaswelltiroedd Cefn Cribwr / Cefn Cribwr Grasslands SAC
- Blackmill Woodlands SAC
- Dunraven Bay SAC
- Afon Wysg / River Usk SAC
- Brecon Beacons SAC
- Cwm Cadlan SAC
- Blaen Cynon SAC

2.7 Data sources

2.7.1 To inform this assessment a review was completed on available data, reports and studies deemed relevant to the NPT study area. This information was used to determine whether LSE or potentially adverse effects may arise from the NPT RLDP. The data sources include:

- Adjoining authority LDP and supporting documents where available, including ISA and HRA information (Newport and Vale of Glamorgan recent post Development Plans Manual Preferred Strategy RLDPs both available at the time of writing).
- National Resource Wales - Protected site information (https://naturalresources.wales/guidance-and-advice/environmental-topics/wildlife-and-biodiversity/protected-areas-of-land-and-seas/find-protected-areas-of-land-and-sea/?lang=en)
- Multi Agency Geographic Information for the Countryside (MAGIC) (www.magic.gov.uk);
- Information on SACs and SPAs from the JNCC website (https://sac.jncc.gov.uk/site/)
- Neath Port Talbot County Borough Council Local Development Plan 2011-2026 – Habitat Regulations Appraisal, 2013.

2.7.2 Where other resources are used these are detailed within the text and footnotes provided for each source of information for ease of reference. The reference section provides a summary of Core management Plans for European Sites and other overarching documents that would not of otherwise be referenced within the report.

2.8 Assumptions and Limitations

2.8.1 This assessment is based on the proposed Strategic Policies provided by NPTC in September 2024 for the Preferred Strategy consultation December 2023 – January 2024. Should these policies be amended, the LSE on European Sites would need to be reassessed and HRA assessment will be required to be updated.

2.8.2 It is assumed that all policies will be implemented as stated and in accordance with relevant statutory requirements and national planning policies.

2.8.3 If a planned development is brought forward for a Candidate Site and land use is different to that predicted, then HRA assessment will require to be updated. This will need to be monitored and reviewed through the RLDP process.

2.8.4 It is expected that at the Deposit Plan stage an updated HRA assessment will be completed to assess new and more detailed information about the Strategic Polices, detailed development management policies, the allocated sites, the impact pathways and the potential for in-combination effects.

3. European Sites

3.1 Consideration of European Sites for Inclusion

3.1.1 There are no standard criteria for determining the physical scope of an HRA. Rather, the source-pathway-receptor model should be used to determine whether there are potential linking impact pathways connecting to development associated with the proposed sites, allocated in the Plan document.

3.1.2 A 15km buffer area was first used, to set the initial coarse screening around the RLDP boundary, to firstly identify those European Sites that could conceivably be affected by the RLDP policies. The nature and scale of potential effects is typically limited by distance, and best practice guidelines – DTA HRA handbook (Tyldesley and Chapman, 2013), generally consider that beyond 15 km, any potential effects arising from a plan would be so minimal as to have an imperceptible effect on European Sites beyond this distance. However, an assessment was then carried out of the potential pathways of impact on European Sites within 15km away to assess whether impact pathways exist through direct and/or functional linkage (e.g. river corridor, bat foraging habitat etc). Where there is uncertainty surrounding impact pathway/linkage, the precautionary principle will be applied.

3.1.3 Geographic information system (GIS) analysis identified 11 European Sites within 15km of the RLDP boundary. **Table 3-1** below provides the list of European Sites identified and provides detail on their location in relation to the NPT authority boundary areas.

Table 3-1. European Sites and the location from the NTP RLDP boundary

European site name	Designation	Site Area (Ha)	Location
Kenfig / Cynffig	SAC	1191.67	The southern boundary of the authority area is adjacent to the SAC.
Coedydd Nedd a Mellte	SAC	378.18	Located on the northeast boundary of the authority boundary, partly within NPT, predominately located within the Powys and Rhondda Cynon Taf authority areas.
Crymlyn Bog / Cors Crymlyn	SAC, Ramsar	299.45	Located on the western part of the authority. The site overlaps NPT and Swansea authority areas.
Caeau Mynydd Mawr	SAC	26.05	Located 8.2km west of the western boundary of NPT authority area.
Glaswelltiroedd Cefn Cribwr / Cefn Cribwr Grasslands	SAC	58.35	Located 400m southeast of the southern boundary of the NPT authority area.
Blackmill Woodlands	SAC	70.05	Located 6.5km east of the southeast boundary of the NPT authority area.
Dunraven Bay	SAC	6.45	Located 11.5km south of the southern boundary of the NPT authority area.

European site name	Designation	Site Area (Ha)	Location
Afon Wysg / River Usk	SAC	967.97	Located 11km north of the northern boundary of the NPT authority area.
Brecon Beacons	SAC	268.63	Located 12.5km north of the northern boundary of the NPT authority area.
Cwm Cadlan	SAC	84.2	5km east of the eastern boundary of the NPT authority area.
Blaen Cynon	SAC	66.52	4km east of the eastern boundary of the NPT authority area.
Carmarthen Bay and Estuaries	SAC	66092.05	12.5km west of the northwest boundary of the NPT authority area.
Burry Inlet	SPA, Ramsar	6627.99	12.5km west of the northwest boundary of the NPT authority area.

3.1.4 After the initial coarse screening stage, a number of European Sites were filtered out of the assessment based on being outside the hydrological zone of influence. It was deemed appropriate to exclude these sites as any potential pathways of effect from the RLDP would be though a hydrological linkage. The following sites were discounted:

- Carmel SAC – 9km west
- River Tywi SAC – 10km north
- Gower Commons SAC – 11km west

3.1.5 These sites should be reassessed at the Deposit Plan stage to ensure coarse screening is appropriate.

3.2 Summary of European Sites, Conservation Objectives and Factors Affecting Site Integrity

3.2.1 The European Sites identified within this section are shown on a map in **Appendix A** . Further details pertaining to the qualifying features and the associated conservation objectives are provided within **Table 3-2** below.

3.2.2 A summary of the relevant ‘factors which affect site integrity’ of the European Sites are listed in **Table 3-2**. **Appendix C** provides details on the threats and pressures for each of the European Sites, published in the relevant Natura 2000 Standard Data Forms. In addition, Natural Resources Wales’s Core Management Plans (NRW) provide a high-level overview of the issues (both current and predicted) affecting the condition of the interest features of the European Sites and outline the priority measures required to improve the condition of the features. They do not cover issues where remedial actions are already in place or ongoing management activities which are required for maintenance. Details of the information sources referenced are provided throughout the assessment sections.

Table 3-2. Summary of the Qualifying Features and associated Conservation Objectives of the relevant European Sites

European Site	Qualifying Features	Conservation Objectives
Kenfig / Cynffig SAC	<u>Annex I habitats that are a primary reason for selection of this site:</u> 1. Fixed dunes with herbaceous vegetation ("grey dunes") 2. Dunes with *Salix repens* ssp. *Argentea* (*Salicion arenariae*) 3. Humid dune slacks *4.* Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp. <u>Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site:</u> 5. Atlantic salt meadows (*Glauco-Puccinietalia maritimae*) <u>Annex II species that are a primary reason for selection of this site:</u> 6. Petalwort (*Petalophyllum ralfsii*) 7. Fen orchid (*Liparis loeselii*)	The vision for **features 1 & 2** is for it to be in a favourable conservation status, where all of the following conditions are satisfied: ▪ 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. ▪ Factors affecting the features will be under control. The vision for **feature 3** is for it to be in a favourable conservation status, where all of the following conditions are satisfied: ▪ 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. ▪ All factors are under management control. The vision for **feature 4** is for it to be in a favourable conservation status, where all of the following conditions are satisfied: ▪ Submerged *Chara* beds (mainly *Chara aspera* and *C. virgata*) growing in relatively shallow water 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.

European Site	Qualifying Features	Conservation Objectives
		▪ 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). ▪ All factors affecting the achievement of these conditions are under control. The vision for **feature 5** is for it to be in a favourable conservation status, where all of the following conditions are satisfied: ▪ The quality of the saltmarsh is within specified limits. ▪ There is no increase in erosion along the length of the transition from salt marsh to sand dune. ▪ The saltmarsh flora will continue to include the following scarce species; Limonium binervosum, and Frankenia laevis. ▪ Light grazing by rabbits and /or stock will continue to be tolerated within limits. ▪ The damaging effects of pony riding will have been reduced or eliminated. *Petalophyllum ralfsii* will continue to be found at its current locations in each of the two SSSI within the SAC. The vision for this **feature 6** is for it to be in a favourable conservation status, where all of the following conditions are satisfied: ▪ The species will be found where conditions are suitable in sufficient numbers to form a viable and sustainable population. ▪ The population will vary from year to year depending on conditions, especially in drier years, but the long-term population will remain steady and sustainable. ▪ Suitable dune slacks will have patches of bare ground that is being colonised by jelly lichens (*Collema spp*.) and *Barbula* mosses. ▪ The factors affecting the feature are under control. The vision for **feature 7** is for it to be in a favourable conservation status, where all of the following conditions are satisfied:

European Site	Qualifying Features	Conservation Objectives
		▪ Sufficient suitable habitat is present to support the populations. ▪ The factors affecting the feature are under control.
Coedydd Nedd a Mellte SAC	<u>Annex I habitats that are a primary reason for selection of this site:</u> 1. *Tilio-Acerion* forests of slopes, screes and ravines 2. Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles	The vision for **feature 1** is for it to be in a favourable conservation status, where all of the following conditions are satisfied: ▪ Upland ash woodland will occupy at least 18 ha of the total site area. ▪ The canopy should be predominantly ash and the following trees will be common in the woodland: ▪ Ferns will be common ground flora species. ▪ Although they may be present in the canopy in small quantities, sycamore and beech should not become dominant at the expense of ash. ▪ 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. The vision for **feature 2** is for it to be in a favourable conservation status, where all of the following conditions are satisfied: ▪ Sessile oak woodland will occupy at least 175 ha of the total site area. ▪ The canopy should be predominantly oak and locally native trees will be common in the woodland. ▪ Ferns will be common ground flora species. ▪ Bryophytes will continue to be abundant and the bryophyte flora will continue to include those western/Atlantic species that mark out this woodland type. A suite of rarer species and species at the edge of their geographical range will continue to be present. ▪ Heathy species such as bilberry and common heather Calluna vulgaris will be common in some areas. ▪ Introduced invasive species such as rhododendron will be absent and any conifers seeding in from adjoining plantations will be removed whilst at the seedling/sapling stage.

European Site	Qualifying Features	Conservation Objectives
		▪ 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.
Crymlyn Bog / Cors Crymlyn SAC	<u>Annex I habitats that are a primary reason for selection of this site:</u> 1. Calcareous fens with *Cladium mariscus* and species of *Caricion davallianae* 2. Transition mires and quaking bogs <u>Annex I habitats present as a qualifying feature, but not a primary reason for site selection:</u> 3. Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incane, Salicion albae*)	**Features 1, 2 and 3:** ▪ The extent should be stable in the long term or where appropriate increasing. ▪ Quality (including in terms of ecological structure and function) should be being maintained, or where appropriate improving. ▪ Populations of the habitat's typical species must be being maintained or where appropriate increasing. ▪ Factors affecting the extent and quality of the habitat and its typical species (and thus affecting the habitat's future prospects) should be under appropriate control.
Crymlyn Bog / Cors Crymlyn Ramsar	○ Topogenous fen ○ Slender cottongrass ○ Peatland invertebrate assemblage	None listed. As specified above.
Caeau Mynydd Mawr SAC	<u>Annex II species that are a primary reason for selection of this site:</u>	The vision for **feature 1** is for it to be in a favourable conservation status, where all of the following conditions are satisfied: ▪ The population will be viable in the long term, acknowledging the extreme population fluctuations

European Site	Qualifying Features	Conservation Objectives
	1. Marsh fritillary butterfly (*Euphydryas* (*Eurodryas, Hypodryas*) *aurinia*) <u>Annex I habitats that are a present as a qualifying feature, but not a primary reason for selection of this site:</u> 2. *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)	▪ of the species. ▪ Habitats on the site will be in optimal condition to support the metapopulation. ▪ The SAC populations will be the core of the metapopulation. The metapopulation will consist of ▪ the SAC populations plus populations breeding on land within c. 2 kilometres of the SAC boundary. ▪ At least 13 ha across the three component SSSIs will be marshy grassland suitable for supporting ▪ marsh fritillary, with Succisa pratensis present and only a low cover of scrub. ▪ At least 6 ha of this will be good condition marsh fritillary breeding habitat, where, for at least 80% of sample points, the tussocky vegetation is within the range of 12-25 cms tall and Succisa pratensis is present within a 50 cm radius sample point. Scrub (>0.5 m tall) covers no more than 10% of area. ▪ At least another 7 ha of this will be suitable condition marsh fritillary breeding habitat where Succisa pratensis is occasional/frequent/abundant and vegetation height is usually 12-25 cms. Scrub (> 0.5 m tall) will cover no more than 10% of the total area. ▪ The marshy grassland will be well sheltered by hedgerows and mature trees. ▪ All factors affecting the achievement of the foregoing conditions are under control. **Feature 2:** • The Molinia meadow feature will occupy between 25% and 80% of the total site area. • The remainder of the site will be other semi-natural habitat. • The following plants will be common in the Molinia meadows: purple moor-grass Molinia caerulea; meadow thistle Cirsium dissectum; devil's bit scabious Succisa pratensis; carnation sedge Carex panicea and tormentil Potentilla erecta. • Cross-leaved heath Erica tetralix and common heather Calluna vulgaris will also be common in some areas. • Rushes should not be allowed to spread and species indicative of agricultural modification, such as perennial rye grass Lolium perenne and white clover Trifolium repens, will be largely absent from the Molinia meadow.

European Site	Qualifying Features	Conservation Objectives
		• Scrub species such as willow Salix and birch Betula will also be largely absent from the Molinia meadow. • All factors affecting the achievement of these conditions are under control.
Glaswelltiroedd Cefn Cribwr / Cefn Cribwr Grasslands SAC	<u>Annex I habitats that are a primary reason for selection of this site:</u> 1. *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) <u>Annex II species that are present as a qualifying feature, but not a primary reason for selection of this site:</u> 2. Marsh fritillary butterfly (*Euphydryas (Eurodryas, Hypodryas*) *aurinia*)	The vision for **feature 1** is for it to be in a favourable conservation status, where all of the following conditions are satisfied: • *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 bitscabious *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 largelyabsent from the eu-Molinion marshy grassland. • All factors affecting the achievement of the foregoing conditions are under control. The vision for **feature 2** is for it to be in a favourable conservation status, where all of the following conditions are satisfied: • 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 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.

European Site	Qualifying Features	Conservation Objectives
		• 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. • The marshy grassland will be well sheltered by hedgerows and mature trees. • All factors affecting the achievement of the foregoing conditions are under control.
Blackmill Woodlands SAC	Annex I habitat that is a primary reason for selection of this site Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles	The vision for the **qualifying feature** of this site is for it to be in a favourable conservation status, where all of the following conditions are satisfied: • Extent: A lower limit for the extent of the woodland habitat has been set at 90% in order to allow for the presence of a bracken fringe and areas of semi improved grassland surrounding the woodland blocks, which are thought to add to the diversity of the site. • Canopy composition: Oak makes up 70% of the canopy forming trees and 95% of the canopy forming trees are native species. • Canopy cover and regeneration: In 70% of canopy gaps there will be 2 viable saplings, at least one of which will be oak. In the shorter term (over one reporting cycle) there will be 5 oak seedlings or a presence of birch regeneration in these areas. Gap creation rate is on average

European Site	Qualifying Features	Conservation Objectives
		0.5% per annum which in the longer term will result in 25% turnover of the woodland over 50 years. • Ground flora condition/quality indicators: <80% of the ground flora to consist of rank vegetation greater than 50cm high. There are no other significant problems in 90% of the woodland (e.g. tipping, nettle patches due to eutrophication etc.). These specifications are to ensure the ground vegetation is not too rank to deter regeneration and lower plants, addressing 'grazing' issues. • Veteran tree density: The density of veteran trees (defined as circumference >200cm at breast height) is at least 1 per hectare. • Dead wood: Dead wood, standing or fallen, present. • Livestock grazing: 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. The site is currently undergoing a recovery period following heavy grazing and absence or removal of grazing should be the aim in the short to medium term. • Non-native species: No more than 5% of canopy forming trees are non-native. • Air pollution: Possible in combination effect of EA permitted licences, currently under investigation.
Dunraven Bay SAC	Annex II species that are a primary reason for selection of this site *Rumex rupestris* (shore dock)	The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied: • 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.
Afon Wysg / River Usk SAC	Annex II species that are the primary reason for selection of this site: 1. Sea lamprey *Petromyzon marinus*	**Features 1-7 & 8 (i.e. fish species):** The vision for these features is for them to be in a favourable conservation status, where all of the following conditions are satisfied: • The Conservation Objective for the watercourse is met – see Core Management plan for (NRW, 2022) for further detail). • The population of the feature in the SAC is stable or increasing over the long term.

European Site	Qualifying Features	Conservation Objectives
	2. Brook lamprey *Lampetra planeri* 3. River lamprey *Lampetra fluviatilis* 4. Twaite shad *Alosa fallax* 5. Atlantic salmon *Salmo salar* 6. Bullhead *Cottus gobio* 7. European otter *Lutra lutra* <u>Annex II species present as a qualifying feature, but not a primary reason for selection of this site:</u> 8. Allis shad *Alosa alosa* <u>Annex I habitats that are not the primary reason for selection of this site</u> 9. Watercourses of plain to montane level with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation	• The natural range of the feature in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. • 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. **Feature 7:** The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied: • The population of otters in the SAC is stable or increasing over the long term and reflects the natural carrying capacity of the habitat within the SAC, as determined by natural levels of prey abundance and associated territorial behaviour. • The natural range of otters in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. The natural range is taken to mean those reaches that are potentially suitable to form part of a breeding territory and/or provide routes between breeding territories. • The safe movement and dispersal of individuals around the SAC is facilitated by the provision, where necessary, of suitable riparian habitat, and underpasses, ledges, fencing etc at road bridges and other artificial barriers. **Feature 9:** The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied: • The Conservation Objective for the watercourse is met – see Core Management plan for (NRW, 2022) for further detail). • The natural range of the plant communities represented within this feature should be stable or increasing in the SAC. The natural range is taken to mean those reaches where predominantly suitable habitat exists over the long term. Suitable habitat and associated plant communities may vary from reach to reach. • The area covered by the feature within its natural range in the SAC should be stable or increasing.

European Site	Qualifying Features	Conservation Objectives
Brecon Beacons SAC	Annex I habitat that is a primary reason for selection of this site: 1. Calcareous rocky slopes with chasmophytic vegetation 2. Siliceous rocky slopes with chasmophytic vegetation Annex I habitat present as a qualifying feature, but not a primary reason for site selection: 3. European dry heaths Annex I habitat present as a qualifying feature, but not a primaryreason for site selection: 4. Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	**Feature 1:** • 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). • All factors affecting the achievement of the above conditions are under control. **Feature 2:** • 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. • Populations of these species are sufficiently large and widespread to be sustained into the future. • All factors affecting the achievement of the above conditions are under control. **Feature 3:** • 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. • All factors affecting the achievement of these conditions are under control. **Feature 4:** • 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

European Site	Qualifying Features	Conservation Objectives
		• hawkweeds. • The populations of these plants are sufficiently large and widespread to be sustained into the • future. • All factors affecting the achievement of the above conditions are under control.
Cwm Cadlan SAC	<u>Annex I habitats that are a primary reason for selection of this site:</u> 1. *Molinia* meadows on calcareous, peaty or clayey-siltladen soils (*Molinion caeruleae*) 2. Alkaline fen	The vision for **Feature 1** is for it to be in a favourable conservation status, where all of the following conditions are satisfied: • Fen-meadow will occupy at least 26 ha of a total area of marshy grassland habitat which itself will cover at least 42 ha. • The remainder of the site will mainly consist of other semi-natural habitat, including alkaline fen. • Typical fen-meadow 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. • All factors affecting the achievement of these conditions are under control. The vision for **Feature 2** is for it to be in a favourable conservation status, where all of the following conditions are satisfied: • Alkaline Fen will occupy about 11 ha or more. • The remainder of the site will mainly consist of other semi-natural habitat including fenmeadow. • Typical alkaline fen plants will be common. • Plants indicating agricultural modification or alteration of hydrology and drying of soils will be absent or present only at 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 10 %. • Scrub species will be largely absent from the alkaline fen. • At selected springheads, water should flow in all but the most severe drought conditions. • All factors affecting the achievement of these conditions are under control.

European Site	Qualifying Features	Conservation Objectives
Blaen Cynon SAC	Annex II species that are a primary reason for the selection of this site Marsh fritillary butterfly *Euphydryas* (*Eurodryas, Hypodryas*) *aurinia*	The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied: • 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 occasional scrub. In peak years, a density of 200 larval webs per hectare of optimal habitat will be found across the site.
Carmarthen Bay and Estuaries SAC	Annex I habitat that are a primary reason for selection of this site: 1. Sandbanks which are slightly covered by sea water all the time 2. Estuaries 3. Mudflats and sandflats not covered by seawater at low tide	**Habitat features:** ▪ Sandbanks which are slightly covered by seawater all the time ▪ Estuaries ▪ Mudflats and sandflats not covered by seawater all the time ▪ Large shallow inlets and bays ▪ Atlantic salt meadows ▪ Salicornia and other annuals colonising mud and sand • Sandbanks which are slightly covered by seawater all the time ▪ Estuaries ▪ Mudflats and sandflats not covered by seawater all the time ▪ Large shallow inlets and bays ▪ Atlantic salt meadows

European Site	Qualifying Features	Conservation Objectives
	4. Large shallow inlets and bays 5. Salicornia and other annuals colonizing mud and sand 6. Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) Annex II species that are a primary reason for selection of this site: 7. Twaite shad *Alosa fallax* Annex II species present as a qualifying feature, but not a primary reason for site selection: *8.* Sea lamprey *Petromyzin marinus* *9.* River lamprey *Lampetra fluviatilis* *10.* Allis shad *Alosa alosa* *11.* Otter *Lutra lutra*	▪ Salicornia and other annuals colonising mud and sand ▪ The overall distribution and extent of the habitat features within the site, and each of their main component parts is stable or increasing. ▪ The physical biological and chemical structure and functions necessary for the long-term maintenance and quality of the habitat are not degraded. ▪ The presence, abundance, condition and diversity of typical species is such that habitat quality is not degraded. **Species features:** ▪ The population is maintaining itself on a long-term basis as a viable component of its natural habitat. ▪ The species population within the site is such that the natural range of the population is not being reduced or likely to be reduced for the foreseeable future. ▪ The presence, abundance, condition and diversity of habitats and species required to support this species is such that the distribution, abundance and populations dynamics of the species within the site and population beyond the site is stable or increasing.
Burry Inlet SPA	Annex II species that are a primary reason for site selection: ▪ Curlew *Numenius arquata* ▪ Dunlin *Calidris alpina alpine* ▪ Grey plover *Pluvialis squatarola*	To achieve favourable conservation status all the following, subject to natural processes, need to be fulfilled and maintained in the long-term. If these objectives are not met restoration measures will be needed to achieve favourable conservation status: ▪ The numbers of all SPA bird species are stable or increasing. ▪ The abundance and distribution of suitable prey are sufficient and appropriate to support the numbers of all SPA bird species. ▪ All SPA birds are allowed to inhabit their feeding grounds and resting areas with minimum disturbance and are allowed to move unhindered between them.

European Site	Qualifying Features	Conservation Objectives
	▪ Knot *Calidris canutus* ▪ Oystercatcher *Haematopus ostralegus* ▪ Pintail *Anas acuta* ▪ Redshank *Tringa totanus* ▪ Selduck *Tadorna tadorna* ▪ Shoveler *Anas clypeata* ▪ Teal *Anas crecca* ▪ Turnstone *Arenaria interpres* ▪ Wigeon *Anas penelope*	▪ All states of the Conservation Objectives for the supporting habitats and species, subject to natural processes, are fulfilled and maintained in the long-term. ▪ The management and control of activities or operations likely to be of significant effect to the oystercatchers, is appropriate for maintaining the feature at FCS and is secure in the long-term.
Burry Inlet Ramsar	Annex II species that are a primary reason for site selection: 1. Common redshank *Tringa totanus tetanus* 2. Northern pintail *Anas acuta* 3. Eurasian oystercatcher *Haematopus ostrale*gus o*stralegus* 4. Red knot *Calidris canutus islandica* Annex II species present as a qualifying feature, but not a primary reason for site selection:	To be developed.

European Site	Qualifying Features	Conservation Objectives
	5. Northern shoveler *Anas clypeata*	

4. NPT RLDP Strategic Policies

4.1 Overview

4.1.1 **Table 4-1** below provides details of the eighteen Strategic Policies proposed for the RLDP for NPT. These policies are referred to be the 'Options' considered within this assessment.

Table 4-1. Strategic Policies proposed for the RLDP for NPT and associated objectives of each policy.

Strategic Policy (SP)	Objectives
SP1 Strategic Placemaking	NO4: Realise the full benefits of green economic growth across the county borough to provide fully sustainable communities in all localities while conserving Neath Port Talbot's environment.
SP2 Climate Change	NO1: Minimise the causes and adapt to the current and predicted impacts of climate change through: Minimising greenhouse gas emissions; Requiring appropriate location and design of development; and The protection and enhancement of all environmental assets required for climate adaptation and resilience.
SP3 Nature Emergency, Biodiversity and the Natural Environment	NO2: Achieve a net biodiversity benefit and enhanced ecosystems resilience from new developments across the county borough.
SP4 Health	NO3: Ensure all new developments provide a healthy local environment that encourages more active and healthier lifestyles for all age groups.
SP5 Placemaking in Action	NO5: Support, enhance and enrich the distinctiveness of NPT's communities, including use of the Welsh language, through positive placemaking actions at a local level. NO8: Encourage and support the retention and provision of a mix of community, retail, employment and recreational facilities in appropriate locations across the county borough. NO13: Ensure the conservation, protection and enhancement of NPT's natural and historic assets and environments, Green Infrastructure, landscapes, undeveloped coast and coastal areas.
SP6 Strategy Areas	Two Strategy Areas have been identified within NPT – The Coastal Corridor and National Growth Area (CCNGA) and The Valleys Opportunity Area (VOA). The CCNGA is where the majority of the County Borough's population, employment, key services and facilities are located and where the majority of development will be directed. The VOA is where key tourism, employment and heritage opportunities will be promoted to act as a catalyst for long term improvements.
SP7 Sustainable Transport	NO6: Reduce spatial inequalities in travel and transport across the county borough by improvements to Active Travel and public transport links and services, especially in valleys areas.
SP8 Housing	NO7: Deliver sufficient good quality new homes of the required types in the most suitable locations to meet the identified need.
SP9 Retail and Commercial Centres	NO8: Encourage and support the retention and provision of a mix of community, retail, employment and recreational facilities in appropriate locations across the county borough.
SP10 Tourism	NO10: Ensure that all areas of NPT are able to benefit from economic growth and from modern economic infrastructure, including visitor attractions, appropriate to meet their economic, social, environmental and cultural needs and aspirations.
SP11 Economic Recovery	NO4: Realise the full benefits of green economic growth across the county borough to provide fully sustainable communities in all localities while conserving NPT's environment.

Strategic Policy (SP)	Objectives
	NO9: Encourage and enable the establishment and growth of new clean green technologies and industries to promote and maintain a leading role for NPT in the national and international renewables and industrial economies. NO10: Ensure that all areas of NPT are able to benefit from economic growth and from modern economic infrastructure, including visitor attractions, appropriate to meet their economic, social, environmental and cultural needs and aspirations.
SP12 Renewable and Low Carbon Energy Generation	NO9: Encourage and enable the establishment and growth of new clean green technologies and industries to promote and maintain a leading role for NPT in the national and international renewables and industrial economies. NO11: Enable NPT to make an appropriate contribution to renewable and low carbon energy generation while encouraging all appropriate steps to be taken to reduce energy demand and improve efficiency across all sectors.
SP13 Minerals	NO12: Conserve and safeguard mineral resources, reserves and infrastructure while making an appropriate and a proportionate contribution to the supply of minerals to meet local, regional and national need while ensuring adverse impacts are minimised and the provision of appropriate waste treatment, recycling and disposal facilities and processes are facilitated.
SP14 Sustainable Waste Management	NO12: Conserve and safeguard mineral resources, reserves and infrastructure while making an appropriate and a proportionate contribution to the supply of minerals to meet local, regional and national need while ensuring adverse impacts are minimised and the provision of appropriate waste treatment, recycling and disposal facilities and processes are facilitated.
SP15 Historic Environment	NO13: Ensure the conservation, protection and enhancement of NPT's natural and historic assets and environments, Green Infrastructure, landscapes, undeveloped coast and coastal areas.
SP16 Green infrastructure	NO13: Ensure the conservation, protection and enhancement of NPT's natural and historic assets and environments, Green Infrastructure, landscapes, undeveloped coast and coastal areas.
SP17 Countryside, Landscapes and Undeveloped Coast	NO13: Ensure the conservation, protection and enhancement of NPT's natural and historic assets and environments, Green Infrastructure, landscapes, undeveloped coast and coastal areas.
SP18 Environmental Protection	NO14: Ensure that environmental issues and future changes including flood risk, coastal and fluvial change and pollution issues are appropriately avoided, addressed and adverse impacts minimised.

4.1.2 As discussed in **Section 6**, the potential pathways of effect, as a result of the policies, are based on the potential for the policy to promote change as well as encourage environmental protection. These policies are to be reviewed and developed to ensure that these environmental protection policies explicitly offer protection, from direct impacts, on European Sites.

5. Preferred Strategy Key Sites

5.1 Preferred Strategy Key Sites and Candidate Sites

5.1.1 The Preferred Strategy Key Sites (hereafter referred to as 'Key Sites') provided by NPT Council which are proposed as part of the RLDP delivery, as shown in **Table 5-1**. At this stage of the Strategy there are provisional allocations for the named sites and these are subject to change at the Deposit Plan stage. A determination on development type was made within the table and these are colour coded to distinguish between residential, employment areas, focused locations on transport improvements and tourism.

Table 5-1. Summary of Key Sites identified within the Preferred Strategy for NPT RLDP.

Site Name	Reference	Development Type	Size (hectares)
Coed Hirwaun	RLDP/PT/0042, RLDP/PT/2015 and RLDP/PT/UC024	Indicative 900 dwellings (400 within the RLDP Plan period) and new Welsh medium primary school	128.1ha
Land East of Rhos	RLDP/P/0027, RLPD/P/0029 and RLDP/P/0030	Indicative Residential (400 homes) and Welsh medium school	15.7ha
Land adjacent to Blaenbaglan	RLDP/PT/UC0003	Indicative Residential - 341 dwellings including 141 existing allocations	14.5ha
Fforest Farm	RLDP/N/0005, RLDP/N/0006 and RLDP/N/UC007	Indicative residential (250 - 300 homes) and land for special school	26.4ha
Port Talbot Port	RLDP/PT/0048 and RLDP/PT/2009	Employment, transportation infrastructure and renewable energy	389.6ha
Port Talbot Steelworks	RLDP/PT/0041	Employment; renewable energy	671.9ha
Baglan Energy Park	RLDP/PT/0008	Employment	187.8ha
GCRE	RLDP/DV/0022	Transport infrastructure	107.8ha
Afan Valley Adventure Resort	RLDP/AV/0001	Tourism and recreation	128.4ha

5.1.2 These Key Sites have been selected to help deliver the proposed strategy and are subject to further refinement prior to the Deposit Plan stage. Other sites, of less strategic importance, will also be allocated for development at the Deposit Plan.

5.1.3 As stated in the 'Preferred Strategy' document, 'Using the Candidate Sites (2022 and 2023) and Urban Capacity Registers as a starting point, an assessment of potential Key Sites has been undertaken to inform the Preferred Strategy. Potential Key Sites have been defined as housing and employment sites which are likely to be able to make a very good contribution towards placemaking objectives and are in line with the RLDP's vision'.

5.1.4 The RLDP has identified 9 Key Sites in line with the Options of the Plan. The site locations in relation to European Sites and their location with regard to European Sites are provided in **Appendix B** . The same approach was taken in relation to the 64 Candidate Sites/ Urban Capacity Sites which have been assessed by the Council to be suitable and deliverable (those identified as 'green' in the Candidate Site and Urban Capacity Site Assessment documents.

This assessment is based on the current level of information that the Council has at the time and could be subject to change ahead of identifying allocations for the Deposit Plan. These sites (some of which form key sites) are detailed within the assessment sections to help determine potential impact pathways from their section and the European Sites. Ahead of the Deposit Plan, further work will be undertaken when the Council has identified allocations.

5.1.5 The distance of each Key Site in relation to the European Sites, screened in for this assessment is provided **Appendix D**. Maps of the Candidate Sites in relation to the European Sites screened in for this assessment is provided in **Appendix F** which is supplemented with the list of the 60 Candidate Sites and associated references numbers in **Appendix G**

6. Potential Impact Pathways

6.1.1 The following section provides details of the relevant indirect/direct threats and pressures which have potential to affect the integrity of relevant European Sites as a result of the Strategic Policies and Key Sites proposed in the RLDP:

- **Atmospheric pollution –** Potential for increased soil and air pollution through construction activities and increase in traffic.
- **Recreational pressures –** Increased disturbance through human activity as a result of the following; outdoor sports and leisure activities for recreational use; risk of fire and spread of invasive non-native species and/or problematic native species;
- **Water quality –** Potential for pollution to surface waters (limnic & terrestrial, marine & brackish), groundwater (point sources and diffuse sources) and marine water pollution; and
- **Water quantity, level and flow (hydrology) –** Human-induced changes in hydraulic conditions.

6.1.2 Direct effects to European Sites have not been considered as a perceivable Impact pathway because the following Plan policies protect against adverse effect:

- SP3 Nature Emergency, Biodiversity and the Natural Environment
- SP16 Green infrastructure
- SP17 Countryside, Landscapes and Undeveloped Coast
- SP18 Environmental Protection

6.1.3 The direct impact pathways that have been screened out based on the above policies include:

- Direct disturbance to species and habitat
- Direct modification of European Site habitats
- Loss of functionally linked habitat
- Noise and vibration impacts

6.1.4 An assessment of potential impact pathways in association with the RLDP in relation to the threats and pressures on each European site is provided in **Appendix C** . An assessment of the pathways of effect and possible links to European Sites, in relation to the NPT authority boundary was also determined.

6.1.5 As discussed above, environmental protection policies are designed to ensure direct impacts to European Sites are avoided and there will be a requirement through the Deposit Plan stage to review and develop these policies to ensure that they provide that protection. This assessment has been completed on the basis that European Sites are protected from direct impact pathways.

6.1.6 Overall, the following European Sites within 15km of the NPT authority boundary are sensitive to the impact pathways and are considered further within this assessment:

6.2 Atmospheric pollution

Nitrogen deposition

6.2.1 Increased traffic and industrial activity from new developments contribute to atmospheric pollution, particularly nitrogen oxides (NOx) and ammonia (NH3) emissions. These pollutants deposit nitrogen on terrestrial ecosystems, encouraging growth of nitrogen-tolerant species and outcompeting sensitive plants, which can result in a loss of biodiversity in habitats such as woodlands and heathlands.

6.2.2 Air pollution poses a significant threat to biodiversity and ecosystem function in terrestrial environments. It can lead to soil acidification, eutrophication, and changes in plant community composition [2].

6.2.3 In some cases, increased N deposition can enhance moss growth such *Sphagnum fuscum* [3] and in mountain moss-sedge heath, it ultimately leads to habitat degradation through increased decomposition leading to a loss of moss cover [4]. Over a longer period of exposure an accumulation, N addition can alter soil chemistry, increase bacterial biomass, and stimulate enzyme activity in peat, leading to faster litter decomposition and reduced carbon accumulation [5]. High N deposition decreases Sphagnum growth and alters its competitive balance with vascular plants, potentially limiting the function of the habitat, reducing the rate of carbon accumulation [6]. Even low levels of N deposition (7.7-10 kg ha−1 yr−1) can negatively affect bryophytes, lichens, and flowering plants [7] and British peatlands reportedly receive an average of 14.1 kg N ha−1 yr−1, with 69.6% of areas exceeding critical load limits. Though N deposition is projected to decrease, its accumulation in peat is likely to continue, presenting an ongoing threat to these sensitive ecosystems [8]. By 2030, UK semi-natural vegetation is expected to experience changes, characterised by a reduced lichen occurrence, increased grass cover, and shifts towards nitrophilic plant species in woodlands, grasslands, heaths, and bogs [9].

6.2.4 Multiple pollutants, including sulphur dioxide, nitrogen dioxide, and ozone, interact to impact vegetation, with effects ranging from lichen damage in urban areas to forest decline and changes in grassland communities [10, 11]. And in calcifuge grasslands, soil acidification appears

[2] Stevens, C.J., David, T.I., & Storkey, J. (2018). Atmospheric nitrogen deposition in terrestrial ecosystems: Its impact on plant communities and consequences across trophic levels. *Functional Ecology*, 32, 1757-1769

[3] Vitt, D. H., Wieder, K., Halsey, L. A., & Turetsky, M. (2003). Response of Sphagnum fuscum to nitrogen deposition: a case study of ombrogenous peatlands in Alberta, Canada. *The Bryologist*, 106(2), 235-245.

[4] Armitage, H.F., Britton, A.J., van der Wal, R., Pearce, I.S.K., Thompson, D.B.A. and Woodin, S.J. (2012), Nitrogen deposition enhances moss growth, but leads to an overall decline in habitat condition of mountain moss-sedge heath. *Glob. Change Biol.*, 18: 290-300. https://doi.org/10.1111/j.1365-2486.2011.02493.x

[5] Bragazza, L., Buttler, A., Habermacher, J., Brancaleoni, L., Gerdol, R., Fritze, H., … & Johnson, D. (2011). High nitrogen deposition alters the decomposition of bog plant litter and reduces carbon accumulation. Global Change Biology, 18(3), 1163-1172. https://doi.org/10.1111/j.1365-2486.2011.02585.x

[6] Bragazza, L., Freeman, C., Jones, T., Rydin, H., Limpens, J., Fenner, N., ... & Toberman, H. (2006). Atmospheric nitrogen deposition promotes carbon loss from peat bogs. Proceedings of the National Academy of Sciences, 103(51), 19386-19389

[7] Phoenix, G. K., Emmett, B. A., Britton, A. J., Caporn, S. J., Dise, N. B., Helliwell, R., ... & Power, S. A. (2012). Impacts of atmospheric nitrogen deposition: responses of multiple plant and soil parameters across contrasting ecosystems in long-term field experiments. *Global Change Biology*, 18(4), 1197-1215

[8] Payne, R. J. (2014). The exposure of British peatlands to nitrogen deposition, 1900–2030. *Mires and Peat*, *14*(04), 1-9.

[9] Stevens, C.J., David, T.I., & Storkey, J. (2018). Atmospheric nitrogen deposition in terrestrial ecosystems: Its impact on plant communities and consequences across trophic levels. *Functional Ecology*, 32, 1757-1769

[10] Stevens, C. J., Bell, J. N. B., Brimblecombe, P., Clark, C. M., Dise, N. B., Fowler, D., ... & Wolseley, P. A. (2020). The impact of air pollution on terrestrial managed and natural vegetation. *Philosophical Transactions of the Royal Society* A, 378(2183), 20190317.

[11] Payne, R. J., Stevens, C. J., Dise, N. B., Gowing, D. J., Pilkington, M. G., Phoenix, G. K., ... & Ashmore, M. R. (2011). Impacts of atmospheric pollution on the plant communities of British acid grasslands. *Environmental Pollution*, 159(10), 2602-2608.

to be the primary driver of species composition shifts, rather than eutrophication [12]. Sulphur pollutants can inhibit the growth of Sphagnum species, contributing to their decline in blanket bogs [13]. However, recent evidence suggests that reductions in sulphur emissions since the 1970s are driving recovery in soil pH and plant communities across Great Britain. This recovery is particularly evident in semi-natural habitats, where increases in soil pH and plant community composition changes have been observed [14]. However, while some grassland habitats show signs of recovery, others, such as acid and Lolium grasslands, have not yet demonstrated improvement [15], and of the woodland habitats, managed coniferous and unmanaged woodlands on peat soils are most vulnerable [16].

6.2.5 Road transport contributed 30% of total NOx emissions in 2022 [17], however, beyond 200m, the contribution of vehicle emissions from the roadside to local pollution levels is considered insignificant [18]. Therefore, this is the distance that is used in this HRA to identify major commuter routes along European Sites, which are likely to be significantly affected by planned developments.

6.3 Recreational pressures

6.3.1 Housing development in proximity to protected sites is likely to significantly increase recreation pressure, particularly if within 1.5 km for visitors arriving on-foot and up to 15 km for those using parking facilities [19].

6.3.2 Recreational activities like coasteering can potentially damage sensitive intertidal habitats [20], while footpaths in UK national parks show increased soil erosion rates due to visitor pressure, both on and off established paths [21]. Visitor patterns on heathlands indicate that most visitors to urban and suburban lowland heaths are local residents engaging in activities like dog walking, visiting sites regularly and live nearby (within 5 km) [22]. The impact of dogs on nature conservation sites include disturbance to birds, mammals and other animals, the fertilising effect of urine and faeces, and issues related to stock and site management [23].

[12] Stevens, C.J., Stevens, C.J., Thompson, K.A., Grime, J.P., Long, C., & Gowing, D.J. (2010). Contribution of acidification and eutrophication to declines in species richness of calcifuge grasslands along a gradient of atmospheric nitrogen deposition. *Functional Ecology*, 24, 478-484.

[13] Ferguson, P., Lee, J. A., & Bell, J. N. B. (1978). Effects of sulphur pollutants on the growth of Sphagnum species. *Environmental Pollution* (1970), 16(2), 151-162.

[14] Seaton, F. M., Robinson, D. A., Monteith, D., Lebron, I., Bürkner, P., Tomlinson, S., ... & Smart, S. M. (2023). Fifty years of reduction in sulphur deposition drives recovery in soil pH and plant communities. *Journal of Ecology*, 111(2), 464-478.

[15] Mitchell, R. J., Hewison, R. L., Fielding, D. A., Fisher, J. M., Gilbert, D. J., Hurskainen, S., ... & Riach, D. (2018). Decline in atmospheric sulphur deposition and changes in climate are the major drivers of long-term change in grassland plant communities in Scotland. *Environmental Pollution*, 235, 956-964.

[16] Langan, S. J., Hall, J., Reynolds, B., Broadmeadow, M., Hornung, M., & Cresser, M. S. (2004). The development of an approach to assess critical loads of acidity for woodland habitats in Great Britain. *Hydrology and Earth System Sciences*, 8(3), 355-365.

[17] Department for Environment Food & Rural Affairs (2024). Emissions of air pollutants in the UK – Nitrogen oxides (NOx). [accessed online at: https://www.gov.uk/government/statistics/emissions-of-air-pollutants/emissions-of-air-pollutants-in-the-uk-nitrogen-oxides-nox, accessed, 16/10/2024].

[18] Department for Transport (2014). Transport Analysis Guidance (TAG) Unit A3: Environmental Impact Appraisal (p15). [available online at: https://webarchive.nationalarchives.gov.uk/ukgwa/20140322171117/https://www.gov.uk/government/publications/webtag-tag-unit-a3-environmental-impact-appraisal, accessed 16/10/2024).

[19] Weitowitz, D. C., Panter, C., Hoskin, R., & Liley, D. (2019). The effect of urban development on visitor numbers to nearby protected nature conservation sites. *Journal of Urban Ecology*, 5(1)

[20] Tyler-Walters, H. (2005). Assessment of the potential impacts of coasteering on rocky intertidal habitats in Wales. [accessed: 15/10/2024, available online at: https://plymsea.ac.uk/id/eprint/1001/1/Coasteering_Rpt05_Final.pdf]

[21] Rodway-Dyer, S., & Walling, D.E. (2010). The use of 137Cs to establish longer-term soil erosion rates on footpaths in the UK. *Journal of environmental management*, 91 10, 1952-62.

[22] Underhill-Day, J. C., & Liley, D. (2007). Visitor patterns on southern heaths: a review of visitor access patterns to heathlands in the UK and the relevance to Annex I bird species. *Ibis*, *149*, 112-119.

[23] Taylor, K., Taylor, R., Anderson, P., Longden, K. & Fisher, P. (2005). Dogs, Access and Nature Conservation. English Nature Research Report 649. [available online: https://publications.naturalengland.org.uk/publication/65013, accessed: 15/10/24]

Birds

6.3.3 Disturbance of birds during territory establishment reduced bird territories and species richness by approximately 15% [24]. Similarly, recreational trails in frequently visited forests decreased bird density and species richness near trails compared to areas further away [25]. Human presence during critical developmental stages can impair nestling growth and body condition [26]. However, careful zoning of protected areas can help balance recreational use with conservation objectives. For example, restricting dog access to specific sites can significantly increase shorebird representation while minimizing impact on recreational opportunities [27]. Species most affected by human disturbance include those sensitive to human presence, open-cup nesters, and above-ground foragers [28]. These findings highlight the importance of managing human activities in protected areas to minimize negative impacts on bird populations.

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6.3.4 Non-native species introductions can be exacerbated by outdoor recreational activities [29]. Recreational sports such as angling [30] and canoeing [31] are potential vectors for the spread of aquatic invasive species with practitioners of these sports often travelling between catchments and even abroad. These present a risk to UK biodiversity through competition, predation, and habitat alteration, with control efforts often proving challenging and costly [32]

6.4 Hydrological considerations: Water quantity, level, flow, and quality

6.4.1 Development and associated infrastructure significantly alter hydrological processes, impacting water availability and ecosystem health. Key alterations include changes in runoff, infiltration, and evaporation rates, which disrupt the natural water cycle. Urbanisation leads to increased runoff due to impervious surfaces, while infiltration decreases as natural landscapes are replaced with buildings and roads [33]. Additionally, urbanisation modifies stream hydraulics, increasing bed mobilisation and reducing retentive habitats, which can diminish floodplain inundation [34]. These changes can lead to urban flash floods and water scarcity, highlighting the need for sustainable urban planning practices [35]. Within the UK, studies have shown that

[24] Bötsch, Y., Tablado, Z., & Jenni, L. (2017). Experimental evidence of human recreational disturbance effects on bird-territory establishment. *Proceedings of the Royal Society B: Biological Sciences*, *284*(1858), 20170846.

[25] Bötsch, Y., Tablado, Z., Scherl, D., Kéry, M., Graf, R. F., & Jenni, L. (2018). Effect of recreational trails on forest birds: human presence matters. *Frontiers in Ecology and Evolution*, *6*, 175.

[26] Remacha, C., Delgado, J. A., Bulaic, M., & Perez-Tris, J. (2016). Human disturbance during early life impairs nestling growth in birds inhabiting a nature recreation area. *PloS one*, *11*(11), e0166748.

[27] Stigner, M. G., Beyer, H. L., Klein, C. J., & Fuller, R. A. (2016). Reconciling recreational use and conservation values in a coastal protected area. *Journal of Applied Ecology*, *53*(4), 1206-1214.

[28] Bötsch, Y., Tablado, Z., & Jenni, L. (2017). Experimental evidence of human recreational disturbance effects on bird-territory establishment. *Proceedings of the Royal Society B: Biological Sciences*, *284*(1858), 20170846.

[29] Anderson L.G., Rocliffe S., Haddaway N.R., Dunn A.M. (2015). The Role of Tourism and Recreation in the Spread of Non-Native Species: A Systematic Review and Meta-Analysis. PLoS ONE 10(10): e0140833. https://doi.org/10.1371/journal.pone.0140833.

[30] Smith, E.R.C., Bennion, H., Sayer, C.D. *et al.* Recreational angling as a pathway for invasive non-native species spread: awareness of biosecurity and the risk of long distance movement into Great Britain. *Biol Invasions* **22**, 1135–1159 (2020). https://doi.org/10.1007/s10530-019-02169-5.

[31] Anderson L.G., White P.C.L., Stebbing P.D., Stentiford G.D., Dunn A.M. (2014). Biosecurity and Vector Behaviour: Evaluating the Potential Threat Posed by Anglers and Canoeists as Pathways for the Spread of Invasive Non-Native Species and Pathogens.PLoSONE9(4):e92788.doi:10.1371/journal.pone.0092788

[32] Manchester, S.J., & Bullock, J.M. (2000). The impacts of non-native species on UK biodiversity and the effectiveness of control. *Journal of Applied Ecology, 37*, 845-864

[33] Yang, F., Zhao, C., Wang, J., Liu, C., Sun, Y., Soomro, S., Hu, C. (2022). Grid-quantification study on the effect of rapid urbanization on hydrological processes. Water Supply; 22 (6): 5853–5872. doi: https://doi.org/10.2166/ws.2022.202

[34] Anim, D. O., Fletcher, T. D., Vietz, G. J., Pasternack, G. B., & Burns, M. J. (2018). Effect of urbanization on stream hydraulics. *River Research and Applications*, *34*(7), 661-674

[35] Sheldon, F., Leigh, C., Neilan, W., Newham, M., Polson, C., Hadwen, W. Urbanization: Hydrology, Water Quality, and Influences on Ecosystem Health, Editor(s): Ashok K. Sharma, Ted Gardner, Don Begbie, Approaches to Water Sensitive Urban

urbanisation leads to heightened river discharge, particularly affecting low and median flows, with a 1% increase in urban land cover correlating to a 1.9% rise in low flow discharge [36]. Additionally, wastewater discharges from sewage treatment plants exacerbate low flows while increasing the frequency of medium and high flow events [37].

6.4.2 Runoff volumes and peak flows, consequently degrading water quality due to the transport of pollutants [38]. Additionally, new housing developments can exacerbate nitrate leaching into groundwater, particularly when construction disturbs soil and alters land use [39]. New developments can also significantly affect river water quality, with impacts on combined sewer overflows, treatment plant effluents, and receiving water bodies [40].

Design, Woodhead Publishing (2019). Pages 229-248, ISBN 9780128128435. https://doi.org/10.1016/B978-0-12-812843-5.00011-3

[36] Han, S., Slater, L., Wilby, R. L., & Faulkner, D. (2022). Contribution of urbanisation to non-stationary river flow in the UK. *Journal of Hydrology*, *613*, 128417

[37] Gemma Coxon et al 2024 Environ. Res. Lett. **19** 084016. **DOI** 10.1088/1748-9326/ad5bf2

[38] Liu, A., Goonetilleke, A., Egodawatta, P. (2015). Urbanisation and Stormwater Quality. 1-14. doi: 10.1007/978-981-287-459-7_1

[39] Wakida, F. T., Lerner, D. N. (2006). Potential nitrate leaching to groundwater from house building. Hydrological Processes, 20(9):2077-2081. doi: 10.1002/HYP.6143

[40] Fu, G., Butler, D., Khu, S. (2009). The impact of new developments on river water quality from an integrated system modelling perspective. *Science of The Total Environment*, 407, 4, 1257-1267. ISSN 0048-9697, https://doi.org/10.1016/j.scitotenv.2008.10.033

7. Screening of Likely Significant Effects

7.1 Identification of Likely Significant Effects

7.1.1 Likely Significant Effects (LSE) are classed as those that have potential to affect the integrity of the qualifying features of the European Sites, alone or in combination with other projects and plans, in view of their conservation objectives. Potential impact pathways which could lead to LSE on one or more European Sites were identified by reviewing the citations and management plans for each European site to identify the site-specific pressures and threats, associated with the qualifying features and assessing against the potential activities associated with the proposed Strategic Policies, as detailed in **Sections 4** and **6**.

7.2 Likely Significant Effects of the Plan policies

7.2.1 As this Plan included eighteen Strategic Policies (or Options), each Strategic Policy was considered for further assessment. **Table 7-1** below outlines the detail relating to the assessment of whether the Strategic Policy is anticipated to lead to an LSE on European Sites based on the categories detailed in **Section 2.5** above, as such would be subject to additional screening of LSE.

7.2.2 Three of the Strategic Policies proposed for the RLDP (SP1, SP4 and SP5), LSE can be excluded on the basis that they are general statements and record that they will not be likely to have a significant effect of a European Site as per DTA HRA guidance. Therefore, these Strategic Policies are not required to be brought forward to further assessment.

7.2.3 Three of the Strategic Policies proposed for the RLDP (SP2, SP13 and SP14), LSE can be excluded on the basis that the policies are designed as a set of criteria for testing the acceptability and/or sustainability of proposals as per DTA HRA guidance. Therefore, these Strategic Policies are not required to be brought forward to further assessment.

7.2.4 Six Strategic Policies (SP3, SP12, SP15, SP16, SP17 and SP18) can be excluded for further assessment on the basis that the policies are general plan-wide environmental protection policies which are proposed to protect the natural environment, including biodiversity or to conserve or enhance the natural, built of historic environment where enhancement measures will not be likely to cause a LSE and as such are not brought forward for further assessment.

7.2.5 Five of the Strategic Policies are potential drivers for adverse effects on European Sites as they promote change and form the basis of delivery of the Plan. These policies include:

- SP6 Strategy Areas;
- SP8 Housing;
- SP9 Retail and Commercial Centres;
- SP10 Tourism; and
- SP11 Economic Recovery

Table 7-1. Summary of assessment of Likely Significant Effect (LSE) of each Strategic Policy outlined in the NPT RLDP based on DTA HRA handbook screening categories (see Table 2-1).

Strategic Policy (SP)	Detail of policy	Screening outcome
SP1 Strategic Placemaking	Development proposals will be required make a positive contribution to sustainable places. The sustainability of communities will be enhanced, the benefits of the green growth economy [1] distributed, and the natural environment safeguarded through the implementation of the RLDP growth and spatial strategies. This will be achieved by: 1. Appropriate design, adaptation and mitigation measures to help address climate change; 2. Providing for an appropriate balance of homes and jobs; 3. Directing development to the most sustainable locations in accordance with the spatial strategy, settlement hierarchy and defined settlement limits to promote health and well-being; 4. The creation of inclusive, safe and welcoming places, ensuring an appropriate housing mix to help support the Authority's housing needs and support the creation of vibrant and diverse communities; 5. Minimising the need to travel, utilising, and prioritising sustainable travel linkages, active travel networks and public transport options that are well connected, accessible, and reduce dependency on private vehicles; 6. Promoting the efficient use of land and resources; 7. Making efficient use of existing infrastructure and where required, make provision for new and improved infrastructure appropriate to the scale, type and location of proposed developments through the use of planning obligations; 8. A Green Infrastructure led approach and biodiversity net benefit; 9. The designation and protection of Green Wedges; 10. Promoting and protecting our built and natural heritage, distinctive qualities and character of existing places, culture and the Welsh language.	There will be no LSEs of Policy SP1 on European Sites. This is a high level policy that requires all development proposals to abide by Placemaking Principles, pertaining high-quality sustainable design, health and well-being, green infrastructure, development density and other factors. A broad approach to planning guidance on sustainable development but does not directly lead to development. No quanta or locations of residential / employment development are set out. Overall, therefore, Policy SP1 is screened out from AA as per screening category A of DTA HRA guidance.
SP2 Climate Change	Development proposals will be required to make a positive contribution towards mitigating, adapting and building resilience to the impacts of climate change. Proposals should take account of the need to:	There will be no LSEs of Policy SP2 on European Sites.

Strategic Policy (SP)	Detail of policy	Screening outcome
	1. Be designed in a way that incorporates energy efficiency measures, minimises energy consumption, encourages energy conservation and contributes to achieving low/ net zero carbon targets; 2. Ensure the sustainable and efficient use of energy and resources such as land, water and minerals; 3. Facilitate, where appropriate, renewable energy generation; 4. Be located within appropriate sustainable locations which are supported through good design, digital connectivity and sustainable travel opportunities; 5. Avoid development in areas identified as being at risk of flooding or that increases the risk of flooding and coastal erosion; 6. Adopt sustainable construction practices; 7. Maximise Green Infrastructure opportunities (and nature-based solutions) and help wildlife and habitats adapt to the changing climate; and 8. Protect and enhance all environmental assets required for climate adaptation and resilience.	This policy specifies the Council's approach to the challenges of climate change. Among other aspects, new developments will be required to contribute to decarbonisation, promote the principles of a circular economy, maximise resource efficiency. Some of the approaches to tackle climate change may be beneficial to European Sites, including maximising water efficiency and minimising water quality impacts. The policy does not allocate quanta or locations of residential and employment development. Overall, therefore, Policy SP2 is screened out from AA as per screening category B of DTA HRA guidance.
SP3 Nature Emergency, Biodiversity and the Natural Environment	Development proposals will be expected to address the nature emergency through achieving a net benefit for biodiversity and enhancing ecosystems resilience. Development proposals will be required to demonstrate: 1. How an overall net benefit for biodiversity will be achieved through the implementation of the proposal; 2. That all identified protected species and designated habitats present will be safeguarded and conserved in accordance with statutory requirements; 3. That the integrity of statutory and non-statutory designated sites for nature conservation will be protected and development is directed away from such sites where possible; and 4. Other non-designated sites or features improving the integrity and connectivity of ecological and green infrastructure networks are protected and enhanced.	There will be no LSEs of Policy SP3 on European Sites. This policy outlines high level aims to protect, enhance and mitigate for biodiversity throughout the plan area. No quanta or locations of residential / employment development are set out. Overall, therefore, Policy SP5 is screened out from AA as per screening category D of DTA HRA guidance.

Strategic Policy (SP)	Detail of policy	Screening outcome
SP4 Health	Development proposals should make positive contributions to the health and well-being of communities, including the reduction of health inequalities through: 1. The development and enhancement of sustainable, safe and cohesive communities through the provision of local services, facilities and employment; 2. Reducing people's exposure to adverse environmental impacts on their health through enhancing local environments and addressing, where possible, all types of pollution; 3. Improving accessibility within and between communities will encourage healthier and more active lifestyles through improvements to the physical and built environment, including maintaining and / or enhancing the extent, quality and connectivity of the following: a) Active Travel Network; b) Green Infrastructure Networks; c) Recreation space; and d) Providing good quality, energy efficient housing.	There will be no LSEs of Policy SP4 on European Sites. This is a policy relating to health and wellbeing of communities and creation of good quality, energy-efficient housing. No quanta or locations of residential / employment development are set out. Overall, therefore, Policy SP4 is screened out from AA as per screening category A of DTA HRA guidance.
SP5 Placemaking in Action	Placemaking seeks to ensure an appropriate mix of uses to support the creation of vibrant and sustainable communities. Development proposals must demonstrate how they: 1. Positively respond to the unique features and opportunities of its local context by ensuring high quality inclusive design, taking into consideration secured by design principles to reduce crime and the fear of crime; 2. Incorporate Green Infrastructure; 3. Seek to retain and protect existing and develop new recreation space and community facilities; 4. Ensure places have access to sustainable transport options; 5. Protect and promote the Welsh language and linguistic heritage; 6. Protect, conserve and enhance the built heritage culture and natural environment; 7. Protect arterial gateways; and 8. Deliver an appropriate level of supporting infrastructure.	There will be no LSEs of Policy SP5 on European Sites. This is a high level policy that requires all development proposals to abide by Placemaking Principles, pertaining high-quality sustainable design, health and well-being, green infrastructure, development density and other factors with detail to be provided in subsequent development management policies. No quanta or locations of residential / employment development are set out. Overall, therefore, Policy SP5 is screened out from AA as per screening category A of DTA HRA guidance.

Strategic Policy (SP)	Detail of policy	Screening outcome
SP6 Strategy Areas	Two Strategy Areas are identified within NPT (and illustrated on the Key Diagram): The Coastal Corridor and National Growth Area (CCNGA) and The Valleys Opportunity Area (VOA). The CCNGA is where the majority of the County Borough's population, employment, key services and facilities are located and where the majority of development will be directed. In the CCNGA, the strategy: 1. Capitalises on employment growth around the Freeport, the Port, and Baglan Energy Park to build upon market interest along the NGA and Port Talbot Steelworks to help with economic recovery; 2. Identifies key housing sites to help deliver affordable housing in the areas identified as being in greatest need; 3. Co-locates homes and jobs to reduce commuting; and 4. Maximises sustainable transport opportunities and connectivity within the Swansea Bay region and promote more sustainable modes of transport. The VOA is where key tourism, employment and heritage opportunities will be promoted to act as a catalyst for long term improvements. Within the VOA, the strategy: 1. Identifies key tourism, and employment opportunities such as Afan Valley Adventure Resort and GCRE. 2. Maximise existing tourism and heritage locations such as Afan Bike Park, Waterfall Country and Neath Heritage Valley 3. Identifies Pontardawe and its surrounds and Glynneath as growth hubs 4. Recognises that there will be modest housing growth proportionate to the size, role and function of existing settlements; 5. Encourages tourism and smaller scale enterprises through the employment strategy to maximise the potential employment opportunities to meet the needs of the local community;	LSEs of Policy SP6 on European Sites cannot be excluded. SP6 promotes economic recovery, strategic placement of housing and jobs, sustainable transport infrastructure, renewable energy generation and provision of broadband infrastructure. The following impact pathways could be attributed to Policy SP6: ▪ Recreational Pressure ▪ Water Quality ▪ Hydrology ▪ Atmospheric Pollution **Overall, due to its impact potential, Policy SP6 is screened in for AA as per screening category I of DTA HRA guidance.**

Strategic Policy (SP)	Detail of policy	Screening outcome
	6. Provides opportunities for Renewable Energy generation; and 7. Supports the provision of good quality broadband infrastructure.	
SP7 Sustainable Transport	Development must be in accordance with the Sustainable Transport Hierarchy and be supported by appropriate transport infrastructure. Proposals will need to: 1. Enable opportunities to enhance the active travel network; 2. Safeguard and support opportunities to enhance the public transport network; 3. Provide an appropriate level of parking provision for a range of parking needs including infrastructure which caters for future technological developments such as low emission and/ or electric vehicles; 4. Ensure alternatives to road transport for freight are protected and / or enhanced through the safeguarding of Ports, Harbours, Docks, Rivers and Railways.	There will be no LSEs of Policy SP7 on European Sites. This policy sets out broad principles for sustainable transport and includes qualitative criteria. Effectively, this is a positive policy for European Sites that are sensitive to atmospheric pollution, as it aims at reducing the volume of car-based commuter traffic. Overall, therefore, Policy SP7 is screened out from AA as per screening category D of DTA HRA guidance.
SP8 Housing	A range of accommodation needs will be addressed through the following measures: 1. Identifying a Housing Requirement: To meet housing needs of the economic recovery strategy for 3,480 dwellings will be met through the provision of 4,176 dwellings between 2023-2038 including a 20% flexibility allowance. 2. Identifying an Affordable Housing Target: To deliver affordable homes by: i. Setting thresholds and targets requiring housing developments to contribute to affordable housing provision; and ii. Providing a framework for considering proposals for affordable housing exception sites 3. Meeting Gypsy and Traveller accommodation needs by: The allocation of site(s); and Providing a framework for considering proposals for Gypsy and Traveller sites.	LSEs of Policy SP8 on European Sites cannot be excluded. SP8 sets out the development required in order to meet current and future needs. The following impact pathways could be attributed to Policy SP8: ▪ Recreational Pressure ▪ Water Quality ▪ Hydrology ▪ Atmospheric Pollution **Overall, due to its impact potential, Policy SP8 is screened in for AA as per screening category I of DTA HRA guidance.**

Strategic Policy (SP)	Detail of policy	Screening outcome
SP9 Retail and Commercial Centres	The vitality, viability and attractiveness of retail and commercial centres will be supported through: 1. The identification of a retail and commercial hierarchy within which appropriate retail and complementary uses will be protected and encouraged; 2. Ensuring development proposals are in keeping with the defined role of each centre in the retail and commercial hierarchy; and 3. The control of inappropriate new retail and/or commercial centre uses outside the identified retail and commercial hierarchy.	LSEs of Policy SP9 on European Sites cannot be excluded. SP9 sets how the council will be retaining and providing community, employment, retail and recreational facilities across the county borough. The following impact pathways could be attributed to Policy SP9: ▪ Recreational Pressure ▪ Water Quality ▪ Hydrology ▪ Atmospheric Pollution **Overall, due to its impact potential, Policy SP9 is screened in for AA as per screening category I of DTA HRA guidance.**
SP10 Tourism	Tourism can be a catalyst for regeneration, and development proposals relating to the visitor economy, will be supported through the following: 1. Encouraging high quality sustainable tourism development that contributes to the diversity and quality of accommodation and attractions; 2. Supporting opportunities for a variety of tourism developments that do not adversely impact upon the natural and built environment, cultural and linguistic heritage; 3. Supporting developments that are in an appropriate location in relation to their intended tourism related use; and 4. Resist proposals which would result in the loss of tourism facilities.	LSEs of Policy SP10 on European Sites cannot be excluded. SP10 sets out the principles of tourism development being in the appropriate location. The following impact pathways could be attributed to Policy SP10: ▪ Recreational Pressure ▪ Water Quality ▪ Hydrology ▪ Atmospheric Pollution **Overall, due to its impact potential,**

Strategic Policy (SP)	Detail of policy	Screening outcome
		Policy SP10 is screened in for AA as per screening category L of DTA HRA guidance.
SP11 Economic Recovery	Economic recovery will be supported through: 1. The allocation of 57Hectares (ha) of employment land; 2. Safeguarding existing employment areas; 3. Resisting the loss of employment uses both within and outside of designated areas; 4. Fostering development of key economic opportunities including the Celtic Freeport; 5. Facilitating new opportunities arising from industrial decarbonisation including growth in the green economy; 6. Embracing rural regeneration opportunities and taking a flexible approach to employment opportunities in the Valleys; and 7. Supporting employment opportunities and complementary facilities including training and working hubs.	LSEs of Policy SP11 on European Sites cannot be excluded. SP11 sets out the provision for 57 hectares of employment land. This policy outlines the need for economic recovery through supporting employment opportunities and complementary facilities, including training and working hubs. the principles of tourism development being in the appropriate location. The following impact pathways could be attributed to Policy SP11: ▪ Recreational Pressure ▪ Water Quality ▪ Hydrology ▪ Atmospheric Pollution **Overall, due to its impact potential, Policy SP11 is screened in for AA as per screening category I of DTA HRA guidance.**
SP12 Renewable and Low Carbon Energy Generation	Opportunities for Renewable and Low Carbon energy developments and associated infrastructure will be supported where appropriate. This will be achieved by: 1. Making a proportionate contribution to meeting national renewable energy targets and energy efficiency targets; 2. Identifying renewable energy generation targets, criteria-based policies, local search areas and / or allocations for the County Borough;	There will be no LSEs of Policy SP12 on European Sites. While this policy outlines the development of opportunities and associated infrastructure, it stipulates that the development will not have an impact on the environment, taking cumulative impacts into account.

Strategic Policy (SP)	Detail of policy	Screening outcome
	3. Promoting the optimisation of renewable and low carbon energy supply and distribution options for local communities; 4. Ensuring that development will not have an unacceptable impact on the environment and amenity of local residents and takes into consideration any cumulative impacts.	No quanta or locations of residential / employment development are set out. Overall, therefore, Policy SP12 is screened out from AA as per screening category D of DTA HRA guidance.
SP13 Minerals	A proportionate contribution to meeting national, regional and local demand for a continuous supply of minerals will be achieved by: 1. Maintaining an appropriate supply of aggregates throughout the Plan period; 2. Safeguarding identified resources of hard rock and sand and gravel; 3. Minimising the conflict between sensitive land uses and mineral operations by identifying buffer zones around mineral sites. 4. Promoting the efficient use of aggregates and encouraging the maximum use of alternative materials before the use of raw aggregate; 5. Ensuring that mineral development will not have an unacceptable impact on the environment and amenity of local residents.	There will be no LSEs of Policy SP13 on European Sites. This policy provides high level principles on sustainable management of minerals resources and may require provision of waste treatment, recycling and disposal facilities. However, the policy does not allocate any specific minerals proposals that would require assessment. Overall, therefore, Policy SP13 is screened out from AA as per screening category B of DTA HRA guidance.
SP14 Sustainable Waste Management	The sustainable management of waste will be facilitated by: 1. Promoting and supporting additional sustainable waste management facilities, measures, and strategies in accordance with the waste hierarchy and the principles of nearest appropriate installation and self-sufficiency. 2. Supporting the circular economy by encouraging the minimisation of the production of waste and the use of reused and recycled materials in the design, construction, and demolition stages of development. 3. Ensuring that provision is made for the sustainable management, sorting, storage and collection of waste in all new developments.	There will be no LSEs of Policy SP14 on European Sites. This policy outlines high level principals in relation to sustainable wastes management, including promoting and supporting additional sustainable waste management facilities. While potentially suitable locations of in-building waste management solutions are identified, these are not formally allocated. The policy does not allocate quanta or locations for waste management facilities.

Strategic Policy (SP)	Detail of policy	Screening outcome
		Overall, therefore, Policy SP14 is screened out from AA as per screening category B of DTA HRA guidance.
SP15 Historic Environment	The historic environment including townscapes, important buildings and heritage assets and their settings will be conserved and enhanced through the following measures: 1. Ensuring proposals promote high quality design and placemaking that respects local character, cultural and historic qualities of the area, taking into account heritage assets. 2. Safeguarding features of historic, architectural and cultural importance; 3. The identification of the following designated sites and areas to enable their protection and where appropriate enhancement: a) Historic assets of special local interest (Buildings of Local Importance); b) Conservation Areas; and c) The canal network and structures.	There will be no LSEs of Policy SP15 on European Sites. This policy outlines conservation and enhancement measure for the historic environment locally. This policy is anticipated to have a net positive effect on historic assets, conservation areas and canal network/structures. Overall, therefore, Policy SP15 is screened out from AA as per screening category D of DTA HRA guidance.
SP16 Green infrastructure	Development proposals will be required to create, safeguard and enhance green infrastructure provision and maximise its functionality. Development proposals must: 1. Incorporate existing areas of significant green infrastructure into the overall design of the development, taking advantage of opportunities that are presented by existing and potential assets, following the principles of placemaking; 2. Maximise connectivity between green infrastructure assets; and 3. Create new green infrastructure and employ nature-based solutions wherever possible.	There will be no LSEs of Policy SP16 on European Sites. This policy outlines the creation, safeguarding and enhancement of green infrastructure locally. This policy is anticipated to result in a net positive effect on biodiversity. Overall, therefore, Policy SP16 is screened out from AA as per screening category D of DTA HRA guidance.
SP17 Countryside, Landscapes and Undeveloped Coast	The countryside and undeveloped coast, including landscapes, seascapes and geodiversity, will be safeguarded and where feasible enhanced through the following measures: 1. The protection of the open countryside outside settlement limits through the control of inappropriate development that would adversely affect its rural character, ecological, landscape, cultural or agricultural value or natural resources;	There will be no LSEs of Policy SP17 on European Sites. This policy outlines high level aims to safeguard and enhance habitats/areas in relation to countryside and undeveloped coastal landscapes.

Strategic Policy (SP)	Detail of policy	Screening outcome
	2. The protection of the undeveloped coast and seascapes through the control of inappropriate coastal development; 3. The protection of important landscape and seascape features, characteristics and qualities; 4. The designation and protection of Special Landscape Areas; and 5. The identification and safeguarding of areas of geodiversity importance.	Overall, therefore, Policy SP17 is screened out from AA as per screening category D of DTA HRA guidance.
SP18 Environmental Protection	The quality of the environment will be safeguarded and enhanced and potential adverse impacts of existing or anticipated environmental problems will be addressed (including through de-risking approaches) in relation to the following: 1. Air quality; 2. Land contamination, land instability and invasive non-native species; 3. Flood risk and coastal erosion; 4. Lighting; 5. Soundscapes; 6. Water quality; and 7. Water resource availability.	There will be no LSEs of Policy SP18 on European Sites. This is a qualitative policy aimed at increasing resilience against environments issues and future changes. The policy may lead to development in order to combat environmental issue such as flood risk and costal erosion; however, the policy should have a positive effect on the environment. Overall, therefore, Policy SP18 is screened out from AA as per screening category D of DTA HRA guidance.

7.3 Likely Significant Effects of the Impact Pathways

Impact Pathway Details in Relation to Each European Site

7.3.1 As summarised in **Section 3** and further detailed in **Appendix C** the Natura 2000 Standard Data Forms have identified a number of threats, pressures and conservation objectives relevant to each of the European Sites and associated Qualifying Features. Whilst a number of threats / pressures are not relevant to the Plan (i.e., they are works or activities either associated with and / or located within or immediately adjacent to the European Site itself, such as grazing, cultivation, forest management and abiotic natural processes), consideration of those activities that could reasonably be attributed to the Plan are detailed in **Section 6** above.

7.3.2 The European Sites have been subject to further assessment to establish if the impact pathways, identified in **Section 6**, of the Plan could potentially have an LSE on their Qualifying Features, taking into account the identified threats / pressures which could feasibly arise, as detailed above.

7.3.3 Following People over Wind ruling (as outlined in **Section 2**), only mitigation which is inherent as part of the Plan and not specific to ecological mitigation is considered at the screening stage. Any effects for which specific ecological mitigation is required are not considered at this stage, even if the mitigation proposed is well known and documented.

7.3.4 This assessment is presented in **0**in which each of the sites is assessed along with their known pressures and the potential impact pathways from the Plan. Impact pathways were considered alone and in-combination with the projects and plans detailed in **Section 8**.

7.3.5 Those with potential for LSE, or where these cannot be excluded, are considered further in **Section 9** the AA.

7.4 Screening Stage Conclusions

7.4.1 The Screening Stage of this HRA found that LSE on the interest features of four European Sites could not be excluded with respect to the identified impact pathways of the RLDP Strategic Policies, alone, or in-combination, with other Projects or Plans. These European Sites are as follows:

- Kenfig / Cynffig SAC
- Crymlyn Bog / Cors Crymlyn SAC
- Crymlyn Bog / Cors Crymlyn Ramsar
- Glaswelltiroedd Cefn Cribwr / Cefn Cribwr Grasslands SAC

7.4.2 As such, it is recommended that this Plan is brought forward to AA to determine whether there would be an adverse impact on the integrity of the European Sites, in light of their conservation objectives, for five Strategic Policies (SP6, SP8, SP9, SP10, and SP11) alone, in-combination (i.e., as a result of the Plan), and / or other Projects and Plans, through AA.

7.4.3 It is anticipated that the approach to further developing above policies will be done in line with the overall strategy for the RLDP (i.e. development sites are located away from European Sites and concentrated within existing conurbations).

7.4.4 A full description of this screening is provided in **0**. Within this section reference is made in relation to Key Sites and Candidates Sites, with regard to distance from each European Site. A set distance of 5km for Candidate Sites was deemed appropriate in relation to impact pathways. This approach will be reviewed at the Deposit Plan stage.

8. In-Combination Assessment

8.1.1 Under Article 6(3) of the Habitats Directive, an assessment of in-combination effects of the RLDP with other plans and projects is considered. Consideration has been given, at this stage of the HRA, to other relevant plans on a similarly strategic level that have clear potential to have an in-combination effect upon European Sites. If new relevant plans arise, these plans will be included in the AA as necessary. Relevant projects will also be included for in-combination assessment.

8.1.2 Individual planning applications are only considered in the in-combination assessment where they have national significance or are particularly extensive. For example, a development delivering 500 dwellings or more would need to be considered in an appraisal of cumulative recreational pressure impacts. The plans listed below are currently being considered and assessed:

Plans

- Neath Port Talbot Council Biodiversity Duty Plan 2023 – 2026
- Neath Port Talbot Destination Management Plan 2023 – 2028
- Neath Port Talbot Council Corporate Plan 2024 – 2027
- The Neath Port Talbot Decarbonisation and Renewable Energy Strategy
- Future Wales: The National Plan 2040
- Carmarthenshire Local Development Plan 2018 – 2033
- Carmarthenshire Revised Local Development Plan
- Bridgend Replacement Bridgend Local Development Plan 2018 – 2033
- Rhondda Cynon Taf Revised Local Development Plan 2022 – 2037
- Swansea Local Development Plan 2010 – 2025
- Swansea Local Development Plan 2023 – 2038
- Powys Adopted Local Development Plan 2011 – 2026
- Powys Replacement Local Development Plan 2022 – 2037
- Vale of Glamorgan Local Development Plan 2011 – 2026
- Vale of Glamorgan Replacement Local Development Plan 2021 – 2036

Projects

- The Freeport Programme
- Morfa Landfill Site
- Afan Valley Adventure Resort - Wildfox Resorts
- Global Centre of Rail Excellence (GCRE)
- TATA Steel UK
- Aberpergwm Colliery
- Parc Pelenna
- Mynydd Fforch Dwm
- Y Bryn Wind Farm
- Penllergaer Estate Solar Farm

- East Pit
- Rheola
- Foel Trawsnant wind farm
- Hirfynydd Wind Farm
- Former Llandarcy Oil Refinery Neath

8.1.3 **Table 8-1.** Summary of the Plans and Projects (Planning application number, as appropriate) considered within the in-combination assessment of the HRA screening of NPT RLDP. below summarises the details relating to each of the aforementioned Plans and Projects to be considered within the in-combination assessment.

Table 8-1. Summary of the Plans and Projects (Planning application number, as appropriate) considered within the in-combination assessment of the HRA screening of NPT RLDP.

Project/Plan	Summary information	Possible Impact Pathways
Neath Port Talbot Council Biodiversity Duty Plan 2023 – 2026	The Biodiversity Duty Plan outlines the natural heritage that exists within Neath Port Talbot, why it is so special, how it is threatened and what activities are already underway to protect them. It also sets out the mechanisms for delivery, along with detailed actions to be achieved and milestones for reporting.	This Plan outlines high-level aims to protect, enhance and mitigate for biodiversity throughout the plan area. No LSE are anticipated as a result of this Plan in-combination with NPT RLDP.
Neath Port Talbot Destination Management Plan (DMP) 2023 – 2028	The DMP sets out the blueprint for how the county intends to sustain, grow and manage its visitor economy between 2023 and 2028. The DMP is a shared statement of intent to develop tourism in Neath Port Talbot to deliver exceptional experiences and transform people's perception of our diverse and distinctively different area. The DMP recognises the economic and social value of tourism, articulating the role of different stakeholders and identifying priority actions that reflect resources.	This Plan focuses on tourism and growth through investing in facilities and development. The flagship projects include Wildfox's Afan Valley Adventure Resort (detailed below), future development of Afan Forest Park and Vale of Neath Heritage Corridor Framework. The following impact pathways could be attributed to Plan: ▪ Recreational Pressure ▪ Water Quality ▪ Hydrology ▪ Atmospheric Pollution **As such, LSE in-combination with NPT RLDP cannot be excluded.**
Neath Port Talbot Council Corporate Plan 2024 – 2027	The Corporate Plan 2024 – 2027, adopted by Council on 26 July 2024, provides a strategic direction for travel and sets out 9 transformation programmes across the four well-being objectives to be achieved by 2027 and takes into account the views of people living and working in the county. The four well-being objectives are: ▪ All children get the best start in life; ▪ All communities are thriving and sustainable; ▪ Our local environment, culture and heritage can be enjoyed by future generations; and ▪ Local people are skilled and can access high quality green jobs	The Plan outlines high-level aims, in addition to specific aims including enhancing facilities, improved play and leisure services for children and young people; protecting property from flooding by constructing new defences and maintaining existing defences; Implementation of culture, leisure and heritage strategies alongside the DMP (see above); raising the profile of NPT as a visitor destination; and establishing the Celtic Freeport across NPT (see below). The following impact pathways could be attributed to Plan: ▪ Recreational Pressure ▪ Water Quality ▪ Hydrology

Project/Plan	Summary information	Possible Impact Pathways
		▪ Atmospheric Pollution **LSE in-combination with NPT RLDP cannot be excluded.**
The Neath Port Talbot Decarbonisation and Renewable Energy Strategy	A strategy aimed at maximising the economic, social, health and environmental benefits of decarbonisation through a focus on renewable energy. Objectives of the strategy include: ▪ Reducing the carbon emissions, resulting from delivering the council's work programme. Lessening energy consumption and switching to energy sources that are less harmful to the environment. ▪ Overcoming barriers to renewable energy and encouraging the use of sustainable and renewable resources. ▪ Managing our natural resources so that carbon sequestration is maximised, and carbon release is minimised. ▪ Working with partners and business, sharing good practice, assets and resources. ▪ Promoting the benefits of cleaner energy and emission reduction to council employees and the people of Neath Port Talbot. ▪ Attracting additional funding from Welsh Government and other relevant sources.	This Plan outlines high-level aims to focus on the use of renewable energies and reduce carbon emissions throughout the plan area. No LSE are anticipated as a result of this Plan in-combination with NPT RLDP.
Future Wales: The National Plan 2040	Future Wales – the National Plan 2040 is Welsh national development framework, setting the direction for development in Wales to 2040. It is a development plan with a strategy for addressing key national priorities through the planning system, including sustaining and developing a vibrant economy, achieving decarbonisation and climate-resilience, developing strong ecosystems and improving the health and well-being of Welsh communities.	The Plan outlines high-level policies, including sustainable growth strategies in the southwest region of Wales which focus on development of specific towns in order to continue to provide jobs, leisure, retail and cultural opportunities, education and health services and connectivity infrastructure that is used and relied on by both their own populations and communities around them. The following impact pathways could be attributed to Plan: ▪ Recreational Pressure ▪ Water Quality ▪ Hydrology ▪ Atmospheric Pollution **LSE in-combination with NPT RLDP cannot be excluded.**

Project/Plan	Summary information	Possible Impact Pathways
Carmarthenshire Local Development Plan 2018 - 2033	The Carmarthenshire LDPs sets out proposals and policies for the future use of all land within the County (excluding the part contained within the Bannau Brycheiniog National Park) and is part of the development plan framework for Wales. The LDP covers a period of fifteen years and should reflect national planning policy in Wales.	The Plan outline high-level policies, some of which act as drivers for development. The HRA of the Plan specifically highlighted potential effects, including surface water contamination and wastewater disposal from development The following impact pathways could be attributed to Plan: ▪ Recreational Pressure ▪ Water Quality ▪ Hydrology ▪ Atmospheric Pollution **LSE in-combination with NPT RLDP cannot be excluded.**
Carmarthenshire Revised Local Development Plan	The Revised LDP outlines a strategy, vision, strategic and specific policies, proposals, and development allocations. It identifies and allocates land for housing and employment purposes and specifies where these and other uses are permitted. Additionally, it highlights areas where policies to protect and enhance the environment from inappropriate developments will be applied.	This RLDP is still in draft, however, the Plan provides the County Borough with an overarching land-use and development strategy, along with a policy framework and site specific allocations for a range of development types. The Revised LDP also details policies to protect and conserve the natural environment Therefore, there is a potential for LSE in-combination with NPT RLDP due to the likely inclusion of development drivers within the plan. The following impact pathways could be attributed to Plan: ▪ Recreational Pressure ▪ Water Quality ▪ Hydrology ▪ Atmospheric Pollution **LSE in-combination with NPT RLDP cannot be excluded.**
Bridgend Replacement Bridgend Local Development Plan 2018 – 2033	The Bridgend Replacement Local Development Plan (LDP) is a high-level strategy which must be prepared by the council. The LDP sets out in land-use terms the priorities and objectives of the Corporate Plan. The future Replacement LDP will be required to express in land-use terms the wellbeing objectives and priorities of the Bridgend Public Services Board's Wellbeing Plan.	The Plan outline high-level policies, some of which act as drivers for development, including delivering sustainable, transit-orientated development. The following impact pathways could be attributed to Plan: ▪ Recreational Pressure ▪ Water Quality

Project/Plan	Summary information	Possible Impact Pathways
		▪ Hydrology ▪ Atmospheric Pollution **LSE in-combination with NPT RLDP cannot be excluded.**
Rhondda Cynon Taf Revised Local Development Plan 2022 – 2037	Rhondda Cynon Taf County Borough Council are preparing a Revised Local Development Plan for the period 2022 - 2037. This process formally began in April 2022. This will replace the current LDP for Rhondda Cynon Taf (2006 – 2021). The current LDP will remain in force until the Revised LDP is adopted. An LDP provides the County Borough with an overarching land-use and development strategy, along with a policy framework and site specific allocations for a range of development types. The LDP, alongside National Plans and Policy, guide decisions on planning applications in Rhondda Cynon Taf.	This RLDP is still in draft, however, the Plan provides the County Borough with an overarching land-use and development strategy, along with a policy framework and site specific allocations for a range of development types. Therefore, there is a potential for LSE in-combination with NPT RLDP due to the likely inclusion of development drivers within the plan. The following impact pathways could be attributed to Plan: ▪ Recreational Pressure ▪ Water Quality ▪ Hydrology ▪ Atmospheric Pollution **LSE in-combination with NPT RLDP cannot be excluded.**
Swansea Local Development Plan 2010 – 2025	The Swansea LDP is an innovative and ambitious Plan that promotes a strong placemaking agenda consistent with the Welsh Government's well-being objectives. The Plan presents a positive approach to managing and promoting growth, and to delivering the supporting infrastructure required to underpin the transformative change that Swansea is anticipated to experience as the city at the heart of the Swansea Bay Region.	The Plan outline high-level policies, some of which act as drivers for development, including enhancing communities, facilities and infrastructure; delivering economic growth and prosperity; and fostering a high quality environment. The following impact pathways could be attributed to Plan: ▪ Recreational Pressure ▪ Water Quality ▪ Hydrology ▪ Atmospheric Pollution **LSE in-combination with NPT RLDP cannot be excluded.**
Swansea Local Development Plan 2023 – 2038	The Plan will set out how and where development should come forward to match identified growth ambitions. It will aim to ensure the right development happens in the right place at the right time, benefitting communities and the	This RLDP is still in draft, however, the Plan provides the Council with overarching growth and spatial strategies. Therefore, there is a potential for LSE in-combination with

Project/Plan	Summary information	Possible Impact Pathways
	local economy, and that adequate protection is given to the natural environment. The plan will set out the numbers of new homes and jobs we need to plan for, and will identify the locations in Swansea where new housing and employment sites will be. It will also provide a framework to secure affordable housing and new infrastructure through the development process, including new schools, play areas, cycle paths and even green infrastructure.	NPT RLDP due to the likely inclusion of development drivers within the plan. The following impact pathways could be attributed to Plan: ▪ Recreational Pressure ▪ Water Quality ▪ Hydrology ▪ Atmospheric Pollution **LSE in-combination with NPT RLDP cannot be excluded.**
Powys Adopted Local Development Plan 2011 – 2026	The Powys LDP consists of the Council's policies for the development and use of land in Powys. Together with national planning policy it will guide decisions on planning applications on all future development and land use planning within the Plan area during the Plan period.	The Plan outlines several objectives focusing on two main strategies, including (a) a growth strategy describing the principle development needs and levels of development that are required to achieve the vision and objectives, and (b) a spatial strategy that describes the sustainable distribution, location and pattern of development and growth being planned to achieve the vision and objectives and the safeguarding of strategic resources and assets. The following impact pathways could be attributed to Plan: ▪ Recreational Pressure ▪ Water Quality ▪ Hydrology ▪ Atmospheric Pollution **LSE in-combination with NPT RLDP cannot be excluded.**
Powys Replacement Local Development Plan 2022 – 2037	The Powys RLDP seeks to address the needs of the Powys Plan Area by proposing levels of housing and employment growth and identifying where this should be broadly distributed. The Preferred Strategy includes a proposed Sustainable Settlement Hierarchy together with a set of strategic level planning policies which will be expanded upon by detailed policies and proposed land allocations (for new development) in subsequent stages of the Replacement LDP process.	This RLDP is still in draft, however, the Plan proposes policies relating to the scale and placement of future housing and employment growth. Therefore, there is a potential for LSE in-combination with NPT RLDP due to the likely inclusion of development drivers within the plan. The following impact pathways could be attributed to Plan: ▪ Recreational Pressure ▪ Water Quality

Project/Plan	Summary information	Possible Impact Pathways
		▪ Hydrology ▪ Atmospheric Pollution **LSE in-combination with NPT RLDP cannot be excluded.**
Vale of Glamorgan Local Development Plan 2011 – 2026	The Plan sets out the vision, objectives, strategy and policies for managing development in the Vale of Glamorgan and contains a number of local planning policies and makes provision for the use of land for the purposes of housing, employment, retailing, recreation, transport, tourism, minerals, waste, and community uses. It also seeks to identify the infrastructure that will be required to meet the growth anticipated in the Vale of Glamorgan up to 2026 and provides a monitoring framework for assessing the effectiveness of the Plan.	The Plan aims to promote development, to focus on transport and employment investment and promote sustainable settlements to accommodate further housing and associated development. The following impact pathways could be attributed to Plan: ▪ Recreational Pressure ▪ Water Quality ▪ Hydrology ▪ Atmospheric Pollution **LSE in-combination with NPT RLDP cannot be excluded.**
Vale of Glamorgan Replacement Local Development Plan 2021 – 2036	The Council is preparing a new Local Development Plan to replace the existing adopted LDP. The new Plan will be called the Replacement Local Development Plan. The LDP Vision mirrors the Council's Community Strategy (2011 to 2021) overarching vision for the Vale of Glamorgan: "Our Vision for the Vale of Glamorgan is a place: • That is safe, clean, and attractive, where individuals and communities have sustainable opportunities to improve their health, learning and skills, prosperity, and wellbeing; and • Where there is a strong sense of community in which local groups and individuals have the capacity and incentive to make an effective contribution to the future sustainability of the area."	This RLDP is still in draft, however, the Plan proposes policies in relation to the housing allocations and other strategically important sites. Therefore, there is a potential for LSE in-combination with NPT RLDP due to the likely inclusion of development drivers within the plan. The following impact pathways could be attributed to Plan: ▪ Recreational Pressure ▪ Water Quality ▪ Hydrology ▪ Atmospheric Pollution **LSE in-combination with NPT RLDP cannot be excluded.**
The Celtic Freeport Programme	The Freeport Programme in Wales offers an opportunity to harness Wales's abundant economic potential. The three main objectives include: ▪ Promote regeneration and high quality job creation; ▪ Establish the freeports as national hubs for global trade and investment across the economy; and ▪ Foster an innovative environment.	The Celtic Freeport will support new manufacturing facilities and major port infrastructure upgrades to support the roll-out of floating offshore wind (FLOW) in the Celtic Sea. This Project relates to a Key Site – Port. The following impact pathways could be attributed to Project:

Project/Plan	Summary information	Possible Impact Pathways
		▪ Water Quality ▪ Hydrology ▪ Atmospheric Pollution **LSE in-combination with NPT RLDP cannot be excluded.**
Morfa Landfill Site	Development application by Tata Steel UK Ltd to split the mineral extraction areas on the Morfa landfill site into two distinct areas to facilitate construction and capping of a new landfill cell. Currently the permission refers to an area of a new landfill sell to the northeast of the landfill and a borrow pit area to the west of the landfill. Application approved.	The Project has the potential to impact nearby terrestrial and aquatic environments during construction. The following impact pathways could be attributed to Project: ▪ Water Quality ▪ Atmospheric Pollution **LSE in-combination with NPT RLDP cannot be excluded.**
Afan Valley Adventure Resort (P2018/0493)	Development proposal submitted by Wildfox Resorts adventure resort comprising 600 no. lodges/apartments, 100-bed hotel with associated spa, central plaza containing restaurants, leisure activities and shops, adventure activities and associated buildings (including X-sports, alpine/ski, forest activities and Trax & Trail), restaurants and associated administration and maintenance buildings and parking for approx. 850 cars, plus associated landscaping, drainage and engineering operations including re-profiling of land, boundary treatment, retaining structures, external lighting and CCTV, and diversion of public rights of way. Planning application approved.	The Project consists of development which seek to add to the tourism industry in the area. This Project relates to a Key Site – Afan Valley Adventure Resort. In the absence of mitigation measures during construction and owing to the anticipated increase in usage of the area during operation, the following impact pathways could be attributed to Project: ▪ Recreational Pressure ▪ Water Quality ▪ Hydrology ▪ Atmospheric Pollution **LSE in-combination with NPT RLDP cannot be excluded.**
Global Centre of Rail Excellence (P2024/0347)	Development of a Global Centre of Rail Excellence (GCRE), comprising of two test tracks of loop configuration including an electrified high speed rolling stock test track of 6.9km in length and an electrified low speed infrastructure test track of 4.5km, with overhead line equipment (OLE) and dual platform station test environment; together with operations and control offices (including staff accommodation and welfare), shunter cabins (2 no.), research and development, education and training, rolling stock storage sidings and maintenance/ cleaning/ decommissioning facilities; and associated, drainage, internal vehicular accesses, branch line rail connection, staff and visitor car parking, lighting, electrical infrastructure (including substations and lineside	This Project involved major development in key areas of the NPT area and beyond. This Project relates to a Key Site – GCRE. In the absence of appropriate mitigation measures, during the construction phase of the GCRE, the following impact pathways which could be attributed to Project: ▪ Water Quality ▪ Atmospheric Pollution The project HRA that was completed for this planning application concluded no LSE from the proposed scheme on any European Sites within 10km.

Project/Plan	Summary information	Possible Impact Pathways
	shore supplies and transformers), fencing (perimeter security, acoustic and stock proof), land reformation and hard and soft landscaping, together with demolition of existing buildings/structures (cross-boundary application - see Powys CC Application ref. 21/0559/OUT). Awaiting planning decision.	**LSE in-combination with NPT RLDP cannot be excluded.**
TATA Steel UK	The proposed development consists of the planned upgrade to the internal power generation facility (the new power station) at the Port Talbot Steelworks site. The new power station will comprise the installation of two new boilers (nominally up to 164 MWth each) and associated steam turbine sets with a total gross electrical power generation output of up to 150 MWe. The new boilers will replace four of the site's existing boilers, which will be decommissioned planned upgrade to the internal power generation facility (the new power station) at the Port Talbot Steelworks site. The decommissioned plant will not be removed from the site. Post commissioning, use of the decommissioned plant will be prevented by conditions included in the permit as part of this variation.	The Project consists of a renewable energy development. Constructions phase activities will be varied and further detail relating to pollution/mitigation measures are required to undertake a robust assessment of in-combination LSE. However, employing the precautionary principle, the following impact pathways could be attributed to Project: ▪ Water Quality ▪ Hydrology ▪ Atmospheric Pollution **LSE in-combination with NPT RLDP cannot be excluded**
Aberpergwm Colliery (P2014/0729 and P2023/0770)	The application for an extension to and reconfiguration of the underground coal workings; Creation of a mine waste repository with the retention and improvement of the associated haul road (to dispose of mine waste and discard from coal preparation at the mine) and the delivery of further peat habitat mitigation works; Mine Surface development, including - regularisation and time extension of existing mine related operations and mine surface development, consolidation of existing planning permissions and planning controls, construction of infrastructure/buildings, formation of materials storage and stocking areas, drainage works, and landscaping. Awaiting planning decision.	The Project details the restoration for the Mine Waste Repository (MWR). The Project has in-built environmental protection measures which call for the exclusion of LSE on European Sites. No LSE are anticipated as a result of this Plan in-combination with NPT RLDP.
Parc Pelenna (P2024/0186)	Development of private and premium holiday lodge development, on land located between the settlements of Tonna and Resolven, in Clyne and Melincourt Parish and Resolven Ward. The project will create a premium leisure development that would include holiday lodges and other supporting leisure facilities and tie in with the wider natural leisure offer of the Vale of Neath as well as the adjacent Brecon Beacons National Park and South Wales Valleys landscape. The development proposed is similar to a holiday village	The Project consists of development which seek to add to the tourism industry in the area. In the absence of mitigation measures during construction and owing to the anticipated increase of usage of the area during operation, the following impact pathways could be attributed to Project: ▪ Recreational Pressure ▪ Water Quality

Project/Plan	Summary information	Possible Impact Pathways
	outside an urban area, and by the site area measuring over 0.5 ha, the proposed development falls within Category 12(c) of Schedule 2 of the Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017. EIA Development.	▪ Hydrology ▪ Atmospheric Pollution **LSE in-combination with NPT RLDP cannot be excluded.**
Mynydd Fforch Dwm Wind Farm and Solar Array (MFD) (P2023/0638)	Naturalis Energy Developments Ltd ('the Applicant') has submitted a planning application for a Development of National Significance ('DNS') to Planning and Environment Decisions Wales (PEDW). The project is named the Mynydd Fforch Dwm Wind Farm and Solar Array (MFD). construction and operation of six electricity generating wind turbines, a solar photovoltaic array and associated infrastructure that would be located approximately 6 km to the east of Neath and 1 km to the north-east of Tonmawr, within the administrative area of Neath Port Talbot County Borough Council (NPTCBC). Awaiting planning decision. EIA development.	The Project assessment highlights the potential impact on nearby European Sites, including Crymlyn Bog SAC and Ramsar. The following impact pathways could be attributed to Project: ▪ Water Quality ▪ Atmospheric Pollution **LSE in-combination with NPT RLDP cannot be excluded.**
Y Bryn Wind Farm (P2024/0029)	Installation of up to 18 wind turbines with maximum heights ranging between up to 206m, up to 230m, and up to 250m to blade tip. Each with foundations, external transformer housings, crane hardstanding and erection area; together with ancillary infrastructure and construction enabling works including substation, control building and compound; energy storage facility; two permanent wind monitoring locations; upgraded and new access tracks and highway junctions; underground cable runs; site signage; borrow pits; temporary construction and storage compounds and laydown areas. EIA development – awaiting planning decision.	The Project constitutes a Development of National Significance (DNS) with several elements of development involved. Constructions phase activities will be varied and further detail relating to pollution/mitigation measures are required to undertake a robust assessment of in-combination LSE. However, employing the precautionary principle, the following impact pathways could be attributed to Project: ▪ Water Quality ▪ Atmospheric Pollution **LSE in-combination with NPT RLDP cannot be excluded.**
Penllergaer Estate Solar Farm (2024/0988/DNS)	The proposal is seeking to install a 40 MW solar farm with associated infrastructure over 250 hectares of agricultural fields. The development will include underground cabling under Nant y Crimp SSSI. The site contains 14 ha of BMV land, as well as small watercourses passing. EIA Development.	The Project constitutes a potential Development of National Significance (DNS). While the council consultation indicated that the implementation of a Construction Environmental Management Plan (CEMP) could mitigate against the potential risk of pollution, noise and disturbance, this has not yet been generated and therefore the following impact pathways could be attributed to Project: ▪ Water Quality

Project/Plan	Summary information	Possible Impact Pathways
		▪ Hydrology ▪ Atmospheric Pollution **LSE in-combination with NPT RLDP cannot be excluded.**
East Pit (P2012/1073)	A planning application at the site currently known as East Pit East Revised OCCS, Gwaun-cae-Gurwen, SA18 1UP for development comprising: Matters of Outline with all matters reserved: leisure facilities to include: a 120-bedroom hotel (Use Class C1); 78 holiday lodges (Class C3) of 2, 3 and 4 bed-units; a campsite (Sui Generis) of 6.35ha. with facilities block of 210m2 and Visitors Centre (Class D1) of 300m2; dive centre with ancillary dive centre shop (Class D2) of 1630m2; all to include appropriate parking provision, recreational open space, internal access routes, services and drainage provision; and associated works including access, footpaths, cycle routes and bridleways, landscaping and layout details; Matters of Detail (as set out in the application at Annex 1: Mineral Extraction and Processing) the proposed north eastern extension to East Pit East Revised for the purposes of coal extraction along with the completion of coaling at the existing site and the retention of associated ancillary development and Gwaun-Cae-Gurwen Railhead together with the development of a Country Park and recreational lake.	The Project consists of development which seek to add to the tourism industry in the area. In the absence of mitigation measures during construction and owing to the anticipated increase of usage of the area during operation, the following impact pathways could be attributed to Project: ▪ Recreational Pressure ▪ Water Quality ▪ Hydrology ▪ Atmospheric Pollution **LSE in-combination with NPT RLDP cannot be excluded.**
Rheola (P2023/0919)	This application consists of a proposed redevelopment of existing buildings and erection of new buildings to accommodate leisure uses including up to 295 holiday accommodation units, retail premises and a leisure complex together with associated access, footpaths, ecological improvements and landscaping, boundary treatment, services, parking and circulation and associated engineering operations.	The Project consists of development which seek to add to the tourism industry in the area. In the absence of mitigation measures during construction and owing to the anticipated increase of during operation, the following impact pathways could be attributed to Project: ▪ Recreational Pressure ▪ Water Quality ▪ Hydrology ▪ Atmospheric Pollution **LSE in-combination with NPT RLDP cannot be excluded.**
Foel Trawsnant wind farm (P2014/0825)	The proposal consists of installation of 11 wind turbines with a maximum tip height of 145m, together with ancillary development including substation and control building, on site underground electrical cables, stone site access tracks, temporary construction compounds, turbine foundations and temporary crane pads. (Amended application which seeks a reduction in the number of turbines	The Project consists of a renewable energy development. Constructions phase activities will be varied and further detail relating to pollution/mitigation measures are required to undertake a robust assessment of in-combination LSE.

Project/Plan	Summary information	Possible Impact Pathways
	from 13 to 11, an increase in maximum tip height of turbines from 120m to 145m).	However, employing the precautionary principle, the following impact pathways could be attributed to Project: ▪ Water Quality ▪ Atmospheric Pollution **LSE in-combination with NPT RLDP cannot be excluded**
Hirfynydd Wind Farm (P2022/0904)	The proposed application consists of a Development of National Significance (DNS) for a Renewable Energy Park comprising wind generating capacity, solar photovoltaic generating capacity and battery storage.	The Project constitutes a DNS with several elements of development involved. The following impact pathways could be attributed to Project: ▪ Water Quality ▪ Atmospheric Pollution **LSE in-combination with NPT RLDP cannot be excluded.**
Former Llandarcy Oil Refinery Neath (P2005/0393)	The proposal consists of an urban village comprised of approx. 4,000 dwellings, 41,200sq m of B1 business uses; up to 3,800 sq m of retail (gross) and 8,000 sq m of other commercial, education, community facilities, highways, drainage, services, infrastructure, car parking and landscaping.	The Project consists of development which seek to add to the retail and commercial industries in the area, in addition to meeting education, community facility and infrastructure needs. An environmental management plan has been cited as a condition with the planning approval, management of surface water during construction phase of the development. In the absence of further detail relating to mitigation measures during construction, and owing to the anticipated increase of area usage during operation, the following impact pathways could be attributed to Project: ▪ Recreational Pressure ▪ Water Quality ▪ Hydrology ▪ Atmospheric Pollution **LSE in-combination with NPT RLDP cannot be excluded.**

9. Appropriate Assessment

9.1 Recreational Pressure

Kenfig / Cynffig SAC

9.1.1 As stated in **0**, Kenfig SAC, is a biodiverse site with coastal and freshwater habitats, including three types of dune habitats and a fen orchid population, all sensitive to recreational pressure, associated with a variety of activities including walkers and horse riders. The Core Management Plan identifies trampling, soil compaction, and illegal activities as key threats. Horse trampling has significantly impacted the Atlantic saltmarsh, with habitat loss noted between 1991 and 2000. Wardening and restrictions, including a Horse Riding Permit Scheme, have been implemented to manage these pressures.

9.1.2 Residential development within the NPT authority could exacerbate these issues, leading to further habitat degradation and biodiversity loss. Effective management and mitigation measures are essential as well as the provision of other areas of suitable recreational space.

9.1.3 There is one RLDP key site, as shown in Table 9-1 within the 5km of the SAC that is more likely to contribute to visitor numbers.

Table 9-1. The Key Sites proposed for housing development showing distances from Kenfig / Cynffig SAC and whether mitigation may or may not be required.

Key Site	Proposed no. dwellings	Distance	Mitigation required? (Yes/ No)
Coed Hirwaun	400	2km	Yes
Land East of Rhos	400	>15km	No
Land adjacent to Blaenbaglan	341	9.5km	No
Fforest Farm	300	>15km	No

9.1.4 Given the current scale of development growth outlined in the Preferred Strategy and the allocated sites within proximity to the SAC, recreational pressure is likely to be best managed from a site management perspective, as already outlined in the sites Core Management Plan. However, at the Deposit Plan stage this should be reviewed and the requirement for additional mitigation measures such as suitable impact avoidance strategies or alternative green space should be considered.

9.1.5 At the time of writing, adverse effects of the NPT RLDP on the Kenfig SAC regarding recreational pressure cannot be excluded. This conclusion will be reassessed in the Deposit Plan HRA when more information is available.

In-combination effects

9.1.6 All of the Plans and two of the Projects (Afan Valley Adventure Resort and Parc Pelenna) included in the in-combination assessment have been assessed as having potential in-combination effects with regards to recreational pressure. This impact pathway has been identified for each of these Plans/Projects due to the focus on boosting tourism in the region(s) and/or the driver(s) to reconnect people with the local area(s) embedded in the Plan(s). Further detail relating to each of the Plans and Projects assessed is provided in **Table 8-1**.

9.1.7 The in-combination effects should be reassessed at the Deposit Plan stage, in the event that new projects and plan are added in the interim period.

9.2 Water Quality

Kenfig / Cynffig SAC

9.2.1 The SAC adjoins the NPT authority boundary in the south and is wholly situated in the authority of Bridgend. Some of the SAC's qualifying features critically depend on hydrological input, including the humid dune slacks and dunes with Salix repens, hard oligo-mesotrophic waters with benthic vegetation, Atlantic saltmarsh, and fen orchid.

9.2.2 The Kenfig dune system and its characteristic plant assemblages are directly dependent on the prevailing hydrochemical regime. The main threat to water quality within the SAC has been identified as elevated macronutrient concentrations, such as those resulting from the discharge of treated sewage effluent. Elevated nitrogen concentrations have been measured at Burrows Well (a karstic spring) on the Merthyr Mawr component of the site, and the slacks have been identified as becoming increasingly eutrophic. The high permeability of the underlying limestone aquifer implies that relatively distant point-source and diffuse pollution sources have the potential to affect water quality in the SAC.

9.2.3 Kenfig Pool, an example of a hard oligo-mesotrophic freshwater system, is also sensitive to nutrient enrichment. As a freshwater ecosystem, the main growth-limiting nutrient is considered to be phosphorus (currently at 20 µg/L). However, mean annual total nitrogen concentrations are likely to play an important supplementary role, as nitrogen can be used at various stages in the growth cycle. The Core Management Plan for the SAC stipulates that there should be no evidence of sedimentation or excessive growth of cyanobacteria and green algae.

9.2.4 A review of Welsh Water online mapping portals indicate the location of storm overflows and treatment works in the vicinity of the SAC. There is a large wastewater treatment works (WwTW) serving a population greater than 2,000 that discharges treated sewage effluent in the vicinity of the SAC (Pen-Y-Bont, Merthyr Mawr). Contributions to residential development in the vicinity of the SAC may lead to in-combination effects on the SAC site integrity.

9.2.5 The Merthyr Mawr WwTW and other upstream wastewater treatment works contribute to the elevated nutrient concentrations in the River Ogmore, which may also affect the Kenfig SAC. The hydrological connection between the River Ogmore and the SAC is likely due to the high permeability of the underlying limestone aquifer, meaning that water quality impacts from distant sources can affect the SAC. Recently discovered elevated nitrogen levels at Burrows Well (a karstic spring) and increasing eutrophication of the dune slacks have brought potential negative impacts from treated sewage effluent under scrutiny.

9.2.6 There is one Key Site identified for residential development 2km from the SAC (Coed Hirwaun), at the stage of writing this assessment it is not clear how water management at this proposed development will be supported. GIS mapping indicates that this Key Site is hydrologically connected to the SAC.

9.2.7 Welsh Water have commented on all Candidate Sites and have suggested that all allocated sites with over 50 dwellings will require Hydraulic Modelling Assessments. Modelling, in conjunction with hydrological analysis, allows determination of flood extents, levels, depths, velocities, and overland flood routing. Modelling may also be used to determine scour, sediment and pollution dispersal.

9.2.8 Depending on the confirmed distribution of development in the Deposit RLDP and the WwTWs accommodating the sewage produced, there is the potential that the RLDP could affect the prevailing water quality in the Kenfig SAC.

9.2.9 At the time of writing, adverse effects of the NPT RLDP on the Kenfig SAC regarding water quality cannot be excluded. This is due to uncertainties over the area served by Pen-Y-Bont

Merthyr Mawr WwTW (a WwTW in close proximity to the SAC) and the final suite of allocations that will be taken forward in the Deposit RLDP. Therefore, this impact pathway will need to be revisited in the Deposit Plan HRA.

Crymlyn Bog / Cors Crymlyn SAC/ Crymlyn Bog / Cors Crymlyn Ramsar

9.2.10 As detailed in the screening stage the SAC and Ramsar site is reliant on water availability to support the qualifying features. Any plan or project that may lead to a deterioration of the water quality that support the qualifying features may lead to adverse effect on the sites integrity.

9.2.11 Calcareous fen, transition mire, and alluvial forest at Crymlyn Bog depend on low nutrient levels. Currently, nitrogen levels exceed the critical load, influenced by the water quality of streams and the Tennant Canal, as well as runoff from nearby farmland. Atmospheric deposition also significantly impacts nutrient levels as cited in the Ramsar Wetlands Information Sheet (RIS).

9.2.12 Developments within the SAC's water catchment area could affect water quality if they alter surface water runoff feeding local streams. However, site drainage systems, including Sustainable Drainage Systems (SuDS), are available to mitigate these issues, and Natural Resources Wales (NRW) controls are expected to prevent increased pollution levels. Project-level Habitats Regulations Appraisal (HRA) will ensure necessary measures are in place to prevent impacts.

9.2.13 Impacts from farmland development on site runoff and fertilizer reaching the SAC are considered minimal. Atmospheric deposition impacts are addressed below.

9.2.14 There is one Key Site proposedwithin the hydrological catchment to the SAC; Land East of Rhos is proposed for 400 dwellings, located 7.6km north of the SAC. Given the distance and environmental protection policies that are designed to safeguard against environmental pollution it is unlikely that the RLDP would lead to adverse impacts to water quality at the SAC, either alone or in-combination with other plans and projects.

9.2.15 Overall, therefore, adverse effects of the NPT RLDP on the SAC regarding water quality impacts from development of the Plan can be excluded.

Glaswelltiroedd Cefn Cribwr / Cefn Cribwr Grasslands SAC

9.2.16 As discussed in **0** the SAC is reliant on water quality conditions and additional development demand on the receiving treatment works may lead to in-combination impacts to the SAC.

9.2.17 As discussed with regard to Kenfig SAC, there is one Key Site proposed for residential development 3.4km from the SAC (Coed Hirwaun), at the stage of writing this assessment it is not clear how water management at this proposed development will be supported. GIS mapping indicates that this Key Site is not hydrologically connected to the SAC.

9.2.18 Depending on the confirmed distribution of development in the Deposit RLDP and the WwTWs accommodating the sewage produced, there is the potential that the RLDP could affect the prevailing water quality in the Kenfig SAC.

9.2.19 At the time of writing, adverse effects of the NPT RLDP on the Cefn Cribwr Grasslands SAC regarding water quality cannot be excluded. This is due to uncertainties over the area served by Pen-Y-Bont Merthyr Mawr WwTW (a WwTW in close proximity to the SAC) and the final suite of allocations that will be taken forward in the Deposit RLDP. Therefore, this impact pathway will need to be revisited in the Deposit Plan HRA, when the required evidence base will be available.

In-combination effects

9.2.20 All of the Plans and Projects included in the in-combination assessment have been assessed as having potential in-combination effects with regards to water quality. This impact pathway has been identified for each of these Plans/Projects due to the required for development and/or the inherent development driver embedded in the Plan(s) which has the potential to impact water quality through pollution of surface water, groundwater and/or marine waters in the respective sites/areas as a result of construction activities. Further detail relating to each of the Plans and Projects assessed is provided in **Table 8-1**. These in-combination effects should be reviewed at the Deposit Plan Stage.

9.2.21 The in-combination effects should be reassessed at the Deposit Plan stage, in the event that new projects and plan are added in the interim period.

9.3 Water Quantity

Kenfig / Cynffig SAC

9.3.1 As detailed in the screening stage the SAC is reliant on water availability to support the qualifying features. Any plan or project that increases water demand or disrupts the natural flow of water through permeable land has the potential to effect the conservation objectives of the site.

9.3.2 Welsh Water is responsible for the public water supply across large parts of Wales. All water suppliers are legally required to publish Water Resources Management Plans (WRMPs) every five years. These plans outline how they will meet projected water demands within their supply zones without causing harmful environmental impacts. WRMPs consider various important factors, including changes in water availability due to climate change, environmental needs, and population-level behavioural changes. As a result, these documents are designed to be as precautionary as possible, based on the available data.

9.3.3 Currently, Welsh Water is developing its Water Resources Management Plan (WRMP)[41] and it remains at the draft stage, within this they are incorporating the latest climate change and growth projections for its supply area. The company serves approximately 1.3 million households and businesses across Wales, Herefordshire, and parts of Deeside. Over the past 25 years, the water supply to Welsh Water customers has decreased from over 1,000 million litres per day (Ml/d) to about 850 Ml/d. This reduction is due to decreased leakage, lower demand from heavy industries, and more efficient water use by individual customers. The highest pressure on water resources is in the major cities, towns, and surrounding areas of South Wales.

9.3.4 In order to deliver the water resource plan an overall commitment, with regard to water management, includes:

- Complying with legislation and align with Welsh Government's water strategy.
- Focus on providing value to customers, society, and the environment.
- Embed sustainable resource management principles.
- Prioritize demand management and reduce leakage by 10% by 2030.
- Enhance resilience to drought and climate change.
- Ensure statutory compliance and conduct environmental assessments.
- Align regional and company water resource plans.

[41] https://www.dwrcymru.com/en/our-services/water/water-resources/draft-water-resources-management-plan-2024

- Explore beneficial water resource trading opportunities.

9.3.5 Welsh Water manages its water supplies and demands across 23 water resource zones (WRZs). It provides water and sewerage services to around 3 million customers in much of Wales and small parts of Cheshire and Herefordshire in England. Additionally, it serves over 100,000 business customers, delivering more than 800 million litres of drinking water daily, which can increase by up to 20% during hot summers. Most of the water is sourced from impounding reservoirs, with significant volumes also abstracted from lowland rivers such as the Wye, Usk, Towy, and Dee. Groundwater accounts for less than 5% of the total supply but can be the sole source in some local areas. River abstractions are predominant in zones like Tywyn Aberdyfi, Llyswen, Hereford CUS, Whitbourne, Ross on Wye, and Monmouth, while reservoir supplies dominate the rest of Welsh Water's service area, including the Tywi Gower zone which is relevant to the RLDP, these sources are attributed to Crai and Ystradfellte reservoirs. Groundwater sources are also present in the Pilleth, Brecon, Clwyd Coastal, Pembrokeshire, Hereford, and Vowchurch zones.

9.3.6 For the purpose of maintaining supply within the Tywi Gower water resource zone a number of options have been presented in the WRMP, including demand management measures and four supply side options.

9.3.7 Based on the likely demand of water resources from the RLDP these will need to work concurrently with Welsh Water supply side options. This however wouldn't be expected to impact the SAC as for the purposes of water supply there are no hydrological connections between the Key Site requirements and the SAC.

9.3.8 Overall, therefore, adverse effects of the NPT RLDP at the Preferred Strategy stage, on the Kenfig SAC regarding water quantify impacts from water resource demand can be excluded. This should be reviewed and updated at the Deposit Plan stage, this should include a review of other water abstractions, that may contribute to effects.

Crymlyn Bog / Cors Crymlyn SAC and Ramsar

9.3.9 As discussed in **0** the SAC is reliant on the maintenance high water table levels and as such is potentially at risk from the effects of increased water demand.

9.3.10 As discussed with regard to Kenfig SAC Welsh Water is responsible for the supply and management of water resource across large parts of Wales. The Tywi Gower water resource zone is under pressure however the WRMP that is currently in draft suggests that means are in place to manage the future supply demand. Water resource in this zone rely on reservoir supply and as such there are not expected to be any hydrological connectivity between the SAC and the RLDP through an increase in population.

9.3.11 Overall, therefore, adverse effects of the NPT RLDP on the Crymlyn Bog / Cors Crymlyn SAC and Ramsar water quantify impacts from water resource demand can be excluded. This should however be reviewed at the Deposit Plan stage where a review of any updates to Welsh Water WRMP should be completed along with details of other water abstractions.

Glaswelltiroedd Cefn Cribwr / Cefn Cribwr Grasslands SAC

9.3.12 As discussed in **0** the SAC is reliant on maintain high water table levels from the groundwater and as such are potentially at risk from the effects of increased water demand.

9.3.13 As discussed with regard to Kenfig SAC and Crymlyn Bog / Cors Crymlyn SAC and Ramsar, Welsh Water is responsible for the supply and management of water resource across large parts of Wales. The Tywi Gower water resource zone is under pressure however the WRMP that is currently in draft suggests that means are in place to manage the future supply demand. Water resource in this zone rely on reservoir supply and as such there are not

expected to be any hydrological connectivity between the SAC and the RLDP through an increase in population.

9.3.14 Overall, therefore, adverse effects of the NPT RLDP on the Cefn Cribwr Grasslands SAC water quantify impacts from water resource demand can be excluded.

In-combination effects

9.3.15 All of the Plans and four of Projects (Celtic Freeport, Afan Valley Adventure Resort, Parc Pelenna and Penllergaer Estate Solar Farm) included in the in-combination assessment have been assessed as having potential in-combination effects with regards to water quantity/hydrology. This impact pathway has been identified for each of these Plans/Projects due to the required for development and/or the inherent development driver embedded in the Plan(s) which has the potential to impact water quantity, level and/or flow in the respective sites/areas. Further detail relating to each of the Plans and Projects assessed is provided in **Table 8-1**.

9.3.16 The in-combination effects should be reassessed at the Deposit Plan stage, in the event that new projects and plan are added in the interim period.

9.4 Atmospheric Pollution

Kenfig / Cynffig SAC

9.4.1 All the SAC features are sensitive to nutrient levels influenced by water quality and atmospheric nutrient deposition. Humid dune slacks, fixed dunes with herbaceous vegetation, and L. loeselii are also acid-sensitive. Nutrient levels are affected by water quality, which can be influenced by atmospheric nitrogen deposition. Acid deposition can result from elevated atmospheric pollution levels, impacting water chemistry either directly from high levels of ethylene/ethane or indirectly. Nearby sources of air pollution, such as industrial installations, agricultural activities, old landfill sites, transport emissions, and wind-blown particulates from nearby tips, are a concern.

9.4.2 Currently, atmospheric nitrogen (NOx) levels are not at critical levels[42], but there is a risk of change due to the proximity of pollution sources and cumulative impacts. NRW's guidance for Integrated Pollution Control (IPC) and Pollution Prevention and Control (PPC) permissions under the Habitats Regulations sets benchmark levels for atmospheric deposition. If any development results in more than 1% of the relevant benchmark figure, a full Appropriate Assessment (AA) would be required, and if adverse effects are found, the development would not be acceptable.

9.4.3 The screening process identified Key Sites that may contribute to atmospheric pollution of the SAC these include the Port Talbot developments that are associated with employment opportunities as well as land allocated for residential development, within 5km of the SAC.

9.4.4 RLDP sites that may contribute to atmospheric pollution Additional projects as identified within the in-combination assessment have the potential to exacerbate impact from air pollution.

9.4.5 The wording in Policy SP18 Environmental Protection makes species reference to ensuring adverse impacts to the environment are safeguarded and air quality is specifically noted.

9.4.6 At this stage of the RLDP therefore it would be appropriate to conclude that the Plan would not lead to adverse effect to SAC site integrity, however this should be reviewed at the Deposit

[42] Data within APIS APIS app | Air Pollution Information System accessed 15/10/24

Plan stage to review additional details provided on the allocated sites and if they have been appropriately screened with regard to the environmental protection policies within the Plan.

Crymlyn Bog / Cors Crymlyn SAC/ Crymlyn Bog / Cors Crymlyn Ramsar

9.4.7 Air pollution significantly impacts Crymlyn Bog, primarily through the deposition of atmospheric nitrogen and other pollutants. Elevated nitrogen levels can lead to nutrient enrichment, disrupting the delicate balance of this bog ecosystem. This enrichment promotes the growth of more competitive plant species, such as grasses, which can outcompete and displace the specialized flora typical of bog habitats. Additionally, pollutants like sulphur dioxide and ammonia can acidify the soil and water, further altering the habitat's chemistry and affecting the species that depend on it. The cumulative effects of these pollutants can degrade the ecological integrity of Crymlyn Bog, leading to a loss of biodiversity and changes in habitat structure and function RLDP allocations that may contribute to atmospheric pollution.

9.4.8 Nitrogen deposition poses a significant threat to bog ecosystems in the UK, impacting biodiversity and carbon storage. Even low levels of N deposition (7.7-10 kg ha−1 yr−1) can negatively affect bryophytes, lichens, and flowering plants (Phoenix et al., 2012). Long-term N addition alters soil chemistry, increases bacterial biomass, and stimulates enzyme activity in peat, leading to faster litter decomposition and reduced carbon accumulation (Bragazza et al., 2012). High N deposition decreases Sphagnum growth and alters its competitive balance with vascular plants, potentially challenging bog survival (Limpens, 2003). British peatlands receive an average of 14.1 kg N ha−1 yr−1, with 69.6% of areas exceeding critical load limits (Payne, 2014). Although N deposition is projected to decrease, its accumulation in peat is likely to continue, presenting an ongoing threat to these sensitive ecosystems (Payne, 2014).[43]

9.4.9 As discussed, regarding Kenfig SAC, Environmental Protection policies support the requirement to allow development and growth within the NPT authority, with regard to supporting the requirement to protect air quality.

9.4.10 Further detail within the policy at the Deposit Plan stage regarding ensuring no adverse effects to European Sites with regard to air pollution would strengthen the Plan.

9.4.11 At this stage of the RLDP therefore it would be appropriate to conclude that the Plan would not lead to adverse effect to SAC site integrity, however this should be reviewed at the Deposit Plan stage to review additional details provided on the allocated sites and if they have been appropriately screened with regard to the environmental protection policies within the Plan.

Glaswelltiroedd Cefn Cribwr / Cefn Cribwr Grasslands SAC

9.4.12 The SAC is one of the major UK strongholds for *Molinia* meadows (Purple moor-grass meadows: H6410); one of four sites representing this habitat type in south and central Wales.

9.4.13 This site is characterised by extensive stands of M24 *Molinia – Cirsium dissectum* fen-meadow, with a sub-type of cross-leaved heath *Erica tetralix* (Wet heathland with cross-leaved heath; H4010). There are also other forms of this community on the site containing a stronger representation of grasses, rushes and small sedges along with transitions to stands of more acidic *Molinia* and *Juncus* pasture, dry neutral grassland and wet scrub vegetation being 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*.[44]

9.4.14 The effect of increased nitrogen loads on grassland habitats mainly impact species growth via photosynthetic and nitrogen assimilation/metabolism pathways. Visible symptoms are not

[43] References within this paragraph are detailed fully in the footnotes Section 6 and are added here for information.

[44] JNCC https://sac.jncc.gov.uk/habitat/H6410/

obvious though leaf discoloration can occur at very high concentrations (> 400 ug m^3) and the ratio of shoot:root growth may increase. Changes in species composition towards nitrogen-tolerant species, damage to mosses, liverworts and lichens, and a reduction in species diversity is a more obvious diagnostic indication of nitrogen impacts [45].

9.4.15 The existing environmental protection policies support the need to balance development and growth within the NPT authority while ensuring air quality is protected. Adding more details at the Deposit Plan stage about preventing adverse effects on European Sites due to air pollution would enhance the Plan. At this stage of the RLDP, it is appropriate to conclude that the Plan would not adversely affect the integrity of SAC sites. However, this should be reassessed at the Deposit Plan stage to review additional details on the allocated sites and ensure they have been properly screened according to the Plan's environmental protection policies.

In-combination effects

9.4.16 All of the Plans and Projects included in the in-combination assessment have been assessed as having potential in-combination effects with regards to atmospheric pollution. This impact pathway has been identified for each of these Plans/Projects due to the required for development and/or the inherent development driver embedded in the Plan(s) and the potential air and soil pollution as a result of construction activities. Further detail relating to each of the Plans and Projects assessed is provided in **Table 8-1.**

9.4.17 The in-combination effects should be reassessed at the Deposit Plan stage, in the event that new projects and plan are added in the interim period.

[45] APIS https://www.apis.ac.uk/nitrogen-oxides-grasslands

10. Conclusions

10.1.1 The plan includes eighteen Strategic Policies, each of which were considered for further assessment to determine whether it could lead to an LSE on European Sites.

10.1.2 The assessment of LSE was undertaken in accordance with the TAN5 guidance whereby the policies outlined within the emerging RLDP were systematically checked and assigned to a category from A-M outlined in the DTA HRA handbook.

10.1.3 Thirteen of these policies were excluded from further assessment based on DTA screening guidance and five were brought forward for further assessment as a result of their potential for adverse effects on European Sites. These policies include:

- SP6 Strategy Areas;
- SP8 Housing;
- SP9 Retail and Commercial Centres;
- SP10 Tourism; and
- SP11 Economic Recovery

10.1.4 SP6, SP8 SP9, and SP11 were screened in for AA as per screening category I of DTA HRA guidance, and SP10 was screened in for AA as per screening category L. The following impact pathways could be attributed to these policies: recreational pressure, water quality, hydrology and atmospheric pollution.

10.1.5 A range of potential impact pathways were considered during this assessment. Four of the Strategic Policies with the RLDP protect against adverse effect, therefore the following impact pathways were screened out from further assessment: direct disturbance to species and habitat, direct modification of European Site habitats, loss of functionally linked habitat and noise and vibration impacts. Four impact pathways were identified within the RLDP, including atmospheric pollution, recreational pressures, water quality and water quantity, level and flow.

10.1.6 In-combination effects with other Plans and Projects have been considered and LSE cannot be excluded on the basis that many of the Plans and Projects assessed share potential impact pathways with the RLDP.

10.1.7 The AA concluded that adverse effects on site integrity could not be excluded for certain impact pathways at this stage:

- Kenfig / Cynffig SAC: Recreational pressure and water quality.
- Glaswelltiroedd Cefn Cribwr / Cefn Cribwr Grasslands SAC: Water quality.
- Other impact pathways, such as atmospheric pollution and hydrology, will need to be reassessed at the Deposit Plan stage to ensure no adverse effects on site integrity.

10.1.8 The HRA highlights the need for further assessment and refinement of policies at the Deposit Plan stage to address potential adverse effects on European Sites. This includes revisiting the impact pathways related to recreational pressure, water quality, atmospheric pollution, and hydrology to ensure that the RLDP does not compromise the integrity of these protected areas. Mitigation measures and policy adjustments will be crucial to achieving this goal.

References

Countryside Council for Wales (now NRW) (2008a) Core management Plan – Including Conservation Objectives: Blackmill Woodlands Special Area of Conservation

Countryside Council for Wales (now NRW) (2008b) Core management Plan – Including Conservation Objectives: Blaen Cynon Special Area of Conservation

Countryside Council for Wales (now NRW) (2008c) Core management Plan – Including Conservation Objectives: Brecon Beacons Special Area of Conservation

Countryside Council for Wales (now NRW) (2008d) Core management Plan – Including Conservation Objectives: Coedydd Nedd A Mellte Special Area of Conservation

Countryside Council for Wales (now NRW) (2008e) Core management Plan – Including Conservation Objectives: Crymlyn Bog/ Cors Crylyn Special Area of Conservation

Countryside Council for Wales (now NRW) (2008f) Core management Plan – Including Conservation Objectives: Cwm Cadlan Special Area of Conservation

Countryside Council for Wales (now NRW) (2008g) Core management Plan – Including Conservation Objectives: Dunraven Bay Special Area of Conservation

Countryside Council for Wales (now NRW) (2012) Core management Plan – Including Conservation Objectives: Caneau Mynydd Mawr Special Area of Conservation

Countryside Council for Wales (now NRW) (2013a) Core management Plan – Including Conservation Objectives: Kenfig/Cynffig Special Area of Conservation

Countryside Council for Wales (now NRW) (2013b) Core management Plan – Including Conservation Objectives: Glaswelltiroedd Cefn Cribwr/ Cefn Cribwr Grasslands Special Area of Conservation

GOV.WALES (2009) Technical advice note (TAN) 5: nature conservation and planning

GOV.WALES (2020) Development Plans Manual (DPM) Edition 3

GOV.WALES (2021) Future Wales: The National Plan 2040

HM Government (1981). Wildlife and Countryside Act, HMSO, London.

HM Government (2006). Natural Environment and Rural Communities Act.

HM Government (2017). The Conservation of Habitats and Species Regulations 2017 (as amended), HMSO, London.

HM Government (2019). The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019.

Joint Nature Conservation Committee (2005) Information Sheet on Ramsar Wetlands: Burry Inlet (UK14001) *JNCC*

Joint Nature Conservation Committee (2008) Information Sheet on Ramsar Wetlands: Crymlyn Bog (UK14006) *JNCC*

Joint Nature Conservation Committee (2015a) Natura 2000 – Standard Data Form: Blackmill Woodlands (UK0030090) *JNCC*

Joint Nature Conservation Committee (2015b) Natura 2000 – Standard Data Form: Blaen Cynon (UK0030092) *JNCC*

Joint Nature Conservation Committee (2015c) Natura 2000 – Standard Data Form: Brecon Beacons/ Bannau Brycheiniog (UK0030096) *JNCC*

Joint Nature Conservation Committee (2015d) Natura 2000 – Standard Data Form: Burry Inlet (UK9015011) *JNCC*

Joint Nature Conservation Committee (2015e) Natura 2000 – Standard Data Form: Caeau Mynydd Mawr (UK0030113) *JNCC*

Joint Nature Conservation Committee (2015f) Natura 2000 – Standard Data Form: Coedydd Nedd a Mellte (UK0030141) *JNCC*

Joint Nature Conservation Committee (2015g) Natura 2000 – Standard Data Form: Crymlyn Bog/ Cors Crymlyn (UK0012885) *JNCC*

Joint Nature Conservation Committee (2015h) Natura 2000 – Standard Data Form: Cwm Cadlan (UK0013585) *JNCC*

Joint Nature Conservation Committee (2015i) Natura 2000 – Standard Data Form: Dunraven Bay (UK0030139) *JNCC*

Joint Nature Conservation Committee (2015j) Natura 2000 – Standard Data Form: Glaswelltiroedd Cefn Cribwr/ Cefn Cribwr Grasslands (UK0030105) *JNCC*

Joint Nature Conservation Committee (2015k) Natura 2000 – Standard Data Form: Kenfig / Cynffig (UK0012566) *JNCC*

Joint Nature Conservation Committee (2015l) Natura 2000 – Standard Data Form: River Usk/ Afon Wysg (UK0013007) *JNCC*

Ministry of Housing, Communities & Local Government (2023): National Planning Policy Framework

National Resources Wales (2018) Carmarthen Bay and Estuaries/Bae Caerfyrddin ac Aberoedd European Marine Site. *Advice provided by Natural Resources Wales in fulfilment of Regulation 37 of the Conservation of Habitats and Species Regulations 2017*.

National Resources Wales (2022) Core management Plan – Including Conservation Objectives: Afon Wysg / River Usk Special Area of Conservation *NRW*

Neath Port Talbot County Borough Council (2016) Local Development Plan (2011-2026). *Neath Port Talbot LDP Adoption Statement* January 2016.

Neath Port Talbot Council (2020a) Local Development Plan (LDP) Review Report *Neath Port Talbot LDP 2011-2026* July 2020.

Neath Port Talbot Council (2020b) The Neath Port Talbot Decarbonisation and Renewable Energy Strategy

Neath Port Talbot Council (2022) Neath Port Talbot Destination Management Plan 2023 – 2028

Neath Port Talbot Council (2023) Neath Port Talbot Council Biodiversity Duty Plan 2023 – 2026

Neath Port Talbot Council (2023) Neath Port Talbot Council Heritage Strategy 2024 – 2039

Neath Port Talbot Council (2024) Neath Port Talbot Council Corporate Plan 2024 – 2027

Tyldesley, D., and Chapman C. (2013) The Habitats Regulations Assessment Handbook October 2013 edition UK: DTA Publications Limited

Welsh Government (2021) Future Wales: The National Plan 2040. April 2021

Appendix A Map of European Designated Sites within 15km of the RLDP Area

Site Boundary
15km Site Boundary Buffer
Main River
Special Area of Conservation (SAC)
Special Protection Area (SPA)
Ramsar

N

Brecon
River Usk / Afon Wysg
Llandeilo
Carmarthen Bay and Estuaries / Bae Caerfyrddin ac Aberoedd
Carmarthen
Clears
Afon Tywi / River Tywi
Cernydd Carmel
Caeau Mynydd Mawr
Crickhowell
Llandeilo
Ammanford
Coedydd Nedd a Mellte
Cwm Cadlan
Ystradgynlais
Brynmawr
Nantyglo
Blaenavon
Tredegar
Blaina
Rhymney
Blaen Cynon
Glynneath
Merthyr Tydfil
Kidwelly
Pontarddulais
Pontardawe
Abertillery
Aberdare
Burry Port
Llanelli
Gorseinon
Mountain Ash
Bargod
Treherbert
Treorchy
Ferndale
Treharris
Blackwood
Pontllanfraith
Abercarn
Abercynon
Ystrad Mynach
Rhondda
Crymlyn Bog / Cors Crymlyn
Neath
Bae Caerfyrddin / Carmarthen Bay (SPA)
Burry Inlet (SPA)
Gower Commons / Tiroedd Comin Gwyr
Swansea
Tonypandy
Porth
Pontypridd
Risca
Maesteg
Pontycymer
Port Talbot
Caerphilly
Blackmill Woodlands
Glaswelltiroedd Cefn Cribwr / Cefn Cribwr Grasslands
Kenfig / Cynffig
Talbot Green
Pencoed
Bridgend
Porthcawl
Cardiff
Cowbridge
Penarth
Llantwit Major
Barry

Stantec	Client: Neath & Port Talbot Council	**Replacement Local Dev Plan** European Designations within 15km of the Site Boundary	0 10 20 km Contains OS data © Crown Copyright and database right 2023 Contains data from OS Zoomstack © Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right 2024.	1:250,000 @ A3	Date: 21/10/2024
				Drawn: SJ	Checked: AC
				Figure: 01	Rev: A

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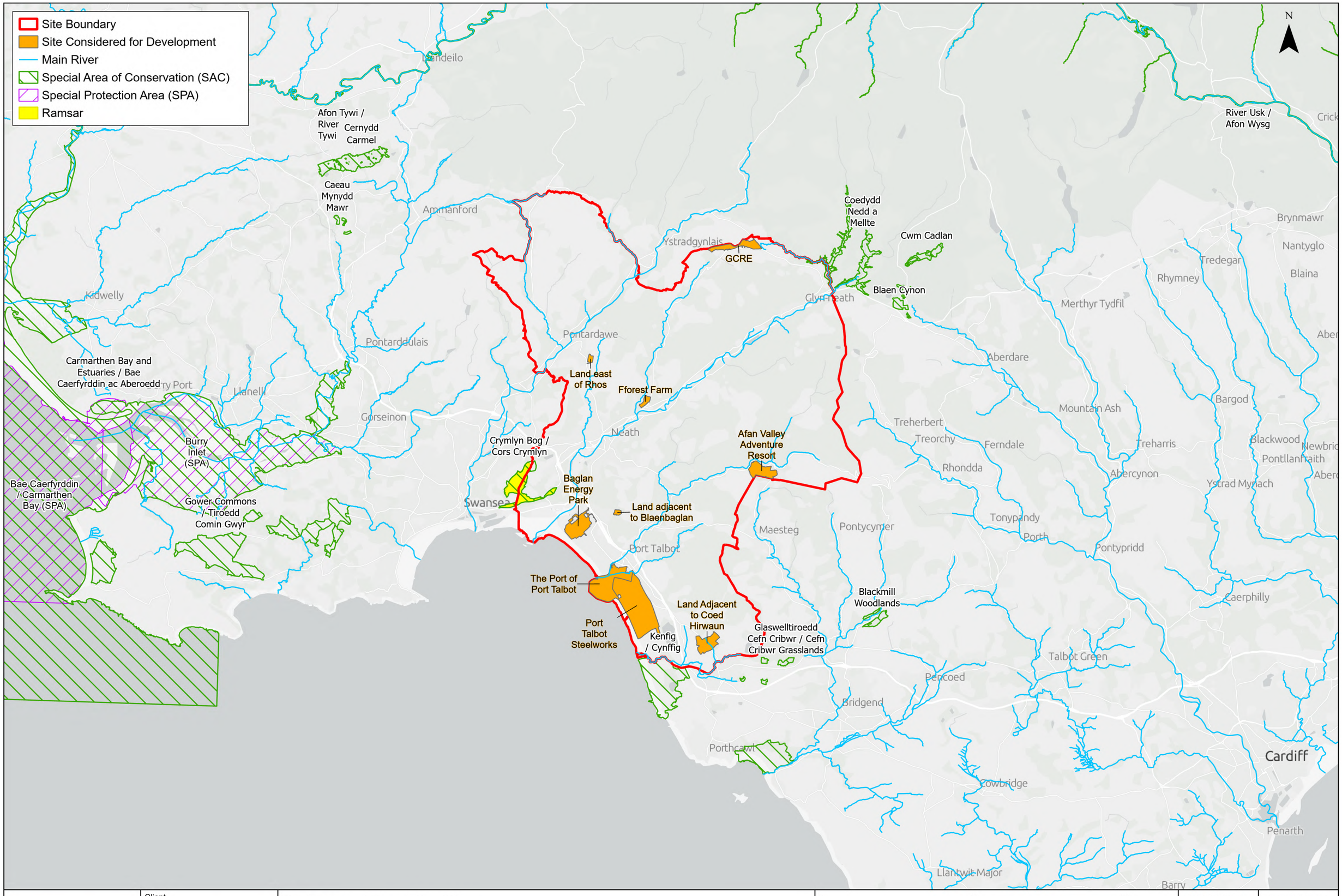
Appendix B Map of the Key Sites and European Designated Sites within 15km of the RLDP Area



Stantec

Client: Neath & Port Talbot Council

Replacement Local Dev Plan

European Designations within 15km of Considered Sites

0 10 20 km

1:220,000 @ A3	Date: 21/10/2024
Drawn: SJ	Checked: AC
Figure: 02	Rev: A

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Appendix C Threats and pressures of European Sites

European Sites included in coarse screening as detailed in Section 3 along with noted threats and pressures.

Threat code	Description of threat / pressure	Kenfig SAC	Coedydd Nedd a Mellte SAC	Crymlyn BogSAC & Ramsar	Caeau Mynydd Mawr SAC	Cefn Cribwr Grasslands SAC	Blackmill Woodlands SAC	Dunraven Bay SAC	River Usk SAC	Brecon Beacons SAC	Cwm Cadlan SAC	Blaen Cynon SAC	Carmarthen Bay and Estuaries SAC	Burry Inlet SPA & Ramsar
A02	Modification of cultivation practices		X											
A03	Mowing / cutting of grassland	X			X									
A04	Grazing	X	X	X	X	X	X		X	X	X	X	X	
A07	Use of biocides, hormones and chemicals	X												
A08	Fertilisation										X			
B02	Forest and Plantation management & use								X					
B07	Forestry activities (non-including: forest planting on open ground; forest and plantation management & use; forest exploitation without replanting or natural regrowth; use of biocides, hormones and chemicals; and/or grazing in forests/woodland)					X	X		X					
D03	Shipping lanes, ports, marine constructions												X	
E06	Other urbanisation, industrial and similar activities												X	
F01	Marine and Freshwater Aquaculture													

Threat code	Description of threat / pressure	Kenfig SAC	Coedydd Nedd a Mellte SAC	Crymlyn BogSAC & Ramsar	Caeau Mynydd Mawr SAC	Cefn Cribwr Grasslands SAC	Blackmill Woodlands SAC	Dunraven Bay SAC	River Usk SAC	Brecon Beacons SAC	Cwm Cadlan SAC	Blaen Cynon SAC	Carmarthen Bay and Estuaries SAC	Burry Inlet SPA & Ramsar
F02	Fishing and harvesting aquatic resources	X											X	X
F03	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.)	X												
F04	Taking / Removal of terrestrial plants, general												X	
G01	Outdoor sports and leisure activities, recreational activities	X	X										X	X
G04	Military use and civil unrest													X
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	X		X					X				X	
H02	Pollution to groundwater (point sources and diffuse sources)											X		
H03	Marine water pollution												X	X
H04	Air pollution, air-borne pollutants	X	X	X	X	X	X			X	X	X	X	X
H05	Soil pollution and solid waste (excluding discharges)	X		X	X				X				X	
I01	Invasive non-native species	X				X	X		X			X	X	

Threat code	Description of threat / pressure	Kenfig SAC	Coedydd Nedd a Mellte SAC	Crymlyn BogSAC & Ramsar	Caeau Mynydd Mawr SAC	Cefn Cribwr Grasslands SAC	Blackmill Woodlands SAC	Dunraven Bay SAC	River Usk SAC	Brecon Beacons SAC	Cwm Cadlan SAC	Blaen Cynon SAC	Carmarthen Bay and Estuaries SAC	Burry Inlet SPA & Ramsar
I02	Problematic native species	X	X				X		X		X			
J01	Fire and fire suppression									X				
J02	Human induced changes in hydraulic conditions	X		X		X					X	X	X	
J03	Other ecosystem modifications	X			X	X			X			X		
K01	Abiotic (slow) natural processes							X						
K02	Biocenotic evolution, succession	X		X	X	X				X	X	X		
K04	Interspecific floral relations		X											
M01	Changes in abiotic conditions	X										X	X	X

Appendix D Location of Key Sites in relation to European Sites

Summary table of the European Sites within 15km of the RLDP Key Sites (Distance provided in Kilometres (km)).

Preferred Strategy Key Site	Kenfig / Cynffig SAC	Coedydd Nedd a Mellte SAC	Crymlyn Bog / Cors Crymlyn SAC	Crymlyn Bog / Cors Crymlyn Ramsar	Caeau Mynydd Mawr SAC	Glaswelltiroedd Cefn Cribwr / Cefn Cribwr Grasslands SAC	Blackmill Woodlands SAC	Dunraven Bay SAC	Afon Wysg / River Usk SAC	Brecon Beacons SAC	Cwm Cadlan SAC	Blaen Cynon SAC	Carmarthen Bay and Estuaries SAC	Burry Inlet SAC	Burry Inlet Ramsar
Coed Hirwaun	2km	>15km	14km	14km	>15km	3.2km	10km	13.3km	>15km	>15km	>15km	>15km	>15km	>15km	>15km
Land East of Rhos	>15km	>15km	7.6km	7.6km	>15km	>15km	>15km	>15km	>15km	>15km	>15km	>15km	>15km	>15km	>15km
Land adjacent to Blaenbaglan	9.5km	>15km	4.2km	4.2km	>15km	13.4km	>15km	>15km	>15km	>15km	>15km	>15km	>15km	>15km	>15km
Fforest Farm	>15km	7km	8.2km	8.2km	>15km	>15km	>15km	>15km	>15km	>15km	>15km	>15km	>15km	>15km	>15km
Port Talbot Port	5km	>15km	7.2km	7.2km	>15km	10.8km	>15km	>15km	>15km	>15km	>15km	>15km	>15km	>15km	>15km
Port Talbot Steelworks	1.4km	>15km	10.1km	10.1km	>15km	7.2km	14.5km	>15km	>15km	>15km	>15km	>15km	>15km	>15km	>15km
Baglan Energy Park	9.4km	>15km	2.9km	2.9km	>15km	14.7km	>15km	>15km	>15km	>15km	>15km	>15km	>15km	>15km	>15km
GCRE	>15km	4.1km	>15km	>15km	>15km	>15km	>15km	>15km	12.2km	14.1km	10.3km	10km	>15km	>15km	>15km
Afan Valley Adventure Resort	13.5km	12.8km	14.7km	14.7km	>15km	12.1km	11.6km	>15km	>15km	>15km	>15km	13.8km	>15km	>15km	>15km

Appendix E Screening European Site based on possible impact pathways

The HRA Screening summary of impact pathways from the RLDP to European Sites.

European Site	Qualifying Feature	Vulnerable to the following impact pathways	Assessment of LSE	Impact Pathways screened in
Kenfig / Cynffig SAC	<u>Annex I habitats that are a primary reason for selection of this site:</u> 1. Fixed dunes with herbaceous vegetation ("grey dunes") 2. Dunes with *Salix repens* ssp. *Argentea* (*Salicion arenariae*) 3. Humid dune slacks 4. Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp. <u>Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site:</u> 5. Atlantic salt meadows (*Glauco-Puccinietalia maritimae*)	• Habitat degradation/fragmentation through outdoor sports and leisure activities, recreational activities • Pollution to surface waters (limnic & terrestrial, marine & brackish) • Air pollution, air-borne pollutants • Soil pollution and solid waste (excluding discharges) • Invasive non-native species spread • Problematic native species spread • Other ecosystem modifications	Kenfig SAC is located on the southern boundary of the NPT authority area. The identified impact pathways as a result of the Plan and in-combination effects, may lead to LSE. <u>Recreational pressure</u> The Kenfig SAC, near Neath and Port Talbot, is a biodiverse site with coastal and freshwater habitats, including three types of dune habitats and a fen orchid population, all sensitive to recreational footfall. The Core Management Plan identifies trampling, soil compaction, and illegal activities as key threats. Horse trampling has significantly impacted the Atlantic saltmarsh, with habitat loss noted between 1991 and 2000. Wardening and restrictions, including a Horse Riding Permit Scheme, have been implemented to manage these pressures. Development within Neath Port Talbot Authority could exacerbate these issues, leading to further habitat degradation and biodiversity loss. Effective management and mitigation measures are essential. <u>Water Quantity</u> Kenfig SAC relies on both freshwater and saline groundwater for its diverse habitats. Maintaining appropriate water levels is crucial for the health of its dune systems, which depend on a specific hydrological regime. The limestone aquifer beneath the site means that distant activities can impact its hydrology. The site's 'hard oligo-mesotrophic waters with Chara spp.' Also require a stable hydrological regime. Natural Resources Wales	**LSE cannot be ruled out alone or in-combination for the following impact pathways:** ▪ **Recreational Pressure** ▪ **Water Quality** ▪ **Water Quantity** ▪ **Atmospheric Pollution**

European Site	Qualifying Feature	Vulnerable to the following impact pathways	Assessment of LSE	Impact Pathways screened in
	Annex II species that are a primary reason for selection of this site: 6. Petalwort (*Petalophyllum ralfsii*) 7. Fen orchid (*Liparis loeselii*)		advises regulating water abstraction in the SAC's catchment to protect these features. With the planned development of 4,176 new dwellings and 54 hectares of employment space in Neath Port Talbot, there will be increased demand for potable water. If current abstraction consents are insufficient, additional abstraction or new sources may be needed, potentially reducing water availability for the SAC's designated features. Water Quality Kenfig SAC is highly sensitive to water quality due to its reliance on both freshwater and saline groundwater inputs. The exceptional wetness and diversity of the Kenfig dune system are directly dependent on the hydrological and hydro-chemical regime. The slack vegetation is influenced and maintained by both a high water table and suitable water quality. Major water quality concerns are related to elevated macronutrient levels. Elevated nitrogen levels have been found at Burrows Well (a karstic spring) on the Merthyr Mawr component, 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, even at considerable distances, can potentially impact the SAC both spatially and temporally. Natural Resources Wales emphasizes the need to regulate water abstraction within the SAC's catchment to protect these sensitive features and maintain the site's ecological integrity. Atmospheric Pollution Several features of the Kenfig SAC are potentially sensitive to air quality impacts. The core management plan for the SAC identified that these impacts can occur directly from high levels of ethylene and ethane or indirectly through changes in water chemistry due to atmospheric nitrogen deposition. Atmospheric	

European Site	Qualifying Feature	Vulnerable to the following impact pathways	Assessment of LSE	Impact Pathways screened in
			nitrogen oxide (Nox) levels may be exceeded because of nearby sources, including industrial activities (such as steelworks, chemical plants, and power stations), agricultural operations (like chicken farms producing ammonia), old landfill sites (emitting methane), transportation (notably the M4), and wind-blown particulates from adjacent recycling tips. Coed Hirwaun, a potential Key Site for residential development, 2km from the SAC. Key Sites for employment at Port Talbot Port and Port Talbot Steelworks, along with the planned projects identified within the in-combination assessment may lead to air pollution impacts. The following Candidate Sites are located within 5km and have potential impact pathways to the SAC: ▪ Land Adjacent to Coed Hirwaun ▪ Land opposite Coed Hirwaun ▪ Water Street, Margam ▪ Land adjacent to Afan Landscapes ▪ Land at Coed Hirwaun, Margam **LSE cannot be excluded based on all the potential impact pathways of the Plan and potential in-combination effects and AA is required.**	
Coedydd Nedd a Mellte SAC	Annex I habitats that are a primary reason for selection of this site: 1. *Tilio-Acerion* forests of slopes, screes and ravines	• Habitat degradation/fragmentation thought outdoor sports and leisure activities, recreational activities • Air pollution, air-borne pollutants	The SAC is located on the northeast boundary, partly within NPT, predominately located within the Powys and Rhondda Cynon Taf authority areas. Recreational Pressure Recreational pressure on Coedydd Nedd a Mellte SAC has led to significant erosion of footpaths and adjacent habitats, with	None – Screened out from AA. No LSE alone or in-combination with other projects and plans.

European Site	Qualifying Feature	Vulnerable to the following impact pathways	Assessment of LSE	Impact Pathways screened in
	2. Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles	• Problematic native species spread	trampling causing damage to ground flora. The increase in visitors exacerbates these issues, as more foot traffic accelerates the wear and tear on natural surfaces, leading to soil compaction and loss of vegetation. This not only affects the aesthetic and ecological value of the site but also disrupts the habitat of various plant and animal species that rely on these areas. The Core Management Plan for the SAC highlights these concerns and outlines ongoing management strategies to mitigate the impacts. These strategies include the maintenance and reinforcement of footpaths to prevent further erosion, the installation of signage to guide visitors away from sensitive areas, and the promotion of sustainable tourism practices. Additionally, efforts are being made to educate visitors about the importance of staying on designated paths and minimizing their impact on the environment. Despite these measures, the continuous influx of visitors poses a challenge to the site's conservation efforts. Effective management requires a balance between allowing public access and preserving the site's natural integrity. This may involve implementing more stringent access controls during peak times, increasing the presence of wardens to monitor and manage visitor behaviour, and possibly introducing visitor quotas to limit the number of people accessing the most vulnerable areas. Overall, while the management plans are crucial in addressing the pressures of recreation, ongoing monitoring and adaptive management are essential to ensure the long-term protection of Coedydd Nedd a Mellte SAC. <u>Based on these measures and the closest Key Site located 7km from the SAC the RLDP is unlikely to exacerbate</u>	

European Site	Qualifying Feature	Vulnerable to the following impact pathways	Assessment of LSE	Impact Pathways screened in
			recreational pressures and as such can be excluded from LSE, alone or in-combination with other plans and projects. However, this should be reassessed at the Deposit Plan stage. Atmospheric Pollution Atmospheric pollution at the SAC has historically been influenced by local activities such as charcoal making and coal burning, as well as its proximity to the industrial areas of Neath and Swansea, which likely resulted in significant sulphur dioxide deposition. Although highly polluting industries have largely diminished and current sulphur dioxide levels are much lower than in the past, the legacy of these pollutants may still affect the site. Improved air quality in recent decades has benefited certain bryophyte and lichen species, which are now spreading into areas previously devoid of epiphytes (Blockeel et al. 2014). Additionally, some hyperoceanic epiphytes, such as Colura calyptrifolia and Ulota calvescens, are expanding their range into Britain from the west, indicating a positive response to the cleaner air and possibly climatic changes. This information is derived from “A bryophyte assessment of Coedydd 85Nedd a Mellte SAC and associated SSSIs, 2006 to 2017” by G. Motley, 2017. It is largely understood that the impacts from air pollution impact the bryophyte communities within the SAC which make up part of the Tilio-Acerion feature, although taking into account the location of the SAC, potential effects are likely to relate to diffuse pollution impacts only. There are two Key Sites located within 10km of the SAC, Fforest Farm (residential development) 7km and GCRE 4.2km (transportation development).	

European Site	Qualifying Feature	Vulnerable to the following impact pathways	Assessment of LSE	Impact Pathways screened in
			Based on the location of Key Sites and impact pathways it can be concluded that the RLDP is unlikely to exacerbate atmospheric pollution effects on the SAC and as result this impact pathway can be excluded from AA. Water Quality Changes to water quality may lead to adverse impacts on the aquatic and riparian habitats that the SAC supports. Whilst these habitats aren't specific qualifying features, water quality will support the wider functioning of the SAC. The GCRE Key Sites is located 4.2km upstream of the SAC and impacts from construction or operation of that development may lead to adverse effects to the SAC. As detailed in Section 8, a project level HRA that was completed for the GCRE development concluded no LSE on the basis that distance would remediate any local pollution issues '*any pollution / sedimentation of connecting watercourses would have been diluted, and any effects would not be significant to the SAC.'* There are no other Key Sites or Candidates sites located upstream of the SAC. Based on the location of Key Sites and impact pathways it can be concluded that the RLDP is unlikely to exacerbate water quality effects on the SAC and as result this impact pathway can be excluded from AA.	
Crymlyn Bog / Cors Crymlyn SAC	Annex I habitats that are a primary reason for selection of this site:	• Pollution to surface waters (limnic & terrestrial, marine & brackish)	Located on the western part of the authority. The site overlaps NPT and Swansea authority areas. Water Quality, Water Quantity and Atmospheric Pollution	**LSE cannot be ruled out alone or in-combination for the following impact pathways:**

European Site	Qualifying Feature	Vulnerable to the following impact pathways	Assessment of LSE	Impact Pathways screened in
	Calcareous fens with *Cladium mariscus* and species of *Caricion davallianae* Transition mires and quaking bogs <u>Annex I habitats present as a qualifying feature, but not a primary reason for site selection:</u> Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incane, Salicion albae*)	• Air pollution, air-borne pollutants • Soil pollution and solid waste (excluding discharges)	The Core Management Plan for the SAC cites that ongoing management of the site is important to maintain the SAC and Ramsar features including '*Wider protection measures will safeguard water levels, water quality and atmospheric pollution impacts at the site; this will include measures to minimise impacts from known surrounding sources including Tir John landfill site, the former Llandarcy oil refinery site (now being redeveloped as Coed Darcy urban village) and watercourses such as Crymlyn Brook.'* Recreational pressures, such as erosion, trampling, and other habitat disturbances from leisure activities, along with urban pressures like litter, fly tipping, and fires, could impact Crymlyn Bog. These issues may be exacerbated by new housing developments near the SAC, leading to increased access and use of the area by more people. This impact pathway however is not cited within the conservation objectives of the site. The following Candidate Sites are located within 5km and have potential impact pathways to the SAC: ▪ Land adjoining Bryn Teg ▪ Compton Mews, Cefn 11 - 19 Sgiwen Stryd y Castell / Compton Mews, Rear of 11-19 Castle Street Skewen ▪ Land to the east side of Tyla Morris Farm, Pant Howell Ddu Road, Ynysmaerdy, Briton Ferry, SA11 2TU ▪ Land southwest of Cimla (Submission 2) ▪ Land at Tir Morfa Road, Sandfields (Submission 2) ▪ Land at Blaenbaglan ▪ Blaen Baglan Land Site 2 ▪ Blaen Baglan Land Site 1	▪ **Water Quality** ▪ **Water Quantity** ▪ **Atmospheric Pollution**

European Site	Qualifying Feature	Vulnerable to the following impact pathways	Assessment of LSE	Impact Pathways screened in
			LSE cannot be excluded based on all the potential impact pathways of the Plan and potential in-combination effects and AA is required.	
Crymlyn Bog / Cors Crymlyn Ramsar	1. Topogenous fen 2. Slender cottongrass 3. Peatland invertebrate assemblage	• Pollution to surface waters (limnic & terrestrial, marine & brackish) • Air pollution, air-borne pollutants • Soil pollution and solid waste (excluding discharges)	As above	As above
Caeau Mynydd Mawr SAC	Annex II species that are a primary reason for selection of this site: 1. Marsh frittilary butterfly (*Euphydryas* (*Eurodryas, Hypodryas*) *aurinia*) Annex I habitats that are a present as a qualifying feature, but not a primary reason for selection of this site: 2. *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils	• Air pollution, air-borne pollutants • Soil pollution and solid waste (excluding discharges) • Other ecosystem modifications	Located 8.2km west of the western boundary of NPT authority area. The Core Management Plan for the SAC indicates that '*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. '* The qualifying marsh fritillary in the SAC have limited mobility. Generally, this is thought to be a highly localised and sedentary species that forages on devil's bit scabious within the designated site boundary in the larval stage of its life cycle. However, in its adult life stage, both male and female butterflies may disperse from their former foraging patches. Research indicates that the average dispersal distances for	None – Screened out from AA. No LSE alone or in-combination with other projects and plans.

European Site	Qualifying Feature	Vulnerable to the following impact pathways	Assessment of LSE	Impact Pathways screened in
	(*Molinion caeruleae*)		male and female marsh fritillary are 1.5km and 510m respectively[46]. Therefore, any wet grassland with devil's bit scabious within 1.5km from the SAC boundary could constitute functionally linked habitat for the resident butterfly population. The key threats to the conservation objectives of the site are linked to direct impacts and those mentioned above. Based on the lack of hydrological link between the RLDP and the site and that no Key Sites are located within 15km of the SAC, the site is screened out from AA in relation to all possible impact pathways.	
Glaswelltiroedd Cefn Cribwr / Cefn Cribwr Grasslands SAC	Annex I habitats that are a primary reason for selection of this site: 1. *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) Annex II species that are present as a qualifying feature, but not a primary reason for selection of this site: 2. Marsh fritillary butterfly (*Euphydryas (Eurodryas,*	• Air pollution, air-borne pollutants • Invasive non-native species spread • Other ecosystem modifications	Located 400m southeast of the southern boundary of the NPT authority area. The SAC Core Management Plan states: *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.* The qualifying marsh fritillary in the SAC have limited mobility. Generally, this is thought to be a highly localised and sedentary species that forages on devil's bit scabious within the designated site boundary in the larval stage of its life cycle. However, in its adult life stage, both male and female butterflies may disperse from their former foraging patches. Research indicates that the average dispersal distances for	**LSE cannot be ruled out alone or in-combination for the following impact pathways:** ▪ **Water Quality** ▪ **Water Quantify** ▪ **Atmospheric Pollution**

[46] Wahlberg, N., Klemtti, T., Selonen, V. & Hanski, I. (2002). Metapopulation structure and movements in five species of checkerspot butterflies. Oecologia 130: 2074-2091

European Site	Qualifying Feature	Vulnerable to the following impact pathways	Assessment of LSE	Impact Pathways screened in
	Hypodryas) *aurinia*)		male and female marsh fritillary are 1.5km and 510m respectively[47]. Therefore, any wet grassland with devil's bit scabious within 1.5km from the SAC boundary could constitute functionally linked habitat for the resident butterfly population. There is one Key Site proposed within the RLDP. Coed Hirwaun which is 3.4km from the SAC. The following Candidate Sites are located within 5km and have potential impact pathways to the SAC: ▪ Land Adjacent to Coed Hirwaun ▪ Land at Coed Hirwaun, Margam ▪ Land opposite Coed Hirwaun ▪ Land adjacent to Afan Landscapes ▪ Water Street, Margam Associated impacts of the RLDP are possible from atmospheric pollution and potential changes to water quality and quantity. As such these impact pathways may direct lead to impacts. This site is taken forward to AA in relation to these impact pathways.	
Blackmill Woodlands SAC	<u>Annex I habitat that is a primary reason for selection of this site:</u> Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles	• Air pollution • Invasive non-native species • Problematic native species	Located 6.5km east of the southeast boundary of the NPT authority area. <u>Recreational Pressure</u> The Blackmill Woodlands SAC, designated for old sessile oak woods with Ilex and Blechnum, qualifying woodlands are sensitive to recreational impacts through a variety of mechanisms. However, the NPT lies beyond the typical 5km core recreational catchment for inland European Sites, and it	None – Screened out from AA. No LSE alone or in-combination with other projects and plans

[47] Wahlberg, N., Klemtti, T., Selonen, V. & Hanski, I. (2002). Metapopulation structure and movements in five species of checkerspot butterflies. Oecologia 130: 2074-2091

European Site	Qualifying Feature	Vulnerable to the following impact pathways	Assessment of LSE	Impact Pathways screened in
			should be noted that there are other woodland sites much closer to NPT residents. Furthermore, the Core Management Plan does not identify recreational access as a factor affecting the condition of the oak woods. Overall, therefore, there will be no LSEs of the RLDP on the Blackmill Woodlands SAC regarding recreational pressure and this impact pathway is screened out from AA in relation to this European site. <u>Atmospheric Pollution</u> The woodland habitat has a nitrogen CL range of 10-15 kg N/ha/yr as identified on APIS. Conditions that exceed these minimum CL may lead to a range of impacts on trees, including preferential investment in upward rather than root growth (concomitant with increased risk of drought stress and uprooting). changes in mycorrhizal flora, increased litter production and winter desiccation. Likely impacts of NH3, NOx and total nitrogen deposition are likely to come from nearby roads and urban areas. There are no Key Sites located within 10km of the SAC, based on the distance to the RLDP and Key Sites there are no LSE on the Blackmill Woodlands SAC regarding atmospheric pollution and this impact pathway is excluded. The site is screened out from AA in relation to this impact pathway.	
Dunraven Bay SAC	<u>Annex II species that are a primary reason for selection of this site:</u> *Rumex rupestris* (shore dock)	• N/A	Located 11.5km south of the southern boundary of the NPT authority area. <u>Recreational Pressure</u> The qualifying shore dock are vulnerable to negative impacts arising from recreational use. These include trampling damage to individual plants, track side erosion, soil compaction and nutrient enrichment.	None – Screened out from AA. No LSE alone or in-combination with other projects and plans.

European Site	Qualifying Feature	Vulnerable to the following impact pathways	Assessment of LSE	Impact Pathways screened in
			<u>Atmospheric Pollution</u> Shore dock has a nitrogen CL of 10-20 kg N/ha/yr. Generally, an exceedance of the minimum CL would pose the risk of a shift in community composition towards graminoids, which would result in the concurrent loss of shore dock cover, within any given area. <u>Water Quantity and Quality</u> Shore dock communities are vulnerable to changes in water quantity and quality however it is not considered that the SAC has significant linkages to any surface and / or groundwater bodies and are not reliant on these. Based on the distance to the boundary of the RLDP and the closest Key Site located 13.3km from the SAC, the site is screened out from AA in relation to these impact pathways.	
Afon Wysg / River Usk SAC	<u>Annex II species that are the primary reason for selection of this site:</u> Sea lamprey *Petromyzon marinus* Brook lamprey *Lampetra planeri* River lamprey *Lampetra fluviatilis* Twaite shad *Alosa fallax* Atlantic salmon *Salmo salar* Bullhead *Cottus gobio*	• Pollution to surface waters (limnic & terrestrial, marine & brackish) • Soil pollution and solid waste (excluding discharges) • Invasive non-native species • Problematic native species • Other ecosystem modifications	Located 11km north of the northern boundary of the NPT authority area. <u>Recreational Pressure</u> As stated in the Core Management Plan: Tourism and recreation, centred on the Brecon Beacons National Park through which the Usk flows, is an important part of the local economy. Recreational use of the Usk has traditionally centred on angling, and the Atlantic salmon and brown trout remain the focus for much of the management activity carried out on the Usk, principally by the angling and environmental charity The Wye and Usk Foundation through various funded projects. <u>Water Quality</u>	None – Screened out from AA. No LSE alone or in-combination with other projects and plans.

European Site	Qualifying Feature	Vulnerable to the following impact pathways	Assessment of LSE	Impact Pathways screened in
	European otter *Lutra lutra* Annex II species present as a qualifying feature, but not a primary reason for selection of this site: Allis shad *Alosa alosa* Annex I habitats that are not the primary reason for selection of this site Watercourses of plain to montane level with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation		Pollution from urban drainage, road improvement projects, contaminated land, and various domestic and industrial sources can be significant and must be properly managed. While point source pollution from large sewage treatment works has been significantly reduced and no longer routinely breaches water quality standards, local issues persist with combined sewer overflows and sewer misconnections. In smaller tributaries, private sewage treatment systems, including poorly maintained septic tanks, can also degrade water quality, often undetected by routine monitoring. Owners of these systems must register them with Natural Resources Wales and ensure they are functioning correctly Water Quantity River flow is fundamental to the SAC and supports the habitats for which the site is designated. Increase in water resource demand have the potential to lead to adverse effects on the SAC. There are no hydrological links between the NPT authority and the SAC for which impacts could be attributed. There is a potential for increased tourism and recreation use of the SAC however this is unlikely to be significant. Key Sites proposed for development are over 15km from the SAC and as such the site is screened out from AA in relation to these impact pathways.	
Brecon Beacons SAC	Annex I habitat that is a primary reason for selection of this site:	• Air pollution	Located 12.5km north of the northern boundary of the NPT authority area. Atmospheric pollution	None – Screened out from AA. No LSE alone or in-combination with other projects and plans.

European Site	Qualifying Feature	Vulnerable to the following impact pathways	Assessment of LSE	Impact Pathways screened in
	Calcareous rocky slopes with chasmophytic vegetation Siliceous rocky slopes with chasmophytic vegetation Annex I habitat present as a qualifying feature, but not a primary reason for site selection: European dry heaths Annex I habitat present as a qualifying feature, but not a primaryreason for site selection: 4. Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels		As stated in the Core Management Plan: Several widespread ongoing human-induced processes are changing the environmental and ecological conditions and are causing concern at the Brecon Beacons and in other upland areas in Britain. 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, excessive dunging/urination in areas where stock preferentially graze and other inputs from diffuse sources. Mosses, liverworts and lichens are particularly vulnerable to pollution from atmospheric sources. There are no employment or residential developments proposed within the Key Sites within 15km of the SAC, as such the site is screened out from AA in relation to these impact pathways.	
Cwm Cadlan SAC	Annex I habitats that are a primary reason for selection of this site: *Molinia* meadows on calcareous, peaty or clayey-siltladen soils (*Molinion caeruleae*)	• Air pollution • Human induced changes in hydraulic conditions • Problematic native species • Other ecosystem modifications	Atmospheric pollution Atmospheric deposition at this site has the potential to harm the alkaline fen feature. Dust deposition is likely to be high given the close proximity of Penderyn Quarry, and the absence of a published critical load for this pollutant against this habitat should be taken as indicating lack of impact. Atmospheric N deposition in this area is estimated at 21.8 kg N/ha/yr which lies above the lower critical load limit for this pollutant (15-35	None – Screened out from AA. No LSE alone or in-combination with other projects and plans.

European Site	Qualifying Feature	Vulnerable to the following impact pathways	Assessment of LSE	Impact Pathways screened in
	Alkaline fen		kg N / ha / yr). Its likely that the critical load for N for M10 forms of alkaline fen is towards the lower end of this range. <u>Water Quantity</u> Issues related to water quality are related to adjacent land use rather than supported by surface or groundwater sources. The Core Management Plan states: Of greatest concern are changes in the existing hydrology, although these may have a more immediate effect on the alkaline fen. New drains or deepening existing drainage would result in a decline in the wetness of the vegetation. The close proximity of a working quarry which is being deepened below the water table, with water pumped away, has potential to affect hydrology. There are no employment or residential developments proposed within the Key Sites within 15km of the SAC, as such the site is screened out from AA in relation to these impact pathways.	
Blaen Cynon SAC	<u>Annex II species that are a primary reason for the selection of this site</u> Marsh fritillary butterfly *Euphydryas* (*Eurodryas, Hypodryas*) *aurinia*	• Other ecosystem modifications • Air pollution • Invasive non-native species • Pollution to groundwater (point sources and diffuse sources) • Human induced changes in hydraulic conditions	The qualifying marsh fritillary in the SAC have limited mobility. Generally, this is thought to be a highly localised and sedentary species that forages on devil's bit scabious within the designated site boundary in the larval stage of its life cycle. However, in its adult life stage, both male and female butterflies may disperse from their former foraging patches. Research indicates that the average dispersal distances for male and female marsh fritillary are 1.5km and 510m respectively[48]. Therefore, any wet grassland with devil's bit scabious within 1.5km from the SAC boundary could constitute functionally linked habitat for the resident butterfly population.	None – Screened out from AA. No LSE alone or in-combination with other projects and plans.

[48] Wahlberg, N., Klemtti, T., Selonen, V. & Hanski, I. (2002). Metapopulation structure and movements in five species of checkerspot butterflies. Oecologia 130: 2074-2091

European Site	Qualifying Feature	Vulnerable to the following impact pathways	Assessment of LSE	Impact Pathways screened in
			There are no employment or residential developments proposed within the Key Sites within 15km of the SAC, as such the site is screened out from AA in relation to these impact pathways.	
Carmarthen Bay and Estuaries SAC	Annex I habitat that are a primary reason for selection of this site: Sandbanks which are slightly covered by sea water all the time Estuaries Mudflats and sandflats not covered by seawater at low tide Large shallow inlets and bays Salicornia and other annuals colonizing mud and sand Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) Annex II species that are a primary reason for selection of this site: Twaite shad *Alosa fallax* Annex II species present as a qualifying	• Geophysical regime: modification of sediment transport processes; alteration to substrate • Fundamental environmental parameters: changes to suspended sediments, turbidity; dissolved oxygen • Environmental quality: increased nutrients; remobilisation of toxic & non-toxic contaminants • Physical disturbance: smothering, displacement, collision, noise & visual • Recreation: removal of or disturbance to target species.	The SAC is located 12.5km west of the northwest boundary of the NPT authority area. There is a potential hydrological link between the northwest of the NPT authority area in the Amman Valley. The River Amman flows from the northern boundary of the NPT authority boundary to Pantyffynnon where it joins the River Loughor. Direct effects of development as a result of the Plan shall be protected by environmental planning policy; As such, there should be no contributions to water quality pressures on receiving waterbodies. There are no other possible pathways of effects and as such based on the distance of more than 10km to the SAC (as well as the Burry Inlet SPA and Ramsar as stated below), the lack of direct link to the main River Loughor and environmental protection policy that will ensure no direct harm to receiving waterbodies results from development, there are is no LSE expected as a result of the Plan, alone or in combination with other plans and/or projects.	None – Screened out from AA. No LSE alone or in-combination with other projects and plans.

European Site	Qualifying Feature	Vulnerable to the following impact pathways	Assessment of LSE	Impact Pathways screened in
	feature, but not a primary reason for site selection: Sea lamprey *Petromyzin marinus* River lamprey *Lampetra fluviatilis* Allis shad *Alosa alosa* Otter *Lutra lutra*			
Burry Inlet SPA	Annex II species that are a primary reason for site selection: ▪ Curlew Numenius arquata ▪ Dunlin Calidris alpina alpine ▪ Grey plover Pluvialis squatarola ▪ Knot Calidris canutus ▪ Oystercatcher Haematopus ostralegus ▪ Pintail Anas acuta ▪ Redshank Tringa totanus ▪ Selduck Tadorna tadorna	• Changes to abiotic conditions • Air Pollution • Water pollution • Recreational pressure	As above.	None – Screened out from AA. No LSE alone or in-combination with other projects and plans.

European Site	Qualifying Feature	Vulnerable to the following impact pathways	Assessment of LSE	Impact Pathways screened in
	▪ Shoveler Anas clypeata ▪ Teal Anas crecca ▪ Turnstone Arenaria interpres ▪ Wigeon Anas penelope			
Burry Inlet Ramsar	<u>Annex II species that are a primary reason for site selection:</u> • Common redshank *Tringa totanus tetanus* • Northern pintail *Anas acuta* • Eurasian oystercatcher *Haematopus ostral*egus o*stralegus* • Red knot *Calidris canutus islandica* <u>Annex II species present as a qualifying feature, but not a</u>	None stated.	As above.	None – Screened out from AA. No LSE alone or in-combination with other projects and plans.

European Site	Qualifying Feature	Vulnerable to the following impact pathways	Assessment of LSE	Impact Pathways screened in
	primary reason for site selection: Northern shoveler *Anas clypeata*			

Appendix F Location of Candidate Sites identified as being potentially suitable and deliverable for development in relation to European Designated Sites

Figure 3. Map of the Candidate Sites identified as being potentially suitable and deliverable for development in relation to European Designated Sites

Site Boundary
Site Considered for Development

N

Upper Brynamman
Brynamman
Rhosaman
Glanaman
Twyn
Tir Syr Walter
Lower Brynamman
Cefn-bryn-brain
Garnant
RLDP/AMV/0012
Cwmllynfell
RLDP/AMV/0004
UCS0764
Ystradowen
RLDP/SV/0001
Gwaun-Cae-Gurwen
RLDP/AMV/0014
RLDP/AMV/0001
Cwmgiedd
Ynys-uch
Cwm-twrch Uchaf
Penrhos
Pen-Rhiw-fawr
Cwmgors
CS2-172
Cwm-twrch Isaf
Ystradgynlais
Gorof
Glan-rhyd
RLDP/SV/0014
Gurnos
RLDP/SV/0016
Ystalyfera
RLDP/SV/0012
RLDP/SV/0011
Pantyffynnon
Godre'r-graig
Cilmaengwyn
Tre-Forgan

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0 1 2 km

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N

Site Boundary
Site Considered for Development
Special Area of Conservation (SAC)

Pen-y-cae
Ynyswen
Abercrave
Caehopkin
Coelbren
Cwmgiedd
Ynys-uchaf
Penrhos
Ystradgynlais
Gorof
an-rhyd
Onllwyn
Dyffryn Cellwen
Tynewydd
Banwen
Seven Sisters
RLDP/DV/0019
CS2-122
Nant-y-cafn
Tre-Forgan
Coedydd Nedd a Mellte
Pontneddfechan
Cefn Rhigos
Glyn-neath
Pontwalby
CS2-215
Morfa Glas

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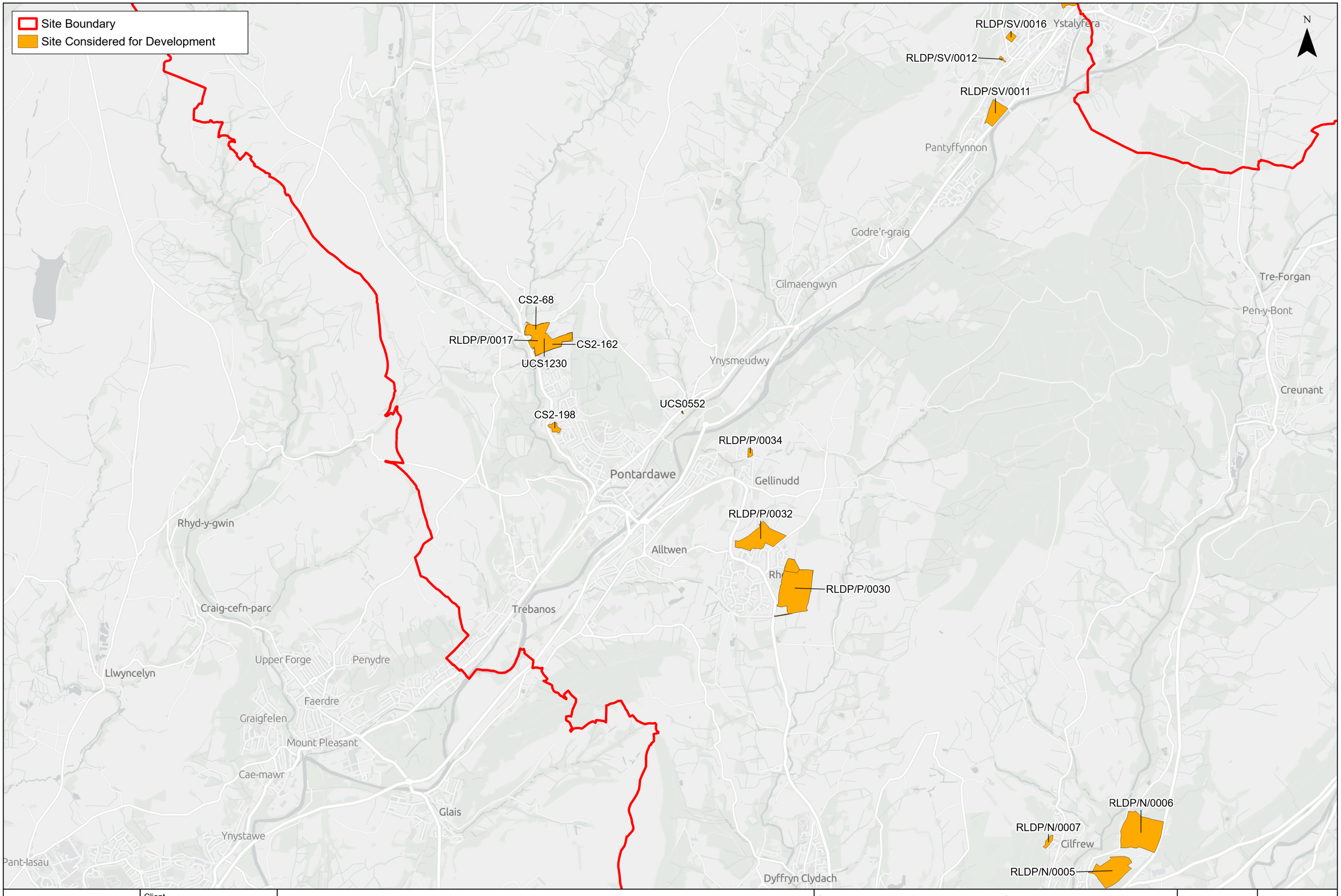

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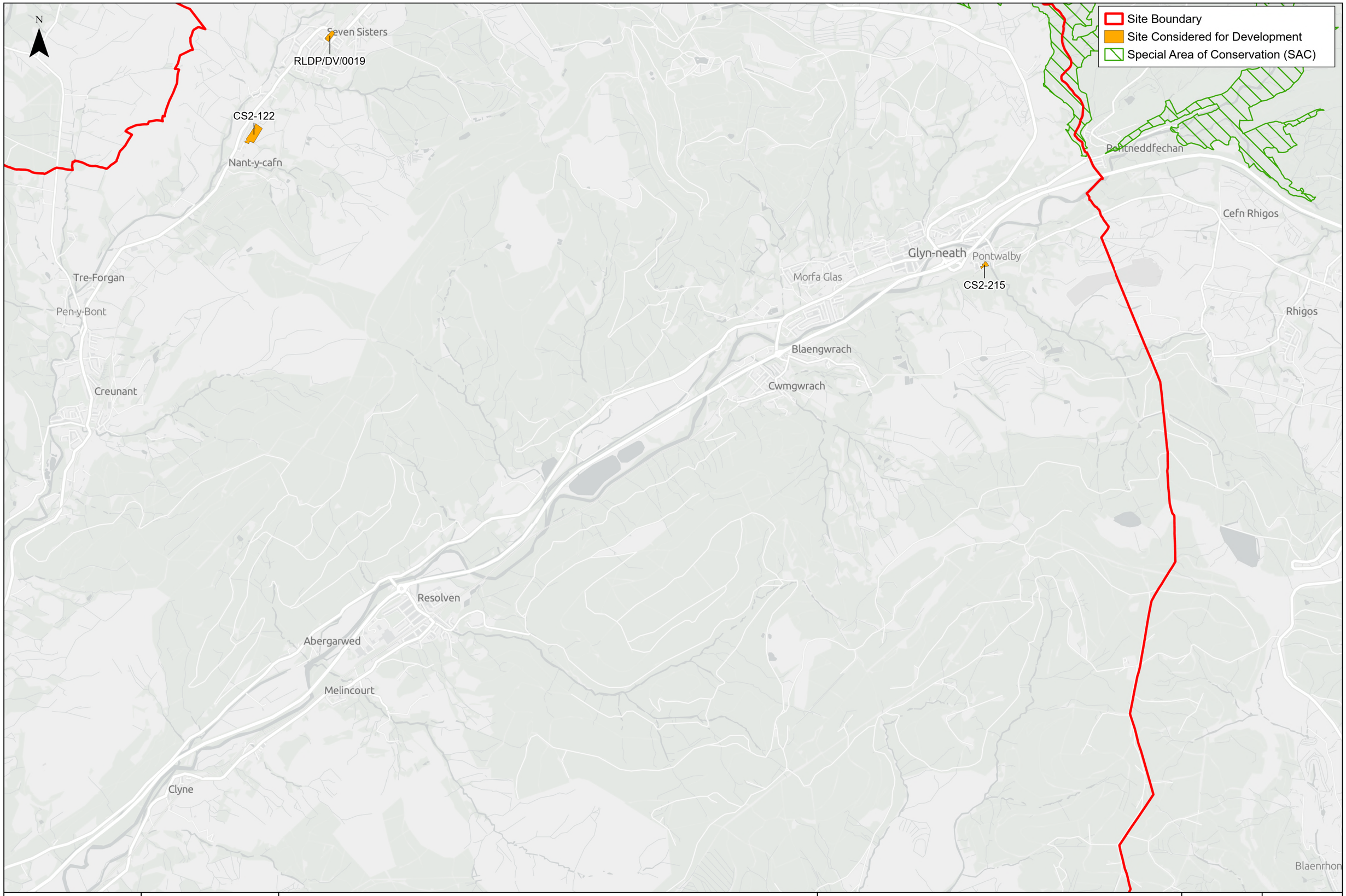

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Site Boundary
Site Considered for Development
Special Area of Conservation (SAC)
Ramsar

N

Trebanos
Upper Forge
Penydre
Faerdre
Graigfelen
Mount Pleasant
Cae-mawr
Glais
Ynystawe
Pant-lasau
Llanlleian-wen
Cwm-felin-fâch
Heol Las
Tregof Village
Birchgrove
Morriston
Peniel Green
Lon-las
Felin Newydd
Pwllygrafel
Tai'r-ysgol
Llwynbrwydrau
Graig Trewyddfa
Cae-maes-y-bar
Trallwn
Winsh-wen
Plas-Marl
Crymlyn Bog / Cors Crymlyn
Cwm
Pentre'r-Gaseg
Cefn-hengoed
Landore
Tir-Nest
Hanover Square
Hafod
Foxhole
Port Tennant
Llandarcy
Skewen
RLDP/N/0018
Dyffryn Clydach
Neath Abbey
Neath
Llantwit
Cadoxton-Juxta-Neath
RLDP/N/0015
CS2-9
UCS208
RLDP/N/0006
RLDP/N/0007
Cilfrew
RLDP/N/0005
Aberdulais
RLDP/N/0046
Tonna
Mount Pleasant
RLDP/N/0043
Cimla
UCS0956
Pencaerau
Penrhiwtyn
RLDP/N/0038
RLDP/N/0036
RLDP/N/0037
RLDP/N/0039
CS2-202
Brynhyfryd
Cwrt Sart
CS2-6
Ynysmaerdy
Giants Grave
Shelone
Warren Hill
Efail-fâch
Pontrhydyfe

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			Page 5 of 10	Figure: 04 / Rev: A

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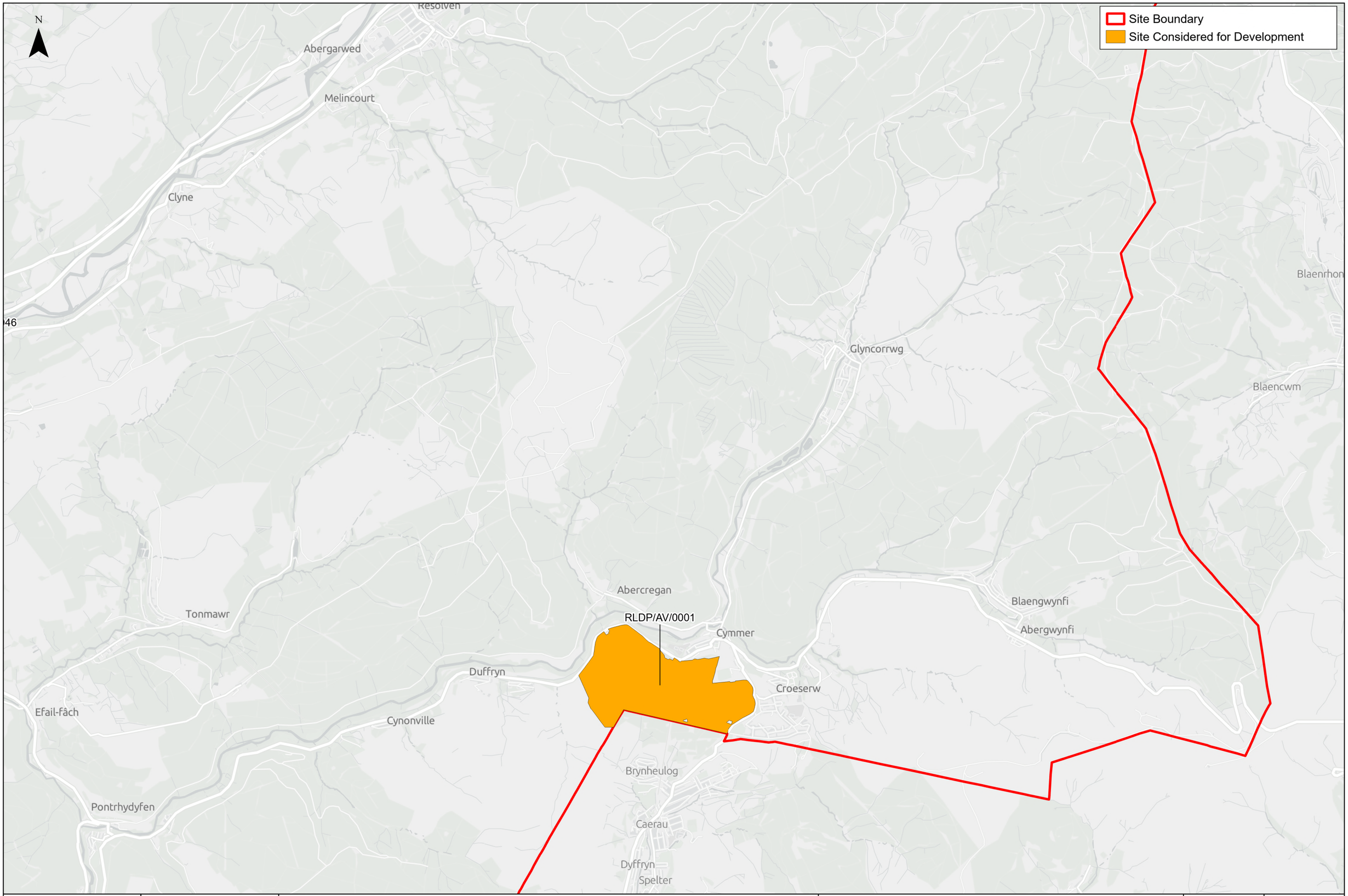

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Considered Sites with Reference Number

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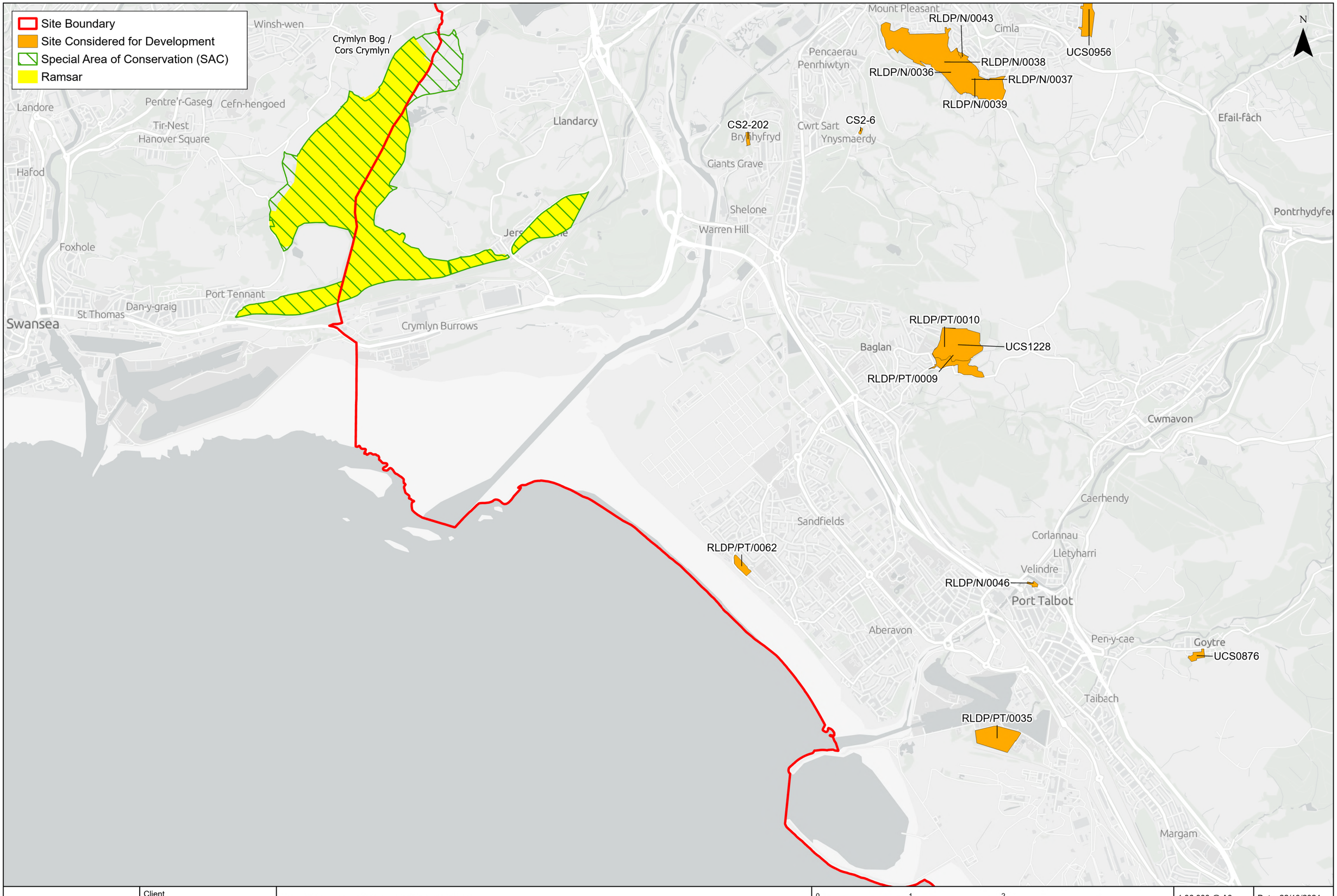

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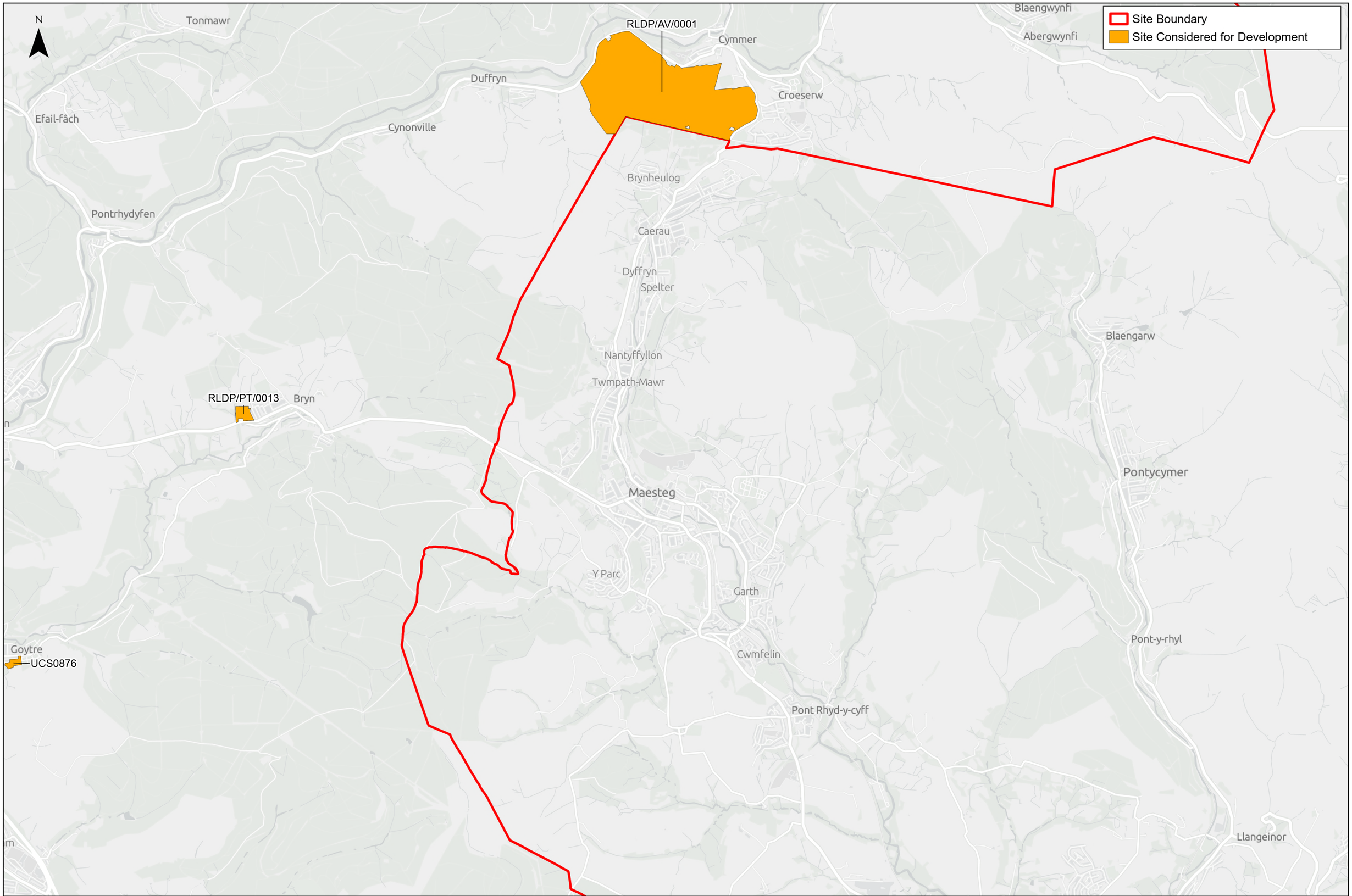

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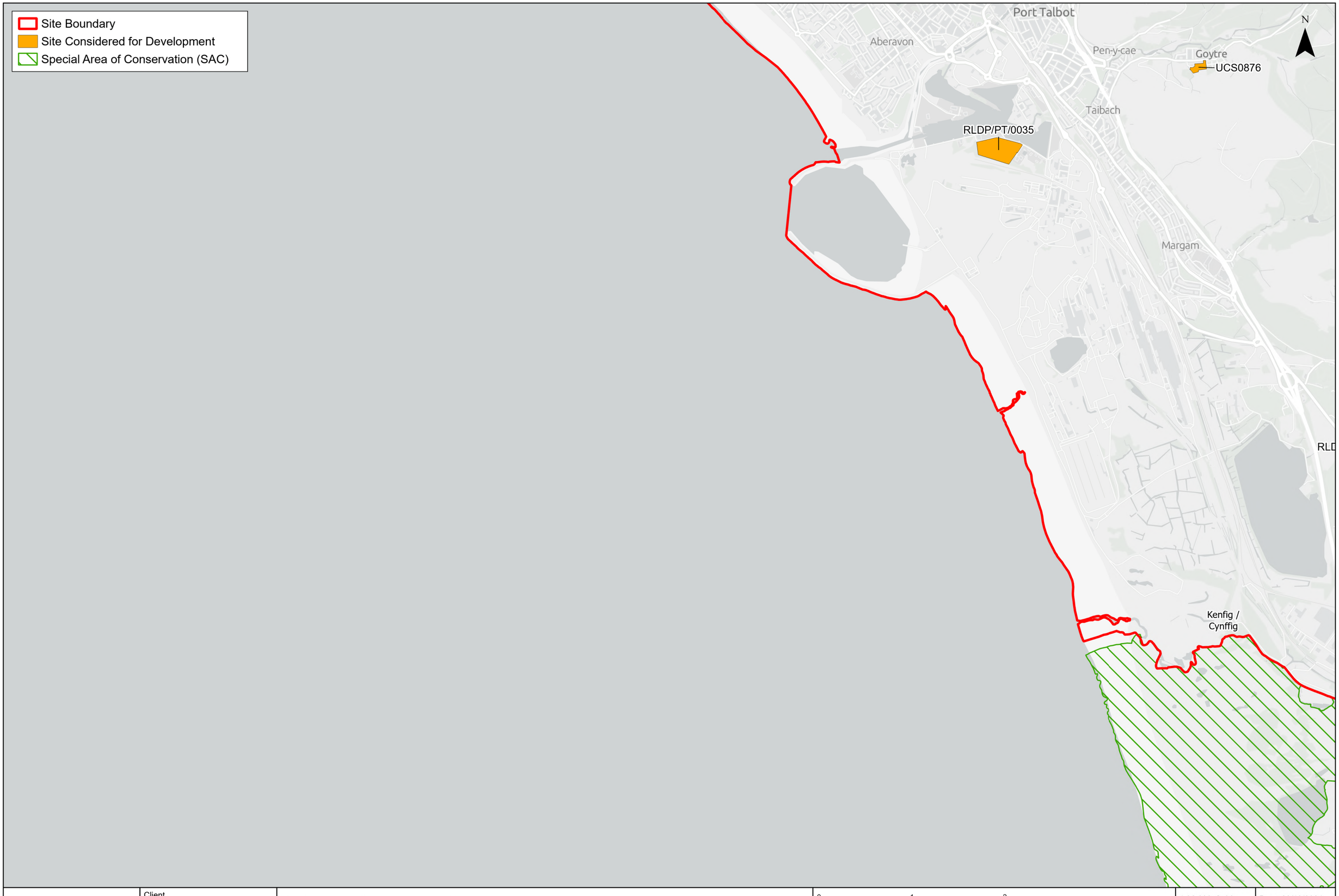

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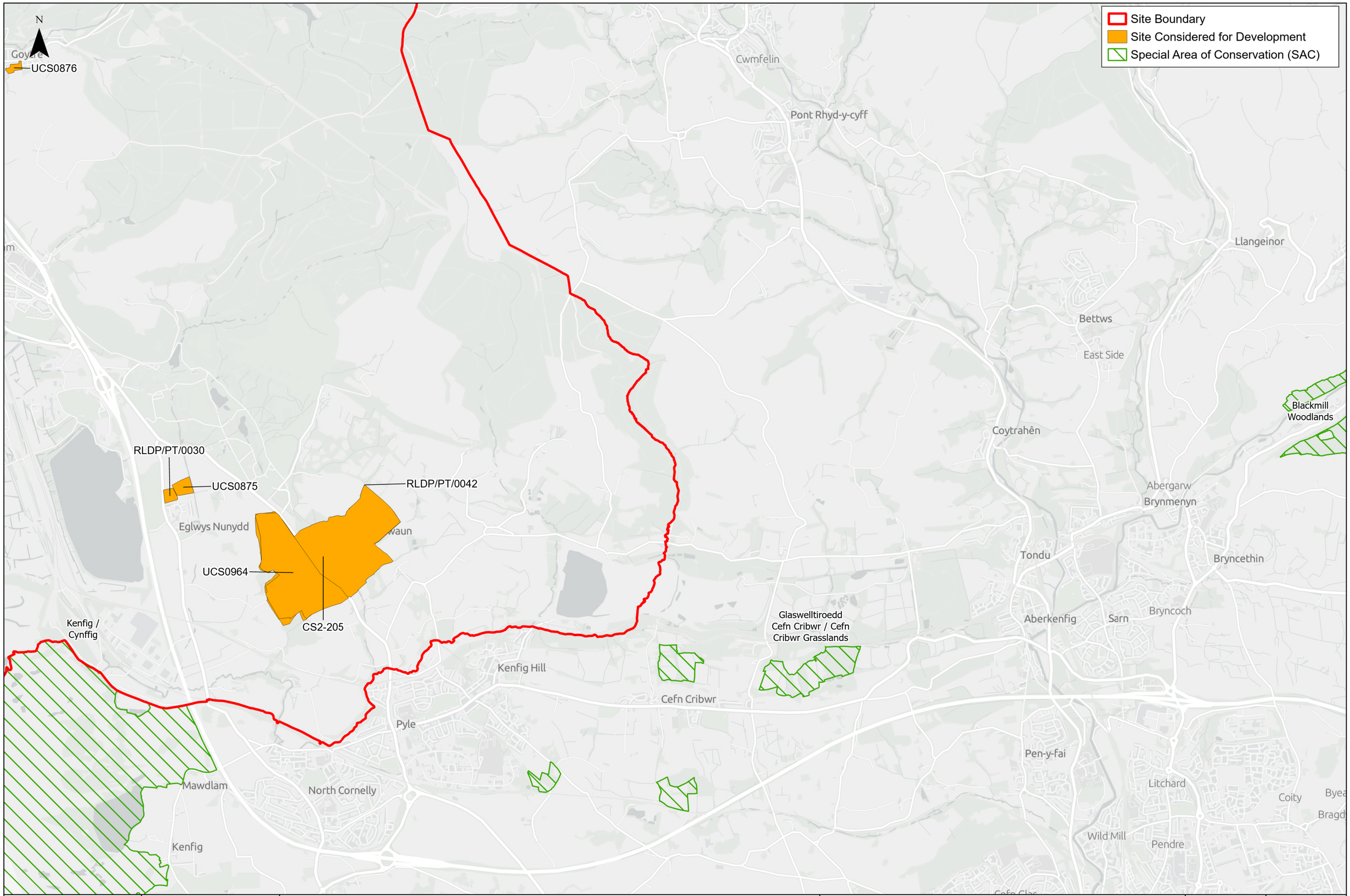

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Appendix G List of the Candidate Sites identified as being potentially suitable and deliverable for development

Site reference	Candidate Site Name
RLDP/SV/UC011	59-62 Heol Gough / Gough Road, Ystalyfera
RLDP/PT/0009	Blaen Baglan Land Site 1
RLDP/PT/0010	Blaen Baglan Land Site 2
RLDP/N/UC013	Compton Mews, Cefn 11 - 19 Sgiwen Stryd y Castell / Compton Mews, Rear of 11-19 Castle Street Skewen
RLDP/AMV/0001	East Pit, New Road, Tairgwaith
RLDP/DV/0019	Former Canolfan Sheltered Housing
RLDP/AMV/2003	Former Swelco Factory, Rear of Heol y Gors, Cwmgors
RLDP/SV/0016	Former Y Wern, Primary School (YGGD Y Wern) Submission 1
RLDP/SV/UC015	Former Y Wern, Primary School (YGGD Y Wern), Ystalyfera
RLDP/N/UC012	Garden at rear of 9 Maes Llwynonn Cadoxton
RLDP/N/UC010	Garden Cottage, Cylma (rear of Seaeson school)
RLDP/P/UC008	Land adjacent to 35 New Road, Ynysmeudwy
RLDP/PT/UC025	Land adjacent to Afan Landscapes
RLDP/PT/0013	Land adjacent to B4282, Bryn
RLDP/PT/2015	Land Adjacent to Coed Hirwaun
RLDP/P/UC007	Land adjacent to Rhyd y Fro Primary School
RLDP/PT/0023	Land adjacent to The Willows - Option A
RLDP/PT/0024	Land adjacent to The Willows - Option B
RLDP/P/0029	Land Adjoining 11-14 March Hywel And 32/42 Cae Rhedyn & Land Adjacent To March Hywel Rhos & Land Adjacent to The Smiths Arms and to the Rear of 70-114 Neath Road
RLDP/P/0030	Land Adjoining 11-14 March Hywel And 32/42 Cae Rhedyn & Land Adjacent To March Hywel Rhos & Land Adjacentto The Smiths Arms And To The Rear Of 70-114 Neath Road Rhos Pontardawe (Including Adjoining Third Party Owned Site)

Site reference	Candidate Site Name
RLDP/N/2007	Land adjoining Bryn Teg
RLDP/P/2004	Land adjoining Waun Penlan School, Rhydyfro
RLDP/PT/UC003	Land at Blaenbaglan
RLDP/AMV/0014	Land at Brook Terrace, Tairgwaith
RLDP/N/0039	Land at Cae Rhys Ddu
RLDP/PT/0042	Land at Coed Hirwaun, Margam
RLDP/NV/UC006	Land at Dan y Graig, Pontwalby, Glynneath
RLDP/N/UC007	Land at Fforest Farm, Aberdulais - Site 1
RLDP/N/0006	Land at Fforest Farm, Aberdulais - Site 2
RLDP/P/2005	Land at Gelligron, Pontardawe
RLDP/N/0045	Land at Heol Y Glo, Tonna (Development Option 1)
RLDP/N/0046	Land at Heol Y Glo, Tonna (Development Option 2)
RLDP/PT/UC049	Land at Pen y Bryn
RLDP/AV/0001	Land at Pen y Bryn, Croeserw
RLDP/N/0043	Land at the Former Tudor Inn and East of the Former Tudor Inn, Cimla
RLDP/PT/0062	Land at Tir Morfa Road, Sandfields (Submission 1)
RLDP/SV/UC004	Land at Y Boblen, 24 Bryn Road, Cwmllynfell
RLDP/N/0044	Land East of Heol Y Glo, Tonna
RLDP/P/0032	Land North of Neath Road, Rhos
RLDP/P/0017	Land off Commercial Road & Heol Gwrhyd
RLDP/AMV/0012	Land off Glyn Road / Heol Godfrey
RLDP/P/2002	Land off Gwrhyd Road
RLDP/AMV/0004	Land off Leyshon Road, Gwaun Cae Gurwen
RLDP/SV/0014	Land off Tirbach Road (Former Tirbach Washery)
RLDP/P/2006	Land off Tramway Road
RLDP/SV/UC003	Land off Y Clos, CwmllynfellL
RLDP/N/0007	Land Opposite 61-127 March Hywel

Site reference	Candidate Site Name
RLDP/PT/UC024	Land opposite Coed Hirwaun
RLDP/N/0036	Land southwest of Cimla (Submission 1)
RLDP/N/0037	Land southwest of Cimla (Submission 2)
RLDP/N/0038	Land southwest of Cimla (Submission 3)
RLDP/P/0027	Land to the east of Rhos
RLDP/N/UC008	Land to the east side of Tyla Morris Farm, Pant Howell Ddu Road, Ynysmaerdy, Briton Ferry, SA11 2TU
RLDP/SV/0011	Land to the south of the GMF Building, Ystalyfera
RLDP/N/0015	Leiros Parc, Rhyddings,Neath
RLDP/PT/0035	Phoenix Wharf, Port Talbot
RLDP/DV/0020	Sites 5 & 6, Nant y Cafn Business Park
RLDP/N/UC011	Tanybryn, Main Road, Cadoxton
RLDP/SV/UC004	Tir yn Y Boblen, 24 Heol Y Bryn, Cwmllynfell / Land at Y Boblen, 24 Bryn Road, Cwmllynfell
RLDP/PT/0030	Water Street, Margam