ARUP

Swansea Council

Swansea Local Development Plan 2: Pre-Deposit Plan (Preferred Strategy)

Shadow Stage 1 Habitats Regulations Assessment Screening Report

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Executive Summary

Swansea Council is currently preparing the Swansea Local Development Plan which runs from 2023-2038 and will be known as the 'Swansea Local Development Plan 2023-2038 (LDP2) Pre-Deposit Plan ('Preferred Strategy'). This document, prepared by Ove Arup and Partners Ltd (Arup) on behalf of Swansea Council, is a shadow Habitats Regulations Assessment (sHRA) stage 1 screening of the Preferred Strategy.

Public consultation on the LDP2 Preferred Strategy, Candidate Site Register, Habitat Regulations Assessment and Integrated Sustainability Appraisal will occur between February and April 2025. Details can be found here: Swansea Local Development Plan 2023-2038 (LDP2) - Swansea.

The screening assessment concluded that Likely Significant Effects (LSE) on Internationally Designated sites could not be ruled out due to implementation of the Preferred Strategy 'alone', in relation to potential effects associated with habitat loss / physical damage, non-physical disturbance, changes to hydrological regime / water levels and water quality, air pollution and recreational disturbance / damage.

The majority of the preferred strategies strategic policies were screened out as having no likely significant effect either alone or in combination, however eight strategic policies (SP1, SP2, SP3, SP8, SP9, SP11, SP12 and SP13) which promote development of residential and mixed-use sites, industry, set targets and strategies for housing levels across the Preferred strategy area were screened in. An appropriate assessment (which is stage 2 of the HRA process) will need to be undertaken on these screened in policies to consider additional detail and any mitigation proposed to determine if any LSE from the policies will undermine the integrity of an Internationally Designated Sites' conservation objectives, and therefore, be subject to the derogations process.

The 13 Strategic Placemaking and Regeneration Areas (SPRAs) discussed under SP8 were also screened. It was not possible to rule out a LSE on all 13 of the SPRAs alone due to their geography and the types of potential impact anticipated from delivery of the sites.

An assessment of in-combination effects was not required at this stage of the HRA process due to the Preferred Strategy being either screened out completely, or screened in due to not being able to exclude an LSE alone.

The appropriate assessment will take place during preparation of the Deposit Plan and mitigation (only considered in the appropriate assessment stage) could include avoidance measures, recommending amendments to policy wording and the need for project level HRA screening and appropriate assessment to ensure no LSE on Internationally Designated sites.

1. Introduction

1.1 Background

Swansea Council is currently preparing the Swansea Local Development Plan which runs from 2023-2038 and will be known as the 'Swansea Local Development Plan 2023-2038 (LDP2) Pre-Deposit Plan ('Preferred Strategy'). Once adopted it will replace the current Swansea LDP which runs from 2010-2025. The Preferred Strategy is the 'Pre-Deposit' Plan for LDP2 (i.e. the main document published at this stage of production of the LDP2). It sets the strategic direction and overarching principles from which the detailed plan known as the 'Deposit' will be drawn. For ease hereafter this will be referred to as the 'Preferred Strategy'.

As a competent authority, Swansea Council must carry out an assessment under The Conservation of Habitats and Species Regulations 2017[1] (as amended by the EU Exit Regulations 2019) (Habitats Regulations), known as a Habitats Regulations Assessment (HRA) to test if a plan or project proposal could significantly harm the designated features of an Internationally Designated Site which comprises part of the National Site Network (NSN). This is required by the Habitats Directive (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora), which is transposed into UK law by the Habitats Regulations.

The HRA carried out by DTA Associates on behalf of Swansea Council for the previous LDP (2010-2025)[2] has been referred to extensively for background information where sites or effects were common to this LDP2 assessment. Information and legislation have been updated as necessary and referenced accordingly to avoid re-work, and an attempt made to retain common themes throughout. This sHRA has incorporated NRW's informal comments following review of the 'Swansea Local Development Plan 2 Habitats Regulations Assessment Initial Draft Screening Report (June 2024) which was produced by Swansea Council[3].

This document, prepared by Ove Arup and Partners Ltd (Arup) on behalf of Swansea Council, is a shadow HRA stage 1 screening of the Preferred Strategy. Due to the stage in the planning process, this sHRA is considered a 'pre-screening' exercise, because if any elements of the Preferred Strategy are found to have a likely significant effect on a European Designated site, then the plan could be changed, or measures added to avoid or reduce any harmful effects on the Internationally Designated Site.

1.2 Structure of this Report

The structure of this Stage 1 Screening Report is outlined as below:

- **Section 1 - Introduction**
- **Section 2 – Habitats Regulations Assessment Methodology:** A breakdown of HRA legislation and guidance, describing the general methodology used for the assessment of plans including the four stage HRA process and in-combination assessment.
- **Section 3 – The Preferred Strategy:** An overview of the Preferred Strategy which is being assessed by the HRA including details of any consultation that has taken place.
- **Section 4 - Approach to Stage 1 Screening**: This section outlines the approach taken to screening the Internationally Designated Sites potentially affected, identification of likely significant effects of the Preferred Strategy and details of the specific screening assessment processes used.

[1] The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (legislation.gov.uk)

[2]DTA Ecology (2018). Advice to City and County of Swansea Council: Shadow Habitats Regulations Assessment to inform the Habitats Regulations Assessment of the Local Development Plan.

[3] Swansea County Council (2024). Habitat Regulations Assessment Initial Draft Screening Report

- **Section 5 – Identification of Internationally Designated Sites:** A list of Internationally Designated Sites which could be affected by the Preferred Strategy.
- **Section 6 – Potential Effects of the Preferred Strategy**: Likely significant effects on Internationally Designated Sites identified in Section 5 are categorised based on the Preferred Strategy's proposals including strategic growth options and scale.
- **Section 7 – Stage 1 Screening of the Preferred Strategy:** This section contains the screening stage of the Preferred Strategy. This assessment considers whether there are Likely Significant Effects (LSEs) on Internationally Designated Sites from the implementation of the Preferred Strategy alone.
- **Section 8 - In-combination Effects**: This section discusses in-combination effects of the Preferred Strategy in conjunction with other plans and projects.
- **Section 9 – Conclusions**: A summary of the findings of this sHRA Screening Report

2. Habitats Regulations Assessment Methodology

2.1 Legislation and Guidance

Article 6 (3) of the Habitats Directive 1992 states that:

"*Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to Appropriate Assessment of its implications for the site in view of the site's conservation objectives.*"

Regulation 63(1) of the Habitats Regulations states that:

"*A competent authority, before deciding to undertake, or give any consent, permission, or other authorisation for, a plan or project which—*

(a) is likely to have a significant effect on a designated site or a designated offshore marine site (either alone or in combination with other plans or projects); and

(b) is not directly connected with or necessary to the management of that site,

must make an Appropriate Assessment of the implications for that site in view of that site's conservation objectives."

Regulation 63(5) states:

"*In the light of the conclusions of the assessment, and subject to regulation 64, the competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the designated site or the designated offshore marine site (as the case may be).*"

As part of the Habitats Regulations 2019 amendment, a NSN has been created (as UK sites no longer form part of the EU's Natura 2000 ecological network) on land and sea and including inshore and offshore marine areas in the UK. The NSN includes Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and new SACs and SPAs designated following the creation of the NSN. UK Government policy states that proposed SACs, potential SPAs, areas secured as sites compensating for damage to an Internationally Designated Site, and Wetlands of International Importance designated under the Ramsar Convention (known as Ramsar sites) are afforded the same protection as NSN sites in terms of the requirements for HRA. For the purposes of this document, NSN sites, Ramsar sites and areas secured as sites compensating for damage to an Internationally Designated Site, are herein referred to as 'Internationally Designated Sites'.

This report provides Swansea Council, as a competent authority, with sufficient information to undertake stage 1 of an HRA.

This sHRA is has been undertaken with reference to the requirements of the following legislation and guidance:

- The Habitats Regulations Assessment Handbook, David Tyldesley and Associates (DTA) Publications Ltd[4]. Most specifically Part F: 'Practical guidance for the assessment of plans under the Regulations'.
- Tyldesley, D. and Chapman, C. 2018. People Over Wind[5] – some Implications of the Judgment. The Habitat Regulations Journal, Issue 10, pp. 19 – 23.

[4] Tyldesley, D. and Chapman, C. (2013) The Habitats Regulations Assessment Handbook. Dec 2024 019 edition. UK, DTA Publications Ltd https://www.dtapublications.co.uk/

[5] People over Wind, Case C323/17 European Court of Justice, 12th April 2018.

- Conservation of Habitats and Species Regulations 2017 (as amended by the EU Exit Regulations 2019)[1]. The EU Exit Regulations 2019 were created to ensure that the habitat and species protection and standards derived from EU law continue to apply after Brexit.
- European Commission, Managing Natura 2000 sites: The provisions of Article 6 of the Habitats Directive 92/43/EEC[6].
- European Commission, Guidance document on Article 6(4) of the Habitats Directive 92/43/EEC[7].
- Department for Communities and Local Government (2006), Planning for the Protection of Internationally Designated Sites: Appropriate Assessment. Guidance for Regional Spatial Strategies and Local Development Documents[8].

2.1.1 Stages of HRA

The overall HRA process and method followed for assessment of the Preferred Strategy is as detailed within Part F of the Habitats Regulations Handbook; Figure 1 below, taken directly from the HRA Handbook illustrates how the four stage HRA process is adopted for the assessment of plans.

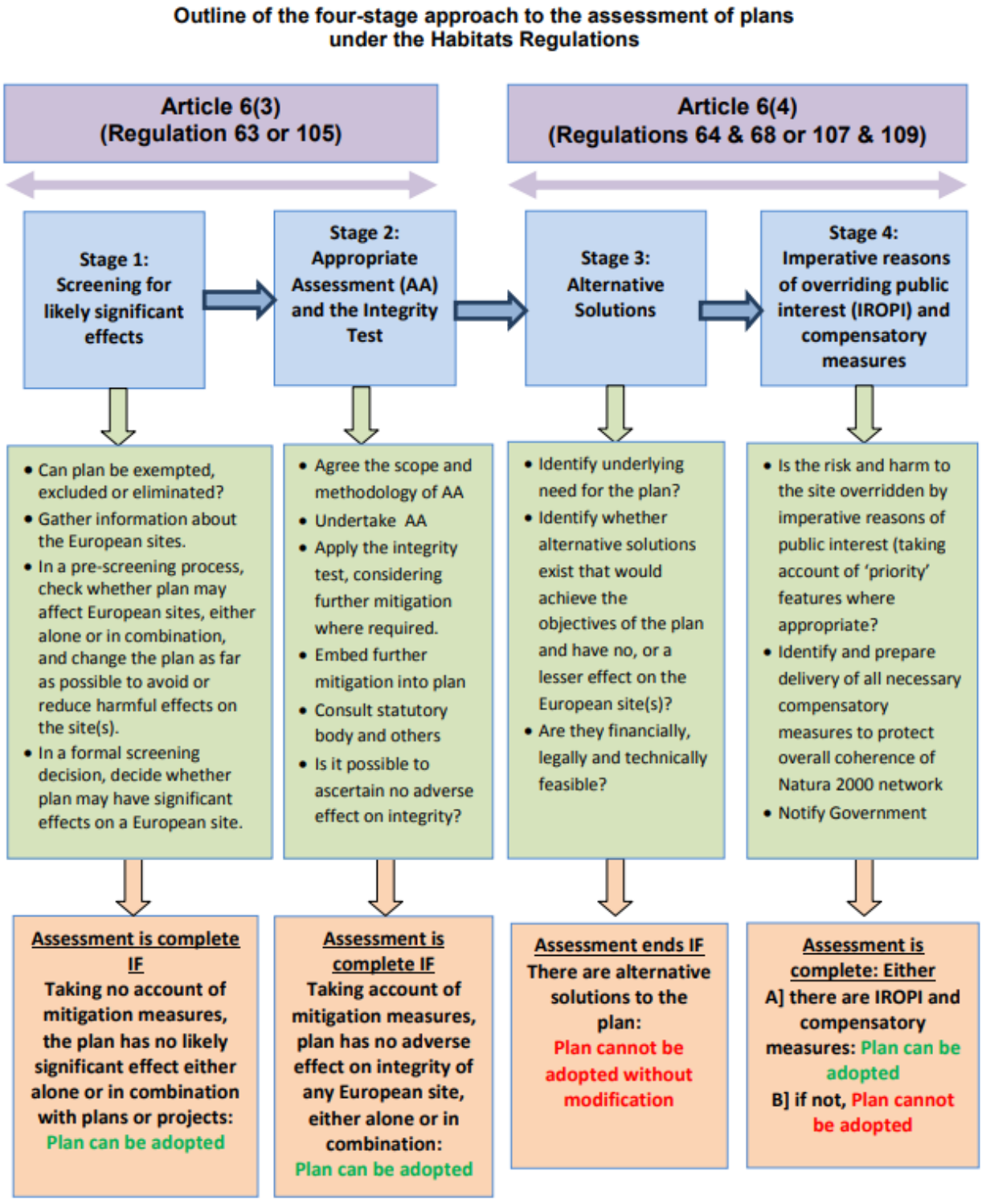
This sHRA report comprises the first stage of this process, identifying any likely significant effects on Internationally Designated Sites.

[6] Managing Natura 2000 sites — The provisions of Article 6 of the Habitats Directive 92/43/EEC (europa.eu)

[7] Habitats Directive: guidance on the application of article 6(4) (publishing.service.gov.uk)

[8] Design Manual for Roads and Bridges (DMRB; 2000). Standard LA 115: Habitats Regulations Assessment, Rev 1.

Figure 1: Outline of the four-stage approach to the assessment of plans under the Habitats Regulations (taken from the HRA Handbook[4]



2.1.1.1 Stage 1 Screening

An assessment of likely significant effects of a plan on Internationally Designated Sites either alone or in-combination with other plans and projects. Mitigation measures are not considered as part of this screening stage following the practical effect of the People Over Wind ruling[5]. This is further detailed in Section 2.1.2.

2.1.1.2 Stage 2 Appropriate Assessment

Where it is not possible to rule out likely significant effects during stage 1, it is necessary to undertake an Appropriate Assessment, as set out in Regulation 63 (1) of the Habitats Regulations. This considers the implications of a project or plan in view of the Internationally Designated Site's conservation objectives, either alone or in-combination with other plans and projects, taking into account mitigation measures. This provides the competent authority with sufficient information to determine whether the plan has an adverse impact on the integrity of Internationally Designated Sites, which is also referred to as the 'integrity test'.

2.1.1.3 Stage 3 Alternative Solutions

Where adverse effects on integrity cannot be mitigated, it is necessary to consider alternative solutions to the plan that would not give rise to these effects. The plan may only proceed if it can be robustly demonstrated that there are no alternative solutions, and the assessment can continue to stage 4.

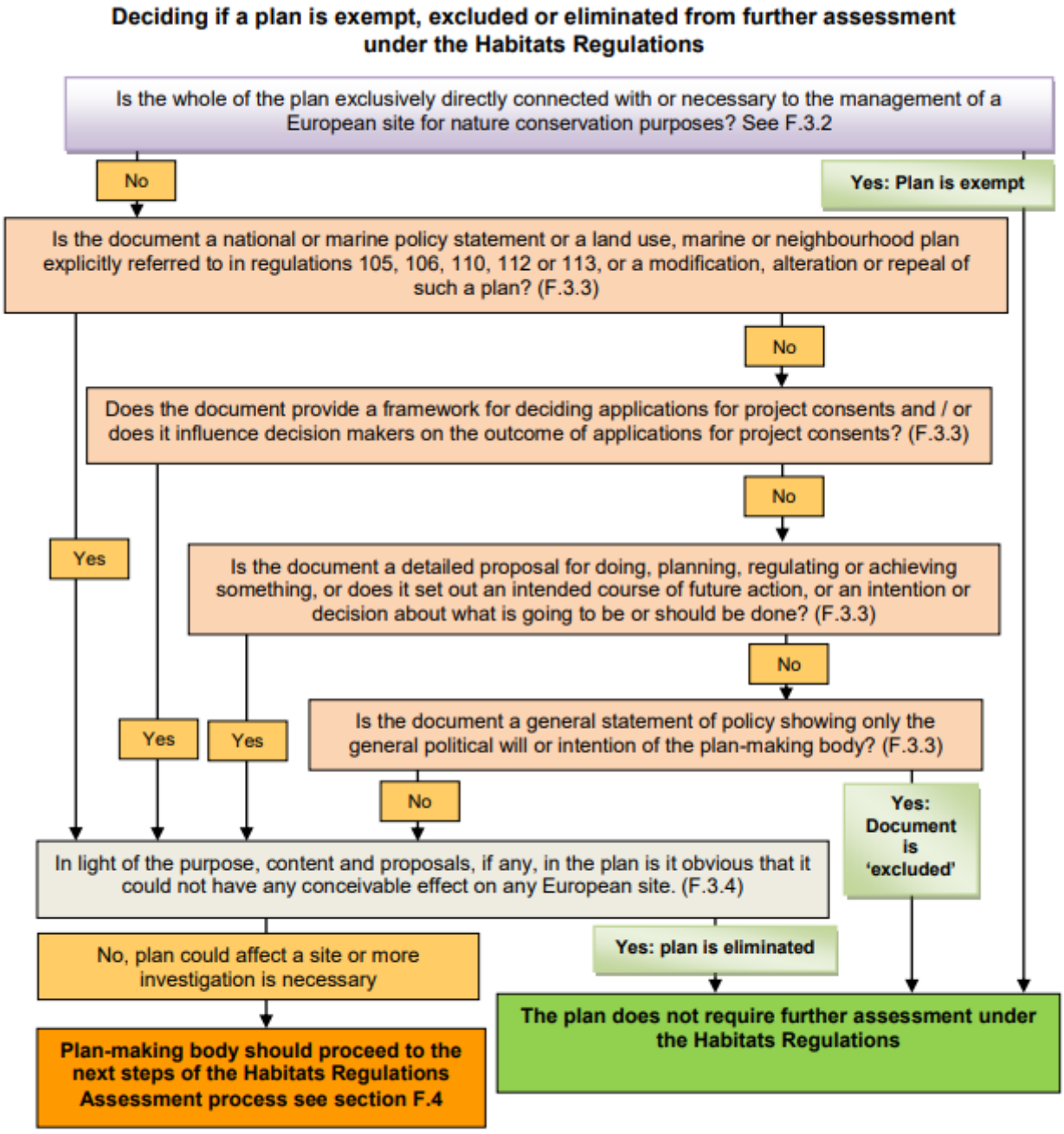
2.1.1.4 Stage 4 Imperative Reasons of Overriding Public Interest (IROPI) and Compensatory Measures

If no alternatives are identified during stage 3, the plan may only proceed in exceptional circumstances, if pursuit of the option is also justified by IROPI. In this case, compensatory measures must still be put in place to offset adverse effects on integrity.

2.1.2 Approach to HRA

The procedural requirements for the assessment of plans are required by regulations 63 and 105 of the Habitats Regulations and are illustrated below in Figure 2 taken from the HRA Handbook[4]. This procedure represents best practice and shows the procedures followed for the assessment of the Preferred Strategy.

Figure 2: Procedures required by regulations 63 and 105 of the Habitats Regulations referring to the principles of the Handbook and the steps and stages of the assessment of plans under the Regulations (taken from the HRA Handbook[4])



It is recognised by the UK courts that plan assessments are unlikely to contain the precise and detailed information found at the project application stage, with the extent to which a plan can be assessed depending on the specificity, scope, scale, whether alternatives are still being considered, and its relationship to the overall decision-making framework. As such, the precautionary principle must be applied during the assessment recognising the degree of uncertainty and general nature of these plans. For these reasons, the 'precautionary principle' is applied, which means that Likely Significant Effects (hereafter referred to as 'LSEs') must be considered, based on best information available and the precision of the plan. This assessment will therefore need to be updated with increasing specificity to be applied in subsequent stages of the plan.

There is no timescale set out within the Habitats Regulations for undertaking the screening process, to determine whether a plan should be subject to an 'appropriate assessment'. This must, in accordance with Regulation 105(1), be undertaken 'before the plan is given effect'.

Assessment of LSEs is undertaken for each policy based broadly upon proximity of development areas to Internationally Designated Sites. For each development area, consideration was given to how far pathways for effect could exist and still give rise to an LSE, in the absence of any mitigation.

The practical effect of the People Over Wind ruling is that 'mitigation measures' cannot be taken into account in the formal screening decision. Developing mitigation measures will take place as the plan evolves, such that this will be achieved by 'checking, testing and changing the plan'. The consideration of mitigation measures is only applicable as part of any appropriate assessment that might be required for the plan. Mitigation measures are therefore not considered as part of this screening report.

It is important to note that an overarching policy within the plan designed to provide protection to Internationally Designated Sites would be considered a mitigation measure and so cannot be taken into account at screening stage, however, would be taken into account for the stage 2 'appropriate assessment'.

The Advocate General's opinion[9] used by the court acknowledged the difficulties in making an assessment on the basis of the level of detail that is available at plan making stage (such as a Pre-Deposit Plan). Paragraph 49 of the opinion stated with added emphasis:

"*...adverse effects on areas of conservation must be assessed at every relevant stage of the procedure to the extent possible on the basis of the precision of the plan. This assessment is to be updated with increasing specificity in subsequent stages of the procedure*"

Additionally, in the High Court case of Feeney[10], regarding the Oxford City Council Core Strategy in England, the judge said:

"*Each appropriate assessment must be commensurate to the relative precision of the plans at any particular stage and no more. There does have to be an appropriate assessment at the Core Strategy stage, but such an assessment cannot do more than the level of detail of the strategy at that stage permits.*"

Therefore, whist using the precautionary approach a 'likely significant effect' should not be assigned to policies and proposals that could not realistically have such an effect because of their general nature. As stated in the HRA Handbook[4] '*plans which are merely general policy statements, or which only show the general political will or intention of a public body will not be likely to have a significant effect on an Internationally Designated Site. Such plans may therefore be eliminated from further assessment at an early stage*'. This is based on advice from the European Commission[11].

Including such policies or general proposals in a formal 'appropriate assessment' is likely to result in a significant amount of unnecessary or abortive work. This could even cause the plan to fail the 'integrity test'. This failure wouldn't be due to any actual adverse effects on the integrity of any Internationally Designated Site, but rather because policies have been 'screened in' that present only theoretical risks or vague, hypothetical effects. At this stage, no meaningful assessment can be made since no specific significant effect on any particular an Internationally Designated Site can be identified. Such an approach is not considered to be in the best interests of the plan or the Internationally Designated Sites.

In the Boggis judgment[12], the Court of Appeal emphasised that there must be "*credible evidence that there was a real, rather than a hypothetical, risk*" when assessing the likelihood of a significant effect. This ruling

[9] Opinion of advocate general Kokott, 9th June 2005, Case C-6/04. Commission of the European Communities v United Kingdom of Great Britain and Northern Ireland

[10] Sean Feeney v Oxford City Council and the Secretary of State CLG para 92 of the judgment dated 24 October 2011 Case No CO/3797/2011, Neutral Citation [2011] EWHC 2699 Admin

[11] European Commission, 2000, Managing Natura 2000 Sites: The provisions of Article 6 of the Habitats Directive 92/43/EEC section 4.3.2 at http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/provision_of_art6_en.pd

[12] Peter Charles Boggis and Easton Bavants Conservation v Natural England and Waveney District Council, High Court of Justice Court of Appeal case C1/2009/0041/QBACF Citation No [2009] EWCA Civ. 1061 20th October 2009

guide competent authorities to base their assessments on tangible risks rather than theoretical or speculative ones.

2.1.2.1 In-combination Effects

It is necessary for an HRA to consider in-combination effects with other projects or plans.

Where an aspect of a project or plan could have some effect on the qualifying feature(s) of an Internationally Designated Site, but the effects of that aspect of the project/plan alone would not be significant, the effects will need to be checked in-combination, firstly with other effects of the same project/plan, and then with the effects of any other plans and projects.

If the prospect of in-combination effects cannot be eliminated, it is necessary to consider how the addition of effects from other projects or plans may produce a combined adverse effect on an Internationally Designated Site that would be significant. Taking the effects which would not be likely to be significant alone, it is necessary to make a judgement as to whether these effects would be made more likely or more significant if the effects of other projects or plans are added to them.

3. The Preferred Strategy

3.1 Overview of the Preferred Strategy

LDP2 will provide the new basis for determining planning applications for proposed development in Swansea for 2023-2038. Once adopted it will replace the current Swansea LDP 2010-2025.

LDP2 will set out how, and where, development should come forward to match the Council's ambitions and objectives. The overarching aim of the Plan is to ensure that place-led development happens in the right location at the right time, benefitting communities and the local economy, and that our natural and built heritage is afforded protection and enhancement. As well as setting a framework for future housing and jobs growth in Swansea, LDP2 will provide a statutory basis to secure affordable homes, supporting infrastructure and a range of facilities and services through the development process. This includes for example new schools, areas of open space, leisure facilities and travel networks. By ensuring that all of this is delivered in a place-led and well-planned way, maximising the opportunities for biodiversity enhancement, LDP2 can make a significant contribution to improving the wellbeing of communities across Swansea.

The Preferred Strategy is the 'Pre-Deposit' Plan for LDP2. It sets the strategic direction and overarching principles from which the detailed plan - known as the 'Deposit' - will be drawn. The Deposit stage follows later in the process and will present a comprehensive set of planning policies, development proposals, and maps identifying settlement boundaries and land use allocations. In advance of the Deposit Plan, the key requirements of the Preferred Strategy are:

- confirm the key issues, opportunities and constraints of most importance and relevance to Swansea
- set out a vision and strategic objectives to guide the formation of planning policies and proposals
- define the scale of housing and jobs growth that evidence shows we should plan for
- identify the broad nature of how growth will be met in spatial terms
- identify the potential for brownfield land and/or 'land-banks' to provide for future development needs
- highlight the existing and future role and function of the range of settlements and neighbourhoods across Swansea
- define a set of strategic policies that provide a high-level policy framework for delivering on the identified Vision and Objectives

Elements of all the above are brought together in chapter 7 of the Preferred Strategy a 'Placemaking Strategy for Abertawe 2038'. This outlines how LDP2 will ensure that future development across the county comes forward in a manner that is consistent with the principles of the Placemaking Wales Charter and the duties of the Well-being and Future Generations Act, and the sustainable development requirements defined in national planning policy.

Chapter 8 sets out a suite of 21 strategic policies that provide the initial policy framework for delivering 'Abertawe 2038' (the LDP Vision). These emanate from the objectives set out in chapter 4 and will deliver the core components of the Preferred Strategy.

The strategic policies are grouped under the five overarching national sustainable placemaking outcomes set out in Planning Policy Wales as follows:

- Creating and Sustaining Communities;
- Growing Our Economy in a Sustainable Manner;
- Facilitating Accessible and Healthy Environments;
- Maximising Environmental Protection and Limiting Environmental Impact, and
- Making Best Use of Resources.

The county is divided into seven housing market areas with similar characteristics referred to as Strategic Housing Policy Zones (SHPZs). The strategy also identifies a number of strategic scale sites that have significant potential to contribute to the overall housing growth requirement. There are 13 Strategic

Placemaking and Regeneration Areas (SPRAs) focussed on strategic locations across the urban area to deliver new growth opportunities, and these form a key contribution to the delivery of housing supply. The area covered by the Preferred Strategy and the location of the SPRAs are shown in Drawing 1.

3.2 Consultation

The formation of the Preferred Strategy benefitted from a range of consultation and engagement exercises, the details of which are available on Swansea Council's website[13]. As part of this Pre-Deposit process two key technical papers[14] were published and discussed with consultees. These papers provide source and explanatory information relating to the Key Issues, Vision, Objectives, Growth Scenarios and Spatial Approaches, and thereby provide useful background to the Preferred Strategy.

The engagement undertaken throughout the Pre-Deposit stage reflected the Community Involvement Scheme set out within the agreed LDP2 Delivery Agreement[15]. As well as comprising a public consultation, this involved discussions and workshops with key partners and stakeholders in the development process, including the Welsh Government, Natural Resources Wales (NRW), Dwr Cymru Welsh Water and the development industry. The formation of the Preferred Strategy also benefitted from detailed engagement with the Council's Elected Members. The Background Paper *'Starting the Conversation on LDP2: Engagement Report, December 2024'* provides a summary of how the comments and feedback received during the engagement undertaken has helped shape the Preferred Strategy. Informal comments were provided by NRW after review of the 'Swansea Local Development Plan 2 Habitats Regulations Assessment Initial Draft Screening Report (June 2024)[3] which was produced by Swansea Council. These informal comments were used to refine the Internationally Designated Sites identified within Section 5, and are included in Appendix A.

Notwithstanding the engagement already undertaken, the publication of the Preferred Strategy marks an opportunity for the public, stakeholders and indeed any individual or organisation with an interest in the process to submit representations. This feedback can be used to help refine the Plan Strategy and in the production of the detailed 'Deposit' Plan. This approach reflects the Council's emphasis on consensus building in the formation of LDP2.

Public consultation on the LDP2 Preferred Strategy, Candidate Site Register, Habitat Regulations Assessment and Integrated Sustainability Appraisal will occur between February and April 2025. Details can be found here: Swansea Local Development Plan 2023-2038 (LDP2) - Swansea[16].

3.3 Integrated Sustainability Appraisal (ISA)

In line with statutory requirements, the Preferred Strategy has been informed by an Integrated Sustainability Appraisal (ISA). This integrated approach to appraising the LDP2 and its effects covers the requirements of Strategic Environmental Assessment (SEA), Sustainability Appraisal (SA), Well-Being of Future Generations Act (WBFGA), Health Impact Assessment (HIA), Equality Impact Assessment (EqIA) and Welsh Language Impact Assessment (WLIA). The aim of the statutory ISA process is to assess how the emerging plan will help to achieve wider environmental, economic, social and cultural objectives. The ISA process is iterative and will inform each stage of plan preparation.

[13] Swansea Council (2024). Local Development Plan 2 - Vision, objectives and options for growth. Available from: https://www.swansea.gov.uk/LDP2vision [Accessed December 2024]

[14] Starting the Conversation on LDP2 - Key Issues, Vision and Objectives', May 2024 and 'Starting the Conversation on LDP2 - Growth Scenarios & Spatial Approaches, May 2024

[15] Swansea Council (2024). Delivery agreement. Available from: https://www.swansea.gov.uk/ldp2deliveryagreement [Accessed December 2024]

[16] Swansea Council (2024). Swansea Local Development Plan 2023-2038 (LDP2). Available from https://www.swansea.gov.uk/LDP2: [Accessed December 2024]

4. Approach to Stage 1 Screening

4.1 Identification of Internationally Designated Sites

An initial step of the screening process is to identify a list of Internationally Designated Sites for which the Preferred Strategy may have likely significant effects upon, either directly or indirectly.

The checklist within the Swansea Council Habitats Regulations Assessment Initial Draft Screening Report (June 2024)[3] (originally adapted from the methodology set out in the DTA Handbook), was used as a basis for the selection of Internationally Designated Sites, and the checklist provided within the previous LDP HRA reviewed[17]. As recommended by the DTA Handbook[4], the systematic scanning and site selection procedure was followed to select relevant sites potentially affected. During the consultation process, NRW confirmed agreement with the list of Internationally Designated Sites included and recommended additional sites to be considered for inclusion within the sHRA report, which are detailed further within Section 5.

All Internationally Designated Sites, including European Marine Sites, within or directly adjacent to the Preferred Strategy area, as shown in Drawings 2a and 2b were identified using Geographic Information System data from datasets downloaded from the Joint Nature Conservation Committee (JNCC)[18], Multi-Agency Geographic Information for the Countryside (MAGIC)[19] and Natural Resources Wales (NRW)[20] web portals. Sites linked by potential impact pathways, such as hydrological connections or by the presence of functionally linked land were also included. Specific Zones of influence for potential impacts to qualifying features were established to help with the identification of Internationally Designated Sites and are detailed in Appendix C. Where there was any doubt as to whether an Internationally Designated Site may be affected, guidance was sought through consultation with NRW (See Appendix A for NRW response, see Section 3.2 for details).

Detailed site characterisation information for each of the identified sites can be found in the accompanying Core Management Plan and Natura 2000 standard data form for each site, which was accessed via the Joint Nature Conservation Committee (JNCC) website[18].

4.2 Potential Pathways for Effects of the Preferred Strategy

Effects on an Internationally Designated Site can be both direct or indirect, short, medium or long term, temporary or permanent, continuous or intermittent, positive, neutral or negative and reversible or irreversible. Also, as stated in the DTA Handbook[4] '*effects on qualifying features may arise, for example, from biological, chemical, hydrological, morphological, physical or anthropological changes*', and; '*a qualifying feature may be affected by the plan even though the feature is located some distance from the plan area'*.

It is therefore important to understand how the Preferred Strategy could affect an Internationally Designated Site and to identify qualifying features which could potentially be affected. Potential impact pathways were considered between the Preferred Strategy and receptors (i.e. qualifying features of Internationally Designated Sites) based on a general understanding of the overall nature and scale of the strategy, policies and proposals, including Placemaking Strategy aspirations to make provision for 11,410 new homes over the plan period to 2038 (this incorporates 20% flexibility allowance over the housing requirement of 9,510 new homes). Each effect was evaluated in relation to regional population growth associated with the Preferred Strategy. Any data used to help with the assessment on potential effects is detailed under the relevant effect categories in Section 6.

[17] Swansea County Council (2018). Shadow Habitats Regulations Assessment to inform the Habitats Regulations Assessment of the Local Development Plan.

[18] JNCC Website https://jncc.gov.uk/

[19] MAGIC interactive Mapping Application. http:/www.magic.gov.uk/MagicMap.aspx

[20] Natural Resources Wales Find Protected Areas of Land and Seas https://naturalresources.wales/guidance-and-advice/environmental-topics/wildlife-and-biodiversity/find-protected-areas-of-land-and-seas/designated-sites

4.3 Screening and Categories for Assessment

The screening assessment follows guidance set out in Part F of the DTA Guidance[4] as summarised below:

- **Administrative text** – any elements such as introductory text about the status, purpose, stage, hierarchy or timing which cannot possibly have any effect on an Internationally Designated Site were screened out under 'Administrative text'.
- **Vision and general aspirations** – whilst not excluding the possibility of the vision or aspirations being the driver of a significant effect on an Internationally Designated Site, it is likely that there is a more specific policy or proposal that would be the better target for assessment, the majority were screened out as 'general aspirations'.
- **The plans aim's, goals and objectives** – it is possible that these could be the driver for a significant effect on an Internationally Designated Site, but in most cases, these were screened out under 'general statements of overall goals or broad objectives' or similar. This was either because they have no effect at all, or they are too vague to have a significant effect on a particular site. Additionally, it is likely that there would be a more specific policy or proposal that would be the better target for assessment.

The remainder of the Preferred Strategy **policies and proposals within the LDP2** were reviewed against the following list of screening categories (refer to Table 1). These assessment categories have been specifically designed to identify the different types of policy that could be implemented through high-level planning documents, and to determine whether future actions arising from a policy could lead to development which could in turn affect an Internationally Designated Site. Policies screened out using the pre-screening assessment categories were generally those that could not lead to 'direct development' or could have no impact pathway to any Internationally Designated Site. This included policies which directly seek to protect the local historic and natural environment, or those which support the implementation of other policies and therefore could not directly affect Internationally Designated Site.

Table 1: Pre-screening Assessment Categories (Adapted from Section F.6.3 of the DTA Handbook)[4]

Category	Description	Screening
A	**General statements of policy/general aspirations**. Policies which are no more than general statements of policy or general political aspirations should be screened out because they cannot have a significant effect on a site.	**Screen out**
B	**Policies listing general criteria for testing the acceptability/sustainability of proposals.** These general policies cannot have any effect on an Internationally Designated Site and should be screened out.	**Screen out**
C	**Proposal referred to but not proposed by the plan.** Screen out any references to specific proposals for projects, such as those which are identified, for example, in higher policy frameworks such as the Wales Spatial Plan or National Policy Statements, relating perhaps to nationally significant infrastructure projects. These will be assessed by the Secretary of State or Welsh Ministers. A useful 'test' as to whether a project should be screened out in this step is to ask the question: 'Is the project provided for/proposed as part of another plan or programme and would it be likely to proceed under the other plan or programme irrespective of whether this subject plan is adopted with or without reference to it?' If the answer is 'yes' it will normally be appropriate to screen the project out in this step.	**Screen out**
D	**General plan-wide environmental protection/site safeguarding / threshold policies.** These are policies, the obvious purpose of which is to protect the natural environment, including biodiversity, or to conserve or enhance the natural, built or historic environment, where enhancement measures will not be likely to have any adverse effect on an Internationally Designated Site. They can be screened out because the implementation of the policies is likely to protect rather than adversely affect Internationally Designated Sites and not undermine their conservation objectives. Depending on the specific proposals however, a HRA may still need to be considered at the project-level, particularly where conflicting priorities are realised.	**Screen out**

Category	Description	Screening
E	**Policies or proposals that steer change in such a way as to protect Internationally Designated Sites from adverse effects.** These types of policies or proposals will have the effect of steering change away from an Internationally Designated Sites whose qualifying features may be affected by the change, and they can therefore be screened out.	**Screen out**
F	**Policies or proposals that cannot lead to development or other change.** Policies that do not themselves lead to development or other change, for example, because they relate to design or other qualitative criteria for development, such as materials for new development. They do not trigger any development or other changes that could affect an Internationally Designated Site and can be screened out.	**Screen out**
G	**Policies or proposals that could not have any conceivable adverse effect on a site.** Policies which make provision for change, but which could have no conceivable effect on an Internationally Designated Site, because there is no causal connection or link between them and the qualifying features of any Internationally Designated Site, and they can therefore be screened out.	**Screen out**
H	**Policies or proposals the (actual or theoretical) effects of which cannot undermine the conservation objectives (either alone or in-combination with other aspects of this or other plans or projects).** Policies or proposals which make provision for change, but which could have no significant effect on an Internationally Designated Site, either alone or in-combination with other aspects of the same plan, or in-combination with other plans or projects, can be screened out. These may include cases where there are some potential effects which (and theoretically even in-combination) would plainly be insignificant and could not undermine the conservation objectives.	**Screen out**
I	**Policies or proposals with a likely significant effect on a site alone.** Policies or proposals which are likely to have a significant effect on an Internationally Designated Site alone, should be screened in.	**Screen in**
J	**Policies or proposals not likely to have a significant effect alone.** These aspects of the plan would have some effect on a site, but the effect would not be likely to be a significant effect; so they must be checked for in-combination (cumulative) effects. They will then be re-categorised as either Category K (no significant effect in-combination **scree**n **out**) or Category L (likely to have a significant effect in-combination **screen in**), as explained below.	**Check categories K and L**
K	**Policies or proposals unlikely to have a significant effect either alone or in-combination.** Those aspects of the plan with no potential for likely significant effect alone or in-combination can be ruled out after the in-combination assessment.	**Screen out after the in-combination test**
L	**Policies or proposals which might be likely to have a significant effect in-combination.** Those aspects of the plan which would not have a significant effect alone but has been identified as having the potential to impact on Internationally Designated Sites in-combination with other plans or projects.	**Screen in after the in-combination test**
M	**Bespoke area, site or case specific policies or proposals intended to avoid or reduce harmful effects on Internationally Designated Sites**. Policies or proposals which have been included in the plan with the intention of avoiding or reducing effects on specific Internationally Designated Sites whose qualifying features may otherwise be affected by the plan being implemented.	**Screen in**

4.3.1 In-combination Assessment

The DTA handbook sets out that only elements of the plan that are identified as having some effect on an Internationally Designated Site, but where the effect is not likely to be significant alone needs to be screened for in-combination effects. Categories A to H where a policy has no effect on an Internationally Designated Site do not need to be screened for in-combination effects. Category I where a policy has an effect on an Internationally Designated Site alone also do not need to be screened for in-combination effects at this stage as they are screened in to appropriate assessment automatically. Category J, where the policy or proposal is not likely to have a significant effect alone, would need to be checked for in-combination effects, and then re-categorised under K or L.

5. Identification of Internationally Designated Sites

Table 2 shows the Internationally Designated Sites that have been identified and fall within the scope of the sHRA according to criteria in Section 4. It should be noted that within the informal consultation response (Appendix A) NRW recommended that the following Internationally Designated Sites were considered for inclusion within this sHRA Screening Report:

- River Usk SAC;
- River Tywi SAC;
- Pembrokeshire Marine SAC; and
- Bristol Channel Approaches SAC.

The HRA for the previous LDP[2] screened potential impacts on the River Tywi SAC and River Usk SAC from potential water abstraction irrespective of distance from the Preferred Strategy area. Informal consultation by NRW on the HRA Draft Screening Report in June 2024[3] also recommended that these sites be considered within this sHRA. It is considered that there is potential for these Internationally Designated Sites to be impacted by increased water abstraction. Additionally, since NRW first published their Advice to Local Planning Authorities regarding nutrient sensitive SACs[21], increased nutrient loading resulting from effluent discharges to functionally linked habitats from wastewater treatment works serving development within the Preferred Strategy area has been identified. These sites have, therefore, been included in Table 2 below.

NRW's initial response in June 2024 also advised that this HRA should "*capture any potential impacts to marine species which are not features of the designated sites adjacent to the Swansea administrative boundary. Examples of this would be the mobile species protected within Pembrokeshire Marine Special Area of Conservation (SAC) and West Wales Marine SAC*". Following initial consideration of potential impacts to mobile species, Pembrokeshire Marine SAC and Bristol Channel Approaches SAC have been included in this HRA due to the potential for impacts on functionally linked areas of sea used by marine species forming qualifying features of these sites. NRW's position statement on the use of Marine Mammal Management Units for Habitats Regulations Assessments[22] advises that:

"When considering which sites to screen into the assessment (for each impact pathway and species feature), the relevant MMMU is used as the spatial scale for screening. If credible impact pathways are identified, or there is reasonable doubt as to absence of an effect from the relevant impact to a marine mammal Annex II feature, in view of the conservation objectives, then all sites with that feature within the relevant MMMU for that species should be screened in for AA……"

"The use of an iterative/sequential Appropriate Assessment (AA) is advised to accompany the use of MMMUs at the screening stage. This is where an AA is first carried out on the closest site to the impact source / development and if an Adverse Effect on Site Integrity (AEOSI) cannot be ruled out, the next closest site is assessed and so on. …For harbour porpoise: An Appropriate Assessment should be carried out on the closest site to the proposed plan or project location first. If AEOSI cannot be ruled out, a sequential/iterative assessment should be carried out considering the next closest site."

Therefore, should likely significant effects relating to harbour porpoise be carried forward to the appropriate assessment stage of the sHRA, the appropriate assessment will first be undertaken for the Bristol Channel Approaches SAC. Should a conclusion be reached that there is potential for adverse effects on the integrity of the Bristol Channel Approaches SAC, the assessment will be extended to the next closest SAC featuring harbour porpoise within the Celtic and Irish Seas MMMU and then sequentially on the other 13 SACs.

[21] Natural Resources Wales / Advice to planning authorities for planning applications affecting nutrient sensitive river Special Areas of Conservation

[22] Marine Programme Planning and Delivery Group (2022) NRW's position on the use of Marine Mammal Management Units for screening and assessment in Habitats Regulations Assessments for Special Areas of Conservation with marine mammal features. [Accessed online: 18/12/2024] Available at: https://naturalresources.wales/media/695250/ps006-mmmus-in-hra-position-statement-may22.pdf

Table 2: Checklist for selecting sites that should be considered in the appraisal

Criteria	Sites to check	Site Selection for consideration
All plans (terrestrial, coastal and marine)	Sites within the plan area	• Crymlyn Bog SAC and Ramsar site; • Burry Inlet Ramsar site; • Carmarthen Bay Dunes SAC; • Carmarthen Bay and Estuaries SAC; Carmarthen Bay SPA; Burry Inlet SPA (together these form the Carmarthen Bay and Estuaries European Marine Site); • Limestone Coast of South and West Wales SAC; • Gower Ash Woods SAC; and • Gower Commons SAC.
For plans that could affect the hydrological regime	Sites upstream or downstream of the plan area in the case of river or estuary sites	• Carmarthen Bay and Estuaries European Marine Site; • Burry Inlet Ramsar Site; and • Bristol Channel Approaches SAC.
	Peatland and other wetland sites with relevant hydrological links to land within the plan area, irrespective of distance from the plan area	• Crymlyn Bog SAC and Ramsar Site; • Carmarthen Bay Dunes SAC; and • Limestone Coast of Southwest Wales SAC.
For plans that could affect mobile species	Sites which have significant ecological links with land affected by the plan	• Limestone Cliffs of Southwest Wales SAC; • Caeau Mynydd Mawr SAC; • Gower Commons SAC; • Pembrokeshire Marine SAC; • Carmarthen Bay and Estuaries European Marine Site; • Bristol Channel Approaches SAC; and • All SACs within the Celtic and Irish Seas harbour porpoise MMMU that feature harbour porpoise.
For plans that could increase recreational pressure on Internationally Designated Sites potentially vulnerable to such pressure	Sites in the plan area	• Crymlyn Bog SAC and Ramsar site; • Carmarthen Bay Dunes SAC; • Limestone Coast of Southwest Wales SAC; • Gower Ash Woods SAC; • Gower Commons SAC; and • Carmarthen Bay and Estuaries European Marine Site.

Criteria	Sites to check	Site Selection for consideration
	Such Internationally Designated Sites within a reasonable travel distance of the plan area boundaries that may be affected by local recreational or other visitor pressure from within the plan area (the appropriate distance in each case will need to be considered on its merits, in light of any available evidence)	• Caeau Mynydd Mawr SAC; and • Cernydd Carmel SAC.
	Such Internationally Designated Sites within a longer travel distance of the plan area, which are major (regional or national) visitor attractions such as Internationally Designated Sites which are National Nature Reserves where public visiting is promoted, sites in National Parks, coastal sites and sites in other major tourist or visitor destinations (the appropriate distance in each case will need to be considered on its merits, in light of any available evidence)	None
For plans that would increase the amount of development	Sites that are used for, or could be affected by, water abstraction hydrologically linked to the plan area	• Crymlyn Bog SAC and Ramsar site; • Carmarthen Bay and Estuaries European Marine Site; • Carmarthen Bay and Dunes SAC; • River Usk SAC; and • River Tywi SAC
	Sites used for, or could be affected by, increased nutrient loading from the discharge of treated effluent waste water treatment works or other waste management streams serving land in the plan area, irrespective of distance from the plan area	• Crymlyn Bog SAC and Ramsar site; • Carmarthen Bay and Estuaries European Marine Site; and • Carmarthen Bay and Dunes SAC.
	Sites that could be affected by transport or other infrastructure	None
	Sites that could be affected by increased deposition of air pollutants arising from the proposals, including emissions from significant increases in traffic	• Crymlyn Bog SAC and Ramsar site; • Carmarthen Bay Dunes SAC; • Carmarthen Bay and Estuaries SAC; • Limestone Coast of Southwest Wales SAC; • Gower Ash Woods SAC; and • Gower Commons SAC.
	Sites that are in close proximity to development that are sensitive to impacts associated with construction works or disturbance (either visual or noise related)	• Crymlyn Bog SAC and Ramsar site; • Limestone Coast of Southwest Wales SAC; • Gower Ash Woods SAC; • Gower Commons SAC; and • Carmarthen Bay and Estuaries European Marine Site.

Criteria	Sites to check	Site Selection for consideration
For plans that could affect coastal processes	Sites in the same coastal 'cell', or part of the same coastal ecosystem, or where there are interrelationships with or between different physical coastal processes.	• Limestone Coast of Southwest Wales SAC; • Bristol Channel Approaches SAC; and, • Carmarthen Bay and Estuaries European Marine Site; and

From the above systematic scanning and site selection procedure, sites to be included in the screening assessment are as follows:

- Carmarthen Bay and Estuaries European Marine Site (comprising the Carmarthen Bay and Estuaries SAC, Carmarthen Bay SPA and Burry Inlet SPA and Ramsar);
- Caeau Mynydd Mawr SAC;
- Carmarthen Bay Dunes SAC;
- Cernydd Carmel SAC;
- Bristol Channel Approaches SAC;
- Crymlyn Bog SAC and Ramsar site;
- Gower Ash Woods SAC;
- Gower Commons SAC;
- Limestone Coast of Southwest Wales SAC;
- Pembrokeshire Marine SAC;
- River Tywi SAC; and
- River Usk SAC.

The sHRA considers the potential effects of Preferred Strategy on the qualifying features of Internationally Designated Sites. A summary of each of the Internationally Designated Sites listed above, their conservation objectives and condition assessment for each of the features of interest for each site is contained within Appendix B, and locations shown on Drawings 2a and 2b.

6. Potential Effects of the Preferred Strategy

Potential effects on Internationally Designated Sites identified from the Preferred Strategy are summarised in Table 3 below. These effects are also based in part upon the Zone of Influence (ZoI) for potential pathways for effect (refer to Appendix C and Drawing 3 for details), identified to determine the likelihood for significant effects; they are broadly kept similar to preceding HRAs for consistency.

Each of these potential effects are assessed against the Internationally Designated Sites identified in Section 5 to determine whether the Preferred Strategy alone could give rise to a LSE noting the sites' conservation objectives, pathways for effect using a precautionary approach and based on a general understanding of the overall nature and scale of the strategy, policies and proposals.

Table 3: Summary of potential effects on Internationally Designated Sites within the scope of this sHRA

Effects on Internationally Designated Sites	Description of Effects
Habitat loss / physical damage	Direct loss as a result of the Local Plan, including habitats within Internationally Designated Sites and also on functionally linked land. Habitat loss includes the effects of fragmentation and severance as well.
Non-physical disturbance	An increase or addition of disturbance to qualifying features from sources such as noise, vibration and lighting, leading to potential impacts on the extent and/or function or qualifying features of Internationally Designated Sites.
Changes to hydrological regime / water levels and water quality	An increase in demand for water abstraction and/or wastewater generation resulting from the growth proposed in the Preferred Strategy. Direct impacts on the hydrology or water quality of an area due to land-use change. These could potentially result in changes in quantity and quality of water at Internationally Designated Sites.
Air pollution	A decrease in air quality associated with increases in traffic and industrial and commercial developments, as a result of the Local Plan; leading to impacts on the site's structure, function and to supporting processes.
Recreational disturbance /damage	An increase or addition of disturbance to qualifying features, e.g. through recreation, as a result of the Local Plan. Leading to potential impacts on the extent and/or function or qualifying features of Internationally Designated Sites.

Mobile species from Internationally Designated Sites have been considered as they may be impacted by the potential effects within Table 3. Any impacts to mobile species are considered within each of the potential effects categories, however for clarity, specific mobile species considered within this sHRA are also listed in Section 6.1.6.

6.1.1 Habitat loss / physical damage

None of the proposed SPRAs in the Preferred Strategy are located directly within an Internationally Designated Site, however some of the settlements within the sustainable settlement hierarchy are (for example Crofty and Pen-clawdd) and functionally linked land could be affected.

In addition to direct habitat loss resulting from development within an Internationally Designated Site, there is also the possibility that development may be located in areas that result in the loss of functionally linked land, which support qualifying features of Internationally Designated Sites. Functionally linked land may be located at some distance from the Internationally Designated Site and may support mobile qualifying features, for example wintering birds or bats. As outlined in Appendix C, there are a range of typical distances that wintering waterbirds will travel from their SPA to forage, and bat species use land surrounding SACs to forage, commute and for seasonal migration into the wider landscape. Associated with the loss of any functionally linked land is the specific consideration for the fragmentation of habitats; the loss of which hinders the movement of qualifying species. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally Designated Site.

Another effect of habitat loss is habitat severance. Habitat severance can arise in relation to the fragmentation and creation of physical barriers to the movement of mobile species across the landscape, e.g.

bats. Severance of habitat used by bats to forage and commute within Internationally Designated Sites and in the wider area can have a significant impact on the population of qualifying bat species. No SPRAs are within 8km of MU9 for the Limestone Coast of Southwest Wales SAC. (See ZOI for qualifying features) Although this does not mean there will be no development within this buffer.

As sea levels rise, coastal habitats are subject to 'coastal squeeze', whereby coastal defences built to support new development can prevent intertidal habitats from migrating landwards and they are therefore subsumed by the rising seas and can also cause changes in erosion and deposition patterns. The South Wales Coastal Group Shoreline Management Plan 2 (SMP2) 20 – Lavernock Point to St Anne's Head, and the corresponding HRA[23], provides an overarching strategy for the management of coastal defences, meaning that effects associated with coastal squeeze are most likely to act in-combination with the Local Plan. Carmarthen Bay and Estuaries European Marine Site, Limestone Coast of Southwest Wales SAC and the Carmarthen Bay and Dunes SAC have been identified as being potentially vulnerable to these coastal effects. However, no new coastal defences are proposed or supported by the Preferred Strategy. Therefore, the Preferred Strategy is not anticipated to result in coastal squeeze impacts to any of the sites listed above.

In light of the above information, LSE resulting from habitat loss / physical damage linked to overall regional population growth associated with the Preferred Strategy cannot be ruled out for: Carmarthen Bay Dunes SAC, Limestone Coast of Southwest Wales SAC, Gower Ash Woods SAC, Gower Commons SAC, Carmarthen Bay and Estuaries European Marine Site, Pembrokeshire Marine SAC, Bristol Channel Approaches SAC and all SACs within the Celtic and Irish Seas harbour porpoise MMMU that feature harbour porpoise.

Internationally Designated Sites identified as being potentially vulnerable to habitat loss / physical damage are considered further in Section 7 where each proposed development or SPRA is screened.

6.1.2 Non-physical disturbance

Disturbance effects can arise through noise, vibration and light e.g., construction-related development and operational activities leading to potential impacts on the extent and/or function or qualifying features of Internationally Designated Sites. A precautionary buffer of 500m is assumed to apply to all Internationally Designated Sites, in order to count for the potential for any LSE from non-physical disturbance (Appendix C). These effects, associated with proximity of development to an Internationally Designated Site are considered further in Section 7.

In light of the above information, LSE resulting from non-physical disturbance linked to overall regional population growth associated with the Preferred Strategy cannot be ruled out for: Limestone Cliffs of Southwest Wales SAC, Gower Commons SAC, Pembrokeshire Marine SAC, Carmarthen Bay and Estuaries European Marine Site, Bristol Channel Approaches SAC, and all SACs within the Celtic and Irish Seas harbour porpoise MMMU that feature harbour porpoise.

Internationally Designated Sites identified as being potentially vulnerable to non-physical disturbance are considered further in Section 7 where each proposed development or SPRA is screened.

6.1.3 Changes to hydrological regime / water levels and quality

There can be an increased demand for water abstraction and/or wastewater generation resulting from the growth proposed in the Preferred Strategy. Growth can also result in direct impacts on the hydrology or water quality of an area due to land-use change. These could potentially result in changes in quantity and quality of water at Internationally Designated Sites and are discussed below.

Changes to the hydrological regime/water levels and water quality can be categorised into *direct* and *indirect* effects.

There are potential *direct* impacts associated with the delivery of growth from the Preferred Strategy, due to the proximity of a proposed development or SPRA to an Internationally Designated Site, for example the increase in hard impermeable surfaces causing increased rate of surface water run-off and sediment loading

[23] South Wales Coastal Group (2012) Shoreline Management Plan 20 – Lavernock Point to St Anne's Head) SMP2. [Accessed online: 18/12/2024] Available at: https://www.southwalescoastalgroup.cymru/the-shoreline-management-plan-2/da7bba7b-e8c1-44a5-ab97-c92db850a0da

to receiving waterbodies, along with reduced infiltration. Other direct effects could include modification of receiving waterbodies to accommodate development. The implementation of the Preferred Strategy, and specifically the delivery of SPRAs that are hydrologically connected to Internationally Designated Sites, may result in *direct* effects on Carmarthen Bay and Estuaries European Marine Site, Crymlyn Bog SAC and Ramsar, and the Carmarthen Bay and Dunes SAC.

There are also potential *indirect* effects for example an expected increase in demand for water abstraction and wastewater generation resulting from the levels of growth proposed in the Preferred Strategy. This is through an indirect hydrological connection between the Preferred Strategy area and an Internationally Designated Site, which refers to either (i) the abstraction of water from resources hydrologically linked to a designated waterbody to supply the Preferred Strategy area, or (ii) the discharge of wastewater from a wastewater treatment works that services part of the Preferred Strategy area.

6.1.3.1 Increased water abstraction

Additional development within a plan area increases the demand for water resources – this can potentially impact the hydrology and water quality of Internationally Designated Sites (both habitats and mobile species) with an indirect hydrological connectivity to the local plan area (i.e. abstraction from designated waterbodies or those hydrologically linked to designated waterbodies to supply development). Water abstraction for the plan area is licenced by NRW[24], and whilst it is principally their responsibility to avoid adverse effects on Internationally Designated Sites from additional water abstraction, there are limitations to their consenting and management responsibilities posed by water availability and, thus, a tension for the sHRA to consider if the assumption is made that NRW can continue to consent any required increases to abstraction sufficient to satisfy the Preferred Strategy's ambitions[25]. Dŵr Cymru / Welsh Water (DCWW) has a duty to plan and deliver the increased abstraction required for Preferred Strategy growth, and this is managed through the development of their Water Resources Management Plan (WRMP)[26]. This sHRA seeks to determine whether there is a risk of a likely significant effect on any Internationally Designated Sites arising from the additional requirements to supply water for the delivery of Swansea Council's Preferred Strategy ambitions through increased abstraction activities, as managed by DCWW's Final WRMP.

Within DCWW's Final WRMP, their Preferred Plan includes updates previous estimations around supply capacity and drought resilience for the Tywi Gower Water Resource Zone (WRZ). It is reported that the Tywi Gower WRZ is not currently achieving DCWW's drought resilience target and is predicting a deficit for the plan period due to "…*an identified lack of sufficient resource availability in the smaller, upland reservoirs and network restrictions that means we* [DCWW] *can't fully utilise the larger lowland sources to support during periods of prolonged dry weather"*[26]. To manage shortfall, both supply-side and demand-side measures are expected to be pursued by DCWW as per the Final WRMP. Options that are relevant for further consideration in this sHRA due to their possible hydrological connection to an Internationally Designated Site are summarised in Table 4, with a note of how/if they require screening in relation to Swansea Council's LDP2 Preferred Strategy area.

Table 4. Relevant options to meet DCWW's supply requirements and drought resilience target for the Tywi Gower WRZ.

Option	Detail of Option	Hydrological Connectivity to Internationally Designated Site
Demand-side options		
General: household and non-household	Leakage / network improvement programmes, metering enhancements, water efficiency audits, grey water recycling, rainwater harvesting, etc.	Possible hydrologically linkage to Carmarthen Bay and Estuaries European Marine Site, Carmarthen Bay Dunes SAC, Bristol Channel approaches SAC, Crymlyn Bog SAC and Ramsar site, River Tywi SAC, River Usk SAC and

[24] NRW are a Competent Authority and the Statutory Nature Conservation Body for Wales under the Habitats Regulations

[25] NRW's strategy for the managing abstraction across the Preferred Strategy area is outlined in The Carmarthen Bay Abstraction Licensing Strategy (2014) and Swansea Bay Abstraction Licensing Strategy (2014).

[26] https://www.dwrcymru.com/-/media/project/files/page-documents/corporate/environment/water-resources/water-resources-management-plan-2024/final-water-resources-management-plan-2024/main-report/fwrmp24-full-document-v30.ashx

		Pembrokeshire Marine SAC which may be potentially impacted by additional abstraction - to be screened for possible LSE.
Supply-side options		
TWG12: Crai Distribution Option - Upsize Christopher Road WPS	To reduce demand on Crai resources, two service reservoirs will be re-zoned through work undertaken to upsize Christopher Road Pumping Station (PS) to reverse the flows from Crai (17" main), increase supply of water to Tywi Gower WRZ from Felindre system.	Possible hydrologically linkage to Crymlyn Bog SAC and Ramsar, Carmarthen Bay and Estuaries European Marine Site, Carmarthen Bay and Dunes SAC and River Tywi SAC which may be potentially impacted by additional abstraction - to be screened for possible LSE.
TWG14: Ystrafellte – reverse flow through Tonna control valve	To reduce demand on Cefn Drysgoed, Tonna Flow valve is proposed to be reversed so that 2.5Ml/d from the Felindre system can provide resource to Tywi Gower WRZ. Elements include New Park PS to pump to the Cefn Drysgoed network.	Possible hydrologically linkage to Crymlyn Bog SAC and Ramsar, Carmarthen Bay and Estuaries European Marine Site which may be potentially impacted by additional abstraction - to be screened for possible LSE.
SEW166: Memorial and Cefn Mably upgrade	Enabling option to support other WRMP options by providing additional resource to the Pontsticill Low Level network (47 Ml/d). Cilfynydd PS (21Ml/d) will be reinstated alongside the operation of Memorial PS (26 Ml/d). Memorial PS pumps will be replaced with low suction, high lift technology to be able to provide to Ty Gwyn service reservoir. Cefn Mably PS will be reinstated to provide additional pressure for Memorial PS and Tongwynlais service reservoir; a pressure and flow control valve arrangement is proposed to be installed at Tongwynlais service reservoir inlet to prevent overtopping.	Option hydrologically linked to River Usk SAC but not driven by the requirement for delivery of the Preferred Strategy ambitions – this option supports supply for the Southeast Wales Conjunctive Use System WRZ. Screening not required as part of this sHRA.

As a competent authority under the Habitats Regulations, DCWW have published an HRA of their Final WRMP[27], which concludes that the Final WRMP "*…will have no adverse effects, alone or in combination, on the integrity of any Internationally Designated Sites*". This conclusion can be relied on in and as so far as NRW's current stance of having no formal policy relating to abstraction reduction since the previous Habitats Directive (regulation 63 of the Habitats Regulations) review of abstraction consent[28], does not change. A screening of the general *indirect* hydrological connection between increased abstraction in the Tywi Gower WRZ to support the delivery of the Swansea Council's LDP2 Preferred Strategy has been undertaken. Details of the Internationally Designated Site-specific screening can be seen in Section 7.

6.1.3.2 Increased discharge of wastewater

Additional development within a plan area increases the generation of wastewater requiring treatment and planned discharge, and/or incidental discharge (due to rainfall pressures) to the water environment – these can potentially impact the hydrology and water quality of Internationally Designated Sites (both habitats and mobile species) with an indirect hydrological connectivity to the local plan area (e.g. development serviced by Wastewater Treatment Works (WwTW) or Combined Sewer Overflows which discharge into designated waterbodies or those hydrologically linked to designated waterbodies). Treated effluent discharge undertaken by DCWW is permitted by NRW, and whilst it is principally their responsibility to avoid adverse effects on Internationally Designated Sites from additional discharge of treated wastewater, there are limitations to their consenting and management responsibilities posed by existing infrastructure and the current water quality of the receiving waterbodies. Thus, a tension for the sHRA to consider is if the assumption made that NRW can continue to consent any required increases to wastewater treatment is sufficient to satisfy the Preferred

[27] https://www.dwrcymru.com/-/media/project/files/page-documents/corporate/environment/water-resources/water-resources-management-plan-2024/final-water-resources-management-plan-2024/appendices/806824-wood-zz-xx-rp-oe-00002_a_6-dcww-wrmp-hra-aug24-final.ashx

[28] NRW do not currently have a policy in place to enforce further reductions in water abstraction. However, since 1 January 2018 most abstraction exemptions over 20 m3 per day have been removed and now require a licence which should include conditions set to manage sustainable abstraction as per the Restoring Sustainable Abstractions programme.

Strategy's ambitions[29]. DCWW has a duty to plan and deliver the increased sewerage undertaker services required for Preferred Strategy growth, and this is managed through the development of the Drainage and Wastewater Management Plan (DWMP) 2024[30]. This sHRA seeks to determine whether there is a risk of a likely significant effect on any Internationally Designated Sites arising from the additional requirements to receive wastewater for the delivery of Swansea Council's Preferred Strategy ambitions through increased treatment and discharge activities, as managed by DCWW's DWMP.

In DCWW's DWMP, there are two operating areas that cover Swansea Council's LDP2 Preferred Strategy area – the Level 2 Strategic Planning Units (SPUs) of Carmarthen Bay and Gower, and Tawe to Cadoxton river basin catchments. Within these, there is at least 20% headroom[31] reported, and appears to be maintained for both SPUs across the Preferred Strategy period and onward to 2050. There have been DCWW schemes identified, however, primarily for delivery within Asset Management Period 8 (2025 to 2030) to enable and maintain treatment in accordance with WwTW permits. These relate specifically to providing resilience to reduce spills or flood risk as per DWMP objectives. Relevant schemes and WwTWs for consideration in this screening are outlined in Table 5.

Table 5. Relevant WwTWs for screening and schemes that have been identified in the DWMP 2024.

Drainage Area / Wastewater Treatment Works	Total Population Equivalent	Scheme Identified
Carmarthen Bay and the Gower Strategic Planning Unit		
Bishopston	Not known	None
Gowerton	56,772	50628-A-RZ002-DFL.000000_Sterry Road_3a-2025-2030-M 50628-A-RZ002-DFL.001211_Dyffryn_3a-2025-2030-M 50628-A-RZ005-DFL.002911_3a-2025-2030-M
Llanrhidian	Not known	None
Llanmadoc	Not known	None
Overton	Not known	None
Oxwich	Not known	None
Reynoldston	Not known	None
Rhossili	Not known	None
Southgate	Not known	None
Tawe to Cadoxton Strategic Planning Unit		
Afan	139,433	53154-ABC-RZ006-DFL.Dunraven Street_3a-2025-2030-M
Llanant	16,111	None
Rhydypandy	Not known	None
Swansea Bay	185,873	None

As a competent authority under the Habitats Regulations, DCWW has published an HRA of their DWMP 2024[32], which concludes that the DWMP 2024 "*…will have no adverse effects on the integrity of any Internationally Designated Sites, subject to appropriate consideration of residual uncertainties 'down the line' at the project level*". This conclusion can be relied on in and as so far as NRW's recent policy position,

[29] Natural Resources Wales / Review of wastewater permits to reduce phosphorus and support the delivery of affordable housing

[30] https://www.dwrcymru.com/-/media/project/files/page-documents/our-services/wastewater/new-dwmp/dcww-dwmp24-the-plan.ashx

[31] Headroom refers to DCWW's capacity availability over and above predicted demand, over time. It is their approach for managing uncertainty associated with demand forecast data. See Section 4.9.1.6. of DWMP 2024.

[32] https://www.dwrcymru.com/-/media/project/files/page-documents/our-services/wastewater/new-dwmp/dcww-dwmp24-hra.ashx

to apply a back stop limit on phosphorus emissions (5 milligram phosphorus per litre) at WwTWs (92 of 149 sites identified across Wales[33]) to prevent SAC deterioration as a result of future development, does not change. There are a number of supporting agreements which are also relevant for consideration as part of the screening to enable Swansea Council to adopt the conclusions of HRA for DCWW's DWMP 2024 including the residual uncertainties. A screening of the general *indirect* hydrological connection between increased wastewater generation in the Carmarthen Bay and Gower SPU and Swansea Bay SPU, and the delivery of the Swansea Council's LDP2 Preferred Strategy has been undertaken. Details of the Internationally Designated Site-specific screening can be seen in Section 7.

Internationally Designated Sites identified as being potentially vulnerable to changes to hydrological regime / water levels and quality are considered further in Section 7 where each proposed development or SPRA is screened.

6.1.3.3 Effects on coastal processes and the marine environment

The Preferred Strategy proposes growth and development which, due to its general proximity to the coast, could have potential effects on the marine environment and coastline – the potential effects of coastal squeeze is described in Section 6.1.1 under habitat loss and physical damage despite being strongly linked to hydrological changes. In addition, the Preferred Strategy does not propose any development anticipated to alter coastal processes.

In light of the above information, LSE resulting from changes to hydrological regime / water levels and quality associated with the Preferred Strategy cannot be ruled out for: Crymlyn Bog SAC and Ramsar site, Carmarthen Bay and Estuaries European Marine Site, Carmarthen Bay and Dunes SAC, River Usk SAC, River Tywi SAC, Pembrokeshire Marine SAC and Bristol Channel Approaches SAC.

Internationally Designated Sites identified as being potentially vulnerable to changes on coastal processes and the marine environment are considered further in Section 7 where each proposed development or SPRA is screened.

6.1.4 Air pollution

Traffic generated air pollution reductions can impact on vegetation communities and habitats, and if nitrogen deposition exceeds the demands of sensitive plants, semi-natural ecosystems are at risk of species loss and changes in structure and function[34]. In relation to Internationally Designated Sites, this is most applicable to those which have qualifying features supported or featuring plant, soil and water habitats. Deposition of pollutants to the ground and vegetation can change the chemical condition of the soil, and then subsequently (or directly) alter plant health and productivity.

Roads within 200m of a designated site have the potential to contribute towards nitrogen deposition rates within Internationally Designated Sites. Pollutant concentrations drop off rapidly from the road and beyond 200m any impact is considered negligible[35]. Where increases in traffic volume are predicted, this 200m buffer needs to be applied to relevant roads to understand the potential impact on an Internationally Designated Site.

The following Internationally Designated Sites were identified using the Air Pollution Information System (APIS)[36] as having qualifying features that are potentially sensitive to traffic generated air pollution, and additionally were located within 200m of the Swansea Preferred Strategy boundary:

- Carmarthen Bay Dunes SAC
- Limestone Coast of Southwest Wales SAC

[33] DCWW. Enhanced Investment Case: WSH68-PE05 – Removing Phosphorus and Sanitary Determinants to Improve River Water Quality. September 2023.

[34] Bobbink, R., Hornung, M., & Roelofs, J. G. M. (1998). The effects of air-borne nitrogen pollutants on species diversity in natural and semi-natural European vegetation. Journal of Ecology, 86(5), 717–738. https://doi.org/doi:10.1046/j.1365- 2745.1998.8650717.

[35] Highways Agency (2007) Design Manual for Roads and Bridges: Volume 11, Section 3, Part 1.

[36] https://www.apis.ac.uk/app [Accessed December 2024]

- Carmarthen Bay and Estuaries SAC
- Gower Commons SAC
- Gower Ash Woods SAC
- Crymlyn Bog SAC

APIS[36] provides a comprehensive source of information on air pollution and the effects on habitats and species and can be used to inform assessments required under the Habitats Regulations. Internationally Designated Site relevant critical loads and the most up to date air pollution levels for each Internationally Designated Site from APIS have been used in the below assessment. Where values differ within an Internationally Designated Site the highest value shown has been used, following the precautionary principle.

6.1.4.1 Carmarthen Bay Dunes SAC

These are coastal sites which are >200m from any significant roads and are not considered to be at risk from increased traffic generated air pollution. SPRAs/development areas are located at minimum 13.5km from this Internationally Designated Site and therefore it is concluded that the Preferred Strategy will have no conceivable effect as a result of traffic generated air pollution alone or in combination.

6.1.4.2 Limestone Coast of Southwest Wales SAC

These are coastal sites which are >200m from any significant roads and are not considered to be at risk from increased traffic generated air pollution. SPRAs/development areas are located at minimum 8.6km from this Internationally Designated Site and therefore it is concluded that the Preferred Strategy will have no conceivable effect as a result of traffic generated air pollution alone or in combination.

6.1.4.3 Carmarthen Bay and Estuaries SAC

This site is sensitive to air pollution and there are some significant roads running within 200m namely the A484 and the B4295 which run alongside the saltmarsh near the settlements of Gowerton and Loughor. Features which are sensitive to nitrogen are: Estuaries, Mudflats and sandflats not covered by seawater at low tide, Salicornia and other annuals colonizing mud, Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*), Twaite shad, Sea lamprey, River lamprey, Allis shad and Otter. Atlantic salt meadows and estuaries are present within 200m of the significant roads (as shown by NRW mapping)[37]. Interrogation of APIS[36] for this Internationally Designated Site determined the pollutant levels and critical loads illustrated in Table 6.

Table 6: Carmarthen Bay and Estuaries SAC pollutant levels and critical loads

Pollutant	Level (highest pollutant level selected if differing values across Carmarthen Bay and Estuaries SAC)	Critical Loads
Nitrogen deposition for moorland (short vegetation)	11.5 kgN/ha/yr	10 to 15 kgN/ha/yr
Nitrogen deposition for grid average	9.1 kgN/ha/yr	10 to 30 kgN/ha/yr
Ammonia concentration	1.2µg/m^3	1 to 3 µg/m^3
NOx concentration	8.1 µg/m^3	30 µg/m^3

Nitrogen deposition for moorland (11.5 kgN/ha/yr) already exceeds the minimum critical load (10 kgN/ha/yr). Average nitrogen deposition of 9.1 kgN/ha/yr is close to the minimum critical load of 10 kgN/ha/yr. Ammonia levels of 1.2 ug/m3 are within the critical load of 1 ug/m3. Levels of NOx with the SAC are 8.1 µg/m^{3}which is less than the critical load for vegetation which is 30 µg/m^3.

From APIS, there was no value given for the percentage of the overall nitrogen contribution deposited onto the site from local road transport.

[37] Carmarthen Bay and Estuaries non-interactive A3 map

Any potential effects from increased traffic emissions within 200m of Carmarthen Bay and Estuaries SAC are therefore considered in further in Section 7 where each proposed development area or SPRA is screened.

6.1.4.4 Gower Commons SAC

This site has or is adjacent to existing road infrastructure which could be subject to increased traffic generated air pollution. The B4271 and A4118 roads run within the site and there are additional roads are within 200m. Features which are sensitive to nitrogen are: European dry heaths, Northern Atlantic wet heaths with *Erica tetralix*, Southern damselfly, Marsh fritillary butterfly and Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*). All of these features are present within 200m of roads which could receive extra traffic (as shown by the map of management units associated with the SAC management plan)[38]. Interrogation of APIS[36] for this Internationally Designated Site determined the pollutant levels and critical loads illustrated in Table 7.

Table 7: Gower Commons SAC pollutant levels and critical loads

Pollutant	Level (highest pollutant level selected if differing values across Gower Commons SAC)	Critical Loads
Nitrogen deposition for moorland (short vegetation)	10.1 kgN/ha/yr	5 to 15 kgN/ha/yr
Nitrogen deposition for grid average	9.2 kgN/ha/yr	5 to 25 kgN/ha/yr
Ammonia concentration	0.8 µg/m^3	1 to 3 µg/m^3
NOx concentration	6.9 µg/m^3	30 µg/m^3

Nitrogen deposition for moorland (10.1 kgN/ha/yr) already exceeds the minimum critical load (5 kgN/ha/yr). Average nitrogen deposition of 9.2 kgN/ha/yr is also in excess of the minimum critical load of 5 kgN/ha/yr. Ammonia levels of 0.8 ug/m3 are approaching the critical load of 1 ug/m3. Levels of NOx with the SAC are 6.9 µg/m^{3}which is less than the critical load for vegetation which is 30 µg/m^3.

From APIS, 4.1% of the overall nitrogen contribution deposited onto Gower Commons SAC was stated to be from local road transport.

Any potential effects from increased traffic emissions within 200m of Gower Commons SAC are therefore considered in further in Section 7 where each proposed development area or SPRA is screened.

6.1.4.5 Gower Ash Woods SAC

There is existing road infrastructure that could be subject to increased traffic generated air pollution. The A4118 road runs within and adjacent to the site and other roads are present within 200m. Features which are sensitive to nitrogen are Tilio-Acerion forests of slopes, screes and ravines and these features are within 200m of roads that could receive more traffic (as shown by the map of management units associated with the SAC core management plan)[39]. Interrogation of APIS[36] for this Internationally Designated Site determined the pollutant levels and critical loads illustrated in Table 8.

Table 8: Gower Ash Woods SAC pollutant levels and critical loads

Pollutant	Level (highest pollutant level selected if differing values across Gower Ash Woods SAC)	Critical Loads
Nitrogen deposition for forest	17.3 kgN/ha/yr	10 kgN/ha/yr
Nitrogen deposition for grid average	9.2 kgN/ha/yr	10 to 20 kgN/ha/yr
Ammonia concentration	0.8 µg/m^3	1 µg/m^3

[38] Gower Commons SAC. Core Management Plan. Available from: https://naturalresources.wales/media/672332/Gower%20Commons-plan%20english.pdf [Accessed October 2024]

[39] Gower Ash Woods SAC. Core Management Plan. Available from: https://naturalresources.wales/media/675011/crymlyn-bog-sac-english.pdf [Accessed October 2024]

NOx concentration	5.9 µg/m^3	30 µg/m^3

Nitrogen deposition for forest of 17.3 kgN/ha/yr already exceeds the critical load of 10 kgN/ha/yr for forest. Average nitrogen deposition of 9.2 kgN/ha/yr is also in excess of the critical load of 5 to 20 kgN/ha/yr. Ammonia levels of 0.8 µg/m^{3}are approaching the critical load of 1 µg/m^3. Levels of NOx with the SAC are 5.9 µg/m^{3}which is less than the critical level for vegetation which is 30 µg/m^3.

From APIS, 4.1% of the overall nitrogen contribution deposited onto Gower Ash Woods SAC was stated to be from local road transport.

Any potential effects from increased traffic emissions within 200m of Gower Ash Woods SAC are therefore considered in further in Section 7 where each proposed development area or SPRA is screened.

6.1.4.6 Crymlyn Bog SAC

This Internationally Designated Site is located approximately 2km from Swansea city centre and its qualifying features are vulnerable to air pollution. The A483 (Fabian Way) is located along its southern boundary, located just 50m away at its closest point and other roads are present within 200m. Features which are sensitive to nitrogen are: Transition mires and quaking bogs and Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*. These features are within 200m of roads that could receive more traffic (as shown by the map of management units associated with the SAC core management plan)[40]. Interrogation of the APIS[36] for this Internationally Designated Site determined the pollutant levels and critical loads illustrated in Table 9.

Table 9: Crymlyn Bog SAC pollutant levels and critical loads

Pollutant	Level (highest pollutant level selected if differing values across Crymlyn Bog SAC)	Critical Loads[41]
Nitrogen deposition for forest	18.5 kgN/ha/yr	10 kgN/ha/yr
Nitrogen deposition for moorland (short vegetation)	10.2 kgN/ha/yr	5 to 15 kgN/ha/yr
Nitrogen deposition for grid average	9 kgN/ha/yr	5 to 25 kgN/ha/yr
Ammonia concentration	0.9 µg/m^3	1 µg/m^3
NOx concentration	11.9 µg/m^3	30 µg/m^3

Nitrogen deposition for forest (18.5 kgN/ha/yr) and moorland (10.2 kgN/ha/yr) already exceed the critical loads of 10 kgN/ha/yr for forest and 5 to 15 kgN/ha/yr for moorland respectively. Average nitrogen deposition of 9 kgN/ha/yr is also in excess of the critical load of 5 to 25 kgN/ha/yr. Ammonia levels of 0.9 ug/m^3 are approaching the critical load of 1 ug/m3. Levels of NOx with the SAC are 11.9 ug/m3 which is less than the critical level for vegetation which is 30ug/m^3.

From APIS, 7.1% of the overall nitrogen contribution deposited onto Crymlyn Bog was stated to be from local road transport.

Any potential effects from increased traffic emissions within 200m of Crymlyn Bog SAC are therefore considered in further in Section 7 where each proposed development or SPRA is screened**.** Construction generated air pollution, and that generated from industrial processes, for example dust and particulates can also impact on Internationally Designated Sites and have a potential LSE. These pathways are associated with the proximity of the development to the Internationally Designated Site and are therefore considered further in Section 7 where each proposed development area or SPRA is screened.

[40] Crymlyn Bog SAC/Ramsar. Core Management Plan Including Conservation Objectives. Available from: https://naturalresources.wales/media/675011/crymlyn-bog-sac-english.pdf [Accessed October 2024]

[41] Critical Loads taken from APIS Guidance on the application of nutrient nitrogen critical load range in air pollution casework. Available at https://www.apis.ac.uk/sites/default/files/downloads/APIS%20critical_load_range_document_0.pdf [accessed Dec 2024]

In light of the above information, LSE resulting from air pollution linked to overall regional population growth associated with the Preferred Strategy cannot be ruled out for Carmarthen Bay and Estuary SAC, Gower Commons SAC, Gower Ash Woods SAC and Crymlyn Bog SAC.

Internationally Designated Sites identified as being potentially vulnerable to recreational disturbance / damage are considered further in Section 7 where each proposed development or SPRA is screened.

6.1.5 Recreational disturbance / damage

Disturbance of qualifying features through recreational pressure could result in displacement, e.g. for birds or bats, erosion and/or trampling of soils, plants and habitats, and associated impacts such as fire/vandalism. Damage can also occur to Internationally Designated Sites through nutrient fertilisation by dog faeces and urine[42], and through the increased spread of invasive non-native species from increased footfall.

The Preferred Strategy makes provision for 11,410 new homes (made up of 9,510 homes plus 20% flexibility) to be delivered on a range of sustainable, deliverable and financially viable sites in accordance with the Sustainable Settlement Strategy. This results in a population grown of 11.4%[43] (assuming each household will be occupied on average by 2.4 persons[44]) which is equivalent to approximately 0.77%+ per annum. Unless development occurs in very close proximity to an Internationally Designated Site it can generally be assumed, on a precautionary basis that the LDP will result in a proportional increase in visitor numbers over the plan period, equivalent to a 0.77% increase per year.

Increases in population, such as through increases in housing, are likely to result in correlated increases in recreational visits at Internationally Designated Sites, either alone or in-combination. Residential development policies and future allocations in the Deposit Plan will generate a potential increase in recreational activity within Internationally Designated Sites.

The effects of this increase in recreational activity have been assessed by applying the 8km buffer for recreational disturbance set out in Appendix C to capture any sites that are potentially sensitive to recreational disturbance / damage associated with overall population growth. Using this method, the Internationally Designated Sites identified are discussed below.

Crymlyn Bog SAC and Ramsar site

The core management plan for the Crymlyn Bog SAC does not include concerns regarding visitor levels to the site. Furthermore, the predominant habitat at Crymlyn Bog and Pant-y-Sais is lowland topogenous fen, which comprises a diverse range of mire, tall-herb fen and swamp communities. Recreational usage is largely limited due to large areas of the bog being difficult to access unless on footpaths or boardwalks. Management unit 15 (also known as 'Fen') of Pant-y-Sais area does make reference to the recreational use of the site, and it's likely some unrestricted areas within and around the SAC boundaries are accessible to the public. However, given the recreational pressure is not considered as a threat for the SAC, it is anticipated that the site will be able to withstand the estimated overall increases equivalent to 0.77% per annum without any likely significant effects. **The recreational impacts linked to overall population growth are not expected to have any significant effects on Crymlyn Bog SAC.** Any effects related to development near Crymlyn Bog, which might exceed those linked to overall regional population growth are addressed separately in Section 7.

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[42] Nutrient fertilization by dogs in peri-urban ecosystems. Frenne, P.D., Cougnon, M., Janssens, G.P.J., and Vangansbeke, P. *Ecological Solutions and Evidence British Ecological Society, Volume 3, Issue 1, January 2022*. Available at https://besjournals.onlinelibrary.wiley.com/doi/10.1002/2688-8319.12128

[43] Based on 2021 Census Results: resident population of Swansea is approximately 238,500. Census data available from: https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/bulletins/householdandresidentcharacteristicsenglandandwales/census2021 [Accessed December 2024]

[44] Office for National Statistics (2021) Household and resident characteristics, England and Wales: Census 2021. [Accessed online: 16/12/2024] Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/bulletins/householdandresidentcharacteristicsenglandandwales/census2021

Carmarthen Bay Dunes SAC

The primary area of the site within the County's boundary is near Whiteford Sands, specifically in management units 1-5 and 16. With the management plan, management units 1, 2 and 3 all make reference to damage as a result from motorised vehicles (i.e., scramblers, cocklers / musslers) within their respective action plan summaries.

The Preferred strategy does not actively direct population growth towards the Gower and Gower Fringe SHPZ. **However, as the Carmarthen Bay Dunes SAC is considered to be sensitive to recreational damage and disturbance, and is within the Preferred Strategy area, likely significant effects in relation to overall regional population growth cannot be ruled out.** Any effects related to development near the SAC, which might exceed those linked to overall regional population growth are addressed separately in Section 7.

Limestone Coast of Southwest Wales SAC

The site management plan identifies ‘access and recreation’ as a potential impact on the features listed within Table 10.

Table 10: Qualifying features sensitive to increases in recreational pressure

Feature	Recreational threat
Vegetated sea cliffs of the Atlantic and Baltic coasts	Increased pressure for wider ranging outdoor activity – e.g. from cliff-climbing - could pose potential threats to components of the community complex (e.g. seabird cliff ledge communities and cliff-crevice communities) by trampling/erosion.
Fixed dunes	Increased pressure for wider ranging outdoor activity - e.g. from outdoor group-oriented parties, use of 4wd vehicles etc could pose potential threats to components of the community complex, by trampling/erosion and possibly burning.
Semi-natural dry grasslands and scrubland	Excessive trampling and camping/campfires could be damaging and lead to erosion of open vegetation communities and localised nutrient enrichment.
Petalwort	Increased pressure for wider ranging outdoor activity - e.g. from orienteering/coast-steering and cliff climbing - could pose potential threats to components of the community complex, by trampling/erosion.

The management plan acknowledges that the increase of people participating in outdoor activities such as rock climbing, coasteering and caving could also increase the amount of disturbance to greater horseshoe bats. Whilst disturbance to bats is currently unquantified, the current level of disturbance in most caves on the Castlemartin peninsula, and between Lydstep and Penally, is thought likely to be low.

Castlemartin’s coastal footpath is an extremely popular visitor destination. The coastal cliffs are the principal destination for most walkers, and large numbers of climbers. Currently access and recreation pressures are fairly well regulated by an onsite ranger and information service. Long-standing voluntary agreements with climbers, also ensures that chough nest sites are quite well protected. It is evident that recreational impacts are relevant to the SAC, and appropriate measures are currently in place to regulate and monitor visitor pressure.

The Preferred Strategy does not actively direct population growth towards the Gower and Gower Fringe SHPZ. **However, as the Limestone Coast of Southwest Wales SAC is considered to be sensitive to recreational damage and disturbance, and is within the Preferred Strategy area, likely significant effects in relation to overall regional population growth cannot be ruled out.** Any effects related to development near the SAC which might exceed those linked to overall regional population growth are addressed separately in Section 7.

Gower Ash Woods SAC

The core management plan does not include any concerns regarding visitor levels and human disturbance. The management of the site varies from area to area but is general ungrazed and subject to minimum intervention management. Park Woods which is owned by the Forest Commission and most actively managed is likely to be unsuitable for recreational activities. However, at Bishop’s Wood, Bishopston

Valley, Oxwich and Nicolaston the management has historically been based around public access, and therefore recreational impacts are relevant to the SAC.

The Preferred Strategy does not actively direct population growth towards the Gower and Gower Fringe SHPZ. **However, as the Gower Ash Woods SAC is considered to be sensitive to recreational damage and disturbance, and is within the Preferred Strategy area, likely significant effects in relation to overall regional population growth cannot be ruled out.** Any effects related to development near the SAC, which might exceed those linked to overall regional population growth are addressed separately in Section 7.

Gower Commons SAC

The core management plan does not include any concerns regarding visitor levels and human disturbance. During the 2008 condition assessment of the SAC, all features were considered to be in unfavourable condition, all of which are not related to recreational disturbance.

The Preferred Strategy does not aim to direct population growth towards the Gower and Gower Fringe SHPZ. **However, as the Limestone Coast of Southwest Wales SAC is considered to be sensitive to recreational damage and disturbance, and is within the Preferred Strategy area, likely significant effects in relation to overall regional population growth cannot be ruled out.** Any effects related to development near the SAC, which might exceed those linked to overall regional population growth are addressed separately in Section 7.

Carmarthen Bay and Estuaries European Marine Site

The site and its surrounding coastline are extensively utilised for various commercial and recreational activities. NRW have previously acknowledged the need for more information on the distribution, timing and intensity of the following recreational activities known to occur within the EMS: angling, recreational high-speed boating / water-sports, off-road motor sports in intertidal areas, unregulated water fowling, fly-tipping, eco-tourism and unregulated gathering of marine resources. **As the Carmarthen Bay and Estuaries European Marine Site is considered to be sensitive to recreational damage and disturbance, and is within the Preferred Strategy area, likely significant effects in relation to overall regional population growth cannot be ruled out.** Any effects related to development near the SAC, which might exceed those linked to overall regional population growth are addressed separately in Section 7.

Caeau Mynydd Mawr SAC

This is the only SAC selected to represent the marsh fritillary butterfly (*Euphydrya aurinia*) and Molinia meadows (on calcareous, peaty or clayey-silt-laden soils *Molinion caeruleae*) in Carmarthenshire, and it is one of the major strongholds for the marsh fritillary in Wales and the UK. It is located approximately 3.64km northwest from the Preferred Strategy Area. Caeau Mynydd Mawr SAC is notified as three components SSSIs; Caeau Ffos Fach SSSI, Broad Oak & Thornhill Meadows SSSI and Caeau Lotwen SSSI.

Caeau Ffos Fach SSSI, also known as the Butterfly Conservation Reserve, is actively managed by volunteer work parties and managed traditionally without the use of artificial fertilisers and used for grazing cattle and horses. Although the public can visit the reserve, only a portion of the reserve is publicly accessible. Furthermore, the reserve has no dedicated parking area, and with the pastures being wet, tussocky, and actively managed by livestock, it's unlikely to be subject to significant existing recreational disturbance. Broad Oak and Thornhill Meadows SSSI has been managed by a hay cut and periodic aftermath cattle grazing. During the 2012 condition assessment of the SAC, access permission was not agreed for Thornhill Meadows, so no assessment of management was possible. This area is considered to be not publicly accessible and therefore not subject to recreational pressure. During the 2012 condition assessment, Caeau Lotwen SSSI western fields were being grazed by Welsh cobs at the acceptable levels between April and October, however, the eastern field was not surveyed as permission was not given. This area is also not considered to not be publicly accessible and therefore not subject to recreational pressure.

The core management plan does not include any concerns regarding visitor levels and human disturbance. During the 2012 condition assessment of the SAC, all features were considered to be in unfavourable/unclassified/unchanged condition, all of which are not related to recreational disturbance. **In light of the above information, no significant effects on Caeau Myndydd Mawr SAC are anticipated as**

a result of increasing recreational pressure from overall regional population growth associated with the Preferred Strategy. Any effects related to development near the SAC, which might exceed those linked to overall regional population growth are addressed separately in Section 7.

Cernydd Carmel SAC

Cernydd Carmel is situated immediately south of Carmel in south Carmarthenshire, located 5.84km northwest of the Preferred Strategy area. Cernydd Carmel SAC represents a diverse range of habitats including woodland, grassland heathland, bog and a seasonal lake (turlough) at the eastern end of the site. There are approximately 61 management units associated with the SAC, it should be clarified here that some of the NNR units are managed by NRW, with other managed by The Grasslands Trust. A small section of the NNR is also in private ownership but is subject to a Nature Reserve Agreement with NRW. The remainder of the SAC is in multiple private ownership and is therefore not publicly accessible. There are several small roads and public footpaths which intersect this SAC, with the area openly advertised on NRW's website[45] as a public walking trail.

The core management plan does not include any concerns regarding visitor levels and human disturbance. During the 2012 condition assessment of the SAC, all features were considered to be in unfavourable/unclassified condition, all of which are not related to recreational disturbance. **Cernydd Carmel SAC is therefore not considered to be sensitive to recreational damage and disturbance, and no LSE are anticipated as a result of increased recreational pressure resulting from overall regional population growth associated with the Preferred Strategy.** Any effects related to development near the SAC, which might exceed those linked to overall regional population growth, are addressed separately in Section 7.

In light of the above information, LSE resulting from recreational damage and disturbance linked to overall regional population growth associated with the Preferred Strategy cannot be ruled out for Carmarthen Bay Dunes SAC, Limestone Coast of Southwest Wales SAC, Gower Ash Woods SAC, Gower Commons SAC and Carmarthen Bay and Estuaries European Marine Site.

Internationally Designated Sites identified as being potentially vulnerable to recreational disturbance / damage are considered further in Section 7 where each proposed development or SPRA is screened.

6.1.6 Mobile species

Mobile species are species such as fish, bats and birds that are qualifying features of Internationally Designated Sites could rely on habitats outside the boundary of the Internationally Designated Site and are still protected outside this boundary. Mobile species could be impacted by the potential effects listed in Sections 6.1.1 to 6.1.5 and are not considered separately but instead are included under each potential effect where relevant. For clarity however, the relevant mobile species which are features of the Internationally Designated Sites considered within this report are:

- Greater horseshoe bat *Rhinolophus ferrumequinum* (Limestone Coast of Southwest Wales SAC)
- Sea lamprey *Petromyzon marinus* and river lamprey *Lampetra fluviatilis* (Pembrokeshire Marine SAC, Carmarthen Bay and Estuaries SAC and Afon Tywi SAC)
- Allis shad *Alosa alosa* and twaite shad *Alosa fallax* (Pembrokeshire Marine SAC, Carmarthen Bay and Estuaries SAC and Afon Tywi SAC)
- Harbour porpoise *Phocoena Phocoena* (Bristol Channel Approaches SAC)
- Grey seal *Halichoerus grypus* (Pembrokeshire Marine SAC)
- Otter *Lutra lutra* (Pembrokeshire Marine SAC, Carmarthen Bay and Estuaries SAC and Afon Tywi SAC)

[45] NRW (2024) Camel National Nature Reserve, near Llandeilo. Available from: Natural Resources Wales / Carmel National Nature Reserve, near Llandeilo [Accessed December 2024]

- Marsh fritillary butterfly *Euphydryas (Eurodryas, Hypodryas) aurinia* (Gower Commons SAC and Caeau Mynydd Mawr SAC)
- Wintering bird populations (Burry Inlet Ramsar, Burry Inlet SPA and Carmarthen Bay SPA)

7. Stage 1 Screening of the Preferred Strategy

The Preferred Strategy is now screened using the methodology and screening categories set out in Section 4.3, following the Chapter numbers and headings. Screening categories are further detailed in Table 1.

7.1 Chapters 1 to 3: Introduction, Context and Key Issues

Chapters 1 to 3 of the Preferred Strategy contain the introductory text, geographical and policy context as well as the key opportunities and challenges resulting from the Swansea context. The Key issues drive the strategic direction of the plan and inform the vision and objectives. These chapters are categorised under 'Administrative text' which cannot possibly have any effect on an Internationally Designated Site **and are therefore screened out** and not considered further.

7.2 Chapter 4: Vision and Objectives

The vision for Swansea, expressed as 'Abertawe 2038' in Chapter 4, articulates the overall aim the Swansea LDP2 and provides a positive statement about how Swansea is envisaged to develop, change and be enhanced having regard to the Plan's strategy, policies and proposals. The vision sets out a statement of general aspiration and is not considered to be a driver of any potentially significant effects upon Internationally Designated Sites. The Vision is therefore categorised under 'general aspirations' and is **screened out** and not considered further.

The LDP2 objectives provide a set of ambitious but achievable, land-use based goals focussed on delivering the LDP2 Vision. They have been developed based on a comprehensive review of the objectives from the adopted LDP and are reflective of national and regional policy. There are 18 objectives in total, grouped under the following four summary headings:

- Building Cohesive and Resilient Communities
- Addressing Climate Change and Delivering Nature Recovery
- Creating great places to live well for every stage of life
- Enabling access to great opportunities for all from the earliest stages in life

All the objectives set out in the Preferred Strategy are considered to be general statements of overall goals or broad objectives, or general aspirations. They are too vague to have a significant effect on a particular site and additionally, it is likely that there would be a more specific policy or proposal that would be the better target for assessment **are therefore screened out** of the need for further assessment.

7.3 Chapters 5 and 6: The Role and Function of Places, and Growth and Spatial Approaches

Chapters 5 and 6 set out the reasoning behind the chosen distribution of development and specific growth and spatial approaches used in the Preferred Strategy. These chapters are considered to be general administrative text or general aspirations and although could be a driver of a significant effect on an Internationally Designated Site it is likely that a more specific policy or proposal would be a better target for assessment. They **are therefore screened out** of the need for further assessment.

7.4 Chapter 7: The Placemaking Strategy for Abertawe 2038

The 'Placemaking Strategy for Abertawe 2038' in Chapter 7 of the Preferred Strategy sets out how the LDP2 Vision, Objectives and preferred level of growth and spatial approach will be delivered. The detailed policies and proposals to be set out in the LDP2 Deposit Plan will be formulated on the Preferred Strategy's 'core components' as described in this Chapter. It is possible that these could be a driver for a significant effect on an Internationally Designated Site, however they are too vague to have a significant effect on a particular site, and additionally they are delivered through the strategy policies which are a better target for assessment. They **are therefore screened out** of the need for further assessment.

7.5 Chapter 8: Strategic Policies

The Strategic Policies are detailed in Chapter 8 and provide the initial policy framework for delivering 'Abertawe 2038' (the LDP2 Vision). They emanate from the objectives set out in Chapter 4 and will deliver the core components of the strategy, as set out in Chapter 7.

There are 21 Strategic Policies (SP) in total which are grouped under the five overarching National Sustainable Placemaking Outcomes set out in Planning Policy Wales as follows:

- Creating and Sustaining Communities; (SP1 to SP7)
- Growing Our Economy in a Sustainable Manner; (SP8 to SP12)
- Facilitating Accessible and Healthy Environments; (SP13 to SP14)
- Maximising Environmental Protection and Limiting Environmental Impact; (SP15 to SP19), and
- Making Best Use of Resources; (SP20 to SP21)

The Strategic Policies were reviewed against the pre-screening categories shown in Table 1 (Section 4.3) and using the ZoI from Appendix C to determine whether future actions arising from each policy could lead to development which could in turn affect an Internationally Designated Site. Table 11 to Table 15 below detail the results of the screening of policies (with policies grouped under each national sustainable placemaking outcome heading). Those screened in are due to the potential for significant effects alone. If there was any uncertainty as to whether the policy could give rise to an LSE, the policy was screened in on a precautionary basis.

Table 11: Screening of Preferred Strategy policies SP1 to SP7

Policy	Rationale	Assessment Category	Screened In / Out?
National Sustainable Placemaking Outcome - Creating and Sustaining Communities			
SP1: Growth Strategy	This policy sets out to make provision for 25 hectares of industrial land and 11,410 new homes (made up of 9,510 homes plus 20% flexibility) to be delivered on a range of sustainable, deliverable and financially viable sites in accordance with the Sustainable Settlement Strategy. Of these 11,410 houses, 6,802 are proposed with the SPRAs, detailed in Appendix B. As a result, this policy is directly linked to, and a driver for several residential and mixed-use SPRAs detailed in Appendix D. Potential impacts associated with this policy and the subsequent placement of industrial land in accordance with the sustainable settlement strategy comprise habitat loss / physical damage, non-physical disturbance, changes to hydrological regime, air pollution and recreational disturbance. For further detail on the rationale, as well the sites and species effected by this policy, see screening assessment of residential / mixed-use SPRAs in Appendix D. Information regarding potential impacts on overall regional growth is also detailed in Section 6.1.1-6.1.6 and is directly interlinked with this policy. Given the magnitude of change that this policy proposes, no matter the location, likely significant effects on a site alone cannot be ruled out and it is therefore screened in. It should also be noted that not all residential developments are proposed within the SPRAs. As the location and scale of the remaining proposed houses within SP1 are unknown, effects cannot be quantified at this stage, therefore LSE cannot be not ruled out and is screened in.	I	Screened In
SP2: Sustainable Settlement Strategy	The policy aims to ensure development will be strategically managed to create and maintain sustainable settlements, with primary focus for development to be situated within the North, East, West, Central and Greater Northwest Strategic Housing Policy Zones. Developments will be directed to suitable sites within settlement boundaries in the Deposit plan for Tiers 1- 3 of the Swansea Settlement Hierarchy. There is a direct correlation between this policy and SP1 which is a driver for development. In addition, several of the settlements highlighted within the Settlement Hierarchy are within the ZoI for qualifying features established in Appendix B. The direction of further development towards these areas therefore has the potential to result in likely significant effects on Internationally Designated Sites, and this policy is therefore screened in.	I	Screened In

Policy	Rationale	Assessment Category	Screened In / Out?
SP3: Affordable Homes and Specialist Housing	This policy aims to deliver 5,355 affordable homes over the plan period through maximising contribution through a set of measures. Given the nature of this policy and the direct correlation between SP1 which is a driver for development, this policy would likely have a significant effect on a site alone and is therefore screened in.	I	Screened In
SP4: Placemaking Principles	This policy aims to ensure development (at all scales) must embed a sustainable, placemaking approach and be consistent with the principles of the Placemaking Charter Wales; and must serve to enhance places and align with overarching placemaking requirements. This includes addressing the nature emergency by conserving, maintaining and delivering a net benefit for biodiversity and promoting decarbonisation, climate resilience, resource efficiency and energy reduction in scheme design. This policy lists general criteria for testing the acceptability/sustainability of proposals and cannot have any effect on an Internationally Designated Site.	B	Screened Out
SP5: Master planning Residential Developments	This policy aims to ensure proposals for residential led development on sites of 1.5ha or greater or where there is capacity for 50 homes or more must deliver a comprehensively planned neighbourhood with a distinct sense of place, as well as complying with a set general principles and requirements. This includes that development proposals must be climate responsive and positively integrate, protect and enhance existing historic, landscape, ecological and biodiversity site features, achieving a net benefit for biodiversity. This policy lists general criteria for testing the acceptability/sustainability of proposals and cannot have any effect on an Internationally Designated Site.	B	Screened Out
SP6: Planning Obligations for Infrastructure and Other Measures	This policy sets out to ensure development proposals demonstrate that they are supported by sufficient existing, new or upgraded resilient infrastructural capacity and other relevant facilities or measures, as well as meeting the requirement of all relevant policies and proposals of the plan. This policy lists general criteria for testing the acceptability/sustainability of proposals and cannot have any effect on an Internationally Designated Site.	B	Screened Out
SP7: Safeguarding and promoting the Welsh language	This policy aims to safeguard and promote the Welsh language and culture across the country. This policy lists general criteria for testing the acceptability/sustainability of proposals and cannot have any effect on an Internationally Designated Site.	B	Screened Out

Table 12: Screening of Preferred Strategy policies SP8 to SP12

Policy	Rationale	Assessment Category	Screened In / Out?
National Sustainable Placemaking Outcome - Growing Our Economy in a Sustainable Manner			
SP8: Strategic Placemaking and Regeneration Areas	This policy states that Strategic Placemaking and Regeneration Areas (SPRAs) will be allocated in the Deposit Plan on a range of brownfield and greenfield sites within the North, East, West, Central and Greater Northwest Strategic Housing Policy Zones. There are 13 SPRAs which are residential, or health led, or mixed use. Residential led SPRAs will provide a minimum of 400 new homes. Potential impacts associated with this policy comprise habitat loss / physical damage, non-physical disturbance, changes to hydrological regime, air pollution and recreational disturbance. As a result, given the magnitude of change that this policy proposes, no matter the location, likely significant effects on a site alone cannot be ruled out and is therefore screened in. Further detail and rationale on the potential impacts associated with individual SPRAs can be viewed in Appendix D.	I	Screened In
SP9: Swansea Central Area & City Waterfront	This policy states that developments that deliver significant regeneration benefits in terms of increasing the attractiveness, viability and competitiveness of the Swansea Central Area and City Waterfront will be supported. This policy is a driver for SPRA 11 (Swansea Central Area and City Waterfront) which is detailed within SP8; an existing strategic development area in the adopted LDP. Significant development within the area is progressing and the site has significant potential for residential delivery during	I	Screened In

Policy	Rationale	Assessment Category	Screened In / Out?
	plan period. SPRAs have been individually screened for LSEs, and SPRA 11 was screened in for the following impacts: • Potential habitat loss / physical damage to functionally linked land; • Changes to hydrological regime / water levels and quality; and, • Recreational disturbance / damage. For further detail on the rationale, as well the sites and species effected by this policy, see screening assessment of SPRA 11 in Appendix D. As this policy is a directly linked and a driver for SP8 and specifically SPRA 11, as well as directly links to SP1, SP2 and SP3, likely significant effects on a site alone cannot be ruled out and is therefore screened in.		
SP10: Centres First	This policy aims to ensure proposals for retail, leisure and commercial uses must adhere to the 'Centres First' principle; all potential sites or premises within the Hierarchy of Centres that could reasonably accommodate the proposed development must be assessed for its suitability, having regard to the nature, scale and location of the proposal. This policy lists general criteria for testing the acceptability/sustainability of proposals and cannot have any effect on an Internationally Designated Site. The location of industrial land itself is assessed under SP1.	B	Screened Out
SP11: Port of Swansea and Docks Regeneration	This policy aims to support development proposals which serve to enhance the viability of Swansea's ports and docks and deliver regeneration to the area through appropriate industrial uses, energy generation development and other employment and investment opportunities. This policy is directly linked to, and a driver for SPRA 13, which is an existing Strategic Development Area in the adopted LDP situated within Swansea Port & Docks and Fabian Way Corridor. The SPRA offers a key opportunity to take advantage of significant regeneration opportunities including zero carbon energy and employment uses. As each SPRA has been individually screened for LSEs, SPRA 11 was screened in for the following impacts: • Habitat loss / physical damage to possible functionally linked land; • Non-physical disturbance; • Changes to hydrological regime / water levels and quality; • Air pollution; and • Recreational disturbance and damage. For further detail on the rationale, as well the sites and species effected by this policy, see screening assessment of SPRA 11 in Appendix D. As this policy is directly linked, and a driver for both to SP8 and SPRA 11, as well as directly contributing towards SP1, SP2 and SP3, likely significant effects on a site alone cannot be ruled out and is therefore screened in.	I	Screened In
SP12: Tourism and the Visitor Economy	This policy provides a list of overarching aims in regard to tourist development and investment The first section of this policy lists general criteria for testing the acceptability/sustainability of development proposals. This policy also states that tourism, culture, recreation and leisure development that contributes towards the revitalisation and regeneration of the Swansea Central Area and City Waterfront will be supported. This policy is directly linked to, and a driver for SPRA 11, which is an existing strategic development area in the adopted LDP situated within Swansea Central Area and City Waterfront. Significant development within the area is progressing and the site has significant potential for residential delivery during plan period. As each SPRA has been individually screened for LSEs, SPRA 11 was screened in for the following impacts: • Potential habitat loss / physical damage to functionally linked land; • Changes to hydrological regime / water levels and quality; and, • Recreational disturbance / damage. For further detail on the rationale, as well the sites and species effected by this policy, see screening assessment of SPRA 11 in Appendix D. As this policy is a driver for both to SP8 and SPRA 11, and directly contributes towards SP1, SP2 and SP3, likely significant effects on a site alone cannot be ruled out and is therefore screened in.	I	Screened In

Table 13: Screening of Preferred Strategy policies SP13 and SP14

Policy	Rationale	Assessment Category	Screened In / Out?
National Sustainable Placemaking Outcome - Facilitating Accessible and Healthy Environments			
SP13: Health and Wellbeing	This policy aims to ensure developments reduce health inequalities and support good health and wellbeing wherever possible by taking a placemaking approach and having regard to a set of principles, such as ensuring places are designed to be accessible and inclusive to as possible and creating accessible and healthy environments which minimises exposure of air, noise, light water and soil pollution. This policy also supports enhancement and appropriate expansion of hospitals at Morriston, Singleton, Gorseinon and Cefn Coed where necessary, subject to compliance with other relevant policies of the Plan. Where justified and required, infrastructure improvements will be supported from Junction 46 of the M4 to Morriston hospital. The first section of this policy lists general criteria for testing the acceptability/sustainability of development proposals to reduce health inequalities and supporting good health and wellbeing. However, this policy also supports enhancement and appropriate expansion of hospitals at Morriston, Singleton, Gorseinon and Cefn Coed. As a result, this policy could be considered a driver for SPRA 8 and SPRA 9 which are health-led allocated/safeguarded areas in the Adopted LDP. SPRA 8 is focused on strategic health improvements at Morriston Hospital, as well a new link road from J46 of the M4 to the site where justified by a transport assessment. SPRA 9 is focused on Cefn Coed Hospital and is discussed as a health led opportunity for homes, leisure, health and recreation facilities, including an Adult Mental Health Unit. As each SPRA has been individually screened for LSEs, SPRA 8 was screened in for the following impacts: • Non-physical disturbance; and, • Changes to hydrological regime / water levels and quality; SPRA 9 was screened in for the following impacts: • Changes to hydrological regime / water levels and quality; and, • Recreational disturbance / damage For further detail on the rationale, as well the sites and species effected by this policy, see screening assessment of SPRA 8 and SPRA 9 in Appendix D. As this policy is directly linked, and a driver for both to SP8, SPRA 8 and SPRA (9), as well as directly contributing towards SP1, SP2 and SP3, likely significant effects on a site alone cannot be ruled out and is therefore screened in. There is currently no further description or SPRA relating to the hospital expansions of Singleton and Gorseinon. Therefore, the scope and scale of the proposed works remain unknown. As the exact nature and scale of the Singleton and Gorseinon hospital expansion are unknown and so effects cannot be quantified at this stage, therefore LSE cannot be not ruled out and is screened in.	I	Screened In
SP14: Sustainable Transport & Active Travel	This policy aims to ensure developments facilitate a modal shift towards more sustainable forms of transport, particularly increasing opportunities for active travel and minimizing the need to travel by private car. This policy lists general criteria for testing the acceptability/sustainability of proposals and cannot have any effect on an Internationally Designated Site.	B	Screened Out

Table 14: Screening of Preferred Strategy policies SP15 to SP19

Policy	Rationale	Assessment Category	Screened In / Out?
National Sustainable Placemaking Outcome - Maximising Environmental Protection and Limiting Environmental Impact			
SP15: Climate Change and Decarbonisation	This policy sets out to ensure development positively contributes towards the tackling the causes of and adapting to the effects of climate change by meeting several principles (where relevant), such as protecting and increasing carbon sinks through the protection of important soils and promotion of strategic	B	Screened Out

Policy	Rationale	Assessment Category	Screened In / Out?
	carbon sequestration opportunities and increasing climate resilience in several areas. This policy lists general criteria for testing the acceptability/ sustainability of proposals and cannot have any effect on an Internationally Designated Site.		
SP16: Facilitating Nature Recovery	This policy sets out to ensure development contributes towards addressing the nature emergency across Swansea by conserving, maintaining and enhancing biodiversity. This includes protecting the integrity of statutory and non-statutory designated sites and protecting UK/European protected species in accordance with statutory requirements. This is a policy with the obvious purpose of which is to protect the natural environment, including biodiversity, or to conserve or enhance the natural environment, where enhancement measures will not be likely to have any LSE on an Internationally Designated Site.	D	Screened Out
SP17: Green Infrastructure	This policy sets out to ensure development proposals maintain and integrate important elements of green infrastructure as part of the proposals, and to take opportunities to enhance the extent, quality, diversity, connectivity and multifunctionality of the County's wider strategic green infrastructure network. This is a policy with the obvious purpose of which is to protect the natural environment, including biodiversity, or to conserve or enhance the natural, built or historic environment, where enhancement measures will not be likely to have any LSE on an Internationally Designated Site. This policy lists general criteria for testing the acceptability/sustainability of proposals and cannot have any effect on an Internationally Designated Site.	B	Screened Out
SP18: Safeguarding the County's Landscape	This policy sets out to ensure development proposals will not have a significant adverse impact on the special character and quality of the County's landscape and seascape in terms of visual, historic, geological, ecological or cultural landscapes. This is a policy with the obvious purpose of which is to protect the natural environment, including biodiversity, or to conserve or enhance the natural, built or historic environment, where enhancement measures will not be likely to have any LSE on an Internationally Designated Site.	D	Screened Out
SP19: Historic and Cultural Assets	This policy aims to ensure development proposals protect, conserve, promote and enhance the county's distinctive historic and cultural assets. This policy lists general criteria for testing the acceptability/sustainability of proposals and cannot have any effect on an Internationally Designated Site.	B	Screened Out

Table 15: Screening of Preferred Strategy policies SP20 and SP21

Policy	Rationale	Assessment Category	Screened In / Out?
National Sustainable Placemaking Outcome - Making Best Use of Resources			
SP20: Facilitating a Circular Economy and Sustainable Waste Management	This policy sets out to a list of principles to facilitate the sustainable waste management for new development/planning application proposals, including applying the principles of circular economy from site selection through to demolition, the submission of natural material management plans with planning applications and ensuring development makes appropriate provision for sorting and storage of waste. Detailed within vi of this list: "*Ensuring no unacceptable harm to human health and wellbeing and the natural environment*", this policy ensures no adverse effect will occur to the natural environment. Overall, this policy lists general criteria for testing the acceptability/sustainability of proposals and cannot have any effect on an Internationally Designated Site.	B	Screened Out
SP21: Sustainable Provision of Minerals	This policy provides a list of overarching criteria under which the extraction of mineral resources will be permitted. Criteria include demonstrating a need that cannot be met from secondary or recycled materials or existing reserves, efficient use and no demonstrable harm to amenities of local communities. Also detailed within criteria v. of the list is '*There would be no significant adverse impact, including visual impact, on the landscape, natural heritage, cultural and historic environments*' and criteria vi '*There would be no significant adverse impact on the quality and quantity of controlled waters*'. And the statement '*No mineral development will be permitted within the*	B	Screened Out

Policy	Rationale	Assessment Category	Screened In / Out?
	Gower Area of Outstanding Natural Landscape.' These statements ensure that no adverse effect will occur to the natural environment. Overall, this policy lists general criteria for testing the acceptability/sustainability of proposals and cannot have any effect on an Internationally Designated Site.		

The majority of policies have been screened out as they relate to policy changes which have no direct or indirect impact on Internationally Designated Sites. Some policies, however, have been screened in – in the absence of mitigation – noting that they may constitute new sources of potential effects or alter existing sources by generating new pathways for effect. Whilst these policies are not certain to give rise to an LSE, for many there is uncertainty and in line with the precautionary principle, LSE cannot be excluded.

In summary **there are eight strategic policies where a LSE cannot be excluded**. These are shown in Table 16 below.

Table 16: Strategic Policies where a LSE cannot be excluded and are screened in

Policy	Rationale
SP1: Growth Strategy	This policy sets out to make provision for 25 hectares of industrial land and 11,410 new homes (made up of 9,510 homes plus 20% flexibility) to be delivered on a range of sustainable, deliverable and financially viable sites in accordance with the Sustainable Settlement Strategy. Of these 11,410 houses, 6,802 are proposed with the SPRAs, detailed in Appendix B. As a result, this policy is directly linked to, and a driver for several residential and mixed-use SPRAs detailed in Appendix D. Potential impacts associated with this policy and the subsequent placement of industrial land in accordance with the sustainable settlement strategy comprise habitat loss / physical damage, non-physical disturbance, changes to hydrological regime, air pollution and recreational disturbance. For further detail on the rationale, as well the sites and species effected by this policy, see screening assessment of residential / mixed-use SPRAs in Appendix D. Information regarding potential impacts on overall regional growth is also detailed in Section 6.1.1-6.1.6 and is directly interlinked with this policy. Given the magnitude of change that this policy proposes, no matter the location, likely significant effects on a site alone cannot be ruled out and it is therefore screened in. It should also be noted that not all residential developments are proposed within the SPRAs. As the location and scale of the remaining proposed houses within SP1 are unknown, effects cannot be quantified at this stage, therefore LSE cannot be not ruled out and is screened in.
SP2: Sustainable Settlement Strategy	The policy aims to ensure development will be strategically managed to create and maintain sustainable settlements, with primary focus for development to be situated within the North, East, West, Central and Greater Northwest Strategic Housing Policy Zones. Developments will be directed to suitable sites within settlement boundaries in the Deposit plan for Tiers 1- 3 of the Swansea Settlement Hierarchy. There is a direct correlation between this policy and SP1 which is a driver for development. In addition, several of the settlements highlighted within the Settlement Hierarchy are within the ZoI for qualifying features established in Appendix B. The direction of further development towards these areas therefore has the potential to result in likely significant effects on Internationally Designated Sites, and this policy is therefore screened in.
SP3: Affordable Homes and Specialist Housing	This policy aims to deliver 5,355 affordable homes over the plan period through maximising contribution through a set of measures. Given the nature of this policy and the direct correlation between SP1 which is a driver for development, this policy would likely have a significant effect on a site alone and is therefore screened in.
SP8: Strategic Placemaking and Regeneration Areas	This policy states that Strategic Placemaking and Regeneration Areas (SPRAs) will be located in the Deposit Plan on a range of brownfield and greenfield sites within the North, East, West, Central and Greater Northwest Strategic Housing Policy Zones. There are 13 SPRAs which are residential or health led, or mixed use. Residential led SPRAs will provide a minimum of 400 new homes. Potential impacts associated with this policy comprise habitat loss / physical damage, non-physical disturbance, changes to hydrological regime, air pollution and recreational disturbance. As a result, given the magnitude of change that this policy proposes, no matter the location, likely significant effects on a site alone cannot be ruled out and is therefore screened in. Further detail and rationale on the potential impacts associated with individual SPRAs can be viewed in Appendix D.
SP9: Swansea Central Area & City Waterfront	This policy states that developments that deliver significant regeneration benefits in terms of increasing the attractiveness, viability and competitiveness of the Swansea Central Area and City Waterfront will be supported. This policy is a driver for SPRA 11 (Swansea Central Area and City Waterfront) which is detailed within SP8; an existing strategic development area in the adopted LDP. Significant development within the area is

Policy	Rationale
	progressing and the site has significant potential for residential delivery during plan period. SPRAs have been individually screened for LSEs, and SPRA 11 was screened in for the following impacts: • Potential habitat loss / physical damage to functionally linked land; • Changes to hydrological regime / water levels and quality; and, • Recreational disturbance / damage. For further detail on the rationale, as well the sites and species effected by this policy, see screening assessment of SPRA 11 in Appendix D. As this policy is a directly linked and a driver for SP8 and specifically SPRA 11, as well as directly links to SP1, SP2 and SP3, likely significant effects on a site alone cannot be ruled out and is therefore screened in.
SP11: Port of Swansea and Docks Regeneration	This policy aims to support development proposals which serve to enhance the viability of Swansea's ports and docks and deliver regeneration to the area through appropriate industrial uses, energy generation development and other employment and investment opportunities. This policy is directly linked to, and a driver for SPRA 13, which is an existing Strategic Development Area in the adopted LDP situated within Swansea Port & Docks and Fabian Way Corridor. The SPRA offers a key opportunity to take advantage of significant regeneration opportunities including zero carbon energy and employment uses. As each SPRA has been individually screened for LSEs, SPRA 11 was screened in for the following impacts: • Habitat loss / physical damage to possible functionally linked land; • Non-physical disturbance; • Changes to hydrological regime / water levels and quality; • Air pollution; and • Recreational disturbance and damage. For further detail on the rationale, as well the sites and species effected by this policy, see screening assessment of SPRA 11 in Appendix D. As this policy is directly linked, and a driver for both to SP8 and SPRA 11, as well as directly contributing towards SP1, SP2 and SP3, likely significant effects on a site alone cannot be ruled out and is therefore screened in.
SP12: Tourism and the Visitor Economy	This policy provides a list of overarching aims in regard to tourist development and investment The first section of this policy lists general criteria for testing the acceptability/sustainability of development proposals. This policy also states that tourism, culture, recreation and leisure development that contributes towards the revitalisation and regeneration of the Swansea Central Area and City Waterfront will be supported. This policy is directly linked to, and a driver for SPRA 11, which is an existing strategic development area in the adopted LDP situated within Swansea Central Area and City Waterfront. Significant development within the area is progressing and the site has significant potential for residential delivery during plan period. As each SPRA has been individually screened for LSEs, SPRA 11 was screened in for the following impacts: • Potential habitat loss / physical damage to functionally linked land; • Changes to hydrological regime / water levels and quality; and, • Recreational disturbance / damage. For further detail on the rationale, as well the sites and species effected by this policy, see screening assessment of SPRA 11 in Appendix D. As this policy is a driver for both to SP8 and SPRA 11, and directly contributes towards SP1, SP2 and SP3, likely significant effects on a site alone cannot be ruled out and is therefore screened in.
SP13: Health and Wellbeing	This policy aims to ensure developments reduce health inequalities and support good health and wellbeing wherever possible by taking a placemaking approach and having regard to a set of principles, such as ensuring places are designed to be accessible and inclusive to as possible and creating accessible and healthy environments which minimises exposure of air, noise, light water and soil pollution. This policy also supports enhancement and appropriate expansion of hospitals at Morriston, Singleton, Gorseinon and Cefn Coed where necessary, subject to compliance with other relevant policies of the Plan. Where justified and required, infrastructure improvements will be supported from Junction 46 of the M4 to Morriston hospital. The first section of this policy lists general criteria for testing the acceptability/sustainability of development proposals to reduce health inequalities and supporting good health and wellbeing. However, this policy also supports enhancement and appropriate expansion of hospitals at Morriston, Singleton, Gorseinon and Cefn Coed. As a result, this policy could be considered a driver for SPRA 8 and SPRA 9 which are health-led allocated/safeguarded areas in the Adopted LDP. SPRA 8 is focused on strategic health improvements at Morriston Hospital, as well a new link road from J46 of the M4 to the site where justified by a transport assessment. SPRA 9 is focused on Cefn Coed Hospital and is discussed as a health led opportunity for homes, leisure, health and recreation facilities, including an Adult Mental Health Unit.

Policy	Rationale
	As each SPRA has been individually screened for LSEs, SPRA 8 was screened in for the following impacts: • Non-physical disturbance; and, • Changes to hydrological regime / water levels and quality; SPRA 9 was screened in for the following impacts: • Changes to hydrological regime / water levels and quality; and, • Recreational disturbance / damage For further detail on the rationale, as well the sites and species effected by this policy, see screening assessment of SPRA 8 and SPRA 9 in Appendix D. As this policy is directly linked, and a driver for both to SP8, SPRA 8 and SPRA (9), as well as directly contributing towards SP1, SP2 and SP3, likely significant effects on a site alone cannot be ruled out and is therefore screened in. There is currently no further description or SPRA relating to the hospital expansions of Singleton and Gorseinon. Therefore, the scope and scale of the proposed works remain unknown. As the exact nature and scale of the Singleton and Gorseinon hospital expansion are unknown and so effects cannot be quantified at this stage, therefore LSE cannot be not ruled out and is screened in.

7.5.1 Strategic Placemaking and Regeneration Areas (SPRAs)

More detailed screening has been carried out on the 13 SPRAs which are discussed under policy SP8 of the Preferred Strategy. The SPRAs have been screened for their risk of LSE to Internationally Designated Sites alone. Detailed justification is included in Table 19 in Appendix D where each SPRA identified by the Preferred Strategy is assessed to identify if there could be a LSE for each potential effect recognised in Section 6. A summary of this screening is shown in Table 17 below.

Table 17: Summary of Screening of Strategic Placemaking and Regeneration Areas (SPRAs)

Ref	SPRA	Habitat Loss / physical damage	Non-physical disturbance	Changes to hydrological regime / water levels and quality	Air pollution	Recreational disturbance / damage	Screening Conclusion
1	Pontarddulais	Yes	Yes	Yes	No	Yes	**Screened in**
2	Garden Village/ Gorseinon	Yes	Yes	Yes	No	Yes	**Screened in**
3	Penllergaer	Yes	Yes	Yes	No	Yes	**Screened in**
4	Felindre	Yes	Yes	Yes	No	Yes	**Screened in**
5	Morriston	No	Yes	Yes	No	Yes	**Screened in**
6	Llangyfelach/ Penderry	Yes	Yes	Yes	No	Yes	**Screened in**
7	Waunarlwydd/ Fforestfach	Yes	Yes	Yes	No	Yes	**Screened in**
8	Morriston Hospital	No	Yes	Yes	No	No	**Screened in**
9	Cefn Coed Hospital, Cockett	No	No	Yes	No	Yes	**Screened in**
10	Tawe Riverside Corridor and Hafod Morfa Copper Works	Yes	Yes	Yes	No	Yes	**Screened in**
11	Swansea Central Area and City Waterfront	Yes	Yes	Yes	No	Yes	**Screened in**
12	SA1 Swansea Waterfront	Yes	Yes	Yes	Yes	Yes	**Screened in**
13	Swansea Port & Docks and Fabian Way Corridor	Yes	Yes	Yes	Yes	Yes	**Screened in**

All of the SPRAs have been screened in for appropriate assessment due to them having the potential for an LSE alone. This is due to the type of development promoted and the proximity to Internationally Designated Sites in terms of the specified ZoI for qualifying features established in Appendix C. It is important to note that the risk of effects is dependent on how any particular development is implemented at the project stage. However, SPRAs both individually and collectively may contribute to an LSE, in the absence of objective information and detailed assessment on each part of the source-pathway-receptor model. Some SPRAs are not certain to give rise to an LSE, for many there is uncertainty, yet in line with the precautionary principle and in the absence of mitigation, LSEs cannot be excluded at this stage of the sHRA process.

It should be noted that none of the SPRAs are within the 8km ZoI from the Limestone Coast of Southwest Wales SAC Management Unit 9 defined in Appendix B with regard to greater horseshoe bats.

7.6 Summary of Potential Likely Significant Effects on Internationally Designated Sites

Potential effects on Internationally Designated Sites as a result of the strategy as a whole based on a general understanding of the overall nature and scale of the strategy, policies and proposals have been assessed in Section 7. The Preferred Strategy has then been screened, with each strategic policy screened in Section 7.5; strategic policies where a LSE cannot be excluded and require appropriate assessment are listed in Table 16. A detailed screening of each SPRAs carried out in Section 7.5.1 and those where a LSE cannot be excluded are listed in Table 17.

The outcome of the Preferred Strategy screening assessment on each Internationally Designated Site is shown in Table 18. The results are based upon the identified source-pathway-receptor model, using the available information . Table 18 below shows the potential for a LSE from the Preferred Strategy alone, without consideration of in-combination effects.

No differentiation is given to the likelihood of an LSE and any uncertainty is to be addressed at appropriate assessment, with consideration for further information and with the application of any mitigation measures.

Table 18: Screening conclusion of Internationally Designated Sites

Internationally Designated Site	Distance from Preferred Strategy area	Potential Effects				
		Habitat Loss / Physical Damage	Non-physical Disturbance	Changes to Hydrological Regime / Water Levels and Quality	Air Pollution	Recreational Disturbance
Carmarthen Bay and Estuaries European Marine Site (comprising the Carmarthen Bay and Estuaries SAC, Carmarthen Bay SPA and the Burry Inlet SPA and Ramsar)	Within Preferred Strategy area	Screened in	Screened in	Screened in	Screened in	Screened in
Carmarthen Bay Dunes SAC	Within Preferred Strategy area	Screened in	Screened out	Screened in	Screened out	Screened in
Bristol Channel Approaches SAC	Directly adjacent to the Preferred Strategy area	Screened in	Screened in	Screened in	Screened out	Screened out
Crymlyn Bog SAC and Ramsar site	Within Preferred Strategy area	Screened in	Screened out	Screened in	Screened in	Screened out
Gower Ash Woods SAC	Within Preferred Strategy area	Screened in	Screened out	Screened out	Screened in	Screened in
Gower Commons SAC	Within Preferred Strategy area	Screened in	Screened in	Screened out	Screened in	Screened in
Limestone Coast of Southwest Wales SAC	Within Preferred Strategy area	Screened in	Screened in	Screened out	Screened out	Screened in
River Tywi SAC	10.86km	Screened out	Screened out	Screened in	Screened out	Screened out
River Usk SAC	21.76km	Screened out	Screened out	Screened in	Screened out	Screened out
Cernydd Carmel SAC	5.83km	Screened out	Screened out	Screened out	Screened out	Screened out
Caeau Mynydd Mawr SAC	3.64km	Screened out	Screened out	Screened out	Screened out	Screened out
Pembrokeshire Marine SAC	32.50km	Screened in	Screened in	Screened in	Screened out	Screened out

8. In-combination Effects

As well as considering whether the policies proposed may result in an LSE, a requirement of the HRA process is to also consider whether the Preferred Strategy is likely to have an in-combination effect with other plans and projects.

Screening categories are shown in Table 1 of Section 4.3. The Preferred Strategy has either been screened out under categories A to H or screened in under category I as shown in Section 7. Therefore, an assessment of in-combination effects is not required at this stage 1 of the sHRA.

9. Conclusions

This section outlines a summary of the findings of this sHRA Screening Report for the Preferred Strategy.

9.1 Identification of Internationally Designated Sites

Internationally Designated Sites which the preferred strategy may have a LSE on have been identified and are as follows: Carmarthen Bay and Estuaries European Marine Site (comprising the Carmarthen Bay and Estuaries SAC, Carmarthen Bay SPA and Burry Inlet SPA and Ramsar); Caeau Mynydd Mawr SAC; Carmarthen Bay Dunes SAC; Cernydd Carmel SAC; Bristol Channel Approaches SAC; Crymlyn Bog SAC and Ramsar site; Gower Ash Woods SAC; Gower Commons SAC; Limestone Coast of Southwest Wales SAC; Pembrokeshire Marine SAC; River Tywi SAC; and River Usk SAC.

9.2 Potential Effects of the Preferred Strategy

Potential effects on Internationally Designated Sites as a result of the strategy as a whole based on a general understanding of the overall nature and scale of the strategy, policies and proposals were then assessed (see Section 7). Potential effects identified include: habitat loss / physical damage, non-physical disturbance, changes to hydrological regime / water levels and quality, air pollution, and recreational disturbance.

9.3 Screening of the Preferred Strategy

Chapters 1 to 7 of the Preferred Strategy has been screened and includes introductory text, context setting, details of the vision and objectives, along with the placemaking strategy for Abertawe. This comprises mostly administrative text or general goals or aspirations, which are either too vague to possibly have a significant effect on a particular Internationally Designated site or are delivered through the strategic policies which are a better target for assessment. They can therefore have no conceivable effect on any Internationally Designated Sites and are screened out.

9.4 Preferred Strategy Policies

Chapter 8 of the Preferred Strategy contains the strategic policies and has been screened. The following eight strategic policies within Chapter 8 have been screened in for appropriate assessment (Stage 2 of the HRA process as shown in Figure 1 and described in Section 2.1.1.2), because a LSE cannot be excluded on one or more Internationally Designated Sites alone:

- SP1: Growth Strategy
- SP2: Sustainable Settlement Strategy
- SP3: Affordable Homes and Specialist Housing
- SP8: Strategic Placemaking and Regeneration Areas
- SP9: Swansea Central Area & City Waterfront
- SP11: Port of Swansea and Docks Regeneration
- SP12: Tourism and the Visitor Economy
- SP13: Health and Wellbeing

These policies (detailed in Table 16) outline the development of residential and mixed-use sites, industry, set targets and strategies for housing levels across the Preferred Strategy area. An appropriate assessment will need to be undertaken on these policies to consider additional detail and any mitigation proposed to determine if any LSE from the policies will undermine the integrity of an Internationally Designated Sites' conservation objectives, and therefore, be subject to the derogations process. Mitigation could include avoidance measures, recommending amendments to policy wording and the need for project level HRA screening and appropriate assessment to ensure no LSE on Internationally Designated sites.

9.5 Preferred Strategy SPRAs and other areas

The Preferred Strategy makes provision for homes and industry to be delivered in specific areas in accordance with the Swansea Settlement Hierarchy, including in the Hierarchy of Centres, SPRAs and other appropriate locations both within and potentially outside settlement boundaries.

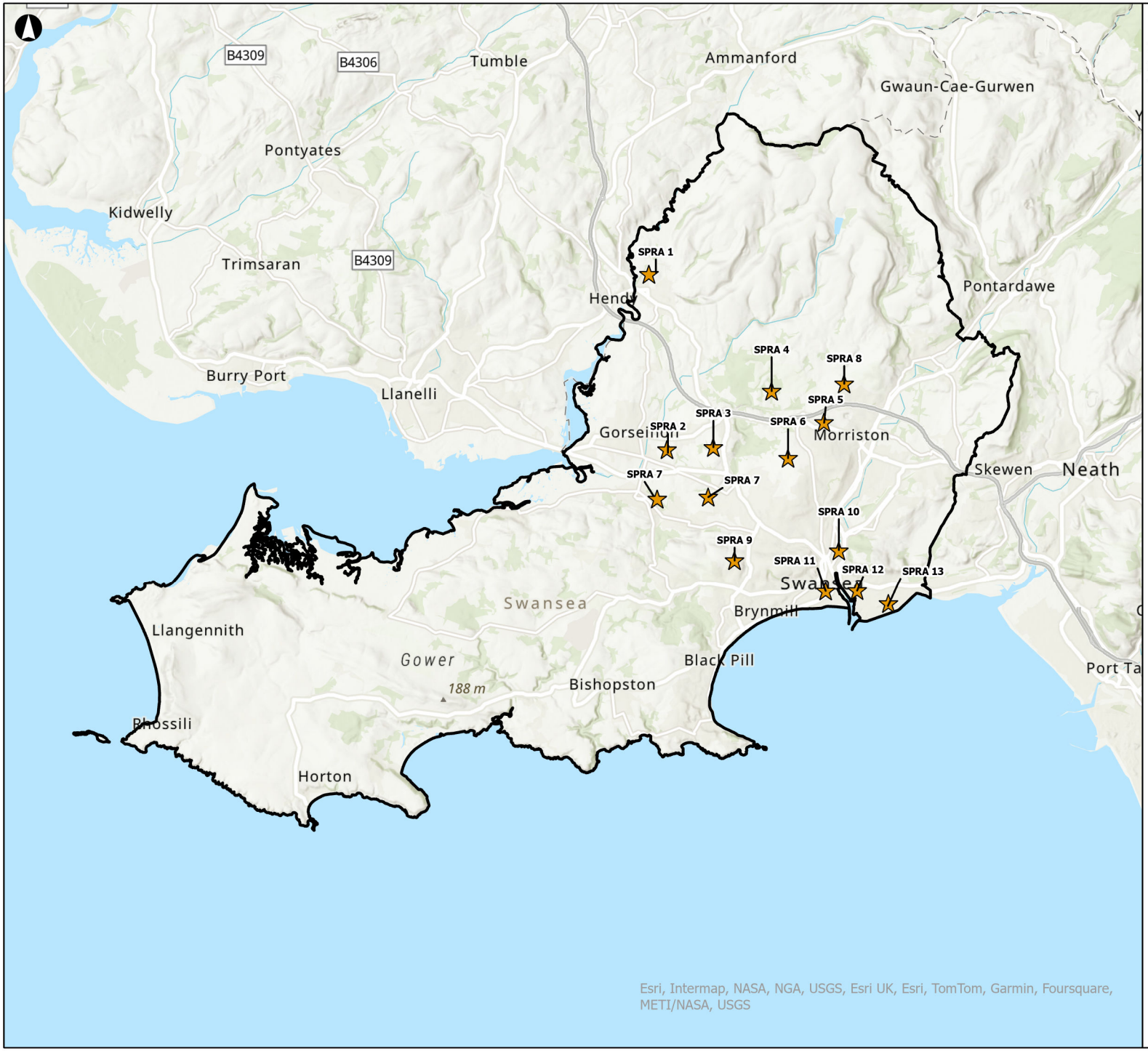
The 13 SPRAs which are discussed under policy SP8 and have been screened. It has been determined that all 13 SPRAs have the potential to have LSE on Internationally Designated Sites alone due to their geography and the types of impact anticipated from the activities that may arise from delivery of the sites to their use (see Table 17). As a LSE on one or more Internationally Designated Sites could not be ruled out, an appropriate assessment needs to be undertaken to consider additional detail and any mitigation proposed to determine if any assumed LSE will undermine the integrity of an Internationally Designated Site's conservation objectives and therefore, be subject to the derogations process.

9.6 Effects Relating to Internationally Designated Sites

A summary of potential effects on Internationally Designated Sites as a result of the strategy as a whole is shown in Table 18. Cernydd Carmel SAC and Caeau Mynydd Mawr SAC have been screened out of any LSE from the Preferred Strategy. The following sites have been screened in due to one of more potential effects: Carmarthen Bay and Estuaries European Marine Site (comprising the Carmarthen Bay and Estuaries SAC, Carmarthen Bay SPA and Burry Inlet SPA and Ramsar); Carmarthen Bay Dunes SAC; Bristol Channel Approaches SAC; Crymlyn Bog SAC and Ramsar site; Gower Ash Woods SAC; Gower Commons SAC; Limestone Coast of Southwest Wales SAC; Pembrokeshire Marine SAC; River Tywi SAC; and the River Usk SAC.

9.7 In combination Effects

An assessment of in-combination effects was not required at this stage 1 of the sHRA due to the Preferred Strategy being either screened out or screened in due to not being able to exclude an LSE alone.



A4

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Legend

- Preferred Strategy area / Swansea Council Local Authority Boundary
- Strategic Placemaking and Regeneration Areas (SPRAs)

Coordinate System: British National Grid

Kilometres

0 2.5 5 10

Rev	Date	By	Chkd	Appd	Authd
1.0	Dec 2024	JB	JG	FM	--

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Client

Swansea Council

Project Name

Swansea LDP2 Preferred Strategy Habitats Regulations Assessment

Drawing Title

Strategic Placemaking and Regeneration Areas (SPRAs)

Scale at A4

1:200,000

Role

HRA Stage 1

Suitability

Issue

Project Number	Rev
305887	**1.0**

Drawing Number

Drawing 1

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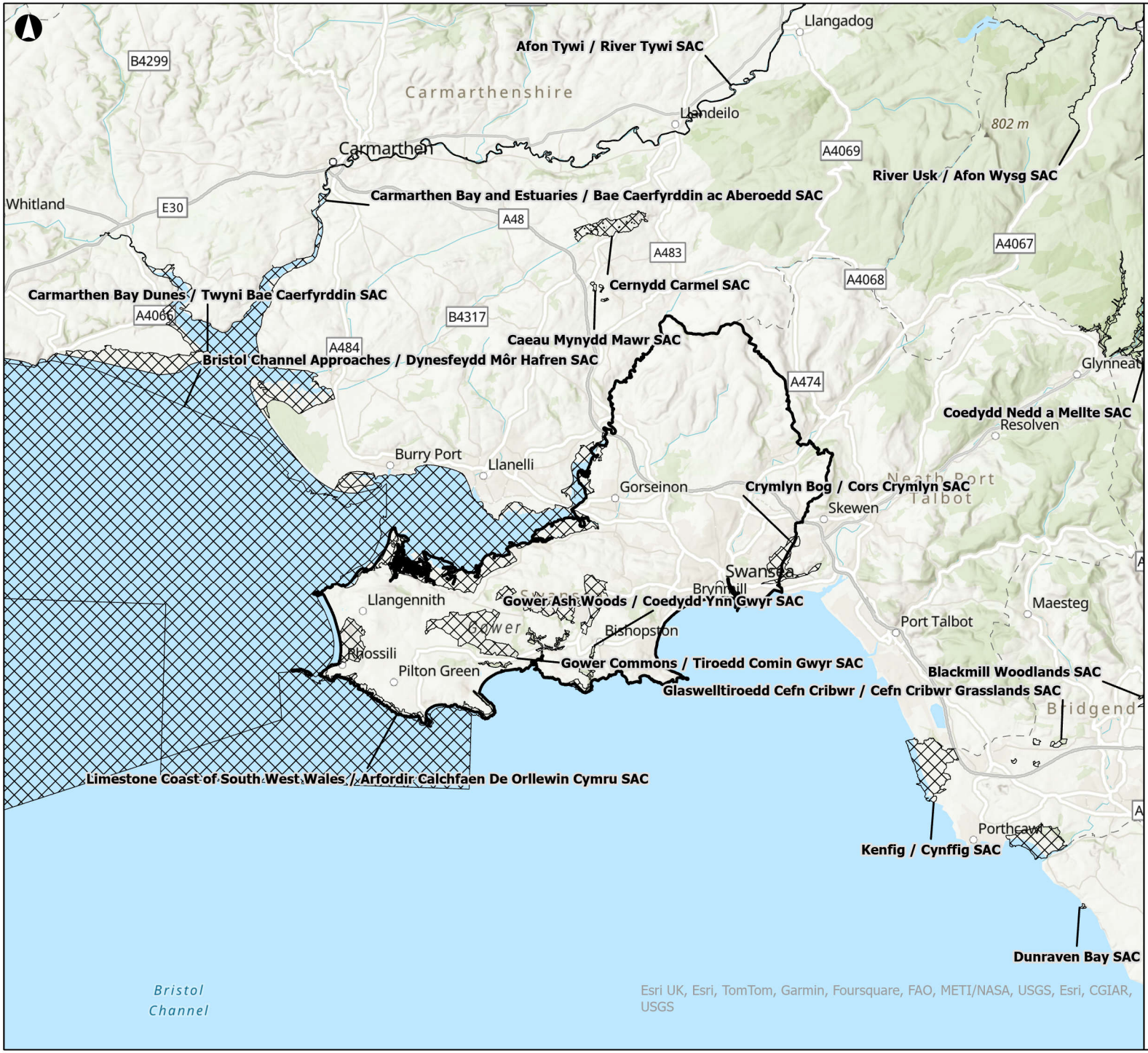

A4

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Legend

- Preferred Strategy area / Swansea Council Local Authority Boundary
- Special Area of Conservation (SAC)

Coordinate System: British National Grid

Kilometres

0 2.5 5 10

Rev	Date	By	Chkd	Appd	Authd
1.0	Dec 2024	JB	JG	FM	--

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Project Name

Swansea LDP2 Preferred Strategy Habitats Regulations Assessment

Drawing Title

Internationally Designated Sites - SAC

Scale at A4

1:350,000

Role

HRA Stage 1

Suitability

Issue

Project Number

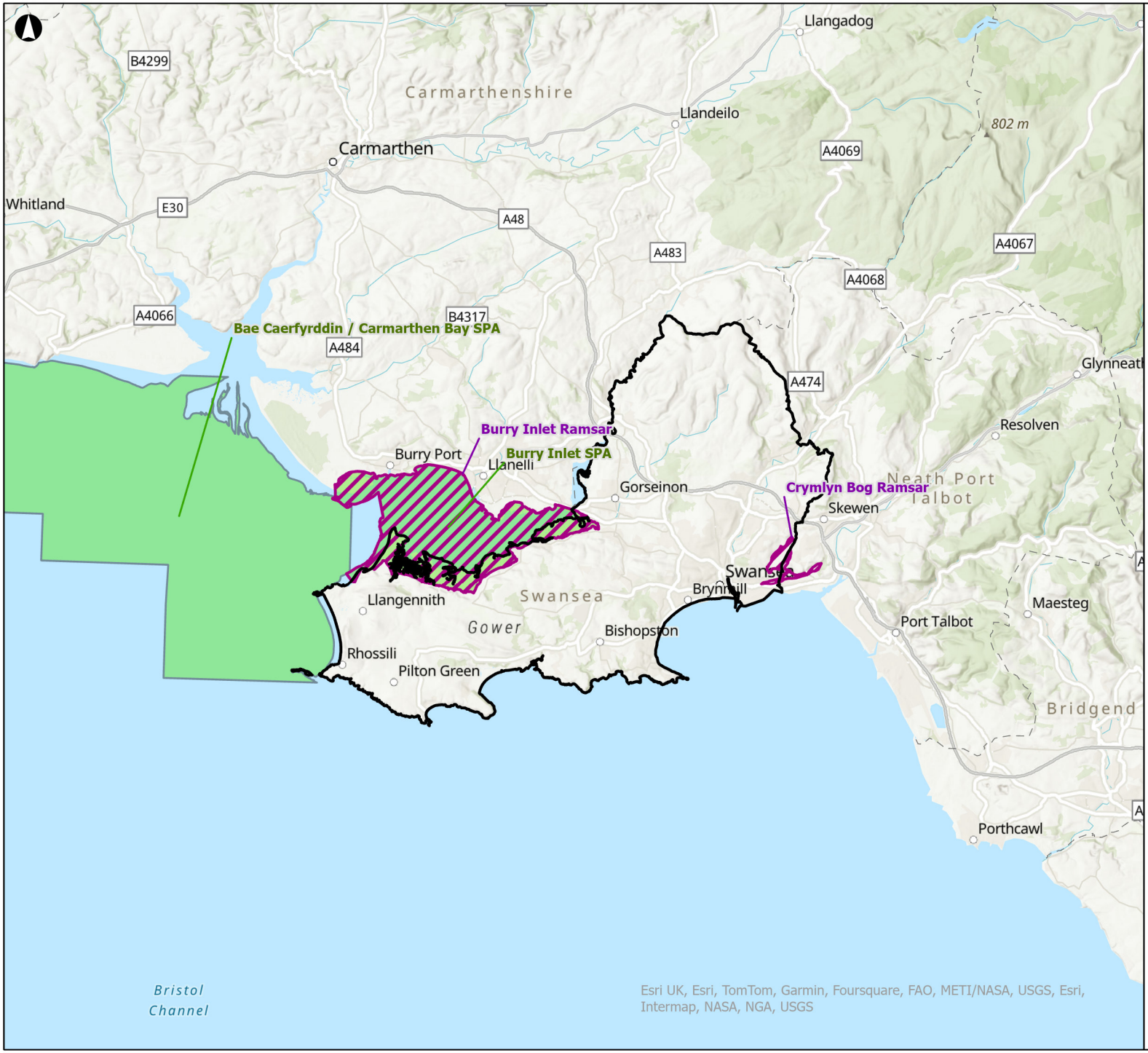
305887

Rev

1.0

Drawing Number

Drawing 2(a)



A4

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Legend

- Preferred Strategy area / Swansea Council Local Authority Boundary
- Ramsar Site
- Special Protection Area (SPA)

Coordinate System: British National Grid

Kilometres

0 2.5 5 10

Rev	Date	By	Chkd	Appd	Authd
1.0	Dec 2024	JB	JG	FM	--

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Swansea Council

Project Name

Swansea LDP2 Preferred Strategy Habitats Regulations Assessment

Drawing Title

Internationally Designated Sites - SPA and Ramsar Sites

Scale at A4

1:350,000

Role

HRA Stage 1

Suitability

Issue

Project Number

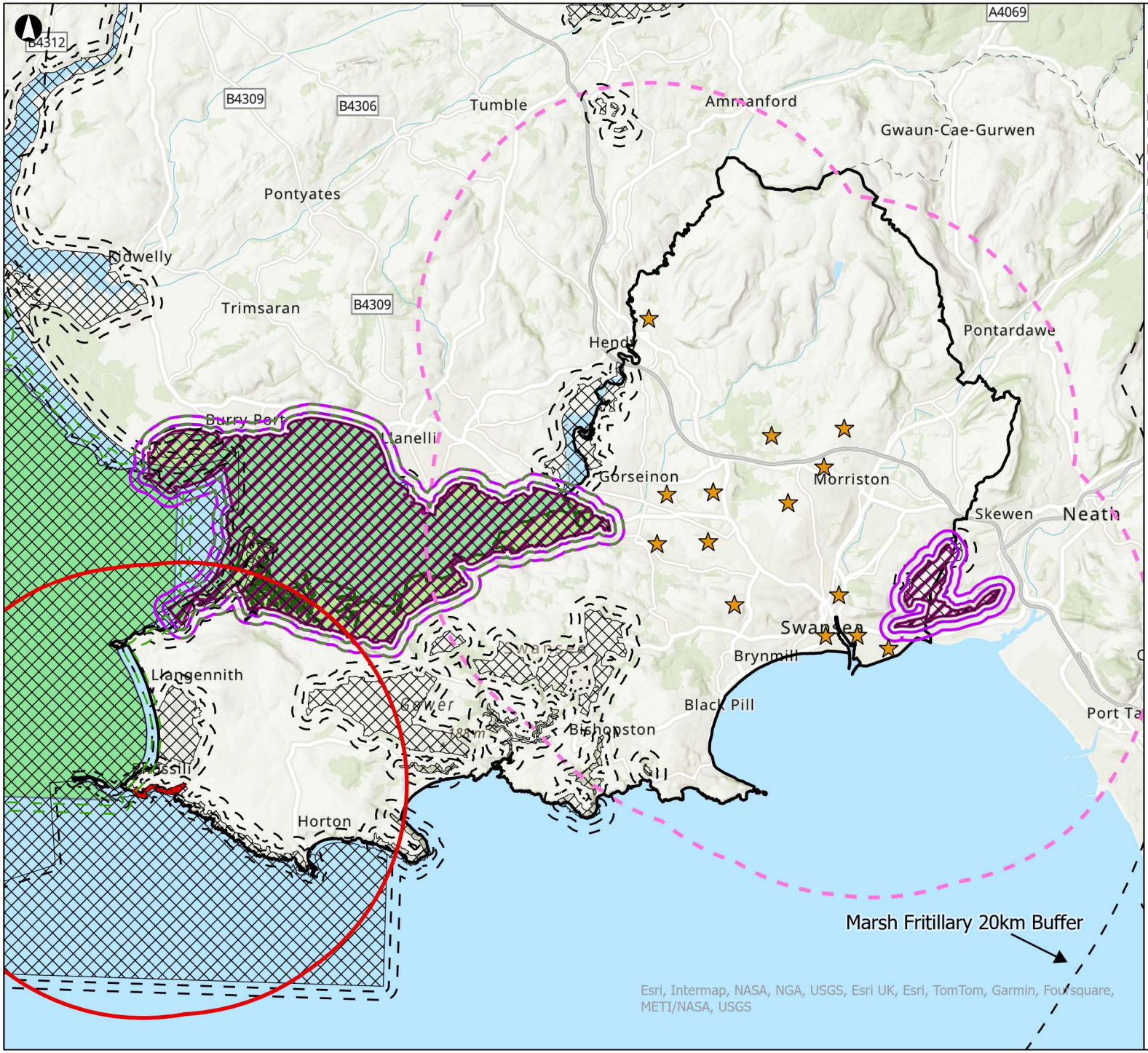
305887

Rev

1.0

Drawing Number

Drawing 2(b)



A4

16/01/2025 15:59

Legend

- Preferred Strategy area / Swansea Council Local Authority Boundary
- Strategic Placemaking and Regeneration Areas (SPRAs)
- Ramsar Site
- Special Area of Conservation (SAC)
- Special Protection Area (SPA)
- Limestone Coast of South West Wales SAC MU9
- Ramsar Buffers (200m, 500m)
- SAC Buffers (200m, 500m)
- SPA Buffers (200m, 500m)
- SPRA 8km Recreation Buffer
- Limestone Coast of South West Wales SAC MU9 8km Buffer

Coordinate System: British National Grid

Kilometres

0 2.5 5 10

Rev	Date	By	Chkd	Appd	Authd
1.0	Dec 2024	JB	JG	FM	--

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Swansea Council

Project Name

Swansea LDP2 Preferred Strategy Habitats Regulations Assessment

Drawing Title

Zones of Influence for impacts to Qualifying Features

Scale at A4

1:200,000

Role

HRA Stage 1

Suitability

Issue

Project Number	Rev
305887	1.0

Drawing Number

Drawing 3

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Appendix A – NRW response to Initial HRA Screening Report (June 2024)

1) **Is there a need to include a zone of influence e.g. 5, 10, 15, 20km? DTA didn't use one last time (i.e. for current LDP HRA).**

"Using a zone of influence could be useful to capture any potential impacts to marine species which are not features of the designated sites adjacent to the Swansea administrative boundary. Examples of this would be the mobile species protected within Pembrokeshire Marine Special Area of Conservation (SAC) and West Wales Marine SAC".

Functionally linked land could also be considered as part of the HRA, whether in the form of zones of influence or specific identification of functionally linked land based on available evidence.

Functionally linked land refers to the role or function that an area of land or water, which is outside the boundary of a European Site, might fulfil in terms of ecologically supporting the features for which the site is designated. Such land is functionally linked to the European site as it provides an important role in maintaining or restoring the site's features.

The concept of functionally linked land applies, as above, where the European site feature is a population of a mobile species which depends to some degree on habitat outside the site boundary. For example, being linked hydrologically to the qualifying habitat, or relying on a metapopulation.

While the boundary of a European site will usually be drawn to include key supporting habitat for a designated species, this cannot always be the case, especially where the population for which a site is designated is particularly mobile. Individuals of the population will not necessarily remain in the site all the time

Examples:

- For some diadromous fish species, such as Atlantic salmon, the SAC may be confined to the lower or middle sections of the river (or even the estuary in the case of the Severn Estuary SAC and the River Severn) and will not extend to all the spawning sites higher up in the headwaters, which may be many kilometres away.
- For lesser or greater horseshoe bats, the SAC may need to be confined to the key roost sites used for hibernation, resting or breeding. The majority and, in many cases, the whole of the foraging areas of the bats in that roost, and the commuting routes (flyways) between the foraging areas and the roosts, cannot practically be included in the SAC.

In these examples, some land/water that lies outside the boundary of the European site is functionally linked to the European site itself and the populations of designated species associated with it, and therefore a plan or project which affects that land/water may require consideration through HRA, even in the absence of any risk of direct impact within the European site boundary.

We advise you seek your consultant's view on the consideration of functionally linked land or a zone of influence and how to ensure they have been considered in the HRA at various stages.

2) **Further to above, it is the Council's understanding that Regulation 67 of the Regs allows you to adopt the reasoning, assessment and/or conclusion of earlier HRA work, to avoid duplication (and only assess changes as a result of new policies in the Plan/case law etc)? Therefore, the Council intends to use the initial adopted LDP baseline report as the baseline data (i.e. the actual sites) haven't changed – apart from the Bristol Channel Approaches SAC. The consultant we appoint can decide whether to use one or not, but we would appreciate NRW view? Note cross border context provided in Appendices 1 and 2 of this Paper.**

Our understanding is that a competent authority can rely on the conclusions of an earlier HRA, but there are caveats to this that may require re-assessment of all or part of the LDP2, which are summarised below:

- Any changes to existing policies should be re-assessed (unless the case is made that the change leads to a reduction in potential impact and the original conclusion was no likely significant effect (LSE) or no adverse effect on site integrity (AEOSI).
- Any new policies should be fully assessed.
- Any changes in the baseline may require policies to be re-assessed, for example, if pollution levels in a SAC river have become worse.
- Changes in the condition of European sites, for example, if the condition of a European site that was previously favourable is now unfavourable.
- Changes to conservation objectives – such as the tightening of SAC river phosphorus targets following the publication of our Compliance Assessment of Welsh River SACs against Phosphorus Targets in January 2021.
- Where new evidence has emerged which may change the conclusion of an HRA, for example, new evidence relating to new potential impact pathway, or the extent of impacts on interest features, or the efficacy of types of mitigation.
- Any changes to legislation and new caselaw that may change the conclusions of the HRA.

In all cases, if relying on the conclusions of an earlier HRA, a competent authority must still satisfy itself that the original HRA (or elements of it which it is relying on) is robust and fit for purpose. Similarly, if NRW disagree, for any of the above (or other) reasons, we would highlight this in our role as the Appropriate Nature Conservation Body.

3) **List of sites the Council considers should be included in the screening assessment set out in Table 1 and paragraph 5.2. and;**

4) **Whether the Usk and Tywi is required to be considered as part of the screening assessment – see query in paragraph 5.4.**

We agree with the list of European sites identified within Table 1 and Paragraph 5.2 of the screening report. It may be prudent to include the River Usk SAC and River Tywi SAC within Paragraph 5.2, until further advice is sort on their inclusion.

We agree that specialist consultant advice be sought on the additional sites highlighted in yellow within Table 1 (i.e. River Usk SAC and River Tywi SAC) and we are seeking advice internally on this point which we will provide as soon as possible.

Subsequent email (30/7/24) - Our internal specialists have confirmed that in our opinion (my emphasis, appear an overly precautionary approach) the potential impacts on the River Usk SAC and River Tywi SAC should continue to be considered as part of the HRA screening assessment for the rLDP.

5) **Advice on where the information can be secured to fill in the 'gaps' denoted in yellow highlighter in Appendix 3**

Please can you provide more context/information on what you need from NRW regarding Question 5 and the gaps in Appendix 3.

6) **Confirmation that the report refers to the most current and up to date legislation and guidance.**

Updated versions of the HRA handbook are published by DTA Ecology, so we would advise contacting them for the most up to date version.

- **Other comments**

Appendix 1 – Swansea Council Special Areas of Conservation. We just want to highlight that the colours are very similar making the map difficult to read. We suggest this is amended when included in draft HRA.

Appendix 3 - Page 21 – Typo. Bury' – should be Burry.

Appendix 3 - Page 28 and 29 – incomplete tables relating to Limestone Coast of Southwest Wales SAC, River Usk and River Tywi SAC sites.

Appendix B – International Designated Sites Identified

Sites identified to be considered as part of the screening assessment in the sHRA process of Swansea LDP2 Preferred Strategy.

Site Name: Afon Tywi SAC[46,47] **JNCC Site Code: UK0013010** **Area (Ha): 375.83ha**				
Category for designation	**Qualifying features of the site**	**Condition assessment**	**Conservation objectives**	**Threats, pressures and activities impacting the site. (H= high, M= medium, L= low)**
Annex II species that are a primary reason for selection	European otter (*Lutra lutra*)	Favourable condition	• The size of the population should be stable or increasing, allowing for natural variability, and sustainable in the long term. • The distribution of the population should be being maintained, or where appropriate increasing • There should be sufficient habitat, of sufficient quality, to support the population in the long term. • Factors affecting the population or its habitat should be under appropriate control.	• Pollution to surface waters (limnic & terrestrial, marine & brackish) (**H**); • Grazing (**H**); • Human induced changes in hydraulic conditions (**H**); • Changes in abiotic conditions (**H**); • Invasive non-native species (**M**); and, • Mining and quarrying (**M**).
	Twaite shad (*Alosa fallax*)	Unfavourable – unclassified	• Factors affecting the population or its habitat should be under appropriate control. • The size of the population should be stable or increasing, allowing for natural variability, and sustainable in the long term. • There should be sufficient habitat, of sufficient quality, to support the population in the long term. • The distribution of the population should be being maintained or where appropriate increasing. • There should be sufficient habitat, of sufficient quality, to support the population in the long term. • Quality (including in terms of ecological structure and function) should be being maintained, or where appropriate improving.	

[46] Afon Tywi SAC. Full citation available from: https://sac.jncc.gov.uk/site/UK0013010 [Accessed October 2024]

[47] Afon Tywi SAC (2022). Core Management Plan Including Conservation Objectives. Available from: https://afonyddcymru.org/wp-content/uploads/2022/11/afon_tywi_-_man-plan-english.pdf [Accessed October 2024]

Annex II species present as a qualifying feature	Sea lamprey (*Petromyzon marinus*)	Unfavourable condition		
	Brook lamprey (*Lampetra planeri*)	Unfavourable condition		
	River lamprey (*Lampetra fluviatilis*)	Unfavourable condition		
	Bullhead (*Cottus gobio*)	Unfavourable condition		
	Allis shad (*Alosa alosa*)	Unfavourable condition		

Site Name: Bristol Channel Approaches SAC[48,49] **JNCC Site Code: UK0030396** **Area (Ha): 584,994ha**				
Category for designation	**Qualifying features of the site**	**Condition assessment**	**Conservation objectives**	**Threats, pressures and activities impacting the site (H= high, M= medium, L= low)**
Annex II species that a primary reason for selection	Harbour porpoise (*Phocoena Phocoena*)	Favourable	The conservation objectives for the sites are to maintain site integrity by ensuring: • Harbour porpoise are a viable component of the site • There is no significant disturbance of the species The condition of supporting habitats and processes, and the availability of prey is maintained	• Entanglement/Bycatch (**H**); • Contaminants (**H**); • Anthropogenic underwater sound (**M**); • Reduction in prey resource (**M**); and, • Collision with vessels or installations (**M**).

[48] Bristol Channel Approaches SAC. Full citation available from: https://jncc.gov.uk/our-work/bristol-channel-approaches-mpa/ [Accessed October 2024]

[49] Bristol Channel Approaches SAC Factfile: Available from: https://jncc.gov.uk/our-work/bristol-channel-approaches-mpa/ [Accessed October 2024]

Site Name: Burry Inlet SPA[50,51] **JNCC Site Code: UK9015011** **Area (Ha): 6672.95ha**				
Category for designation	**Qualifying features of the site**	**Condition assessment**	**Conservation objectives**	**Threats, pressures and activities impacting the site**
Article 4.2 – Wetland of International Importance	Regularly supporting, in winter, over 20,000 waterfowl. During the five-year period 1985/86 to 1989/90 an average peak of 48,100 birds was recorded, comprising 12,500 wildfowl and 35,600 waders.	Undetermined	• 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. • 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. • Supporting habitats for bird species of the Burry Inlet SPA include: - Estuaries - Mudflats and sandflats not covered by seawater at low tide - Atlantic salt meadows - Salicornia and other annuals colonising mud and sand 'Large shallow inlets and bays' are the supporting habitat for the common scoter of the Carmarthen Bay SPA.	Activities currently believed to be pressures on the Carmarthen Bay and Estuaries EMS, based on CCW Regulation 35 Advice (2018) Threats and vulnerabilities specifically identified within Nature 2000 Data Forms and Ramsar Information Sheets: • Developments in fishing practices and target species • Most of the potential threats come from fisheries and related activities such as shellfish management and access issues related to mussel and cockle gathering • Aggregate dredging may have an effect locally on the biology of Helwick Bank, and in conjunction with other coastal defence works may also affect sediment budgets and characteristics over a wider area. Operations within the SAC highlight the following as pressures and/or threats: • Protected coastal railway tracks acting as coastal defences and preventing the inland migration of coastal habitats;
Article 4.2 - Supporting internationally or nationally important wintering populations	Shelduck (*Tadorna tadorna*)	Undetermined		
	Wigeon (*Mareca penelope*)	Undetermined		
	Teal (*Anas crecca*)	Undetermined		

[50] Burry Inlet SPA. Full citation available from: https://jncc.gov.uk/jncc-assets/SPA-N2K/UK9015011.pdf [Accessed October 2024]

[51] No recent reports formally assessing the status Burry Inlet SPA/Ramsar features are available. The BTO publication Waterbirds in the UK 2022/23 is the most contemporary data for most of the site's species features at the time of writing, though data for several feature species in Burry Inlet are not included. However, it is unclear whether this is a decrease in numbers of birds in the immediate geographical area or more a reflection of movement between the site and adjacent estuaries and open coast (Burton et al., 2010).

	Pintail (*Anas acuta*)	Undetermined		• Coastal settlements giving rise to localised pressures on the marine environment; • Extensive reclamation of saltmarshes; • Sea defences, including sea walls, rock armour, gabions and groynes; • Extensively and, at times intensively grazed saltmarshes; • High levels of bait collection, including of marine worms and soft shelled 'peeler' crab; • Hypertrophic estuaries; • Hyper nutrification in the upper Loughor Estuary; • Residual legacy heavy metals from industry and redundant coalmines in estuary catchments; • Decline in Salicornia populations since 1982, possibly caused by changes in the main channel and vehicular erosion; • Extraction of sand from the Helwick Bank for aggregate, exacerbating losses caused by natural processes
	Shoveler (*Spatula clypeata*)	Undetermined		
	Oystercatcher (*Haematopus ostralegus*)	Undetermined		
	Grey plover (*Pluvialis squatarola*)	Undetermined		
	Knot (*Calidris canutus*)	Undetermined		
	Dunlin (*Calidris alpina*)	Undetermined		
	Curlew (*Numenius arquata*)	Undetermined		
	Redshank (*Tringa totanus*)	Undetermined		
	Turnstone (*Arenaria interpres*)	Undetermined		

Site Name: Burry Inlet Ramsar[52,51] **JNCC Site Code: UK14001** **Area (Ha): 6627.99ha**				
Category for designation	**Qualifying features of the site**	**Condition Assessment**	**Conservation Objectives**	**Threats, pressures and activities impacting the site**
Ramsar Criterion 5: Assemblages of international importance	Species with peak counts in winter 41,655 waterfowl	Undetermined	The most recent version of the Ramsar Information Sheet and CCW does not detail any conservation measures. However, given the species listed within the Ramsar are also stated within the SPA designation which also lay within the same boundary, it is therefore assumed the conservation objectives listed for the Burry Inlet SPA are of similar nature for the Ramsar**.**	The most recent version of the Ramsar Information Sheet lists only erosion under "factors (past, present or potential) adversely affecting the site's ecological character", with the following amplification: Sea-level rise and/or changes in the frequency of storms, natural sediment transition as a result of the natural breach of the old 'training wall' and channel realignment causes changing patterns of sediment deposition and erosion. Studies suggest that overall erosion rates are more or less matched by sediment accretion. Erosion of /loss of Salicornia zone is occurring – loss of this early successional vegetation is changing the overall salt-marsh habitat distribution on the site. The response recorded against the question "Is the site subject to adverse ecological change?" is "No". The Overview of the implementation of the Convention in the Western European region report to the 6th Meeting of the Conference of the Contracting Parties notes unregulated digging for fishing bait as a negative factor for the site.

[52] Burry Inlet Ramsar. Full citation available from: https://jncc.gov.uk/jncc-assets/RIS/UK14001.pdf [Accessed October 2024]

Site Name: Caeau Mynydd Mawr SAC[53,54] **JNCC Site Code: UK0030105** **Area (Ha): 24.78**				
Category for designation	**Qualifying features of the site**	**Condition Assessment**	**Conservation Objectives**	**Threats, pressures and activities impacting the site** **(H= high, M= medium, L= low)**
Annex I habitats present as a qualifying feature	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)	Unfavourable - unclassified	• The Molinia meadow feature (M24) 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. • Scrub species such as willow (*Salix* sp.) and birch (*Betula* sp.) will also be largely absent from the Molinia meadow. • All factors affecting the achievement of these conditions are under control	• Mowing / cutting of grassland (**H**); • Air pollution, air-borne pollutants (**H**); • Grazing (**H**); and, • Soil pollution and solid waste (excluding discharges) (**M**)

[53] Caeau Myndydd Mawr SAC. Full citation available from: https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0030105.pdf [Accessed November 2024]

[54] Caeau Myndydd Mawr SAC (2012). Core Management Plan Including Conservation Objectives. Available from: https://naturalresources.wales/media/671079/Caeau_Mynydd_Mawr-DS%20English.pdf [Accessed November 2024]

Annex II species primary reason for site selection	Marsh fritillary butterfly (*Euphydryas (Eurodryas, Hypodryas) aurinia*)	Unfavourable - unclassified	• 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. • 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 cm 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.	

Site Name: Carmarthen Bay Dunes SAC[55,56] **JNCC Site Code: UK0020019** **Area (Ha): 1204.02ha**				
Category for designation	**Qualifying features of the site**	**Condition Assessment**	**Conservation Objectives**	**Threats, pressures and activities impacting the site (H= high, M= medium, L= low)**
Annex 1 habitats primary reason for selection	Embryonic shifting dunes	Favourable	• Natural processes will be allowed to determine the time and place when the strandline and embryonic dunes exist. These processes will not be impeded by direct or indirect human intervention. • A strandline will be present at least one year in every five within the areas identified • Embryonic dunes will be present on the seaward side of the mobile frontal dune ridge at least one year in every three • All of the factors affecting the feature are under	• Human induced changes in hydraulic conditions (H); • Abiotic (slow) natural processes (H); • Structures, buildings in the landscape (H); • Invasive non-native species (H); • Changes in abiotic conditions (H); • Forest and Plantation management & use (H); • Biocenotic evolution, succession (M); • Other ecosystem modifications (M); • Air pollution, air-borne pollutants (M); • Grazing (M); • Improved access to site (M); • Outdoor sports and leisure activities, recreational activities (L); and, • Forestry activities not referred to above (L).
	Shifting dunes along the shoreline with *Ammophila arenaria* "white dunes"	Favourable	• Shifting dunes will exist as part of the dynamic natural processes which create the dune systems. • There will be an interaction between the three dune systems such that the natural process of erosion in some parts and accretion in others will continue without direct or indirect human disturbance. • Shifting 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 • At least two of the three sites in the SAC satisfy the limits outlined in the performance indicator below. • All of the factors affecting the feature are under control.	
	Fixed dunes with herbaceous vegetation "grey dunes"	Unfavourable	• 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.	
	Dunes with *Salix repens ssp. argentea (Salicion arenariae)*	Unfavourable		

[55] Carmarthen Bay Dunes SAC. Full citation available from: https://sac.jncc.gov.uk/site/UK0020019 [Last accessed October 2024]

[56] Carmarthen Bay and Dunes SAC. Core Management Plan. Available from: Microsoft Word - Carmarthen Dunes -Management plan English.doc [Last accessed October 2024]

	Humid dune slacks	Unfavourable	• 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	
Annex 1 species primary reason for selection	Narrow-mouthed whorl snail (*Vertigo angustior*)	Unfavourable	• Sufficient suitable habitat is present to support the populations • The factors affecting the feature are under control	
	Petalwort (*Petalophyllum ralfsii*)	Unfavourable	• 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	
	Fen orchid (*Liparis loeselii*)	Unfavourable	• Sufficient suitable habitat is present to support the populations • The factors affecting the feature are under control	

Site Name: Carmarthen Bay SPA[57,58] **JNCC Site Code: UK9014091** **Area (Ha): 33450.26**				
Category for designation	**Qualifying features of the site**	**Condition Assessment**	**Conservation Objectives**	**Threats, pressures and activities impacting the site (H= high, M= medium, L= low)**
Article 4.2 - Supporting internationally or nationally important wintering populations	**Scoter (*Melanitta migra*)**	Undetermined	• 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. • 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. Supporting habitats for bird species of the Burry Inlet SPA include: • Estuaries • Mudflats and sandflats not covered by seawater at low tide • Atlantic salt meadows • Salicornia and other annuals colonising mud and sand 'Large shallow inlets and bays' are the supporting habitat for the common scoter of the Carmarthen Bay SPA	• Military use and civil unrest (M); • Marine water pollution (M); and, • Air pollution, air-borne pollutants (L)

[57] Carmarthen Bay SPA. Full citation available from: https://jncc.gov.uk/jncc-assets/SPA-N2K/UK9014091.pdf [Accessed October 2024]

[58] Carmarthen Bay and Estuaries EMS. Advice provided by Natural Resources Wales in fulfilment of Regulation 37 of the Conservation of Habitats and Species Regulations 2017. Available from: https://cdn.naturalresources.wales/media/687995/eng-carmarthen-bay-and-estuaries-reg-37-report-2018.pdf [Accessed October 2024]

Site Name: Carmarthen Bay and Estuaries SAC[59,60,61] **JNCC Site Code: UK0020020** **Area (Ha): 66092.05**				
Category for designation	**Qualifying features of the site**	**Condition Assessment**	**Conservation Objectives**	**Threats, pressures and activities impacting the site**
Annex I habitats present as a qualifying feature	Sandbanks which are slightly covered by sea water all the time	Unfavourable	**Range** The overall distribution and extent of the habitat features within the site, and each of their main component parts is stable or increasing. **Structure and function** The physical biological and chemical structure and functions necessary for the long-term maintenance and quality of the habitat are not degraded. Important elements include; • geology; • sedimentology; • geomorphology; • hydrography and meteorology; • water and sediment chemistry; and. • biological interactions. This includes a need for nutrient levels in the water column and sediments to be: • at or below existing statutory guideline concentrations • within ranges that are not potentially detrimental to the long-term maintenance of the features species populations, their abundance and range.	Activities currently believed to be pressures on the Carmarthen Bay and Estuaries EMS, based on CCW Regulation 35 Advice (2018) are stated above in the Burry Inlet SPA. Threats and vulnerabilities specifically identified within Nature 2000 Data Forms and Ramsar Information Sheets: • Developments in fishing practices and target species • Most of the potential threats come from fisheries and related activities such as shellfish management and access issues related to mussel and cockle gathering • Aggregate dredging may have an effect locally on the biology of Helwick Bank, and in conjunction with other coastal defence works may also affect sediment budgets and characteristics over a wider area. Operations within the SAC highlight the following as pressures and/or threats:
	Estuaries	Unfavourable		
	Mudflats and sandflats not covered by seawater at low tide	Unfavourable		
	Large shallow inlets and bays	Unfavourable		
	Salicornia and other annuals colonizing mud and sand	Favourable		

[59] Carmarthen Bay and Estuaries SAC. Full citation available from: https://sac.jncc.gov.uk/site/UK0020020 [Accessed December 2024]

[60] Carmarthen Bay and Estuaries European Matine Site. Advice provided by Natural Resources Wales in fulfilment of Regulation 37 of the Conservation of Habitats and Species Regulations 2017. Available from: https://cdn.naturalresources.wales/media/687995/eng-carmarthen-bay-and-estuaries-reg-37-report-2018.pdf [Accessed December 2024]

[61] Carmarthen Bay and Estuaries SAC. Indicative site level feature condition assessments 2018. Available from: https://cdn.naturalresources.wales/media/684382/carmarthen-bay-estuaries-sac-ica-2018.pdf [Accessed December 2024]

	Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)	Unfavourable	Contaminant levels in the water column and sediments derived from human activity to be: • at or below existing statutory guideline concentrations • below levels that would potentially result in increase in contaminant concentrations within sediments or biota • below levels potentially detrimental to the long-term maintenance of the feature species populations, their abundance or range. For Atlantic salt meadows this includes the morphology of the saltmarsh creeks and pans. **Typical Species** The presence, abundance, condition and diversity of typical species is such that habitat quality is not degraded. Important elements include: • species richness • population structure and dynamics, • physiological heath, • reproductive capacity • recruitment, • mobility • range As part of this objective, it should be noted that: • populations of typical species subject to existing commercial fisheries need to be at an abundance equal to or greater than that required to achieve maximum sustainable yield and secure in the long term • the management and control of activities or operations likely to adversely affect the habitat feature is appropriate for maintaining it in favourable condition and is secure in the long term.	• Coastal settlements giving rise to localised pressures on the marine environment; • Extensive reclamation of saltmarshes; • Sea defences, including sea walls, rock armour, gabions and groynes; • Protected coastal railway tracks acting as coastal defences and preventing the inland migration of coastal habitats; • Extensively and, at times intensively grazed saltmarshes; • High levels of bait collection, including of marine worms and soft shelled 'peeler' crab; • Hypertrophic estuaries; • Hyper nutrification in the upper Loughor Estuary; • Residual legacy heavy metals from industry and redundant coalmines in estuary catchments; • Decline in Salicornia populations since 1982, possibly caused by changes in the main channel and vehicular erosion; • Extraction of sand from the Helwick Bank for aggregate, exacerbating losses caused by natural processes
Annex II species primary reason for site selection	Twaite shad (*Alosa fallax*)	Unfavourable	**Populations** The population is maintaining itself on a long-term basis as a viable component of its natural habitat. Important elements include: • population size • structure, production • condition of the species within the site. As part of this objective it should be noted that; • Contaminant burdens derived from human activity are below levels that may cause physiological damage, or immune or reproductive suppression **Range**	
	Sea lamprey (*Petromyzon marinus*)	Unfavourable		
	River lamprey (*Lampetra fluviatilis*)	Unfavourable		
	Allis shad (*Alosa alosa*)	Unfavourable		

	Otter (*Lutra lutra*)	Favourable	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. As part of this objective it should be noted that: • Their range within the SAC and adjacent inter-connected areas is not constrained or hindered. • There are appropriate and sufficient food resources within the SAC and beyond. • The sites and amount of supporting habitat used by these species are accessible and their extent and quality is stable or increasing **<u>Supporting habitats and species</u>** 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. Important considerations include; • distribution • extent • structure • function and quality of habitat • prey availability and quality.	

Site Name: Caeau Mynydd Mawr SAC[62,63] **JNCC Site Code: UK0030105** **Area (Ha): 24.78**				
Category for designation	**Qualifying features of the site**	**Condition Assessment**	**Conservation Objectives**	**Threats, pressures and activities impacting the site (H= high, M= medium, L= low)**
Annex I habitats present as a qualifying feature	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)	Unfavourable unclassified	• The Molinia meadow feature (M24) will occupy between 25% and 80% of the total site area. • The remainder of the site will be another 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. • Scrub species such as willow (*Salix* sp.) and birch (*Betula* sp.) will also be largely absent from the Molinia meadow. • All factors affecting the achievement of these conditions are under control	• Mowing / cutting of grassland (H); • Air pollution, air-borne pollutants (H); • Grazing (H); and, • Soil pollution and solid waste (excluding discharges) (M)

[62] Caeau Myndydd Mawr SAC. Full citation available from: https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0030105.pdf [Accessed November 2024]

[63] Caeau Myndydd Mawr SAC (2012). Core Management Plan Including Conservation Objectives. Available from: https://naturalresources.wales/media/671079/Caeau_Mynydd_Mawr-DS%20English.pdf [Accessed November 2024]

Annex II species primary reason for site selection	Marsh fritillary butterfly (*Euphydryas (Eurodryas, Hypodryas) aurinia*)	Unfavourable unclassified	• 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. • 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.	

Site Name: Cernydd Carmel SAC[64,65] **JNCC Site Code: UK0030070** **Area (Ha): 360.804**				
Category for designation	**Qualifying features of the site**	**Condition Assessment**	**Conservation Objectives**	**Threats, pressures and activities impacting the site (H= high, M= medium, L= low)**
Annex I habitats that are a primary reason	Turloughs	Unfavourable unclassified	• The turlough will fill and empty according to natural seasonal fluctuations in the underlying aquifer. It will typically with water in the autumn-spring period and empty during the summer months • A natural pattern of vegetation zones will be apparent during the dry phase of the turlough, as determined by micro-topographical variation in the turlough basin in relation to main swallow home. • The following vegetation zones, together with typical associated species, will be present: hydrophytic bryophyte zone; *Equisetum fluviatile* zone; *Carex vesicaria* zone; *Phalaris arundinacea* zone; *Salix cinerea-Galium palustre* woodland zone. • Alien plant species such as *Crassula helmsii*, *Hydrocotyle ranuculoides*, *Myriophyllum aquaticum* and *Azolla filiculoides* will be absent. • All factors affecting the achievement of the above conditions, including water quality, water levels and scrub development, will be under control	Human induced changes in hydraulic conditions (**H**); • Changes in abiotic conditions (**H**); • Air pollution, air-borne pollutants (**H**); • Interspecific floral relations (**H**); • Grazing (**H**); • Invasive non-native species (**M**); • Biocenotic evolution, succession (**M**); and, • Problematic native species (**M**);
Annex I habitats present as a qualifying feature	Northern Atlantic wet heaths with *Erica tetralix*	Unfavourable unchanged	• Northern Atlantic wet heath will occupy at least 6 ha of Cernydd Carmel SAC. • The wet heath will have a high cover (>25%) of dwarf shrubs, including heather *Calluna vulgaris*, cross-leaved heath *Erica tetralix* and bilberry (*Vaccinium myrtillus*). • Typical associates will include western gorse (*Ulex gallii*) and (*Molinia caerulea*), but not at high cover. • Bog mosses (*Sphagnum* spp.) will be prominent in the sward. • Scrub and bracken will be largely absent. • All factors affecting the achievement of these conditions, including grazing and scrub/bracken encroachment, are under control.	
	European dry heaths	Unfavourable unclassified	• European dry heath will occupy at least 19 ha of Cernydd Carmel SAC. • The dry heath will be dominated by varying mixtures of heather (*Calluna vulgaris*), bilberry (*Vaccinium myrtillus*) and western gorse (*Ulex gallii*), although *U. gallii* itself should not exceed 50% cover.	

[64] Cernydd Carmel SAC. Full citation available from: https://sac.jncc.gov.uk/site/UK0030070 [Accessed December 2024]

[65] Ceryndd Carmel SAC. Core Management Plan Including Conservation Objectives. Available from: https://naturalresources.wales/media/671239/Cernydd%20Carmel%20SAC%20Management%20Plan.pdf [Accessed December 2024]

			• Scrub, bracken, bramble, thistles, tall rushes, large docks and nettles will be largely absent. • Bare ground will not exceed 10% cover. • All factors affecting the achievement of these conditions, including grazing and scrub/bracken encroachment, are under control.	
	Activated raised bogs	Unfavourable unchanged	• Active raised bog will cover at least 13 ha of Cernydd Carmel SAC. • At least five raised bog peatland units will be present, occupying a series of peaty depressions within the Millstone Grit ridge. • The mires will support a specialist bog flora including heather *Calluna vulgaris*, cross-leaved heath (*Erica tetralix*), deergrass (*Scirpus cespitosus*), hare's-tail cotton-grass (*Eriophorum vaginatum*), common cotton-grass (*E. angustifolium*), bog asphodel (*Narthecium ossifragum*) and round-leaved sundew (*Drosera rotundifolia*). • Bog mosses *Sphagnum* spp. will be abundant, while purple moor-grass (*Molinia caerulea*) and other grasses will be scarce. • The mire surfaces will display a characteristic hummock and hollow topography, with lawns of *Sphagnum* moss ominating the wet hollows. • Scrub and bracken will be largely absent. • All factors affect ng the achievement of these conditions, including water levels, nutrient levels and grazing, will be under control**.**	
	Tilio-Acerion forests of slopes, screes and ravines	Unfavourable declining	• Tilio-Acerion woodland will occupy approximately 44 ha of Cernydd Carmel SAC. • The Tilio-Acerion woodland will occur as a patchwork of small woods with areas of grassland between, forming a characteristic element of the historic landscape pattern of Cernydd Carmel. The distribution of woods will mirror the pattern of woodland mapped in 1994. • Within the high forest areas, the woodland will be maintained as far as possible by natural processes. • Within the high forest areas, between 10 and 25% of the woodland will comprise open glades or canopy gaps, although the location of glades/canopy gaps may vary over time. • Trees and shrubs of a wide range of ages and sizes should be present, including functionally mature canopy trees, young trees and an active shrub layer. • Regeneration of locally native trees/shrubs will be plentiful. • The canopy will comprise varying mixtures of locally native species including ash (*Fraxinus excelsior*), oak (*Quercus spp.),* goat willow (*Salix caprea*), yew (*Taxus baccata*) and wych elm (*Ulmus glabra*). Typical shrub layer species will include hazel (*Corylus avellana*), hawthorn (*Crateagus monogyna*), blackthorn (*Prunus spinosa*), spindle (*Euonymus europaeus*) and dogwood (*Rhamnus catharticus*). Non-native species including sycamore (*Acer pseudoplatanus*) and beech (*Fagus sylvatica*) will be largely absent. • The field layer will comprise a rich mixture of woodland herbs including *Ranunculus ficaria, Circaea lutetiana, Galium odoratum, Allium ursinum, Hyacinthoides non-scripta, Mercurialis perennis, Conopodium majus, Paris quadrifolia, Lamiastrum galeobdolon, Conopodium majus, Phyllitis scolopendrium, Arum maculatum* and *Anemone nemorosa*. • Locally uncommon species including *Rhamnus catharticus, Euonymus europaeus, Convallaria majalis, Paris quadrifolia* and *Daphne mezereum* will continue to be present.	

			• Dense bramble will be largely absent. • Within the high forest areas, dead wood will be present in the form of standing and fallen trunks/limbs. • All factors affecting the achievement of the above conditions, including grazing and browsing, will be under control.	

Site Name: Crymlyn Bog SAC[66] **JNCC Site Code: UK0012885** **Area (Ha): 299.42ha**				
Category for designation	**Qualifying features of the site**	**Condition Assessment**	**Conservation Objectives**	**Threats, pressures and activities impacting the site**
Annex 1 habitats that are a primary reason	Transition mires and quaking bogs	Unfavourable declining	• 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.	• Pollution to surface waters (limnic & terrestrial, marine & brackish) (**H**); • Human induced changes in hydraulic conditions (**H**); • Biocenotic evolution, succession (**H**); • Grazing (**H**); • Air pollution, air-borne pollutants (**H**); • Restructuring agricultural land holding (**M**); • Interpretative centres (**M**); • Improved access to site (**M**); and, • Soil pollution and solid waste (excluding discharges) (**L**).
	Calcarerous fens with *Cladium mariscus* and species of the *Caricion davallianae*	Unfavourable declining		
Annex I habitats that are a qualifying feature	Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae)	Unfavourable recovering		

[66] Crymlyn Bog SAC. Full citation available from: https://sac.jncc.gov.uk/site/UK0012885 [Accessed October 2024]

Site Name: Crymlyn Bog Ramsar[67] **JNCC Site Code: UK0012885** **Area (Ha): 299.42ha**				
Category for designation	**Qualifying features of the site**	**Condition Assessment**	**Conservation Objectives**	**Threats, pressures and activities impacting the site**
Ramsar criterion 1	Transition mires and quaking bogs	Unfavourable: declining	The Ramsar features for Crymlyn Bog SAC are open to interpretation at present. They will be subject to a 'quality control' exercise in the future, to confirm the qualifying features. Hence the following list of Ramsar features is only provisional at present. Conservation objectives for the Ramsar features will be developed once the confirmed list of features has been agreed.	The most recent version of the Ramsar Information Sheet lists only eutrophication under "Factors adversely affecting the site's ecological character, including changes in land (including water) use and development projects".
	Calcareous fens with *Cladium mariscus* and species of the *Caricion davalliana*	Unfavourable: declining		
	Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*	Unfavourable: recovering		

[67] Crymlyn Bog Ramsar. Full citation available from: https://rsis.ramsar.org/RISapp/files/RISrep/GB608RIS.pdf [Accessed October 2024]

Ramsar criterion 2	Supports a substantial population of the nationally rare slender cotton-grass *Eriophorum gracile*, and a rich invertebrate fauna including many rare and highly localised species.	Undetermined		
Ramsar criterion 3	The site supports 199 vascular plant species including 17 regionally uncommon and one nationally rare	Undetermined		

Site Name: Gower Ash Woods SAC[68,39] **JNCC Site Code: UK0030157** **Area (Ha): 229.63**				
Category for designation	**Qualifying features of the site**	**Condition Assessment**	**Conservation Objectives**	**Threats, pressures and activities impacting the site**
Annex I habitats that are a primary reason	*Tilio-Acerion* forests of slopes, screes and ravines	Unfavourable	• The steep sided valleys found across most of the site will be covered with woodland dominated by ash. • The rocky slopes will be covered with a rich ground flora including species such as dog's mercury, hart's tongue fern and ramsons. • Fallen trees left on the ground will provide homes for invertebrates and fungi. • The steep slopes will prevent the canopy trees reaching full size. • Amongst the canopy ash will dominate, with other species like field maple, oak and sycamore also present. • A shrub layer of hazel, hawthorn, spindle and saplings of ash will fill the spaces between the ground flora and the canopy. • Mosses and hart's tongue fern will cover limestone boulders that pepper the ground. • The ground flora on the slopes and on the flatter ground will be full of colour in the spring, with bluebells and ransoms providing a haze of blue and white. • Mature rotting trees will be found standing and fallen. • Young trees will grow in the ground flora and shrub layer ready to take the place of a fallen tree. • Some uncommon vascular plants will be found in the woods these include herb Paris, purple gromwell, butcher's broom and spurge laurel. • On the flatter areas fallen planted conifers will support mosses and ferns and ash trees will grow up from between the fallen conifers. Old conifer and beech plantations will support developing ash woodland. • All factors affecting the achievement of these conditions will be under control.	• Air pollution, air-borne pollutants (**H**); • Invasive non-native species (**H**); • Interspecific floral relations (**H**); • Forest planting on open ground (**M**); • Grazing (**M**); • Forest and Plantation management & use (**M**); • Improved access to site (**M**); • Soil pollution and solid waste (excluding discharges) (**L**); and, • Outdoor sports and leisure activities, recreational activities (**L**).

[68]Gower Ash Woods SAC. Full citation available from: https://sac.jncc.gov.uk/site/UK0030157 [Accessed October 2024]

Annex I habitats that are a qualifying feature	Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae)	Unfavourable	• Alongside the Pennard Pill and the Ilston stream alluvial woodland will grow in the silts from the river, • Alder will dominate these areas but hazel and elder will also grow here, • Creeping buttercup, nettles and meadowsweet will dominate the ground flora. • There will be no signs of disturbance such as over-grazing or fly-tipping and no non-native species will grow in these areas. • Young saplings of alder and hazel will be numerous and waiting to fill the spaces left by fallen trees. • All other factors will be under control.	

Site Name: Gower Commons SAC[69],[38] **JNCC Site Code: UK0012685** **Area (Ha): 1775.29**				
Category for designation	**Qualifying features of the site**	**Condition Assessment**	**Conservation Objectives**	**Threats, pressures and activities impacting the site**
Annex I habitats that are a primary reason	Northern Atlantic wet heaths with *Erica tetralix*	Unfavourable	• The wet heath will be found on moist and generally acidic soils across the commons. • The wet heath will be characterised by western gorse growing amongst cross-leaved heath and purple moor grass. The gorse will be low growing and does not seem to dominate the heath. The yellow of the gorse and the pink of the cross-leaved heath make a spectacular display. Pink lousewort will be seen growing amongst the mixture of gorse and heath, with grasses and sedges weaving their way through the mix of species such as cotton grass, heath bedstraw, heath milkwort, flea sedge and carnation sedge. • Sphagnum mosses grow beneath the heath, holding moisture like a sponge. Plants capable of growing in certain very wet areas associated with wet heath like bog asphodel and the insect-eating sundews will also be found as you walk around the wet heath. • The wet heath is not poached by grazing animals, but is evenly and sensitively grazed. There are no invasive species like Rhododendron or Japanese Knotweed growing in the wet heath and willow and birch are found only very thinly scattered throughout the site, mainly on the edges.	• Problematic native species (**H**); • Air pollution, air-borne pollutants (**H**); • Fire and fire suppression (**H**); • Grazing (**H**); • Mowing / cutting of grassland (**H**); • Human induced changes in hydraulic conditions (**M**); • Invasive non-native species (**M**); • Fertilisation (**M**); • Outdoor sports and leisure activities, recreational activities (**M**); and, • Biocenotic evolution, succession (**M**).
	European dry heaths	Unfavourable	• Dry heath is found on the free-draining parts of the commons. In some parts of the SAC dry heath grows in large continuous areas like at Rhossili Down, in other parts of the SAC, the dry heath grows in mosaics with wet heath and acid grassland. Bell heather and cross-leaved heath grow along side European and western gorse. There is a lack of purple moor grass and sphagnum mosses which tell us that the heath is drier. Heath milkwort, tormentil and heath bedstraw are seen regularly decorating the dry heaths. • Scrub like birch and overgrown gorse is rare with the dry heaths, except where island of scrub provide some shelter for grazing animals. These islands will be accepted within the heathland landscape. • Bracken is present within the dry heath and grows around the edges but bracken never dominates stands of dry heath and does not encroach on the dry heath. • Burning of the heath is only carried out as a controlled management technique to create a mosaic of different ages of heath. There are no signs of burning causing damage or causing bracken to spread.	

[69] Gower Commons SAC. Full citation available from: https://sac.jncc.gov.uk/site/UK0012685 [Accessed October 2024]

	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)	Unfavourable	• The marshy grassland will be dominated by tussocks of purple moor grass. The tussocks will provide little sheltered areas where flowers grow and help to provide some shelter for the marsh fritillary butterfly. • The tussocks are uneven in size, but there will always be young purple moor grass coming though each spring. Only a few of the tussocks will have old and 'rank' purple moor grass growing on them. • Devil's bit scabious, the food plant for the larvae of marsh fritillary butterflies will be found commonly growing amongst the purple moor grass. Whorled caraway and soft leaved sedge are both scarce plants that will be commonly found in the marshy grassland areas. • Often heathy plants like cross-leaved heath and gorse will be found in marshy grassland – this is a transition area between the two habitats.	
Anex II species that are a qualifying feature	Southern damselfly (*Coenagrion mercurial*)	Unfavourable	• Seepages and runnels at Rhossili Down, Cefn Bryn and Sluxton Marsh will be well maintained, clear and pollution free. • They will support good numbers of native aquatic plants. • On summer days each year southern damselflies will be seen darting over the seepages and runnels. • Each year the population of southern damselflies will stay the same or increase.	
	Marsh fritillary butterfly (*Euphydryas (Eurodryas, Hypodryas) aurinia*)	Unfavourable	• The site will contribute towards supporting a sustainable metapopulation of the marsh fritillary on Gower. This will require a minimum of 50ha of suitable habitat, of which at least 10ha must be in good condition. 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. • Habitats on the site will be in optimal condition to support the metapopulation. • At least 50ha of the total site area 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 10ha will be good 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. (Fowles 20042) • The marshy grassland will be well sheltered by hedgerows and mature trees. • All factors affecting the achievement of the foregoing conditions are under control.	

Site Name: Limestone Coast of Southwest Wales SAC[70,71,72] **JNCC Site Code: UK0014787** **Area (Ha): 1583.86**				
Category for designation	**Qualifying features of the site**	**Condition Assessment**	**Conservation Objectives**	**Threats, pressures and activities impacting the site**
Annex I habitats that are a primary reason	Vegetated sea cliffs of the Atlantic and Baltic Coasts	Unfavourable declining	• Cliff and crevice vegetation occurs naturally on suitably exposed rocky ledges and crevices throughout the site. The variety of vegetation types reflecting the degree of exposure to maritime influences - including communities with thrift, rock and golden samphires, sea lavenders, sea-beet and sea plantain. • Maritime Grassland occupies approximately 15% of the total site area. • The following plants are common in the maritime grassland: thrift (*Armeria maritima*); spring squill (*Scilla verna*) and sea plantain (*Plantago maritime*). • Maritime Heathland occupies approximately 10% of the total site area. • The following plants are common in the maritime heathland: heather Calluna vulgaris; bell heather Erica cinerea and spring squill Scilla verna. • Populations of nationally rare and nationally scarce vascular and lower plant species, associated with cliff-crevice, maritime grassland and related calcareous grassland swards are maintained. • Competitive species indicative of under-grazing, particularly cocksfoot (*Dactylis glomerata*), tor grass (*Brachypodium pinnatum*), bracken (*Pteridium aquilinum*) and western gorse (*Ulex gallii*) are kept in check. • Non-native plants such as Hottentot fig (*Carpobotus edulis*) are absent or rare.	• Biocenotic evolution, succession (**H**); • Invasive non-native species (**H**); • Grazing (**H**); • Fire and fire suppression (**H**); • Changes in abiotic conditions (**H**); • Air pollution, air-borne pollutants (**M**); • Outdoor sports and leisure activities, recreational activities (**M**); • Use of biocides, hormones and chemicals (**M**); • Restructuring agricultural land holding (**M**); and,

[70]Limestone Coast of Southwest Wales SAC. Full citation available from: https://sac.jncc.gov.uk/site/UK0014787 [Accessed October 2024]

[71] Limestone Coast of Southwest Wales SAC. Indicative site level feature condition assessments (2018). Available from: https://cdn.cyfoethnaturiol.cymru/media/684389/limestone-coast-sw-wales-sac-ica-2018.pdf [Accessed October 2024]

[72] Limestone Coast of Southwest Wales SAC. Core Management Plan (2008). Available from: https://naturalresources.wales/media/672656/Limestone%20Coast%20of%20South%20West%20Wales%20English.pdf [Accessed October 2024]

	Fixed coastal dunes with herbaceous vegetation "grey dunes"	Favourable	• Fixed dunes occupy approximately 20% of the total site area. • The following plants will be common in a short, open sward: *Asperula cyanchica, Carlina vulgaris, Euphrasia spp., Gentianella amarella, Linum catharticum, Lotus corniculatus, Pilosella officinarum, Plantago coronopus, Sedum acre, Thymus polytrichus, Viola* spp., *Anacamptis pyramidalis*. • Distinct patches of open, lichen-rich turf, supporting *Fulgensia fulgens* on Trichosporum moss will occur in several mapped locations in management units 2a, 2b, 3b and 3c. • Alien species will be absent, and other negative indicator species (such as bracken *Pteridium aquilinum*) will be under control in fixed dune grassland. • Sea Buckthorn (*Hippophae rhamnoides*) will be absent from all dunes systems within the SAC.	• Improved access to site (M).
Annex I habitats that are a qualifying feature	European dry heaths	Unfavourable declining	• The current extent of Dry heath will be maintained. • Dry heath will occupy areas of the site where heathland extends beyond the zone of maritime influence. • As a result, dry heath may lack the species characteristic of maritime heath. • Much of the dry heath will have a short and open structure. • The dry heaths will support typical species such as the dark green fritillary (*Argynnis aglaja*) and the silver studded blue butterfly, (*Plebeius argus*).	
	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia)	Unfavourable declining	• The semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) / Dry grasslands and scrublands on chalk or limestone will be referable to the NVC communities Festuca – Avenula grassland (CG2) and *Festuca – Hieracium – Thymus* grasslands (CG7) • The communities making up this feature will cover at least 14 ha within Castlemartin Cliffs and Dunes SSSI) and 10 ha within Stackpole and Stackpole Quay to Trewent Point SSSI, and 18 ha within the Gower Coast SSSI (which also includes NVC community CG1) occurring as small patches along coastal cliff-tops, among the fixed dune grasslands, mainly on shallow soils overlying areas of limestone bedrock. • The feature will support a range of typical plant and invertebrate species	
	Caves not open to the public	Unknown	• There is minimal disturbance to the caves by the public • The caves remain suitable as bat roost/hibernation sites • Caves utilised by breeding choughs remain undisturbed for choughs (see Feature 11) • The geological interest of the caves will be unconcealed • Natural processes such as small rock falls will be tolerated	
	Submerged or partially submerged sea caves	Favourable	• There should be minimal disturbance to the caves and they should remain closed to the public. • The caves should remain suitable as bat roost/hibernation sites • The caves used by grey seal should remain free of human disturbance • The geological interest of the caves will be unconcealed	

			• Natural processes such as small rock falls will be tolerated • The affects of tidal activity in partially submerged caves should have a minimal effect on the internal environment of the cave (where the cave is a bat roost).	
Annex II species that are a primary reason	Greater horseshoe bat (*Rhinolophus ferrumequinum*)	Favourable	• Greater horseshoe bats will continue to utilise known caves roosts undisturbed by the public. • Distinctive droppings indicate presence at any time of year but largest numbers of bats are likely to be found in the period November to March. • The peak winter population in the main Castlemartin Cave is equivalent to approximately 20% of the Pembrokeshire Bat Sites and Bosherston lakes SAC greater horseshoe bat population. • The greater horseshoe bat population within the caves being monitored is stable or increasing. • Natural processes such as rock falls will be tolerated but other factors affecting the achievement of these conditions are under control.	
	Early gentian (*Gentianella anglica*)	Unfavourable declining	• The feature will be present at Stackpole in management unit 3d. • Dune gentians with three or fewer internodes and a long terminal internode, which contributes between 40-100% of the height of the stem (corresponding to the current definition/description of Early gentian *Gentianella anglica*) occur within at least 4 open dry dune slacks on Stackpole Warren and in other open, herb-rich calcareous grassland areas. • Further survey/research will confirm that these forms are definitely separable from *Gentianella amarella*	
Annex II species present that are a qualifying feature	Petalwort (*Petalophyllum ralfsii*)	Favourable	• *P. ralfsii* has a continued presence at Broomhill Burrows SSSI. • *P. ralfsii* occurs at high densities in suitable dune slacks at Brownslade Burrows SSSI. • At both sites there are areas of open, damp, calcareous dune slacks with patches of suitable and optimal habitat present. • Suitable dune slacks have patches of bare ground that is being colonised by jelly lichens (*Collema spp*.) and Barbula mosses. • Brownslade Burrows continues to be winter grazed by cattle and sheep, which is helping to maintain the short sward and open conditions required by *P. ralfsii*	

Site Name: Pembrokeshire Marine SAC[73,74] **JNCC Site Code: UK0013116** **Area (Ha): 138,038.5**				
Category for designation	**Qualifying features of the site**	**Condition Assessment**	**Conservation Objectives**	**Threats, pressures and activities impacting the site**
Annex I habitats that are a primary reason	Estuaries	Unfavourable	**Range** The overall distribution and extent of the habitat features within the site, and each of their main component parts is stable or increasing. For the inlets and bays feature these include; • The embayment of St. Brides Bay • The ria of Milford Haven • Peripheral embayments and inlets For the coastal lagoons feature this is subject to the requirements for maintenance of the artificial impoundment structure and maintenance of the lagoons for the original purpose or subsequent purpose that pre-dates classification of the site. **Structure and function** The physical biological and chemical structure and functions necessary for the long-term maintenance and quality of the habitat are not degraded. Important elements include; • Geology; • Sedimentology; • Geomorphology; • Hydrography and meteorology; • Water and sediment chemistry; and, • Biological interactions This includes a need for: Nutrient levels in the water column and sediments to be:	• Human induced changes in hydraulic conditions (**H**); • Pollution to surface waters (limnic & terrestrial, marine & brackish) (**H**); • Hunting, fishing or collecting activities (**H**); • Invasive non-native species (**H**); • Fishing and harvesting aquatic resources (**H**); • Other human intrusions and disturbances (M); • Abiotic (slow) natural processes (M); • Exploration and extraction of oil or gas (M); • Changes in abiotic conditions (M); • Shipping lanes, ports, marine constructions (M); • Outdoor sports and leisure activities, recreational activities (M); • Marine water pollution (M); • Air pollution, air-borne pollutants (L);
	Large shallow inlet and bays	Unfavourable		
	Reefs	Unfavourable		
Annex I habitats present as a qualifying feature	Sandbanks which are slightly covered by sea water all the time	Unfavourable		
	Mudflats and sandflats not covered by seawater at low tide	Unfavourable		
	Coastal lagoons	Unfavourable		
	Atlantic salt meadows	Unfavourable		

[73] Pembrokeshire Marine SAC. Full citation available from: https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0013116.pdf [Accessed December 2024]

[74] Pembrokeshire Marine SAC. Indicative site level feature condition assessment (2018). Available from: https://cdn.naturalresources.wales/media/684242/indicative-condition-assessment-2018-pembrokeshire-marine-sacv2.pdf [Accessed December 2024]

	(Glauco-Puccinelliet alia maritimae)		• at or below existing statutory guideline concentrations • within ranges that are not potentially detrimental to the long term maintenance of the features species populations, their abundance and range. Contaminant levels in the water column and sediments derived from human activity to be: • at or below existing statutory guideline concentrations • below levels that would potentially result in increase in contaminant concentrations within sediments or biota • below levels potentially detrimental to the long-term maintenance of the feature species populations, their abundance or range. <u>Restoration and recovery</u> As part of this objective it should be noted that; the Milford Haven waterway complex would benefit from restorative action, for example through the removal of non-natural beach material, and the removal, replacement or improved maintenance of rock filled gabions. There is also need for some restoration of the populations of several typical species of the Milford Haven waterway complex that are severely depleted with respect to historical levels as a consequence primarily of human exploitation. In the Milford Haven waterways complex inputs of nutrients and contaminants to the water column and sediments derived from human activity must remain at or below levels at the time the site became a candidate SAC. For the lagoons feature this is subject to the requirements for maintenance of the artificial impoundment structures of coastal lagoons and maintenance of the lagoons for their original purpose or subsequent purpose that pre-dates classification of the site. **<u>Typical Species</u>** The presence, abundance, condition and diversity of typical species is such that habitat quality is not degraded. Important elements include: • Species richness; • Population structure and dynamics; • Physiological health; • Reproductive capacity; • Recruitment; • Mobility; and, • Range. As part of this objective it should be noted that: • Populations of typical species subject to existing commercial fisheries need to be at an abundance equal to or greater than that required to achieve maximum sustainable yield and secure in the long term • The management and control of activities or operations likely to adversely affect the habitat feature is appropriate for maintaining it in favourable condition and is secure in the long term. <u>Restoration and recovery</u> For the inlets and bays features this includes the need for some restoration of the populations of several typical species which are severely depleted with respect to historical levels as a consequence primarily of human exploitation.	
	Submerged or partially submerged sea caves	Unknown		

			In the Milford Haven waterways complex inputs of nutrients and contaminants to the water column and sediments derived from human activity must remain at or below levels at the time the site became a candidate SAC.
Annex II species that are a primary reason	Grey seal (*Halichoerus grypus*)	Favourable	**<u>Populations</u>** The population is maintaining itself on a long-term basis as a viable component of its natural habitat. Important elements include: • Population size; • Structure, production; • Condition of the species within the site As part of this objective it should be noted that for otter and grey seal; • Contaminant burdens derived from human activity are below levels that may cause physiological damage, or immune or reproductive suppression. For grey seal and otter, populations should not be reduced as a consequence of human activity. **<u>Range</u>** 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. As part of this objective it should be noted that for otter and grey seal: • Their range within the SAC and adjacent inter-connected areas is not constrained or hindered • There are appropriate and sufficient food resources within the SAC and beyond • The sites and amount of supporting habitat used by these species are accessible and their extent and quality is stable or increasing **<u>Supporting habitats and species</u>** 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. Important considerations include; • Distribution; • Extent; • Structure; • Function and quality of habitat; and, • Prey availability and quality As part of this objective it should be noted that; • The abundance of prey species subject to existing commercial fisheries needs to be equal to or greater than that required to achieve maximum sustainable yield and secure in the long term. • The management and control of activities or operations likely to adversely affect the species feature is appropriate for maintaining it in favourable condition and is secure in the long term.
	Shore dock (*Rumex rupestris*)	Favourable	
Annex II species present as a qualifying feature	Sea lamprey (*Petromyzon marinus*)	Unfavourable	
	River lamprey (*Lampetra fluviatilis*)	Unfavourable	
	Allis shad (*Alosa alosa*)	Favourable	
	Twaite shad (*Alosa fallax*)	Favourable	
	Otter (*Lutra lutra*)	Favourable	

			• Contamination of potential prey species should be below concentrations potentially harmful to their physiological health. Disturbance by human activity is below levels that suppress reproductive success, physiological health or long-term behaviour • For otter there are sufficient sources within the SAC and beyond of high quality freshwater for drinking and bathing <u>Restoration and recovery</u> In the Milford Haven waterways complex inputs of nutrients and contaminants to the water column and sediments derived from human activity must remain at or below levels at the time the site became a candidate SAC. As part of this objective it should be noted that for the otter, populations should be increasing.	

Site Name: River Tywi SAC[75,76] **JNCC Site Code: UK0013010** **Area (Ha): 375.83**				
Category for designation	**Qualifying features of the site**	**Condition Assessment**	**Conservation Objectives**	**Threats, pressures and activities impacting the site**
Annex II species that are a primary reason	Otter (*Lutra lutra*)	Favourable	• The size of the population should be stable or increasing, allowing for natural variability, and sustainable in the long term. • The distribution of the population should be being maintained, or where appropriate increasing • There should be sufficient habitat, of sufficient quality, to support the population in the long term. • Factors affecting the population or its habitat should be under appropriate control.	• Pollution to surface waters (limnic & terrestrial, marine & brackish) (**H**); • Grazing (**H**); • Human induced changes in hydraulic conditions (**H**); • Changes in abiotic conditions (**H**); • Invasive non-native species (**M**); and, • Mining and quarrying (**M**).
	Twaite shad (*Alosa fallax*)	Unfavourable	• Quality (including in terms of ecological structure and function) should be being maintained, or where appropriate improving. • There should be sufficient habitat, of sufficient quality, to support the population in the long term. • The distribution of the population should be being maintained or where appropriate increasing. • There should be sufficient habitat, of sufficient quality, to support the population in the long term. • The size of the population should be stable or increasing, allowing for natural variability, and sustainable in the long term. • Factors affecting the population or its habitat should be under appropriate control	
Annex II species present as a qualifying feature	Sea lamprey (*Petromyzon marinus*)	Unfavourable		
	Brook lamprey (*Lampetra planeri*)	Unfavourable		
	River lamprey (*Lampetra fluviatilis*)	Unfavourable		
	Allis shad (*Alosa alosa*)	Unfavourable		

[75] Afon Tywi SAC. Full citation available from: https://sac.jncc.gov.uk/site/UK0013010 [Accessed October 2024]

[76] Afon Tywi SAC. Core Management Plan (2022). Available from: https://afonyddcymru.org/wp-content/uploads/2022/11/afon_tywi_-_man-plan-english.pdf [Accessed October 2024]

	Bullhead (*Cottus gobio*)	Unfavourable		

Site Name: River Usk SAC[77] **JNCC Site Code: UK0013007** **Area (Ha): 967.97**				
Category for designation	**Qualifying features of the site**	**Condition Assessment**	**Conservation Objectives**	**Threats, pressures and activities impacting the site (H= high, M= medium, L= low)**
Annex I habitats present as a qualifying feature	Water courses of plain to montane levels with the *Ranunculion fluitantis* and Callitricho-Batrachion vegetation	Unfavourable	• The natural range of the plant communities represented within this feature should be stable or increasing in the SAC. The natural range is taken to mean those reaches where predominantly suitable habitat exists over the long term. Suitable habitat and associated plant communities may vary from reach to reach. • Suitable habitat is defined in terms of near natural hydrological and geomorphological processes and forms e.g. depth and stability of flow, stability of bed substrate, and ecosystem structure and functions e.g. nutrient levels, shade. • Suitable habitat for the feature need not be present throughout the SAC but where present must be secured for the foreseeable future, except where natural processes cause it to decline in extent • The area covered by the feature within its natural range in the SAC should be stable or increasing	• Grazing (**H**); • Pollution to surface waters (limnic & terrestrial, marine & brackish) (**H**); • Human induced changes in hydraulic conditions (**H**); • Invasive non-native species (**M**); • Forest and Plantation management & use (**M**); • Other ecosystem modifications (**M**); • Soil pollution and solid waste (excluding discharges) (**L**); and, • Forestry activities not referred to above (**L**).
Annex II species that are a primary reason	Sea lamprey (*Petromyzon marinus*)	Unfavourable	• The population of the feature in the SAC is stable or increasing over the long term • The natural range of the feature in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. • 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	
	Brook lamprey (*Lampetra planeri*)	Unfavourable		
	River lamprey (*Lampetra fluviatilis*)	Unfavourable		
	Twaite shad (*Alosa fallax*)	Unfavourable		
	Atlantic salmon (*Salmo salar*)	Unfavourable		

[77] River Usk SAC. Full citation available from: https://sac.jncc.gov.uk/site/UK0013007 [Accessed October 2024]

	Bullhead (*Cottus gobio*)	Unfavourable		
	Otter (*Lutra lutra*)	Favourable	• The population of otters in the SAC is stable or increasing over the long term and reflects the natural carrying capacity of the habitat within the SAC, as determined by natural levels of prey abundance and associated territorial behaviour. • The natural range of otters in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. The natural range is taken to mean those reaches that are potentially suitable to form part of a breeding territory and/or provide routes between breeding territories. • The whole area of the Usk SAC is considered to form potentially suitable breeding habitat for otters. • The population size should not be limited by the availability of suitable undisturbed breeding sites. Where these are insufficient, they should be created through habitat enhancement and where necessary the provision of artificial holts. No otter breeding site should be subject to a level of disturbance that could have an adverse effect on breeding success. • Where necessary, potentially harmful levels of disturbance must be managed. • The safe movement and dispersal of individuals around the SAC is facilitated by the provision, where necessary, of suitable riparian habitat, and underpasses, ledges, fencing etc at road bridges and other artificial barriers.	
Annex II species present as a qualifying feature	Allis shad (*Alosa alosa*)	Unfavourable	• The population of the feature in the SAC is stable or increasing over the long term • The natural range of the feature in the SAC is neither being reduced nor is likely to be reduced for the foreseeable future. • 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	

Appendix C - Zones of Influence for Potential Impacts to Qualifying Features

Receptor		Zone of Influence Distances	Reference
Impact Risk Zones for designated bird features and in relation to foraging distances	Wintering birds (except wintering waders and grazing wildfowl; wigeon and geese)	**Up to 500m**	Natural England (2019). Impact Risk Zones Guidance Summary Sites of Special Scientific Interest Notified for Birds. Version 1.1
	Dabbling ducks such as teal, mallard and gadwall	Home ranges could extend beyond site boundaries at coastal sites, but less likely to do so at inland water bodies.	
	Wintering white-fronted goose, greylag goose, Bewick's swan, whooper swan & wintering bean goose	Maximum foraging distance is **10km.**	
	Wintering lapwing and golden plover	Maximum foraging distance is **15-20km**. Golden plover can forage **up to 15km from** a roost site within a protected site. Lapwing can also forage similar distances. Both species use lowland farmland in winter and it is difficult to distinguish between designated populations and those present within the wider environment. Developments affecting functionally linked land more than 10km from the site are unlikely to impact significantly on designated populations.	
Bat roosts		Greater Horseshoe bats *Rhinolophus ferrumequinum* are a qualifying feature of the Limestone Coast of Southwest Wales SAC. The sHRA undertaken by DTA Ecology (2018) confirmed that of the SAC management units potentially impacted by the Preferred Strategy, the Greater horseshoe bat is only identified as being present in management unit 9. Any potential effects are therefore restricted to the suitable feeding ground within this area. Billington (2001) establishes a maximum distance travelled from roost of **8km** for Greater Horseshoe bats, supported by further radio tracking studies collated by North Somerset Council in their Mendip Bats Special Area of Conservation (SAC) Supplementary Planning Document.	DTA Ecology (2018) Advice to City and County of Swansea Council. Shadow Habitats Regulations Assessment to inform the Habitats Regulations Assessment of the Local Development Plan Billington, G. 2001. Radio tracking study of Greater Horseshoe bats at Brockley Hall Stables Site of Special Scientific Interest, May – August 2001.English Nature Research Report No. 442. Peterborough: English Nature; Jones, G. & Billington, G. 1999. Radio tracking study of Greater Horseshoe bats at Cheddar, North Somerset. Taunton: English Nature. North Somerset Council (2018) North Somerset and Mendip Bats Special Area of Conservation (SAC) Guidance on Development: Supplementary Planning Document.

Receptor	Zone of Influence Distances	Reference
	An **8km buffer** has therefore been established from management unit 9 of the Limestone Coast of Southwest Wales SAC.	
Marsh fritillary	Marsh fritillary butterflies are not limited SACs and are susceptible to development. Effective conservation of marsh fritillaries requires more than 50 hectares of suitable habitat in good condition within a well-connected landscape to support functioning meta-populations. Long-term data analysis conducted by Warren (1994) found dispersal distances extended between 15-20km. Therefore, a precautionary **20km buffer** has been established to factor in potential habitat loss/disturbance of functionally linked habitat outside SAC boundaries.	Davis, ML (2019). The population and conservation genetics of the Marsh Fritillary butterfly *Euphydryas aurinia* in the British Isles. Warren, M. (1994). The UK status and suspected metapopulation structure of a threatened European butterfly, the marsh fritillary *Eurodryas aurinia*. Biological Conservation, 67, pp. 239–249. http://doi.org/10.1016/0006-3207(94)90615-7
All applicable features of Internationally Designated Sites, in relation to risk of localised effect of air pollution from increased traffic use	**Up to 200m**	English Nature Research Report 580: The ecological effects of diffuse air pollution from road transport. 2004 Natural England Commissioned Report NECR200: Potential risk of impacts of nitrogen oxides from road traffic on designated nature conservation sites. 2016 Highways Agency (2007) Design Manual for Roads and Bridges: Volume 11, Section 3, Part 1.
All applicable features of Internationally Designated Sites, in relation to effect of non-physical disturbance, e.g. construction noise, vibration and lighting.	**Up to 500m**	Rhondda Cynon Taf County Borough Council Revised Local Development Plan: Preferred Strategy Habitats Regulations Assessment Screening Report (2024)
All applicable features of Internationally Designated Sites, in relation to risk of recreational disturbance	**Up to 8km** The Rhondda Cynon Taf County Borough Council Revised Local Development Plan: Preferred Strategy Habitats Regulations Assessment Screening Report (2024) derives a precautionary 8km buffer distance for recreational disturbance, using the results of the 2014 Wales Outdoor Recreation Survey. This buffer relates to the distance of '1 to 5 miles' that 75% of visitors from Wales travel to reach a natural environment.	Rhondda Cynon Taf County Borough Council Revised Local Development Plan: Preferred Strategy Habitats Regulations Assessment Screening Report (2024) Natural Resources Wales (2015) Wales Outdoor Recreation Survey 2014. Final Report. Published: July 2015

Appendix D – Screening of Strategic Placemaking and Regeneration Areas (SPRAs)

Table 19: Screening of Strategic Placemaking and Regeneration Areas (SPRAs)

Potential Effect	Rationale	Screened In/ Out
SPRA 1: Pontardulais – Residential led		
General observations	This SPRA is an existing Strategic Development Area in the adopted LDP and is proposed to support the development of an estimated **654** homes (subject to further detailed assessment as part of the Candidate Sites Assessment methodology). Part of the site is subject of a hybrid application for 504 homes and outline application for primary school. A further outline planning application has been submitted on another part of the site for up to 150 homes. Both applications are currently being assessed but are yet to be determined. The nearest Internationally Designated Site is Carmarthen Bay and Estuaries SAC, located 1.56km to the southwest.	N/A
Habitat loss / physical damage	Direct Habitat Loss There will be no direct loss on any of the SAC, SPA and Ramsar habitat due to the spatial distance separating the SPRA boundary and designated sites, with the nearest Internationally Designated Site is Carmarthen Bay and Estuaries SAC, located 1.56km to the southwest. Functionally Linked Land: Wintering Birds The closest designated site for wintering birds is Burry Inlet SPA/Ramsar, located approximately 6.7km southwest from the nearest point. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally Designated Site. However, using NRW's Terrestrial Habitats of Principal Importance Map[78], which is derived from Phase 1 Terrestrial habitat and species surveys, there are several coastal grazing marsh and floodplain grassland habitats[79] which line the River Loughour, with the closest parcel located approximately 50m northwest of the SPRA boundary. This priority habitat may be utilized by a range of roosting and foraging waterfowl associated with the Burry Inlet SPA/Ramsar designation. Furthermore, the existing habitat of the SPRA is comprised of predominantly arable fields which may also be utilized by waterfowl during the wintering months. Given the close proximity to the River Loughour and associated wet pasture habitat, as well as the existing arable habitat present within the boundary, in the absence of project-level survey and assessment work, this SPRA is precautionarily considered to be functionally linked habitat to the Burry Inlet SPA/Ramsar Site and is therefore screened in. Functionally Linked Land: Aquatic Species This SPRA is 145m from the River Loughor, which is referenced in the European Marine Site Management Plan for the Carmarthen Bay and Estuaries SAC as likely supporting otters travelling towards the SAC. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally Designated Site. It is also acknowledged that otters feeding within the SAC are probably not wholly dependent on the coast for food but that they also use the rivers adjacent to the SAC for foraging. However, considering the	**Screened In**

[78] Data Map Wales (2024) Environment (Wales) Act Section 7 Terrestrial Habitats of Principal Importance. Available from https://datamap.gov.wales/layergroups/geonode:nrw_terrestrial_sections_7_habitats [Accessed December 2024]

[79] Overwintering waterfowl in the UK are drawn to several key habitats that provide them with the necessary resources to survive the winter months such as wetlands, floodplains, coastal areas and estuaries, inland lakes and reservoirs and saltmarshes and mudflats.

Potential Effect	Rationale	Screened In/ Out
	distance and location of the SPRA to the River Loughour, which is separated by a mixture of urban development and the lack of hydrological pathways present within the SPRA boundary, no habitat loss / physical damage of functionally linked habitat associated with Annex II species for the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC is anticipated. Functionally Linked Land: Marsh fritillary Using the ZoIs established for marsh fritillary in Appendix B, the SPRA falls within the 20km buffer which factors in potential habitat loss / physical damage of functionally linked habitat outside the following two SAC boundaries; Caeau Mynydd Mawr SAC, located approximately 6.2km north and Gower Common SAC, located 10.6km south. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally Designated Site. There is a lack of development between the Caeau Mynydd Mawr SAC and SPRA, with only minor linear developments (i.e., B-road, railway line) restricting movement. Using NRW's Terrestrial Habitats of Principal Importance Map, several fields between Caeau Mynydd Mawr SAC and the SPRA are considered to be purple moor grass and rush pasture habitats[80,81], which provide suitable stepping stone habitat between the two sites. In addition, there is also several parcels of purple moor grass and rush pasture habitat within proximity to the SPRA, with the closest located approximately 13m north of the site. However, given the spatial distance, the existing habitat of the site comprised of grazed and cultivated land and the general urban environment surrounding the SPRA, the habitat present within the SPRA is not considered to be functionally linked to marsh fritillary populations associated with the Caeau Mynydd Mawr and Gower Commons SAC and is therefore screened out.	
Non-physical disturbance	Wintering Birds As aforementioned, there are several coastal grazing marsh and floodplain grassland habitats which line the River Loughour, with the closest parcel located approximately 50m northwest of the SPRA boundary. This priority habitat may be utilized by a range of roosting and foraging waterfowl associated with the Burry Inlet SPA/Ramsar designation. Therefore, in precautionarily assuming the SPRA and/or adjacent arable landscape to be functionally linked habitat, there is the potential for non-physical disturbance to impact roosting and foraging grounds of wintering birds associated to the designated site and is screened in. Otters and Aquatic Species This SPRA is 145m from the River Loughor, which is referenced in the European Marine Site Management Plan for the Carmarthen Bay and Estuaries SAC as likely supporting otters travelling towards the SAC. It is also acknowledged that otters feeding within the SAC are probably not wholly dependent on the coast for food but that they also use the rivers adjacent to the SAC for foraging. Otters are known to have home ranges of up to 35km[82]. In addition, there is potential for the river to be utilised by migratory aquatic species which are qualifying features of the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, including allis shad, twaite shad, sea lamprey and river lamprey. It is therefore considered, in the absence of mitigation and detailed assessment, there is potential for non-physical disturbance to these Annex II species associated with the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, and is screened in. Marsh fritillary	**Screened In**

[80] Marsh fritillary is closely associated with this distinctive type of damp pasture, generally found on commons, as a component of lowland fen, or in undeveloped corners of otherwise intensively farmed landscapes.

[81] The current representation of Priority Habitats in this *Environment (Wales) Act Section 7 Terrestrial Habitats of Principal Importance* catalogue entry on DataMapWales is incomplete due to an ongoing review of the data. Furthermore, habitats identified within this data catalogue may not be fully representative due to spatial and temporal changes when the habitat was first recorded. As such, a precautionary approach has been adopted which assumes all priority habitats identified within this data set are assumed to still exist.

[82] Natural England (2022) Otters: advice for making planning decisions. [Accessed Online: 17/12/2024] Available at: https://www.gov.uk/guidance/otters-advice-for-making-planning-decisions

Potential Effect	Rationale	Screened In/ Out
	There is no pathway for effect due to the absence of possible functionally linked land.	
Changes to hydrological regime / water levels and quality	Residential development within the SPRA is indirectly hydrologically connected and therefore has a possible pathway for LSE on the following Internationally Designated Sites: - River Usk SAC: water abstraction – shared service reservoir in headwaters of Usk catchment - River Tywi SAC: water abstraction (both river and service reservoir abstraction), and wastewater discharge (functionally linked land / mobile species); - Crymlyn Bog Ramsar and SAC: upgrades to network infrastructure and wastewater discharge upstream of site; - Burry Inlet Ramsar and SPA: wastewater discharge – functionally linked land; - Carmarthen Bay and Estuaries SAC: wastewater discharge - functionally linked land / mobile species - Carmarthen Bay and Dunes SAC: wastewater discharge - functionally linked land; and - Pembrokeshire Marine SAC: wastewater discharge - functionally linked land. The proposed residential developments also have a possible pathway for LSE through direct hydrological connection to the Carmarthen Bay and Estuaries SAC in light of remaining uncertainties around the Preferred Strategy delivery.	**Screened In**
Air pollution	No new roads are proposed that will run within 200m of an Internationally Designated Site. Increases in road traffic resulting from the overall population increase in Swansea has been considered in Section 6.1.4.	**Screened out**
Recreational Disturbance / damage	Development in this location will contribute to the overall population increase within Swansea and within close proximity to Internationally Designated Sites. There are four Internationally Designated Sites within the ZoI for recreational disturbance as set out in Appendix B. These comprise Caeau Mynydd Mawr SAC, Carmarthen Bay and Estuaries SAC, Burry Inlet Ramsar site and Burry Inlet SPA. Following a review of the Caeau Mynydd Mawr SAC Core Management Plan, recreational pressure is not considered to be a key risk or pressure to the integrity of this Internationally Designated Site. However, in the absence of mitigation and detailed assessment, it is considered there is potential for increased recreational pressure resulting from this SPRA to undermine the conservation objectives for the Carmarthen Bay and Estuaries SAC, Burry Inlet Ramsar site and Burry Inlet SPA, representing a likely significant effect.	**Screened In**
SPRA 2: Garden Village/Gorseinon – Residential led		
General observations	This SPRA is an existing Strategic Development Area in the adopted LDP and benefits from full planning consent for **705** homes, primary school and other complementary development including new retail and leisure floorspace. Development of the site is underway. The nearest Internationally Designated Sites are Burry Inlet SPA, Burry Inlet Ramsar site and Carmarthen Bay and Estuaries SAC, all located 1.87km to the southwest.	N/A
Habitat loss / physical damage	<u>Direct Habitat Loss</u> There will be no direct loss on any of the SAC, SPA and Ramsar habitat due to the spatial distance separating the SPRA boundary and designated sites, with the closest site being Burry Inlet SPA, Burry Inlet Ramsar site and Carmarthen Bay and Estuaries SAC, all located 1.87km to the southwest. <u>Functionally linked land: Wintering Birds</u> The closest site designated for wintering birds comprises Burry Inlet SPA/Ramsar, located approximately 1.87km southwest at the nearest point. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally Designated Site. However, using NRW's Terrestrial Habitats of Principal Importance Map, which is derived from Phase 1 Terrestrial habitat and species surveys which indicates that there are purple moor grass and rush pastures which adjoin to the SPRA boundary, including a parcel	**Screened in**

Potential Effect	Rationale	Screened In/ Out
	directly within SPRA boundary to the north. Furthermore, the existing habitat of the SPRA is comprised of predominantly arable fields which may be utilized by waterfowl during the wintering months. Despite the site exceeding the ZoIs established for wintering birds in Appendix B, given the close proximity to the Burry Inlet SPA/Ramsar, as well as the existing arable habitat present within the SPRA and surrounding area, in the absence of project-level survey and assessment work, this SPRA is precautionarily considered to be functionally linked habitat relating to the Burry Inlet SPA/Ramsar Site and is therefore screened in. Functionally linked land: Otters and Aquatic Species This SPRA is directly adjacent to the Afon Lliw and its tributaries, which are hydrologically connected to the Carmarthen Bay and Estuaries SAC located 1.81km to the southwest. It is acknowledged that otters feeding within the SAC are probably not wholly dependent on the coast for food but that they also use the rivers adjacent to the SAC for foraging. There is potential for the river to be utilised by migratory aquatic species which are qualifying features of the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, including allis shad, twaite shad, sea lamprey and river lamprey. No direct land take of the Afon Lliw and associated marginal vegetation is anticipated and therefore no habitat loss / physical damage to functionally linked habitat associated with Annex II species of the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC is anticipated. Functionally linked land: Marsh fritillary Using the ZoIs established for marsh fritillary in Appendix B, the SPRA falls within the 20km buffer for potential habitat loss/disturbance of functionally linked habitat outside the following two SAC boundaries; Caeau Mynydd Mawr SAC, located 13km north and Gower Common SAC, located 4.3km southwest. Using NRW's Terrestrial Habitats of Principal Importance Map, several parcels surrounding the SPRA boundary are considered to be purple moor grass and rush pasture habitat, providing suitable habitat for marsh fritillary. Furthermore, a single parcel of purple moor grass and rush pasture habitat was identified within the SPRA boundary upon assessment. Whilst the SPRA and surrounding area may contain suitable habitat for marsh fritillary populations, this area is significantly fragmented by urban development. There are several settlements which provide a barrier to marsh fritillary movement between the SPRA and SAC sites, such as Dunvant, Killay Gowerton Tre-Gwr and Gorseinon. As such, the habitat present within the SPRA is not considered to be functionally linked to marsh fritillary populations associated with the Caeau Mynydd Mawr and Gower Commons SAC and is therefore screened out.	
Non-physical disturbance	Wintering Birds As aforementioned, the existing habitat within the SPRA offers good foraging and roosting opportunities for wintering birds and is well connected to the Burry Inlet Ramsar/SPA through a green belt. Therefore, in precautionarily assuming the SPRA and/or adjacent arable landscape to be functionally linked habitat, there is the potential for non-physical disturbance to impact roosting and foraging grounds of wintering birds associated to the designated site and is screened in. Otters and Aquatic Species This SPRA is directly adjacent to the Afon Lliw and its tributaries, which are hydrologically connected to the Carmarthen Bay and Estuaries SAC located 1.81km to the southwest. It is acknowledged that otters feeding within the SAC are probably not wholly dependent on the coast for food but that they also use the rivers adjacent to the SAC for foraging. There is potential for the river to be utilised by migratory aquatic species which are qualifying features of the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, including allis shad, twaite shad, sea lamprey and river lamprey. It is therefore considered, in the absence of mitigation and detailed assessment, there is potential for non-physical disturbance to these Annex II species during construction to undermine the conservation objectives for the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, representing a likely significant effect. Marsh fritillary There is no pathway for effect due to the absence of possible functionally linked land.	**Screened In**

Potential Effect	Rationale	Screened In/ Out
Changes to hydrological regime / water levels and quality	Residential development within the SPRA is indirectly hydrologically connected and therefore there is a possible pathway for LSE on the following Internationally Designated Sites: - River Usk SAC: water abstraction – shared service reservoir in headwaters of Usk catchment - River Tywi SAC: water abstraction (both river and service reservoir abstraction), and wastewater discharge (functionally linked land / mobile species); - Crymlyn Bog Ramsar and SAC: upgrades to network infrastructure and wastewater discharge upstream of site; - Burry Inlet Ramsar and SPA: wastewater discharge – functionally linked land; - Carmarthen Bay and Estuaries SAC: wastewater discharge - functionally linked land / mobile species - Carmarthen Bay and Dunes SAC: wastewater discharge - functionally linked land; and - Pembrokeshire Marine SAC: wastewater discharge - functionally linked land. The proposed residential developments also have a possible pathway for LSE through direct hydrological connection to the Carmarthen Bay and Estuaries SAC in light of remaining uncertainties around the Preferred Strategy delivery.	**Screened In**
Air pollution	No new roads are proposed that will run within 200m of an Internationally Designated Site. Increases in road traffic resulting from the overall population increase in Swansea has been considered in Section 6.1.4.	**Screened Out**
Recreational Disturbance / damage	Development in this location will contribute to the overall population increase within Swansea and within close proximity to Internationally Designated Sites. There are four Internationally Designated Sites within the ZoI for recreational disturbance as set out in Appendix B. These comprise Gower Commons SAC, Carmarthen Bay and Estuaries SAC, Burry Inlet Ramsar site and Burry Inlet SPA. Outdoor sports and leisure activities and recreational activities are noted as a key threat to the Gower Commons SAC in particular[83]. In the absence of mitigation and detailed assessment, it is considered there is potential for increased recreational pressure resulting from this SPRA to undermine the conservation objectives for the Gower Commons SAC, Carmarthen Bay and Estuaries SAC, Burry Inlet Ramsar site and Burry Inlet SPA, representing a likely significant effect.	**Screened In**
SPRA 3: Penllergaer – Residential led		
General observations	This SPRA is an existing Strategic Development Area carried forward from the adopted LDP and benefits from outline consent for up to 850 dwellings with detailed approval for 184. Development of the site is underway with 27 dwellings of the 850 site capacity already delivered prior to the LDP2 period base date. The site will therefore deliver **823** homes as part of the Preferred Strategy. The nearest Internationally Designated Sites are Burry Inlet SPA, Burry Inlet Ramsar site and Carmarthen Bay and Estuaries SAC, all located 3.64km to the west.	N/A
Habitat loss / physical damage	<u>Direct Habitat Loss</u> There will be no direct loss on any of the SAC, SPA and Ramsar habitat due to the spatial distance separating the SPRA boundary and designated site, with the nearest Internationally Designated Site comprised Burry Inlet SPA, Burry Inlet Ramsar site and Carmarthen Bay and Estuaries SAC, all located 3.64km to the west. <u>Functionally Linked Land: Wintering Birds</u>	**Screened In**

[83] Gower Commons SAC. Full citation available from: https://sac.jncc.gov.uk/site/UK0012685 [Accessed October 2024]

Potential Effect	Rationale	Screened In/ Out
	The closest designated site for wintering birds is Burry Inlet SPA/Ramsar, located approximately 3.6km southwest from the nearest point. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally Designated Site. However, using NRW's Terrestrial Habitats of Principal Importance Map, which is derived from Phase 1 Terrestrial habitat and species surveys indicates several parcels of purple moor grass and rush pasture habitats within the surrounding area of the SPRA, the closest being 10m southwest. The existing habitat of the SPRA is comprised of predominantly arable land divided by hedgerow boundaries, which may also support a range of roosting/foraging wintering bird species associated with the SPA/Ramsar. Given the existing habitat on-site and surrounding area likely to support wintering bird species, in the absence of project-level survey and assessment work, this SPRA is precautionarily considered to be functionally linked habitat relating to the Burry Inlet SPA/Ramsar Site and is therefore screened in. <u>Functionally Linked Land: Otters and Aquatic Species</u> The area discussed for this SPRA intersects several waterbodies which feed the Afon Lliw, which is hydrologically connected to the Carmarthen Bay and Estuaries SAC. It is acknowledged that otters feeding within the SAC are probably not wholly dependent on the coast for food but that they also use the rivers adjacent to the SAC for foraging. In addition, there is potential for the waterbodies to be utilised by migratory aquatic species which are qualifying features of the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, including allis shad, twaite shad, sea lamprey and river lamprey. It is therefore considered, in the absence of mitigation and detailed assessment, there is potential for loss/ physical damage to functionally linked habitat associated with Annex II species of the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, and is screened in. <u>Functionally Linked Land: Marsh Fritillary</u> Using the ZoIs established for marsh fritillary in Appendix B, the SPRA falls within the 20km buffer for potential habitat loss/disturbance of functionally linked habitat outside the following two SAC boundaries; Caeau Mynydd Mawr SAC, located approximately 12.8km north and Gower Common SAC, located 5.5km southwest. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally Designated Site. However, using NRW's Terrestrial Habitats of Principal Importance Map, which is dervied from Phase 1 Terrestrial habitat and species surveys, several parcels surrounding the SPRA boundary are considered to be purple moor grass and rush pasture habitat, providing suitable habitat for marsh fritillary, with the closest located approximately 10m southwest of the SPRA boundary. However, given the location of the SPRA and the spatial distance between the two SACs dominated by urban settlements such as Fforest-Fach, Gowerton Tre-Gwr, Killay, Ponterdulais and the M4. As such, the habitat present within the SPRA is not considered to be functionally linked to marsh fritillary populations associated with the Caeau Mynydd Mawr and Gower Commons SAC and is therefore screened out.	
Non-physical disturbance	<u>Wintering Birds</u> As aforementioned, the existing habitat within the SPRA offers good foraging and roosting opportunities for wintering birds and is well connected to the Burry Inlet Ramsar/SPA through a green belt. Therefore, in precautionarily assuming the SPRA and/or adjacent arable landscape to be functionally linked habitat, there is the potential for non-physical disturbance to impact roosting and foraging grounds of wintering birds associated to the designated site and is screened in. <u>Otters and Aquatic Species</u> The area discussed for this SPRA intersects several waterbodies which feed the Afon Lliw, which is hydrologically connected to the Carmarthen Bay and Estuaries SAC. It is acknowledged that otters feeding within the SAC are probably not wholly dependent on the coast for food but that they also use the rivers adjacent to the SAC for foraging. In addition, there is potential for the river to be utilised by migratory aquatic species which are qualifying features of the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, including allis shad, twaite shad, sea lamprey and river lamprey. It is therefore considered, in the absence of mitigation and detailed assessment, there is potential for non-physical disturbance to these Annex II species associated with the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, representing a likely significant effect. <u>Marsh fritillary</u>	**Screened In**

Potential Effect	Rationale	Screened In/ Out
	There is no pathway for effect due to the absence of possible functionally linked land.	
Changes to hydrological regime / water levels and quality	Residential development within the SPRA is indirectly hydrologically connected and therefore has a possible pathway for LSE on the following Internationally Designated Sites: - River Usk SAC: water abstraction – shared service reservoir in headwaters of Usk catchment - River Tywi SAC: water abstraction (both river and service reservoir abstraction), and wastewater discharge (functionally linked land / mobile species); - Crymlyn Bog Ramsar and SAC: upgrades to network infrastructure and wastewater discharge upstream of site; - Burry Inlet Ramsar and SPA: wastewater discharge – functionally linked land; - Carmarthen Bay and Estuaries SAC: wastewater discharge - functionally linked land / mobile species - Carmarthen Bay and Dunes SAC: wastewater discharge - functionally linked land; and - Pembrokeshire Marine SAC: wastewater discharge - functionally linked land. The proposed residential developments also have a possible pathway for LSE through direct hydrological connection to the Carmarthen Bay and Estuaries SAC and Burry Inlet Ramsar site and SPA, in light of remaining uncertainties around the Preferred Strategy delivery.	**Screened In**
Air pollution	No new roads are proposed that will run within 200m of an Internationally Designated Site. Increases in road traffic resulting from the overall population increase in Swansea has been considered in Section 6.1.4.	**Screened Out**
Recreational disturbance / damage	Development in this location will contribute to the overall population increase within Swansea and within close proximity to Internationally Designated Sites. There are four Internationally Designated Sites within the ZoI for recreational disturbance as set out in Appendix B. These comprise Gower Commons SAC, Carmarthen Bay and Estuaries SAC, Burry Inlet Ramsar site and Burry Inlet SPA. Outdoor sports and leisure activities and recreational activities are noted as a key threat to the Gower Commons SAC in particular. Crymlyn Bog SAC and Ramsar site is also within 8km of this SPRA. However, as set out in Section 6, Crymlyn Bog SAC and Ramsar site is not considered to be sensitive to recreational disturbance/damage. In the absence of mitigation and detailed assessment, it is considered there is potential for increased recreational pressure to undermine the conservation objectives for the Gower Commons SAC, Carmarthen Bay and Estuaries SAC, Burry Inlet Ramsar site and Burry Inlet SPA, representing a likely significant effect.	**Screened In**
SPRA 4: Felindre – Residential led		
General observations	The SPRA is an existing Strategic Development Area in the adopted LDP with capacity for an estimated 800 homes, plus complementary development (subject to further detailed assessment as part of the Candidate Sites Assessment methodology). Extensive pre application work has been undertaken and site is subject of a live outline planning application for up to 800 homes, primary school, local centre and recreation space. The nearest Internationally Designated Site is Carmarthen Bay and Estuaries SAC, located 4.85km west.	N/A
Habitat loss / physical damage	<u>Direct Habitat Loss</u> There will be no direct loss on any of the SAC, SPA and Ramsar habitat due to the spatial distance separating the SPRA boundary and designated sites, with the nearest Internationally Designated Site being Carmarthen Bay and Estuaries SAC, located 4.85km west. <u>Functionally Linked Land: Wintering Birds</u> The closest designated site for wintering birds is Burry Inlet SPA/Ramsar, located approximately 5.9km southwest from the nearest point. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally	**Screened In**

Potential Effect	Rationale	Screened In/ Out
	Designated Site. However, using NRW's Terrestrial Habitats of Principal Importance Map, which is derived from Phase 1 Terrestrial habitat and species surveys, there are several parcels of purple moor grass and rush pastures within and adjacent to the SPRA, providing suitable roosting and foraging habitat for wintering birds. The existing habitat is comprised of a mixture of arable and woodland habitat, with the surrounding area dominated by woodland to the west, and arable landscapes to the east. Despite the suitable habitat present on-site, given the spatial distance separating the two sites comprised of urban developments and the extensive arable landscape to the east of the SPRA, no loss / physical damage of functionally linked habitat associated to the Burry SPA/Ramsar Sites is anticipated. Functionally Linked Land: Otters and Aquatic Species The area discussed d for this SPRA intersects several waterbodies which feed the Afon Lliw, which is hydrologically connected to the Carmarthen Bay and Estuaries SAC. It is acknowledged that otters feeding within the SAC are probably not wholly dependent on the coast for food but that they also use the rivers adjacent to the SAC for foraging. In addition, there is potential for the waterbodies to be utilised by migratory aquatic species which are qualifying features of the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, including allis shad, twaite shad, sea lamprey and river lamprey. It is therefore considered, in the absence of mitigation and detailed assessment, there is potential for loss/ physical damage to functionally linked habitat associated with Annex II species of the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, and is screened in. Functionally Linked Land: Marsh Fritillary Using the ZoIs established for marsh fritillary in Appendix B, the SPRA falls within the 20km buffer for potential habitat loss/disturbance of functionally linked habitat outside two SAC boundaries; Caeau Mynydd Mawr SAC, located approximately 11.4km north west and Gower Common SAC, located 7.8km southwest. Using NRW's Priority Habitat Map, several parcels within the SPRA boundary are considered to be purple moor grass and rush pasture habitat, providing suitable habitat for marsh fritillary, with additional parcels also identified within proximity to the SPRA boundary. However, given the location of the SPRA and the spatial distance between the two SACs separated by several urban developments such as Ponterdulais, Blafnymaes, FForest-Fach, Gorseinon Garden Village, Dunvant and Killay providing a significant barrier to movement. Therefore, the habitat present within the SPRA is not considered to be functionally linked to marsh fritillary populations associated with the Caeau Mynydd Mawr and Gower Commons SAC and is therefore screened out.	
Non-physical disturbance	Wintering Birds There is no pathway for effect due to the absence of possible functionally linked land. Otters and Aquatic Species At its closest point, the SPRA runs within 15m of the Afon Llan which meets the Afon Lliw before entering the Carmarthen Bay and Estuaries SAC. It is acknowledged that otters feeding within the SAC are probably not wholly dependent on the coast for food but that they also use the rivers adjacent to the SAC for foraging. In addition, there is potential for the river to be utilised by migratory aquatic species which are qualifying features of the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, including allis shad, twaite shad, sea lamprey and river lamprey. It is therefore considered, in the absence of mitigation and detailed assessment, there is potential for non-physical disturbance to these Annex II species during construction to undermine the conservation objectives for the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, representing a likely significant effect. Marsh fritillary There is no pathway for effect due to the absence of possible functionally linked land.	**Screened In**
Changes to hydrological regime / water	Residential development within the SPRA is indirectly hydrologically-connected and therefore has a possible pathway for LSE on the following Internationally Designated Sites: - River Usk SAC: water abstraction – shared service reservoir in headwaters of Usk catchment	**Screened In**

Potential Effect	Rationale	Screened In/ Out
levels and quality	- River Tywi SAC: water abstraction (both river and service reservoir abstraction), and wastewater discharge (functionally linked land / mobile species); - Crymlyn Bog Ramsar and SAC: upgrades to network infrastructure and wastewater discharge upstream of site; - Burry Inlet Ramsar and SPA: wastewater discharge – functionally linked land; - Carmarthen Bay and Estuaries SAC: wastewater discharge - functionally linked land / mobile species - Carmarthen Bay and Dunes SAC: wastewater discharge - functionally linked land; and - Pembrokeshire Marine SAC: wastewater discharge - functionally linked land. The proposed residential developments also have a possible pathway for LSE through direct hydrological connection to the Carmarthen Bay and Estuaries SAC and Burry Inlet Ramsar and SPA, in light of remaining uncertainties around the Preferred Strategy delivery.	
Air pollution	No new roads are proposed that will run within 200m of an Internationally Designated Site. Increases in road traffic resulting from the overall population increase in Swansea has been considered in Section 6.1.4.	**Screened Out**
Recreational Disturbance / damage	Development in this location will contribute to the overall population increase within Swansea and within close proximity to Internationally Designated Sites. There are four Internationally Designated Sites within the ZoI for recreational disturbance as set out in Appendix B. These comprise Gower Commons SAC, Carmarthen Bay and Estuaries SAC, Burry Inlet Ramsar site and Burry Inlet SPA. Outdoor sports and leisure activities and recreational activities are noted as a key threat to the Gower Commons SAC in particular. Crymlyn Bog SAC and Ramsar site is also within 8km of this SPRA. However, as set out in Section 6, Crymlyn Bog SAC and Ramsar site is not considered to be sensitive to recreational disturbance/damage. In the absence of mitigation and detailed assessment, it is considered there is potential for increased recreational pressure resulting from this SPRA to undermine the conservation objectives for the Gower Commons SAC, Carmarthen Bay and Estuaries SAC, Burry Inlet Ramsar site and Burry Inlet SPA, representing a likely significant effect.	**Screened In**
SPRA 5: Morriston – Residential led		
General observations	The SPRA is an existing Strategic Development Area in the adopted LDP with capacity for an estimated **600** homes, primary school and local centre (subject to further detailed assessment as part of the Candidate Sites Assessment methodology). The nearest Internationally Designated Site is Crymlyn Bog SAC and Ramsar site, located 5.1km southeast.	N/A
Habitat loss / physical damage	<u>Direct Habitat Loss</u> There will be no direct loss on any of the SAC, SPA and Ramsar habitat due to the spatial distance separating the SPRA boundary and designated sites, with the nearest Internationally Designated Site being Crymlyn Bog SAC and Ramsar site, located 4.6km southeast. <u>Functionally Linked Land: Wintering Birds</u> The closest designated site for wintering birds is Burry Inlet SPA/Ramsar, located approximately 7.8km west from the nearest point. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally Designated Site. However, using NRW's Terrestrial Habitats of Principal Importance Map, which is derived from Phase 1 Terrestrial habitat and species surveys, there are several parcels of purple moor grass and rush pasture habitat which adjoin to the SPRA, providing suitable habitat for roosing and foraging winter birds. Furthermore, the existing habitat within the boundary is comprised of predominately arable fields lined by hedgerow boundaries, offering foraging and roosting opportunities. However, given the scale of the SPRA, the distance separating the two sites being dominated by urban settlements and the location of the SPRA being intersected by several busy roads, the habitat present within the SPRA boundary is not considered to be functionally linked to the SPA/Ramsar Sites and is therefore screened out.	**Screened Out**

Potential Effect	Rationale	Screened In/ Out
	Functionally Linked Land: Otters and Aquatic Species The SPRA is directly adjacent to Nant y Gors, a tributary of the Afon Llan which meets the Afon Lliw before entering the Carmarthen Bay and Estuaries SAC. It is acknowledged that otters feeding within the SAC are probably not wholly dependent on the coast for food but that they also use the rivers adjacent to the SAC for foraging. In addition, there is potential for the river to be utilised by migratory aquatic species which are qualifying features of the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, including allis shad, twaite shad, sea lamprey and river lamprey. No direct land take of the Afon Lliw and associated marginal vegetation is anticipated. As a result, no habitat loss / physical damage to functionally linked habitat associated with the Annex II species of Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC is not anticipated. Functionally Linked Land: Marsh Fritillary Using the ZoIs established for marsh fritillary in Appendix B, the SPRA falls within the 20km buffer for potential habitat loss/disturbance of functionally linked habitat outside the following two SAC boundaries; Caeau Mynydd Mawr SAC, located approximately 13.2km north west and Gower Common SAC, located 10.2km southwest. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally Designated Site. However, using NRW's Terrestrial Habitats of Principal Importance Map, which is derived from Phase 1 Terrestrial habitat and species survey, several parcels surrounding the SPRA boundary are considered to be purple moor grass and rush pasture habitat, providing suitable habitat for marsh fritillary, with closest parcel directly adjacent to the north. However, the location of the SPRA and the spatial distance between the two SACs is fragmented by several urban developments such as Ponterdulais, Blafnymaes, FForest-Fach, Gorseinon Garden Village, Dunvant and Killay providing a significant barrier to movement. Therefore, the habitat present within the SPRA is not considered to be functionally linked to marsh fritillary populations associated with the Caeau Mynydd Mawr and Gower Commons SAC and is therefore screened out.	
Non-physical disturbance	Wintering Birds There is no pathway for effect due to the absence of possible functionally linked land. Otters and Aquatic Species The SPRA is directly adjacent to Nant y Gors, a tributary of the Afon Llan which meets the Afon Lliw before entering the Carmarthen Bay and Estuaries SAC. It is acknowledged that otters feeding within the SAC are probably not wholly dependent on the coast for food but that they also use the rivers adjacent to the SAC for foraging. In addition, there is potential for the river to be utilised by migratory aquatic species which are qualifying features of the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, including allis shad, twaite shad, sea lamprey and river lamprey. It is therefore considered, in the absence of mitigation and detailed assessment, there is potential for non-physical disturbance to these Annex II species during construction to undermine the conservation objectives for the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, representing a likely significant effect. Marsh fritillary There is no pathway for effect due to the absence of possible functionally linked land.	**Screened In**
Changes to hydrological regime / water levels and quality	Residential development within the SPRA is indirectly hydrologically connected and therefore has a possible pathway for LSE on the following Internationally Designated Sites: - River Usk SAC: water abstraction – shared service reservoir in headwaters of Usk catchment - River Tywi SAC: water abstraction (both river and service reservoir abstraction), and wastewater discharge (functionally linked land / mobile species); - Crymlyn Bog Ramsar and SAC: upgrades to network infrastructure and wastewater discharge upstream of site;	**Screened In**

Potential Effect	Rationale	Screened In/ Out
	- Burry Inlet Ramsar and SPA: wastewater discharge – functionally linked land; - Carmarthen Bay and Estuaries SAC: wastewater discharge - functionally linked land / mobile species - Carmarthen Bay and Dunes SAC: wastewater discharge - functionally linked land; and - Pembrokeshire Marine SAC: wastewater discharge - functionally linked land. The proposed residential developments also have a possible pathway for LSE through direct hydrological connection to the Carmarthen Bay and Estuaries SAC and Burry Inlet Ramsar and SPA, in light of remaining uncertainties around the Preferred Strategy delivery.	
Air pollution	No new roads are proposed that will run within 200m of an Internationally Designated Site. Increases in road traffic resulting from the overall population increase in Swansea has been considered in Section 6.1.4.	**Screened Out**
Recreational Disturbance / damage	Development in this location will contribute to the overall population increase within Swansea and within close proximity to Internationally Designated Sites. There are three Internationally Designated Sites within the ZoI for recreational disturbance as set out in Appendix B. These comprise Carmarthen Bay and Estuaries SAC, Burry Inlet Ramsar site and Burry Inlet SPA. Crymlyn Bog SAC and Ramsar site is also within 8km of this SPRA. However, as set out in Section 6, Crymlyn Bog SAC and Ramsar site is not considered to be sensitive to recreational disturbance/damage. In the absence of mitigation and detailed assessment, it is considered there is potential for increased recreational pressure resulting from this SPRA to undermine the conservation objectives for the Carmarthen Bay and Estuaries SAC, Burry Inlet Ramsar site and Burry Inlet SPA, representing a likely significant effect.	**Screened In**
SPRA 6: Llangyfelach – Residential led		
General observations	The SPRA is an existing Strategic Development Area in the adopted LDP. The site benefits from Outline consent for up to **1950** dwellings, local centre, primary school and open space and link road. Full planning consent has been granted for 470 dwellings with development having formally commenced and dwellings being delivered in 2025. The nearest Internationally Designated Site is Crymlyn Bog SAC and Ramsar site, located 4.6km southwest.	N/A
Habitat loss / physical damage	<u>Direct Habitat Loss</u> There will be no direct loss on any of the SAC, SPA and Ramsar habitat due to the spatial distance separating the SPRA boundary and designated sites, with the nearest Internationally Designated Site being Crymlyn Bog SAC, located 4.6km southwest. <u>Functionally Linked Land: Wintering Birds</u> The closest designated site for wintering birds is Burry Inlet SPA/Ramsar, located approximately 5.8km west from the nearest point. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally Designated Site. However, using NRW's Terrestrial Habitats of Principal Importance Map, which is derived from Phase 1 Terrestrial habitat and species surveys, several parcels of purple moor grass and rush pasture adjoin to the SPRA boundary, including a parcel within the boundary itself. The existing habitat is predominantly comprised of grazed and cultivated arable fields lined by hedgerows, offering foraging and roosing opportunities for wintering birds. The location of the SPRA is situated on the suburbs of Swansea City, with a green belt comprised of predominantly arable and woodland habitat which connects the SPRA to the Burry Inlet Ramsar/SPA to the easr. Despite the site exceeding the ZoIs established for wintering birds in Appendix B, given the suitable and well-connected habitat to Burry Inlet, and the existing arable habitat present, as well as the scale of SPRA in the absence of project-level survey and assessment work, this SPRA is precautionarily considered to be functionally linked habitat relating to the Burry Inlet SPA/Ramsar Site and is therefore screened in. <u>Functionally Linked Land: Otters and Aquatic Species</u> This SPRA encompasses a tributary of the Afon Llan, which meets the Afon Lliw before entering the Carmarthen Bay and Estuaries SAC. It is acknowledged that otters feeding within the SAC are probably not wholly dependent on the coast for food but that they also use the rivers adjacent to	**Screened In**

Potential Effect	Rationale	Screened In/ Out
	the SAC for foraging. In addition, there is potential for the river to be utilised by migratory aquatic species which are qualifying features of the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, including allis shad, twaite shad, sea lamprey and river lamprey. Given the SPRA encompasses a tributary, it is therefore considered, in the absence of mitigation and detailed assessment, there is potential for habitat loss / physical damage to functionally linked land to these Annex II species during construction and/or operation to undermine the conservation objectives for the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, representing a likely significant effect. Functionally Linked Land: Marsh Fritillary Using the ZoIs established for marsh fritillary in Appendix B, the SPRA falls within the 20km buffer for potential habitat loss/disturbance of functionally linked habitat outside two SAC boundaries; Caeau Mynydd Mawr SAC, located approximately 14.1km northwest and Gower Common SAC, located 6.5km southwest. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally Designated Site. However, using NRW's Terrestrial Habitats of Principal Importance Map, which is derived from Phase 1 Terrestrial habitat and species surveys, several parcels adjoining the SPRA boundary are considered to be purple moor grass and rush pasture habitat. However, given the location of the SPRA and the spatial distance between the two SACs separated by several urban developments such as Morriston, Ponterdulais, Blafnymaes, FForest-Fach, Gorseinon Garden Village, Dunvant and Killay providing a significant barrier to movement, no habitat loss / physical damage of functionally linked habitat to these Annex II species is considered to undermine the conservation objectives for Caeau Mynydd Mawr SAC and Gower Commons SAC.	
Non-physical disturbance	Wintering Birds As aforementioned, the existing habitat within the SPRA offers good foraging and roosting opportunities for wintering birds and is well connected to the Burry Inlet Ramsar/SPA through a green belt. Therefore, in precautionarily assuming the SPRA and/or adjacent arable landscape to be functionally linked habitat, there is the potential for non-physical disturbance to impact roosting and foraging grounds of wintering birds associated to the designated site and is screened in. Otter and Aquatic Species This SPRA encompasses a tributary of the Afon Llan, which meets the Afon Lliw before entering the Carmarthen Bay and Estuaries SAC. It is acknowledged that otters feeding within the SAC are probably not wholly dependent on the coast for food but that they also use the rivers adjacent to the SAC for foraging. In addition, there is potential for the river to be utilised by migratory aquatic species which are qualifying features of the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, including allis shad, twaite shad, sea lamprey and river lamprey. It is therefore considered, in the absence of mitigation and detailed assessment, there is potential for non-physical disturbance to these Annex II species during construction to undermine the conservation objectives for the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, representing a likely significant effect. Marsh fritillary	**Screened In**
Changes to hydrological regime / water levels and quality	Residential development within the SPRA is indirectly hydrologically connected and therefore has a possible pathway for LSE on the following Internationally Designated Sites: - River Usk SAC: water abstraction – shared service reservoir in headwaters of Usk catchment - River Tywi SAC: water abstraction (both river and service reservoir abstraction), and wastewater discharge (functionally linked land / mobile species); - Crymlyn Bog Ramsar and SAC: upgrades to network infrastructure and wastewater discharge upstream of site; - Burry Inlet Ramsar and SPA: wastewater discharge – functionally linked land; - Carmarthen Bay and Estuaries SAC: wastewater discharge - functionally linked land / mobile species	**Screened In**

Potential Effect	Rationale	Screened In/ Out
	- Carmarthen Bay and Dunes SAC: wastewater discharge - functionally linked land; and - Pembrokeshire Marine SAC: wastewater discharge - functionally linked land. The proposed residential developments also have a possible pathway for LSE through direct hydrological connection to the Carmarthen Bay and Estuaries SAC and Burry Inlet Ramsar and SPA, in light of remaining uncertainties around the Preferred Strategy delivery.	
Air pollution	The link road proposed as part of this SPRA will not run within 200m of any Internationally Designated Sites. Increases in road traffic resulting from the overall population increase in Swansea has been considered in Section 6.1.4.	**Screened Out**
Recreational Disturbance / damage	Development in this location will contribute to the overall population increase within Swansea and within close proximity to Internationally Designated Sites. There are four Internationally Designated Sites within the ZoI for recreational disturbance as set out in Appendix B. These comprise Gower Commons SAC, Carmarthen Bay and Estuaries SAC, Burry Inlet Ramsar site and Burry Inlet SPA. Outdoor sports and leisure activities and recreational activities are noted as a key threat to the Gower Commons SAC in particular. Crymlyn Bog SAC and Ramsar site is also within 8km of this SPRA. However, as set out in Section 6, Crymlyn Bog SAC and Ramsar site is not considered to be sensitive to recreational disturbance/damage. In the absence of mitigation and detailed assessment, it is considered there is potential for increased recreational pressure resulting from this SPRA to undermine the conservation objectives for the Gower Commons SAC, Carmarthen Bay and Estuaries SAC, Burry Inlet Ramsar site and Burry Inlet SPA, representing a likely significant effect.	**Screened In**
SPRA 7: Waunarllwydd / Fforestfach – Residential led		
General observations	The SPRA is an existing Strategic Development Area in the adopted LDP. An outline planning application for 200 homes has been submitted for the first phase of the site which was refused against officer recommendation. The option for an appeal to this decision is open to the applicants. The site is also being pursued as a Candidate Site for LDP2. An eastern part of the site is being promoted through different candidate site submissions and are at pre planning application stage with submission of a planning application expected early next year. Overall, an estimated **500** houses are proposed within the SPRA within the plan period (subject to further detailed assessment as part of the Candidate Sites Assessment methodology). The nearest Internationally Designated Site is Burry Inlet SPA/Ramsar and Carmarthen Bay and SAC and Ramsar site, located 1.3km northwest at the nearest point.	N/A
Habitat loss / physical damage	<u>Direct Habitat Loss</u> There will be no direct loss on any of the SAC, SPA and Ramsar habitat due to the spatial distance separating the SPRA boundary and designated sites, with the nearest Internationally Designated Site being Burry Inlet SPA/Ramsar and Carmarthen Bay and SAC and Ramsar site, located 1.3km northwest. <u>Functionally Linked Land: Wintering Birds</u> The closest designated site for wintering birds is Burry Inlet SPA/Ramsar, located approximately 1.3km west from the nearest point. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally Designated Site. However, using NRW's Terrestrial Habitats of Principal Importance Map, which is derived from Phase 1 Terrestrial habitat and species surveys, several parcels of purple moor grass and rush pastures adjoin to the SPRA boundary, as well as several parcels located within the boundary providing suitable roosting and foraging opportunities for wintering birds. Furthermore, existing habitats within the SPRA boundary are comprised of arable fields lined by hedgerows and parcels of woodland towards the west of the boundary and around Westfield Industrial Park, which also provide foraging and roosting opportunities. There is a green belt comprised of predominantly arable and woodland habitat which connects the SPRA to the Burry Inlet Ramsar/SPA to the east. Despite the site exceeding the ZoIs established for wintering birds in Appendix B, given the close proximity and well connected habitat to the designated sites, and the existing arable habitat present, in the absence of project-level survey and	**Screened In**

Potential Effect	Rationale	Screened In/ Out
	assessment work, this SPRA is precautionarily considered to be functionally linked habitat relating to the Burry Inlet SPA/Ramsar Site and is therefore screened in. Functionally Linked Land: Otters and Aquatic Species The SPRA is directly adjacent to the Afon Llan, which meets the Afon Lliw before entering the Carmarthen Bay and Estuaries SAC. It is acknowledged that otters feeding within the SAC are probably not wholly dependent on the coast for food but that they also use the rivers adjacent to the SAC for foraging. In addition, there is potential for the river to be utilised by migratory aquatic species which are qualifying features of the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, including allis shad, twaite shad, sea lamprey and river lamprey. No direct land take of the Afon Llan and associated marginal vegetation are anticipated, and therefore no habitat loss / physical damage to functionally linked habitat to these Annex II species to the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC is anticipated. Functionally Linked Land: Marsh Fritillary Using the ZoIs established for marsh fritillary in Appendix B, the SPRA falls within the 20km buffer for potential habitat loss/disturbance of functionally linked habitat outside two SAC boundaries; Caeau Mynydd Mawr SAC, located approximately 14.33km north west and Gower Common SAC, located 2.96km southwest. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally Designated Site. However, using NRW's Terrestrial Habitats of Principal Importance Map, which is derived from Phase 1 Terrestrial habitat and species surveys, several parcels of purple moor grass and rush pastures adjoin to the SPRA boundary, providing suitable habitat for marsh fritillary populations. Furthermore, there is parcels of purple moor grass and rush pastures between the Gower Commons SAC and the SPRA, however, it is separated by urban settlements Killay and Gowerton. Given the location of the SPRA and the spatial distance between the two SACs separated by several urban developments such as Tircoed, Pontliw, Ponterdulais, Blaenymaes, Fforest-Fach, Gorseinon Garden Village, Carnglas and Killay providing a significant barrier to movement, no habitat loss / physical damage of functionally linked habitat to marsh fritillary populations associated with the Caeau Mynydd Mawr SAC and Gower Commons SAC is anticipated.	
Non-physical disturbance	Wintering Birds The SPRA is within close proximity and well-connected to the Burry Inlet SPA/Ramsar through an extensive belt of arable fields. In addition, the existing habitat within the SPRA provides suitable foraging and roosting grounds for wintering birds. Therefore, in precautionarily assuming the SPRA and/or adjacent arable landscape to be functionally linked habitat, there is the potential for non-physical disturbance to impact roosting and foraging grounds of wintering birds associated to the designated site and is screened in. Otters and Aquatic SpeciesuThis SPRA is directly adjacent to the Afon Llan, which meets the Afon Lliw before entering the Carmarthen Bay and Estuaries SAC. It is acknowledged that otters feeding within the SAC are probably not wholly dependent on the coast for food but that they also use the rivers adjacent to the SAC for foraging. In addition, there is potential for the river to be utilised by migratory aquatic species which are qualifying features of the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, including allis shad, twaite shad, sea lamprey and river lamprey. It is therefore considered, in the absence of mitigation and detailed assessment, there is potential for non-physical disturbance to these Annex II species during construction to undermine the conservation objectives for the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, representing a likely significant effect. Marsh fritillary There is no pathway for effect due to the absence of possible functionally linked land.	**Screened In**
Changes to hydrological regime / water	Residential development within the SPRA is indirectly hydrologically connected and therefore has a possible pathway for LSE on the following Internationally Designated Sites: - River Usk SAC: water abstraction – shared service reservoir in headwaters of Usk catchment	**Screened In**

Potential Effect	Rationale	Screened In/ Out
levels and quality	- River Tywi SAC: water abstraction (both river and service reservoir abstraction), and wastewater discharge (functionally linked land / mobile species); - Crymlyn Bog Ramsar and SAC: upgrades to network infrastructure and wastewater discharge upstream of site; - Burry Inlet Ramsar and SPA: wastewater discharge – functionally linked land; - Carmarthen Bay and Estuaries SAC: wastewater discharge - functionally linked land / mobile species - Carmarthen Bay and Dunes SAC: wastewater discharge - functionally linked land; and - Pembrokeshire Marine SAC: wastewater discharge - functionally linked land. The proposed residential developments also have a possible pathway for LSE through direct hydrological connection to the Carmarthen Bay and Estuaries SAC and Burry Inlet Ramsar and SPA, in light of remaining uncertainties around the Preferred Strategy delivery.	
Air pollution	No new roads are proposed that will run within 200m of an Internationally Designated Site. Increases in road traffic resulting from the overall population increase in Swansea has been considered in Section 6.1.4.	**Screened Out**
Recreational disturbance / damage	Development in this location will contribute to the overall population increase within Swansea and within close proximity to Internationally Designated Sites. There are five Internationally Designated Sites within the ZoI for recreational disturbance as set out in Appendix B. These comprise Gower Ash Woods SAC, Gower Commons SAC, Carmarthen Bay and Estuaries SAC, Burry Inlet Ramsar site and Burry Inlet SPA. Outdoor sports and leisure activities and recreational activities are noted as a key threat to the Gower Commons SAC and Gower Ash Woods SAC in particular. Crymlyn Bog SAC and Ramsar site is also within 8km of this SPRA. However, as set out in Section 6, Crymlyn Bog SAC and Ramsar site is not considered to be sensitive to recreational disturbance/damage. In the absence of mitigation and detailed assessment, it is considered there is potential for increased recreational pressure resulting from this SPRA to undermine the conservation objectives for the Gower Ash Woods SAC, Gower Commons SAC, Carmarthen Bay and Estuaries SAC, Burry Inlet Ramsar site and Burry Inlet SPA, representing a likely significant effect.	**Screened In**
SPRA 8: Morriston Hospital – Health Led		
General observations	This SPRA comprises a safeguarded area in the adopted LDP. The Swansea Bay University Health Board are advanced in work for strategic health improvements at the site and are engaged in pre planning work with Swansea Council. Subject to the need being justified as part of a Transport Impact Assessment key infrastructure improvements to facilitate the new uses may necessitate a new link road from J46 of the M4 to the site. The nearest Internationally Designated Site is Crymlyn Bog SAC and Ramsar Site, located 5.26km southeast.	N/A
Habitat loss / physical damage	<u>Direct Habitat Loss</u> There will be no direct loss on any of the SAC, SPA and Ramsar habitat due to the spatial distance separating the SPRA boundary and designated sites, with the nearest Internationally Designated Site being Crymlyn Bog SAC and Ramsar site, located 5.2km southeast. <u>Functionally Linked Land: Wintering Birds</u> The closest designated site for wintering birds is Burry Inlet SPA/Ramsar, located approximately 8.8km southwest from the nearest point. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally Designated Site. However, using NRW's Terrestrial Habitats of Principal Importance Map, which is derived from Phase 1 Terrestrial habitat and species surveys, there are several parcels of purple moor grass and rush pasture habitat which adjoin to the SPRA, providing suitable habitat for roosing and foraging winter birds. Furthermore, the existing habitat within the the boundary is comprised of predominately arable fields lined by hedgerow boundaries. Despite suitable habitat being present on site to support wintering birds, given the spatial distance separating the two sites being dominated by urban developments, the scale of SPRA as well the surrounding area of the SPRA comprised of extensive arable landscapes, the habitat present	**Screened Out**

Potential Effect	Rationale	Screened In/ Out
	within the SPRA boundary is not considered to be functionally linked to the SPA/Ramsar Sites and is therefore screened out. Functionally Linked Land: Otters and Aquatic Species This SPRA is directly adjacent to a tributary of the Afon Llan, and 95m from the Afon Llan itself. It is acknowledged that otters feeding within the SAC are probably not wholly dependent on the coast for food but that they also use the rivers adjacent to the SAC for foraging. In addition, there is potential for the river to be utilised by migratory aquatic species which are qualifying features of the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, including allis shad, twaite shad, sea lamprey and river lamprey. No direct land take of the adjacent tributary and associated marginal vegetation is expected and therefore no habitat loss / physical damage to functionally linked habitat to these Annex II species to Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC is anticipated. Functionally Linked Land: Marsh Fritillary Using the ZoIs established for marsh fritillary in Appendix B, the SPRA falls within the 20km buffer for potential habitat loss/disturbance of functionally linked habitat outside two SAC boundaries; Caeau Mynydd Mawr SAC, located approximately 13.2km north west and Gower Common SAC, located 10.2km southwest. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally Designated Site. However, using NRW's Terrestrial Habitats of Principal Importance Map, which is dervied from Phase 1 Terrestrial habitat and species survey, several parcels surrounding the SPRA boundary are considered to be purple moor grass and rush pasture habitat, providing suitable habitat for marsh fritillary, with closest parcel directly adjacent to the north. However, given the location of the SPRA and the spatial distance between the two SACs separated by several urban developments such as Ponterdulais, Blafnymaes, Fforest-Fach, Gorseinon Garden Village, Dunvant and Killay providing a significant barrier to movement, no habitat loss / physical damage of functionally linked habitat to these Annex II species is considered to undermine the conservation objectives for Caeau Mynydd Mawr SAC and Gower Commons SAC.	
Non-physical disturbance	Wintering Birds There is no pathway for effect due to the absence of possible functionally linked land. Otters and Aquatic Species This SPRA is directly adjacent to a tributary of the Afon Llan, and 95m from the Afon Llan itself. It is acknowledged that otters feeding within the SAC are probably not wholly dependent on the coast for food but that they also use the rivers adjacent to the SAC for foraging. In addition, there is potential for the river to be utilised by migratory aquatic species which are qualifying features of the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, including allis shad, twaite shad, sea lamprey and river lamprey. It is therefore considered, in the absence of mitigation and detailed assessment, there is potential for non-physical disturbance to these Annex II species during construction to undermine the conservation objectives for the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, representing a likely significant effect. Marsh fritillary There is no pathway for effect due to the absence of possible functionally linked land.	**Screened In**
Changes to hydrological regime / water levels and quality	Uncertainty around water supply and wastewater discharge requirements for the development within the SPRA requires further investigation to determine whether the site is indirectly hydrologically connected and therefore has a possible pathway for LSE on the following Internationally Designated Sites: - River Usk SAC: water abstraction – shared service reservoir in headwaters of Usk catchment - River Tywi SAC: water abstraction (both river and service reservoir abstraction), and wastewater discharge (functionally linked land / mobile species); - Crymlyn Bog Ramsar and SAC: upgrades to network infrastructure and wastewater discharge upstream of site;	**Screened In**

Potential Effect	Rationale	Screened In/ Out
	- Burry Inlet Ramsar and SPA: wastewater discharge – functionally linked land; - Carmarthen Bay and Estuaries SAC: wastewater discharge - functionally linked land / mobile species - Carmarthen Bay and Dunes SAC: wastewater discharge - functionally linked land; and - Pembrokeshire Marine SAC: wastewater discharge - functionally linked land. The proposed mixed use developments also have a possible pathway for LSE through direct hydrological connection to the Carmarthen Bay and Estuaries SAC and Burry Inlet Ramsar and SPA, in light of remaining uncertainties around the Preferred Strategy delivery.	
Air pollution	The new link road proposed as part of this SPRA will not be located within 200m of an Internationally Designated Site. Increases in road traffic resulting from the overall population increase in Swansea has been considered in Section 6.1.4.	**Screened Out**
Recreational Disturbance / damage	Mixed use at this SPRA does not include housing. The development proposals associated with this SPRA will not contribute to any increase in the overall population within the Preferred Strategy area or result in localised pressure on Internationally Designated Sites.	**Screened Out**
SPRA 9: Cefn Coed Hospital, Cockett – Health Led		
General observations	The SPRA is an allocated site in the Adopted LDP for homes, leisure, health and recreation facilities. The site is at pre-planning application stage and is being promoted as a candidate site for a reduced capacity of 170 homes together with an Adult Mental Health Unit. The nearest Internationally Designated Site is Gower Commons SAC, located 3.43km west.	N/A
Habitat loss / physical damage	<u>Direct Habitat Loss</u> There will be no direct loss on any of the SAC, SPA and Ramsar habitat due to the spatial distance separating the SPRA boundary and designated sites, with the nearest Internationally Designated Site being Burry Inlet SPA/Ramsar and Carmarthen Bay and SAC and Ramsar site, located 3.4km northwest. <u>Functionally Linked Land: Wintering Birds</u> The closest designated site for wintering birds is Burry Inlet SPA/Ramsar, located approximately 4.7km west from the nearest point. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally Designated Site. The existing habitats within the SPRA boundary are comprised of the hospital and associated infrastructure, adjoining arable fields and several pockets of woodland. There is a green belt comprised of predominantly arable and woodland habitat which connects the SPRA to the Burry Inlet Ramsar/SPA to the east. However, given the location and small-scale nature of the SPRA, situated between urban development's Carnglas and Townhill, as well as the extensive arable landscape to the northwest, the existing habitat present within the SPRA boundary is not considered to be functionally linked to the SPA/Ramsar Sites and is therefore screened out. <u>Functionally Linked Land: Otters and Aquatic Species</u> There are no watercourses or waterbodies within the SPRA boundary. As such, no habitat loss / physical damage to functionally linked is anticipated. <u>Functionally Linked Land: Marsh fritillary</u> Using the ZoIs established for marsh fritillary in Appendix B, the SPRA falls within the 20km buffer for potential habitat loss/disturbance of functionally linked habitat outside two SAC boundaries; Caeau Mynydd Mawr SAC, located approximately 17.3km northwest and Gower Common SAC, located 3.48km southwest. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally Designated Site. NRW's Terrestrial Habitats of Principal Importance Map, which is derived from Phase 1 Terrestrial habitat and species surveys returned small fragments of purple moor and rush pasture habitat in the wider area. However, given the	**Screened Out**

Potential Effect	Rationale	Screened In/ Out
	location of the SPRA and the spatial distance between the two SACs separated by several urban developments such as Carnglas, Killay, Dunvant, Fforest-Fach, Gorseinon Garden Village and Ponterdulais providing a significant barrier to movement. It is there considered that the existing habitat present within the SPRA boundary is not considered to be functionally linked to populations of marsh fritillary associated with Caeau Mynydd Mawr SAC and Gower Commons SAC.	
Non-physical disturbance	Wintering Birds There is no pathway for effect due to the absence of possible functionally linked land. Otters and Aquatic Species The SPRA is not within 500m of any Internationally Designated Sites or potential functionally linked land. There is therefore no pathway for effect. Marsh fritillary There is no pathway for effect due to the absence of possible functionally linked land.	**Screened Out**
Changes to hydrological regime / water levels and quality	Mixed use development within the SPRA is indirectly hydrologically connected and therefore there is a possible pathway for LSE on the following Internationally Designated Sites: - River Usk SAC: water abstraction – shared service reservoir in headwaters of Usk catchment - River Tywi SAC: water abstraction (both river and service reservoir abstraction), and wastewater discharge (functionally linked land / mobile species); - Crymlyn Bog Ramsar and SAC: upgrades to network infrastructure and wastewater discharge upstream of site; - Burry Inlet Ramsar and SPA: wastewater discharge – functionally linked land; - Carmarthen Bay and Estuaries SAC: wastewater discharge - functionally linked land / mobile species - Carmarthen Bay and Dunes SAC: wastewater discharge - functionally linked land; and - Pembrokeshire Marine SAC: wastewater discharge - functionally linked land. The SPRA is not directly hydrologically connected to any Internationally Designated Site, and therefore, there is no possible pathway for direct LSE.	**Screened In**
Air pollution	No new roads are proposed that will run within 200m of an Internationally Designated Site. Increases in road traffic resulting from the overall population increase in Swansea has been considered in Section 6.1.4.	**Screened Out**
Recreational Disturbance / damage	Development in this location will contribute to the overall population increase within Swansea and within close proximity to Internationally Designated Sites. There are five Internationally Designated Sites within the ZoI for recreational disturbance as set out in Appendix B. These comprise Gower Ash Woods SAC, Gower Commons SAC, Carmarthen Bay and Estuaries SAC, Burry Inlet Ramsar site and Burry Inlet SPA. Outdoor sports and leisure activities and recreational activities are noted as a key threat to the Gower Commons SAC and Gower Ash Woods SAC in particular. Crymlyn Bog SAC and Ramsar site is also within 8km of this SPRA. However, as set out in Section 6, Crymlyn Bog SAC and Ramsar site is not considered to be sensitive to recreational disturbance/damage. In the absence of mitigation and detailed assessment, it is considered there is potential for increased recreational pressure resulting from this SPRA to undermine the conservation objectives for the Gower Ash Woods SAC, Gower Commons SAC, Carmarthen Bay and Estuaries SAC, Burry Inlet Ramsar site and Burry Inlet SPA, representing a likely significant effect.	**Screened In**
SPRA 10: Tawe Riverside Corridor and Hafod Morfa Copper - Mixed use		

Potential Effect	Rationale	Screened In/ Out
General observations	The SPRA is an existing Strategic Development Area in the Adopted LDP for culture led regeneration of new homes, employment and leisure uses. The site is a key regeneration priority for the council, incorporating a number of mixed-use regeneration sites and is being promoted though the Candidate Sites process. This SPRA will include the provision of 200 homes within the period covered by the Preferred Strategy. The nearest Internationally Designated Site is Crymlyn Bog SAC and Ramsar site, located 2.23km east.	N/A
Habitat loss / physical damage	Direct Habitat Loss There will be no direct loss on any of the SAC, SPA and Ramsar habitat due to the spatial distance separating the SPRA boundary and designated sites, with the nearest Internationally Designated Site being Crymlyn Bog SAC and Ramsar site, located 2.23km east. Functionally Linked Land: Wintering Birds The closest designated site for wintering birds is Burry Inlet SPA/Ramsar, located approximately 8.3km north west from the nearest point. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally Designated Site. The existing habitats within the SPRA boundary comprise the river corridor and associated marginal vegetation and is likely to be used by a range of waterfowl. However, given the location of the SPRA situated within a heavily urbanized environment and the riverine habitat likely unsuitable for a range of waterfowl associated with Burry Inlet Ramsar/SPA, the habitat present within the SPRA boundary is not considered to be functionally linked to the SPA/Ramsar Sites and is therefore screened out. Functionally Linked Land: Otters and Aquatic Species This SPRA encompasses the river corridor itself; any modification of the river channel as a result of development associated with this SPRA has the potential to result in the loss of functionally-linked land for Annex II species associated with the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, such as otter, allis shad, twaite shad, sea lamprey and river lamprey. Functionally Linked Land: Marsh fritillary Using the ZoIs established for marsh fritillary in Appendix B, the SPRA falls within the 20km buffer for potential habitat loss / physical disturbance of functionally linked habitat outside two SAC boundaries; Caeau Mynydd Mawr SAC, located approximately 17.9km northwest and Gower Common SAC, located 7.5km west. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally Designated Site. However, given the spatial distance between the areas and the heavily urbanized setting of the SPRA, located within the heart of the city it is therefore considered that the existing habitat present within the SPRA boundary is not functionally linked to populations of marsh fritillary associated with Caeau Mynydd Mawr SAC and Gower Commons SAC.	**Screened In**
Non-physical disturbance	Wintering Birds There is no pathway for effect due to the absence of possible functionally linked land. Otter and Aquatic Species This SPRA is not directly hydrologically connected to any Internationally Designated Sites but encompasses the River Tawe for over 1.5km. There is potential for the river to be utilised by migratory aquatic species which are qualifying features of the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, including otter, allis shad, twaite shad, sea lamprey and river lamprey. It is therefore considered, in the absence of mitigation and detailed assessment, there is potential for non-physical disturbance to these Annex II species during construction to undermine the conservation objectives for the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, representing a likely significant effect. Marsh fritillary There is no pathway for effect due to the absence of possible functionally linked land.	**Screened In**

Potential Effect	Rationale	Screened In/ Out
Changes to hydrological regime / water levels and quality	Mixed use development within the SPRA is indirectly hydrologically connected and therefore has a possible pathway for LSE on the following Internationally Designated Sites: - River Usk SAC: water abstraction – shared service reservoir in headwaters of Usk catchment - River Tywi SAC: water abstraction (both river and service reservoir abstraction), and wastewater discharge (functionally linked land / mobile species); - Crymlyn Bog Ramsar and SAC: upgrades to network infrastructure and wastewater discharge upstream of site; - Burry Inlet Ramsar and SPA: wastewater discharge – functionally linked land; - Carmarthen Bay and Estuaries SAC: wastewater discharge - functionally linked land / mobile species - Carmarthen Bay and Dunes SAC: wastewater discharge - functionally linked land; and - Pembrokeshire Marine SAC: wastewater discharge - functionally linked land. The SPRA is not directly hydrologically connected to any Internationally Designated Sites. However, there is potential for surface runoff during construction to enter Swansea Bay, impacting functionally-linked land utilised by qualifying features of the Carmarthen Bay and Estuaries SAC, Bristol Channel Approaches SAC and Pembrokeshire Marine SAC. Therefore, in the absence of mitigation and detailed assessment, LSE cannot be ruled out.	**Screened In**
Air pollution	No new roads are proposed that will run within 200m of an Internationally Designated Site. Increases in road traffic resulting from the overall population increase in Swansea has been considered in Section 6.1.4.	**Screened Out**
Recreational Disturbance / damage	Development in this location will contribute to the overall population increase within Swansea and within close proximity to Internationally Designated Sites. There is one Internationally Designated Site within the ZoI for recreational disturbance as set out in Appendix B, comprising Gower Commons SAC. Crymlyn Bog SAC and Ramsar site is also within 8km of this SPRA. However, as set out in Section 6, Crymlyn Bog SAC and Ramsar site is not considered to be sensitive to recreational disturbance/damage. Outdoor sports and leisure activities and recreational activities are noted as a key threat to the Gower Commons SAC in particular. In the absence of mitigation and detailed assessment, it is considered there is potential for increased recreational pressure resulting from this SPRA to undermine the conservation objectives for Gower Commons SAC, representing a likely significant effect.	**Screened In**
SPRA 11: Swansea Central Area and City Waterfront – Mixed use		
General observations	The SPRA is an existing Strategic Development Area in the adopted LDP. Significant development within the area is progressing and the site has significant potential for residential delivery during plan period. A conservative estimate of 200 homes is included at this stage, subject to further assessment. The nearest Internationally Designated Site is Crymlyn Bog SAC and Ramsar site, located 1.85km east.	N/A
Habitat loss / physical damage	<u>Direct Habitat Loss</u> There will be no direct loss on any of the SAC, SPA and Ramsar habitat due to the spatial distance separating the SPRA boundary and designated sites, with the nearest Internationally Designated Site being Crymlyn Bog SAC and Ramsar site, located 2.23km east. <u>Functionally Linked Land: Wintering Birds</u> The closest designated site for wintering birds is Burry Inlet SPA/Ramsar, located approximately 7.9km northwest from the nearest point. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally Designated Site. The existing habitats within the site are predominantly urban being located within the central area and waterfront of Swansea City. Whilst the marine is likely to be utilized by waterfowl, as well as built up areas may be populated with colonies of gulls, given the location and urban	**Screened In**

Potential Effect	Rationale	Screened In/ Out
	environment of the area, the existing habitat present within the SPRA boundary is not considered to be functionally linked to the SPA/Ramsar Sites and is therefore screened out. <u>Functionally Linked Land: Otters and Aquatic Species</u> This SPRA encompasses the Maritime Quarter and is therefore not directly hydrologically connected to any Internationally Designated Sites but is directly adjacent to the River Tawe and Swansea Bay. There is potential for the river to be utilised by migratory aquatic species which are qualifying features of the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, including allis shad, twaite shad, sea lamprey and river lamprey. This SPRA encompasses Swansea Marine which is directly adjacent to Swansea Bay and the Port of Swansea. These areas may form functionally linked areas of sea for harbour porpoise and grey seal which are qualifying features of Bristol Channel Approaches SAC and Pembrokeshire Marine SAC respectively. It is therefore considered, in the absence of mitigation and detailed assessment, there is potential for loss/ physical damage to functionally linked habitat associated with Annex II species for the Carmarthen Bay and Estuaries SAC, Pembrokeshire Marine SAC and Bristol Channel Approaches, and is therefore screened in. <u>Functionally Linked Land: Marsh fritillary</u> Using the ZoIs established for marsh fritillary in Appendix B, the SPRA falls within the 20km buffer for potential habitat loss / physical disturbance of functionally linked habitat outside two SAC boundaries; Caeau Mynydd Mawr SAC, located approximately 19km northwest and Gower Common SAC, located 6.5km west. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally Designated Site. However, given the spatial distance between the areas and the heavily urbanized setting of the SPRA, located within the heart of the city it is therefore considered that the existing habitat within the SPRA boundary is functionally linked to populations of marsh fritillary associated with Caeau Mynydd Mawr SAC and Gower Commons SAC.	
Non-physical disturbance	<u>Wintering Birds</u> There is no pathway for effect due to the absence of possible functionally linked land. <u>Otter and Aquatic Species</u> This SPRA is not directly hydrologically connected to any Internationally Designated Sites but is directly adjacent to the River Tawe and Swansea Bay. There is potential for the river to be utilised by migratory aquatic species which are qualifying features of the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, including allis shad, twaite shad, sea lamprey and river lamprey. This SPRA is directly adjacent to Swansea Bay and the Port of Swansea. These areas may form functionally linked areas of sea for harbour porpoise and grey seal which are qualifying features of Bristol Channel Approaches SAC and Pembrokeshire Marine SAC respectively. Both of these species are known to be particularly sensitive to noise disturbance and could therefore be receptive to non-physical disturbance during construction. It is therefore considered, in the absence of mitigation and detailed assessment, there is potential for non-physical disturbance to Annex II species associated with the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC and Bristol Channel Approaches SAC, representing a likely significant effect. <u>Marsh fritillary</u> There is therefore no pathway for effect due to the absence of possible functionally linked land.	**Screened In**
Changes to hydrological regime / water levels and quality	Mixed-use development within the SPRA is indirectly hydrologically connected and therefore there is a possible pathway for LSE on the following Internationally Designated Sites: - River Usk SAC: water abstraction – shared service reservoir in headwaters of Usk catchment - River Tywi SAC: water abstraction (both river and service reservoir abstraction), and wastewater discharge (functionally linked land / mobile species);	**Screened In**

Potential Effect	Rationale	Screened In/ Out
	- Crymlyn Bog Ramsar and SAC: upgrades to network infrastructure and wastewater discharge upstream of site; - Burry Inlet Ramsar and SPA: wastewater discharge – functionally linked land; - Carmarthen Bay and Estuaries SAC: wastewater discharge - functionally linked land / mobile species - Carmarthen Bay and Dunes SAC: wastewater discharge - functionally linked land; and - Pembrokeshire Marine SAC: wastewater discharge - functionally linked land. The SPRA is not directly hydrologically connected to any Internationally Designated Sites. However, there is potential for surface runoff during construction to enter Swansea Bay, impacting functionally-linked land utilised by qualifying features of the Carmarthen Bay and Estuaries SAC, Bristol Channel Approaches SAC and Pembrokeshire Marine SAC. Therefore, in the absence of mitigation and detailed assessment, LSE cannot be ruled out.	
Air pollution	No new roads are proposed that will run within 200m of an Internationally Designated Site. Increases in road traffic resulting from the overall population increase in Swansea has been considered in Section 6.1.4.	**Screened Out**
Recreational Disturbance / damage	Development in this location will contribute to the overall population increase within Swansea and within close proximity to Internationally Designated Sites. There are two Internationally Designated Sites within the ZoI for recreational disturbance as set out in Appendix B. These comprise Gower Ash Woods SAC and Gower Commons SAC. Outdoor sports and leisure activities and recreational activities are noted as a key threat to both the Gower Commons SAC and Gower Ash Woods SAC. Crymlyn Bog SAC and Ramsar site is also within 8km of this SPRA. However, as set out in Section 6, Crymlyn Bog SAC and Ramsar site is not considered to be sensitive to recreational disturbance/damage. In the absence of mitigation and detailed assessment, it is considered there is potential for increased recreational pressure resulting from this SPRA to undermine the conservation objectives for the Gower Ash Woods SAC and Gower Commons SAC, representing a likely significant effect. A small area (less than 1ha) of the Carmarthen Bay and Estuaries SAC, Burry Inlet SPA and Burry Inlet Ramsar site is within 8km of the SPRA. However, impacts to these sites have been screened out as this area is not directly accessible from the road or transport network. Therefore, travel to these Internationally Designated Sites would necessitate travel over a distance greater than 8km.	**Screened In**
SPRA 12: SA1 Swansea Waterfront – Mixed use		
General observations	The SPRA is part of an existing Strategic Development Area in the adopted LDP and is closely interlinked with the Swansea Port and Docks and wider Fabian Way Corridor SPRA (SPRA 13). Significant development within the area is progressing. Remaining development plots of land have been submitted as Candidate Sites for LDP2. The site has significant potential for residential delivery during the plan period. A conservative estimate of 200 homes is included at this stage, subject to further assessment. The nearest Internationally Designated Site is Crymlyn Bog SAC and Ramsar site, located 0.63km east.	N/A
Habitat loss / physical damage	<u>Direct Habitat Loss</u> There will be no direct loss on any of the SAC, SPA and Ramsar habitat due to the spatial distance separating the SPRA boundary and designated sites, with the nearest Internationally Designated Site being Crymlyn Bog SAC and Ramsar site, located 0.63km east and separated by the A483. <u>Functionally Linked Land: Wintering Birds</u> The closest designated site for wintering birds is Burry Inlet SPA/Ramsar, located approximately 9km northwest from the nearest point. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally Designated Site. The SPRA encompasses Swansea Waterfront, which encompasses the Prine of Wales Dock and the surrounding area. The waterfront is predominantly urbanized, comprised of a mixture of industrial warehouses, brownfield land and residential developments. Whilst this area is likely to be utilized by a range of waterfowl such as ducks, geese and gulls, given the distance between the SPRA and the Burry Inlet Ramsar/SPA, as well as	**Screened In**

Potential Effect	Rationale	Screened In/ Out
	the reduced foraging availability, the existing habitat present within the SPRA boundary is not considered to be functionally linked to the SPA/Ramsar Sites and is therefore screened out. Functionally Linked Land: Otters and Aquatic Species This SPRA encompasses the Prince of Wales Dock and is therefore not directly hydrologically connected to any Internationally Designated Sites but is directly adjacent to the River Tawe. There is potential for the river to be utilised by migratory aquatic species which are qualifying features of the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, including otter, allis shad, twaite shad, sea lamprey and river lamprey. This SPRA is directly adjacent to Swansea Docks which is directly adjacent to Swansea Bay and the Port of Swansea. These areas may form functionally linked areas of sea for harbour porpoise and grey seal which are qualifying features of Bristol Channel Approaches SAC and Pembrokeshire Marine SAC respectively. It is therefore considered, in the absence of mitigation and detailed assessment, there is potential for loss/ physical damage to functionally linked habitat associated with Annex II species of the Carmarthen Bay and Estuaries SAC, Pembrokeshire Marine SAC and Bristol Channel Approaches, and is therefore screened in. Functionally Linked Land: Marsh fritillary Using the ZoIs established for marsh fritillary in Appendix B, the SPRA falls within the 20km buffer for potential habitat loss / physical disturbance of functionally linked habitat outside one SAC boundary; Gower Common SAC, located 7.8km west. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally Designated Site. However, given the spatial distance between the areas and the heavily urbanized setting of the SPRA which located within the heart of the city, it is therefore considered that the existing habitat within the SPRA boundary is not functionally linked to populations of marsh fritillary associated with Gower Commons SAC.	
Non-physical disturbance	Wintering Birds There is no pathway for effect due to the absence of possible functionally linked land. Otter and Aquatic Species This SPRA is not directly hydrologically connected to any Internationally Designated Sites, but is directly adjacent to the River Tawe. There is potential for the river to be utilised by migratory aquatic species which are qualifying features of the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, including otter, allis shad, twaite shad, sea lamprey and river lamprey. This SPRA is directly adjacent to Swansea Bay and the Port of Swansea. These areas may form functionally linked areas of sea for harbour porpoise and grey seal which are qualifying features of Bristol Channel Approaches SAC and Pembrokeshire Marine SAC respectively. Both of these species are known to be particularly sensitive to noise disturbance and could therefore be receptive to non-physical disturbance during construction. It is therefore considered, in the absence of mitigation and detailed assessment, there is potential for non-physical disturbance to these Annex II species during construction to undermine the conservation objectives for the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC and Bristol Channel Approaches SAC, representing a likely significant effect. Marsh fritillary There is therefore no pathway for effect due to the absence of possible functionally linked land.	**Screened In**
Changes to hydrological regime / water levels and quality	Mixed use development within the SPRA is indirectly hydrologically connected and therefore has a possible pathway for LSE on the following Internationally Designated Sites: - River Usk SAC: water abstraction – shared service reservoir in headwaters of Usk catchment - River Tywi SAC: water abstraction (both river and service reservoir abstraction), and wastewater discharge (functionally linked land / mobile species);	**Screened In**

Potential Effect	Rationale	Screened In/ Out
	- Crymlyn Bog Ramsar and SAC: upgrades to network infrastructure and wastewater discharge upstream of site; - Burry Inlet Ramsar and SPA: wastewater discharge – functionally linked land; - Carmarthen Bay and Estuaries SAC: wastewater discharge - functionally linked land / mobile species - Carmarthen Bay and Dunes SAC: wastewater discharge - functionally linked land; and - Pembrokeshire Marine SAC: wastewater discharge - functionally linked land. The SPRA is not directly hydrologically connected to any Internationally Designated Sites. However, there is potential for surface runoff during construction to enter Swansea Bay, impacting functionally-linked land utilised by qualifying features of the Carmarthen Bay and Estuaries SAC, Bristol Channel Approaches SAC and Pembrokeshire Marine SAC. Therefore, in the absence of mitigation and detailed assessment, LSE cannot be ruled out.	
Air pollution	There is potential for any new roads required as part of associated infrastructure with this SPRA to run within 200m of Crymlyn Bog SAC and Ramsar site. Air pollution is a key threat to Crymlyn Bog SAC. It is therefore considered that in the absence of mitigation and detailed assessment, there is potential for development in this area to undermine the conservation objectives of the Cyrmlyn Bog SAC, resulting in a likely significant effect. Increases in road traffic resulting from the overall population increase in Swansea has been considered in Section 6.	**Screened In**
Recreational Disturbance / damage	Development in this location will contribute to the overall population increase within Swansea and within close proximity to Internationally Designated Sites. There is one Internationally Designated Site within the ZoI for recreational disturbance as set out in Appendix B, comprising Gower Commons SAC, for which outdoor sports and leisure activities and recreational activities are noted as a key threat. Crymlyn Bog SAC and Ramsar site is also within 8km of this SPRA. However, as set out in Section 6, Crymlyn Bog SAC and Ramsar site is not considered to be sensitive to recreational disturbance/damage. In the absence of mitigation and detailed assessment, it is considered there is potential for increased recreational pressure resulting from this SPRA to undermine the conservation objectives for the Gower Commons SAC, representing a likely significant effect. Increases in road traffic resulting from the overall population increase in Swansea has been considered in Section 6.1.4.	**Screened In**
SPRA 13: Swansea Port & Docks and Fabian Way Corridor – Mixed use		
General observations	The SPRA is part of an existing Strategic Development Area in the adopted LDP and is closely interlinked with SPRA 12. The SPRA offers a key opportunity to take advantage of significant regeneration opportunities including zero carbon energy and employment uses. The nearest Internationally Designated Site is Crymlyn Bog SAC and Ramsar site, located 59m to the north.	N/A
Habitat loss / physical damage	<u>Direct Habitat Loss</u> There will be no direct loss on any of the SAC, SPA and Ramsar habitat due to the spatial distance separating the SPRA boundary and designated sites, with the nearest Internationally Designated Site being Crymlyn Bog SAC and Ramsar site, located 59m north and separated by the A483. <u>Functionally Linked Land: Wintering Birds</u> The closest designated site for wintering birds is Burry Inlet SPA/Ramsar, located approximately 9.6km northwest from the nearest point. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally Designated Site. The SPRA encompasses Swansea Port and Docks. The Port and Docks is predominantly urbanized, comprised of a mixture of industrial warehouses, brownfield land and residential developments. Whilst this area is likely to be utilized by a range of waterfowl such as ducks, geese and gulls, given the distance between the SPRA and the Ramsar/SPA Sites, as well as the reduced foraging availability, the existing habitat present within the SPRA boundary is not considered to be functionally linked to the SPA/Ramsar Sites and is therefore screened out. <u>Functionally Linked Land: Otters and Aquatic Species</u>	**Screened In**

Potential Effect	Rationale	Screened In/ Out
	This SPRA encompasses the river corridor itself, any modification of the river channel as a result of development associated with this SPRA has the potential to result in the loss of functionally linked land for aquatic mobile species that may utilise this stretch of the River Tawe. There is potential for the river to be utilised by migratory aquatic species which are qualifying features of the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC, including otter, allis shad, twaite shad, sea lamprey and river lamprey. This SPRA also encompasses Swansea Port and Docks, these areas may form functionally linked areas of sea for harbour porpoise and grey seal which are qualifying features of Bristol Channel Approaches SAC and Pembrokeshire Marine SAC respectively. It is therefore considered, in the absence of mitigation and detailed assessment, there is potential for loss/ physical damage to functionally linked habitat associated with Annex II species of the Carmarthen Bay and Estuaries SAC, Pembrokeshire Marine SAC and Bristol Channel Approaches, and is therefore screened in. Functionally Linked Land: Marsh fritillary Using the ZoIs established for marsh fritillary in Appendix B, the SPRA falls within the 20km buffer for potential habitat loss / physical disturbance of functionally linked habitat outside one SAC boundaries; Gower Common SAC, located 8km west. Project-level survey and assessment work would be required to establish the importance of an area to support qualifying features outside of an Internationally Designated Site. However, given the spatial distance between the areas and the heavily urbanized setting of the SPRA which located within the heart of the city, it is therefore considered that the existing habitat within the SPRA boundary is not functionally linked to populations of marsh fritillary associated with Gower Commons SAC.	
Non-physical disturbance	Wintering Birds There is no pathway for effect due to the absence of possible functionally linked land. Otters and Aquatic Species This SPRA is not directly hydrologically connected to any Internationally Designated Sites but extends into Swansea Bay below the Mean High Water Springs (MHWS) mark. These areas may form functionally linked areas of sea for harbour porpoise and grey seal which are qualifying features of Bristol Channel Approaches SAC and Pembrokeshire Marine SAC respectively. Both of these species are known to be particularly sensitive to noise disturbance and could therefore be receptive to non-physical disturbance during construction. It is therefore considered, in the absence of mitigation and detailed assessment, there is potential for non-physical disturbance to these Annex II species during construction to undermine the conservation objectives for the Carmarthen Bay and Estuaries SAC and Pembrokeshire Marine SAC and Bristol Channel Approaches SAC, representing a likely significant effect. Marsh fritillary There is no pathway for effect due to the absence of possible functionally linked land.	**Screened In**
Changes to hydrological regime / water levels and quality	Mixed use development within the SPRA is indirectly hydrologically-connected and therefore there is a possible pathway for LSE on the following Internationally Designated Sites: - River Usk SAC: water abstraction – shared service reservoir in headwaters of Usk catchment - River Tywi SAC: water abstraction (both river and service reservoir abstraction), and wastewater discharge (functionally linked land / mobile species); - Crymlyn Bog Ramsar and SAC: upgrades to network infrastructure and wastewater discharge upstream of site; - Burry Inlet Ramsar and SPA: wastewater discharge – functionally linked land; - Carmarthen Bay and Estuaries SAC: wastewater discharge - functionally linked land / mobile species - Carmarthen Bay and Dunes SAC: wastewater discharge - functionally linked land; and - Pembrokeshire Marine SAC: wastewater discharge - functionally linked land.	**Screened In**

Potential Effect	Rationale	Screened In/ Out
	The SPRA is not directly hydrologically connected to any Internationally Designated Sites. However, there is potential for surface runoff during construction to enter Swansea Bay, impacting functionally-linked land utilised by qualifying features of the Carmarthen Bay and Estuaries SAC, Bristol Channel Approaches SAC and Pembrokeshire Marine SAC. Therefore, in the absence of mitigation and detailed assessment, LSE cannot be ruled out.	
Air pollution	There is potential for any new roads required as part of associated infrastructure with this SPRA to run within 200m of Crymlyn Bog SAC and Ramsar site. Air pollution is a key threat to Crymlyn Bog SAC. It is therefore considered that in the absence of mitigation and detailed assessment, there is potential for development in this area to undermine the conservation objectives of the Crymlyn Bog SAC, resulting in a likely significant effect. Increases in road traffic resulting from the overall population increase in Swansea has been considered in Section 6.1.4.	**Screened In**
Recreational Disturbance / damage	Development in this location will contribute to the overall population increase within Swansea and within close proximity to Internationally Designated Sites. There is one Internationally Designated Site within the ZoI for recreational disturbance as set out in Appendix B, comprising Gower Commons SAC, for which outdoor sports and leisure activities and recreational activities are noted as a key threat. Crymlyn Bog SAC and Ramsar site is also within 8km of this SPRA. However, as set out in Section 6, Crymlyn Bog SAC and Ramsar site is not considered to be sensitive to recreational disturbance/damage. In the absence of mitigation and detailed assessment, it is considered there is potential for increased recreational pressure resulting from this SPRA to undermine the conservation objectives for Gower Commons SAC, representing a likely significant effect.	**Screened In**