



Candwr Solar Farm

Pre Application Consultation

Environmental Statement

Chapter 13: Summary

2 July 2026



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13. Summary

13.1. Introduction

- 13.1.1. This draft chapter provided for Statutory Consultation forms the summary of the Environmental Statement ("ES") which addresses any likely significant environmental effects as a result of the Proposed Development on land at Court Farm, Ponthir, Monmouthshire (the "Application Site" or "Site").
- 13.1.2. This ES has been prepared on behalf of Candwr Solar Farm Ltd (the "Applicant") seeking to obtain planning permission for the construction, operation and decommissioning of Candwr Solar Farm, a ground mounted solar photovoltaic (PM) farm approximately 46 Mega Watts (MW) with all associated works, equipment and necessary infrastructure (the "Proposed Development")
- 13.1.3. The Application Site is situated within the administrative area of Monmouthshire County Council (MCC), Torfaen County Borough (TCB) Council and Newport City Council (NCC). The location and geographic extent of the Proposed Development site is presented in **Figure 1.1 – Site Location Plan** of the ES.
- 13.1.4. The ES has been coordinated and managed by Pegasus Group. Pegasus Group is one of the founding members of the ISEP Quality Mark, which is a mark of excellence in EIA co-ordination and management. The consultants who have contributed to the preparation of this ES are referenced in the Competency Statement at the front of this document, along with information demonstrating their *"expertise to ensure the completeness and quality of the ES"*, in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (the 'EIA Regulations').

Environmental Statement Availability and Comments

- 13.1.5. The draft Environmental Statement (ES) is available to view free of charge on the project website (<https://candwrsolarfarm.co.uk>). Hard copies of the ES (including the main text and technical appendices) (£500) and the Non-Technical Summary (NTS) (£40) can be purchased, along with digital copies on USB (£15), with postage costs applying. Requests for copies should be made to Pegasus Group, quoting project reference (P24-2075).
- 13.1.6. Following the statutory pre-application consultation, all representations received will be reviewed and taken into account in developing the project. Where necessary, further consultation may be undertaken to reflect any substantive changes. Subject to this process, the Applicant intends to finalise and submit the application to Planning and Environment Decisions Wales (PEDW) in winter 2026.

13.2. The Environmental Statement – Scope and Methodology

- 13.2.1. In order to determine if it is necessary to undertake an EIA to accompany a planning application, Regulation 7 of the EIA Regulations makes provision for an applicant to request PEDW (on behalf of the Welsh Ministers) for a 'Screening Direction'. The

Proposed Development falls within Category 3(a) 'Energy Industry' – Industrial installations for the production of electricity, steam, and hot water (unless included in Schedule 1). The Applicant submitted a request for an EIA Screening Direction, issued to PEDW on the 8th April 2025 (reference: DNS CAS-02366-F2C3K8). A Screening Direction was adopted by PEDW on 12th June 2025 (**Appendix 1.1 – EIA Screening Direction 12.06.25**) confirming the application was EIA required.

- 13.2.2. The aim of an EIA and the resultant ES is to assess the '*likely significant effects*' of a project, in accordance with the EIA Regulations.
- 13.2.3. 'Scoping' defines the topics and issues to be assessed in the ES and ensures likely significant effects and relevant mitigation measures are identified. A request for an EIA Scoping Direction was issued to PEDW (on behalf of the Welsh Government) on 30th September 2025 (**Appendix 2.1 – EIA Scoping Report**) to seek agreement on the scope and methodology of the EIA. An EIA Scoping Direction was adopted by the Welsh Government on 11th February 2026 (**Appendix 2.2 – EIA Scoping Direction 11.02.2026**). All issues raised in the Scoping Direction have been considered during the EIA process and are discussed in further detail in the ES Chapters.
- 13.2.4. Accordingly, this ES has addressed those environmental issues which are considered pertinent and that could potentially result in "*likely significant effects*" as required by the EIA Regulations. The ES therefore contains standalone technical chapters on landscape and visual amenity, ecology, glint and glare, agricultural circumstances, water environment, built heritage and transport and access. All other disciplines are not considered to be significantly affected as a result of the Proposed Development and full justification for those topics 'scoped out' of the ES have been provided in Chapter 2. All chapters have been prepared by specialists to ensure compliance with the EIA Regulations.
- 13.2.5. Each technical chapter has identified 'likely significant effects' using a pre-determined assessment criteria which often, but not always, reflects the relationship between the magnitude or severity of an effect; and the sensitivity, importance or value of a receptor. Where necessary, mitigation measures have been proposed to ameliorate effects specific to an environmental theme, many of which are purposely incorporated into the design of the proposals and are highlighted as 'mitigation by design'. 'Additional mitigation' measures may also be proposed, which may be subject to appropriate planning conditions or obligations.
- 13.2.6. As part of the evolution of the Proposed Development, a wide range of non-statutory pre-application consultation and engagement has occurred, including:
- early and continued discussions with PEDW, including inception and pre-application meetings and formal advice,
 - pre-application advice was also sought from relevant local planning authorities, alongside wider engagement with statutory and non-statutory consultees,
 - a non-statutory public consultation held in June–July 2025, including a public exhibition and online engagement, and

- engagement with elected representatives, councils, and community groups.

13.3. The Application Site and Context

Application Site

- 13.3.1. The Application Site comprises approximately 131.62 hectares of predominantly agricultural land at Court Farm, Ponthir, Monmouthshire, including associated cable routes. The Site extends across sixteen land parcels located within the administrative areas of Monmouthshire County Council, Torfaen County Borough Council and Newport City Council.
- 13.3.2. The Site is located approximately 5.2 km north-east of Newport, 1 km east of Ponthir, and 2.4 km north of Caerleon. It lies within a rural landscape characterised by open countryside, undulating ridges and valleys, with development proposed primarily on south-facing slopes of higher ground.
- 13.3.3. The Site comprises a mixture of arable and pasture fields enclosed by hedgerows and mature trees. Sections of local roads are included within the red line boundary to facilitate cable routing.
- 13.3.4. The sixteen Land Parcels are detailed individually in **draft Chapter 3 – Application Site**. A summary is provided below of how the Site contains and is influenced by the following key environmental and land-use features:
- Field structure and boundaries: Land parcels are typically defined by mature hedgerows, trees and occasional woodland blocks, including areas of Ancient Woodland located adjacent to (but generally outside) the Site boundary. Variable agricultural land quality (Grades 2–4) across the Site.
 - Ecology: habitats are largely of low value at field level but are supplemented by higher value features such as hedgerows, woodland, and watercourses, which support protected species and provide links to nearby designated sites, including the River Usk SAC
 - Watercourses and drainage: Several parcels include or are adjacent to small watercourses, tributaries of Candwr Brook and drainage features.
 - Flood risk: The majority of the Site is located within Flood Zone 1, indicating low risk of flooding, with limited areas adjacent to watercourses falling within higher flood zones.
 - Topography: The landform is varied and undulating, with elevations typically ranging between approximately 10 m AOD and 80 m AOD, generally sloping across valley sides.
 - Landscape designations: Parts of the Site fall within or adjacent to the Torfaen Special Landscape Area (a local, non-statutory designation).

- Built Heritage: A number of Listed Buildings and a Scheduled Monument (Candwr Camp) are located in the wider area, generally outside but in proximity to certain Land Parcels.
- Public Access: The Site is crossed and bordered by a number of Public Rights of Way, including footpaths connecting surrounding settlements and countryside.
- Nuisance: Good baseline air quality and low noise levels in local vicinity.
- Traffic: The Site is located within a predominantly rural highway network approximately 3 km north of Junction 25 of the M4, served by local lanes, the B4236 and the A4042. Baseline conditions are characterised by existing traffic flows, including HGV movements, with no identified highway safety issues based on collision data.
- Existing Infrastructure: The Site is influenced by existing infrastructure, including overhead power lines, pipelines (gas and water), roads, and adjacent utility infrastructure, notably the Dŵr Cymru Welsh Water Court Farm Treatment Works and reservoir.

13.3.5. Baseline environmental conditions have been established using a combination of desk studies, field surveys, and technical assessments across all topics, applying recognised methodologies (e.g., GLVIA, CIEEM, ISEP, EPUK/IAQM). These include modelling and data-led approaches where appropriate, such as ZTV analysis for landscape, flood risk mapping, traffic surveys, and noise and glint/glare modelling.

13.3.6. Local receptors that could be sensitive to change include nearby residents, PRoW users, and aviation receptors. The environmental context reflects a typical rural location with some constraints and sensitivities, but no overriding environmental designations or baseline conditions that would preclude development.

13.4. The Proposed Development

13.4.1. The Proposed Development comprises a Development of National Significance application for:

"An installation and operation of ground mounted solar photovoltaic arrays with all associated works, equipment and necessary infrastructure"

13.4.2. The Proposed Development has a capacity of approximately 46MW and is expected to generate enough electricity to supply an average of up to approximately 18,000 households per year, contributing to carbon emission reductions and the transition to renewable energy. The primary purpose of the development is to provide renewable energy directly to Dŵr Cymru Welsh Water's Court Farm Treatment Works via a private wire connection, with any surplus renewable energy generated 'sleeved' to other Dŵr Cymru Welsh Water sites around Wales via the National Grid. The project supports energy security, reduces reliance on grid electricity, and assists in stabilising energy costs while contributing to wider carbon reduction targets.

- 13.4.3. The design of the Proposed Development has been refined throughout the EIA process. It is recognised that parts of the Proposed Development design and construction methodology, as presented, may be subject to further refinement and optimisation prior to and during construction. This is very pertinent to solar development due to the rapid pace of change in technology. For example, as technology advances, it is possible that solar PV panels could become more efficient, which could result in a potential reduction in total panel area required to deliver the same amount of generation. This in turn could require the micro-siting of panels and the associated equipment and infrastructure to reflect such changes, i.e., the final alignments of cabling and the number and location of panels, substation, inverters and transformers.
- 13.4.4. This EIA has employed a maximum (or minimum where appropriate) design scenario. A 'worst case' scenario/ Rochdale Envelope approach to the environmental impact of a Proposed Development and allows for a broad definition of the project to be framed within a number of set parameters. The submitted site layout is therefore indicative as the detailed layout and phasing of construction will be agreed with the Local Planning Authority (LPA) by way of planning condition following grant of planning permission. The final detailed layout will demonstrate how the final 'as-build' design remains within the parameters of the design principles considered by this ES.
- 13.4.5. The Proposed Development comprises ground-mounted solar PV panels supported by a steel framework, with associated infrastructure including inverters, transformers, underground cabling and an onsite 132kV substation. Panels would have a maximum height of 3 m and be arranged in rows following site topography, with land beneath used for biodiversity enhancement and potential grazing.
- 13.4.6. Electrical infrastructure includes string inverters, MV stations and transformers distributed across the Site, with electricity transmitted via predominantly underground cabling to the onsite 132kV substation compounds and connection to the existing electricity network.
- 13.4.7. The Proposed Development is supported by a network of existing and new access points, internal access tracks and temporary construction compounds. Construction traffic would primarily access the Site via the B4236, with operational traffic limited to occasional maintenance visits.
- 13.4.8. The Proposed Development incorporates drainage design based on sustainable drainage principles to manage surface water and avoid increasing flood risk. All infrastructure is located, where possible, within areas of lowest flood risk and designed to maintain natural drainage patterns.
- 13.4.9. Landscape and ecological mitigation and enhancement are integral to the Proposed Development, including retention and enhancement of habitats, new planting, and measures to protect species and improve biodiversity connectivity. Public Rights of Way will be retained, with additional permissive paths proposed to enhance accessibility.

- 13.4.10. Security measures include fencing, CCTV and limited lighting at key infrastructure, with no continuous lighting across the Site. Temporary construction areas will be reinstated following completion, and the final design of key elements will be secured through planning conditions.
- 13.4.11. The construction phase of the Proposed Development is anticipated to commence in 2029 and last approximately 12–18 months, with operation expected by 2031. Construction activities will include site preparation, installation of infrastructure (including solar panels, cabling and substation), and testing and commissioning, followed by site reinstatement and habitat creation.
- 13.4.12. Construction will be managed through a Construction Environmental Management Plan (CEMP), which sets out measures to control environmental effects. Working hours are expected to be limited to weekdays and Saturday mornings, with deliveries scheduled outside peak traffic periods.
- 13.4.13. Construction will involve typical plant and equipment, with a peak workforce of up to approximately 150 personnel on-site. A worst-case approach has been adopted to assess potential environmental effects, recognising that details may be refined during detailed design.
- 13.4.14. The Proposed Development will operate for a design life of up to 40 years, with minimal on-site activity limited to maintenance, monitoring, equipment replacement and landscape and ecological management. There will be no permanent staff on-site, with access required only periodically for maintenance purposes. Operational areas will be secured by fencing and CCTV, and land beneath and between panels will support biodiversity enhancements and potential grazing.
- 13.4.15. At the end of its operational life, the scheme will be decommissioned over a period of up to 12 months. This will involve the removal of all above-ground infrastructure and shallow cabling, with deeper cabling potentially left in situ to minimise ground disturbance. The onsite 132KV substation will remain as part of the wider electricity network.
- 13.4.16. The Site is expected to be restored to agricultural use following decommissioning, with established vegetation such as hedgerows and trees retained where appropriate. Decommissioned materials will be reused, recycled or disposed of in accordance with good practice and relevant regulations. A detailed decommissioning plan will be secured by planning condition.

13.5. Consideration of Alternatives and Design Evolution

- 13.5.1. The ES considers a range of reasonable alternatives in accordance with the EIA Regulations, including the 'no development' scenario, alternative locations, design evolution, and different technological options.
- 13.5.2. The 'no development' scenario would result in the Site remaining in agricultural use but would not deliver renewable energy generation or associated carbon savings and is therefore not considered a reasonable alternative.

- 13.5.3. Alternative sites were identified through a detailed site selection process within a 10 km search area based on key criteria including grid connection availability, environmental constraints, land suitability, and deliverability. Three potential alternative areas were identified but were discounted due to greater environmental constraints and/or less favorable grid connection opportunities. The Application Site was selected as the most suitable and deliverable location.
- 13.5.4. The design of the Proposed Development has been shaped through an iterative process, informed by environmental reviews, baseline surveys, and consultation feedback. This approach allowed early identification of mitigation measures, which have been integrated into the design. The preferred option which forms the Proposed Development conforms to the Development Parameters that have been subject to EIA, as reported in this ES.
- 13.5.5. Alternative technologies were also considered. Fixed solar panels have been selected over tracking systems due to reduced maintenance, lower noise and reduced potential for glint and glare. String inverters have been selected in preference to centralised inverters due to their lower visual impact, reduced noise, and greater operational resilience.

13.6. Landscape and Visual Amenity

Introduction

- 13.6.1. Chapter 5 of the ES considers the likely significant effects of the Proposed Development on landscape features in representative views towards the Site and on landscape character. Consideration is given to the baseline conditions; the sensitivity of landscape and visual receptors; the changes arising from the Proposed Development; and the effects of those changes on the range of receptors.

Baseline Conditions

- 13.6.2. The Site comprises gently undulating agricultural land, consisting of a mix of arable fields and pasture, located within a predominantly rural setting to the east of Ponthir. The surrounding landscape is characterised by a patchwork of fields enclosed by mature hedgerows, scattered trees, and occasional areas of woodland, including parcels of Ancient Woodland both within and adjacent to the Site. The wider landscape includes dispersed settlements, farmsteads, and individual dwellings, alongside infrastructure such as a water treatment works, reservoir, overhead power lines, and local roads. While the area is generally tranquil in character, there are some localised influences from nearby settlements and transport routes. A network of Public Rights of Way provides recreational access, with views varying from open, long-distance vistas on higher ground to more enclosed views within valleys shaped by topography and vegetation. Although the Site is not located within a nationally designated landscape, part of it lies within the locally designated Torfaen Special Landscape Area, reflecting its local importance.

Mitigation and Enhancement

- 13.6.3. The Proposed Development has been carefully designed to minimise potential landscape and visual effects through both embedded mitigation and enhancement measures. Solar panels are positioned within existing field boundaries to maintain the established field pattern, while sensitive features such as residential receptors, trees, and areas of ecological importance are avoided wherever possible. The design also takes advantage of existing landform and vegetation to reduce visibility. Additional mitigation is provided through a comprehensive planting strategy, including the creation of native woodland, hedgerows, hedgerow trees, orchard, grassland, and wildflower areas. These measures are intended not only to screen views of the development over time but also to enhance biodiversity and strengthen landscape structure. Existing features of high value, such as mature hedgerows, trees, and areas of Ancient Woodland, would be retained and protected, with any necessary vegetation removal being limited and offset through new planting. Furthermore, enhancements to the Public Rights of Way network, including new and improved permissive paths, would increase accessibility and recreational opportunities. Overall, these measures are designed to integrate the development into the surrounding landscape while delivering long-term environmental and community benefits.

Conclusion on Likely Significant Effects

- 13.6.4. Taking into account the embedded mitigation and enhancement measures, the assessment concludes that effects on landscape character and landscape features would generally not be significant across all phases of the development. The underlying character of the Site and the wider landscape would remain largely unchanged, with key features such as hedgerows, trees, and field patterns largely retained.
- 13.6.5. During the construction and decommissioning phases, temporary and localised effects would arise from activities such as construction works and vehicle movements; however, these effects would be short-term and reversible, with baseline conditions expected to be restored following decommissioning.
- 13.6.6. During the operational phase, effects on landscape character remain not significant at both Year 1 and Year 15, with some minor beneficial effects associated with changes in land management and habitat enhancement.
- 13.6.7. In terms of visual effects, some localised significant effects are identified at a small number of viewpoints close to or within the Site, particularly affecting nearby residents and users of Public Rights of Way. While mitigation planting would mature over time and provide additional screening, the rolling topography means that visibility would not be entirely removed at the closest receptors. Nevertheless, these effects are limited in extent and reduce with distance, with the majority of receptors experiencing effects that are not significant.
- 13.6.8. The assessment also concludes that no significant cumulative effects would arise when the Proposed Development is considered alongside other schemes in the area.

- 13.6.9. Overall, despite some localised significant visual effects, the development is considered acceptable in landscape and visual terms within the context of EIA.

13.7. Ecology

Introduction

- 13.7.1. Chapter 6 of the ES considers the likely significant effects of the Proposed Development on ecology including habitats, designated sites, and protected species. The assessment follows relevant policy and best practice guidance, using established methodologies informed by desk studies and field surveys.

Baseline Conditions

- 13.7.2. The Site comprises predominantly agricultural land used for grazing, containing habitats such as hedgerows, woodland, streams, and ditches. While no designated ecological sites lie within the Site, important sites including the River Usk SAC/SSSI and the Severn Estuary SAC/SPA are located nearby, along with local wildlife sites and areas of Ancient Woodland.
- 13.7.3. Habitats are generally common but features such as hedgerows, woodland and watercourses are of higher ecological value and support wildlife movement. Surveys recorded typical farmland species, including breeding birds (e.g., skylark), low numbers of wintering birds, and bats using the Site for foraging. Other species recorded or likely present include badgers, otters, and hedgehogs, while no evidence was found for certain protected species such as great crested newts or reptiles. Overall, the Site supports a moderate level of biodiversity, with ecological value concentrated in linear and semi-natural habitats.

Mitigation and Enhancement

- 13.7.4. The design has sought to avoid impacts by retaining key habitats such as hedgerows, woodland, and watercourses. Where impacts cannot be avoided, mitigation includes protective buffers, fencing, defined working areas, and the use of best practice construction methods to prevent damage and pollution. Timing restrictions and ecological supervision will reduce disturbance to species, alongside precautionary measures for bats, badgers, and otters.
- 13.7.5. Enhancement measures include hedgerow improvements, woodland and orchard planting and management, and grassland enhancement to increase biodiversity and strengthen habitat connectivity. Additional features will support wildlife, and a long-term Landscape and Ecological Management Plan will guide ongoing habitat management to ensure mitigation remains effective and biodiversity benefits are secured.

Conclusion on Likely Significant Effects

- 13.7.6. With mitigation in place, residual ecological effects are expected to be limited and generally not significant, with some beneficial outcomes.

- 13.7.7. Construction may cause temporary disturbance, but effects will be minor due to mitigation measures.
- 13.7.8. During operation, habitat retention and enhancement are expected to deliver neutral to beneficial effects, improving conditions for species over time.
- 13.7.9. Decommissioning effects are expected to be short-term and similar to construction, with habitats capable of being retained or restored.
- 13.7.10. No significant cumulative effects are predicted.
- 13.7.11. Overall, the development is not expected to result in significant adverse ecological effects and is likely to deliver long-term biodiversity benefits.

13.8. Glint and Glare

Introduction

- 13.8.1. Chapter 7 of the ES considers the likely significant effects of the Proposed Development of reflections from solar panels, including both brief flashes of light (glint) and more sustained reflections (glare). It evaluates effects on key receptors, including road users, nearby residents, and aviation receptors, using a consistent methodology in line with planning policy and industry guidance.

Baseline Conditions

- 13.8.2. The Site lies within a rural landscape where existing vegetation, built features and landform provide natural screening, limiting potential visibility of solar panels. Ground-based receptors within 1 km include sections of the local road network and nearby residential properties, while aviation receptors within 10 km include local airfields and a hospital helipad. Overall, baseline conditions indicate that existing screening and separation distances reduce the likelihood of receptors experiencing glint and glare effects.

Mitigation and Enhancement

- 13.8.3. No specific mitigation measures are required, as glint and glare effects are assessed as not significant. However, existing vegetation and landform provide natural screening, and proposed landscaping, including additional planting, will further enhance screening over time, offering a small beneficial effect.

Conclusion on Likely Significant Effects

- 13.8.4. Residual effects during construction, operation and decommissioning are predicted to be negligible to minor adverse and not significant for all receptors. During operation, effects on road users, residents and aviation receptors remain limited due to screening, distance, and orientation.
- 13.8.5. No cumulative effects are identified.

- 13.8.6. Overall, the assessment concludes that the Proposed Development will not result in significant glint and glare effects for any receptor.

13.9. Agricultural Circumstances

Introduction

- 13.9.1. Chapter 8 of the ES considers the likely significant effects of the Proposed Development on agricultural land quality, soils, farm businesses, and the wider rural economy. It considers impacts across all phases of development and is informed by policy, desk studies, field surveys, and farm business interviews.

Baseline Conditions

- 13.9.2. The Site is predominantly agricultural, with around 80% consisting of non-BMV or non-agricultural land and approximately 20% classified as BMV land (Grades 2 and 3a), distributed in small parcels. Soils are mainly clay loam and silty clay loam, with moderate to high sensitivity to damage if poorly managed. Land use is largely grazing, with low-intensity agricultural activity and mostly part-time farm enterprises. Overall, the Site is characterised by predominantly lower-quality land, resilient farm businesses, and soils capable of recovery with appropriate management.

Mitigation and Enhancement

- 13.9.3. Mitigation is primarily embedded within the design and secured through a Soil Management Plan, which ensures appropriate handling, storage, and reinstatement of soils to prevent damage. The design minimises permanent land loss, avoids impacts on BMV land where practicable, and uses largely reversible construction methods. No additional mitigation beyond standard good practice measures is required.

Conclusion on Likely Significant Effects

- 13.9.4. Residual effects during construction are minor adverse or negligible due to temporary disturbance to land, soils, and farm operations, and are not significant.
- 13.9.5. During operation, effects remain minimal, with land largely retained in agricultural use and some localised beneficial effects on soil condition.
- 13.9.6. Decommissioning effects are short-term and reversible, similar to construction.
- 13.9.7. Cumulative effects are limited and not significant.
- 13.9.8. Overall, no significant residual effects are identified, and the development is considered acceptable in agricultural terms within the EIA context.

13.10. Water Environment

Introduction

- 13.10.1. Chapter 9 of the ES considers the likely significant effects of the Proposed Development on surface water and groundwater systems across all phases of development. It considers key receptors such as watercourses, drainage systems, and groundwater bodies, focusing on changes to water quality, flow, and drainage. Flood risk is addressed separately through a Flood Consequence Assessment and is not expected to result in significant effects. The assessment follows relevant policy and recognised methodologies.

Baseline Conditions

- 13.10.2. The Site comprises agricultural land containing a network of ordinary watercourses, with the Afon Lwyd and Sor Brook located nearby. It drains to two Water Framework Directive (WFD) waterbodies of moderate status, indicating some existing water quality pressures. Ground conditions consist of mudstone and sandstone with secondary aquifers, and groundwater is classified as good status. The Site is not within a Source Protection Zone.
- 13.10.3. Infiltration capacity is generally limited across the Site, and most of the area lies within Flood Zone 1, with only localised areas of higher flood risk near watercourses. Overall, water receptors are considered to be of medium sensitivity.

Mitigation and Enhancement

- 13.10.4. Mitigation is embedded within the design and includes maintaining buffer zones alongside watercourses, implementing a surface water drainage strategy, and positioning infrastructure away from higher flood risk areas. Solar panels are raised to maintain natural drainage patterns.
- 13.10.5. During construction, good practice measures will be applied to control runoff, prevent pollution, and manage materials safely. Additional temporary controls and environmental management plans will further protect water quality. Sustainable Drainage Systems (SuDS) will also provide wider benefits, including improved water quality, biodiversity, and amenity.

Conclusion on Likely Significant Effects

- 13.10.6. With mitigation in place, residual effects on the water environment are predicted to be negligible and not significant across all phases. Construction and decommissioning effects are short-term and controlled through good practice measures, while operational effects are limited due to the drainage design maintaining runoff rates and water quality.
- 13.10.7. No significant cumulative effects are identified, and overall the development is considered acceptable in terms of its impact on the water environment within the EIA context.

13.11. Built Heritage

Introduction

- 13.11.1. Chapter 10 of the ES considers the likely significant effects of the Proposed Development on designated heritage assets, focusing on changes to their significance through impacts on their setting. The assessment considers all phases of development and is informed by relevant policy, guidance, and a Heritage Desk-Based Assessment. Archaeology has been scoped out, as it is well understood and can be managed through standard measures without resulting in significant effects.

Baseline Conditions

- 13.11.2. The Site is located within a rural agricultural landscape, with a high concentration of designated heritage assets in the wider area, including Listed Buildings, Scheduled Monuments, Registered Parks and Gardens and Conservation Areas. However, only a small number of assets have a meaningful relationship with the Site, where its land contributes to their setting. These include Candwr Camp, All Saints Church at Llanfrechfa, Glansirhowy Farm, Little Creiggydd and the Barn at Pen-Twyn Farm. For these assets, the Site forms part of a wider agricultural landscape that contributes to their character and historical context. Overall, only a limited number of receptors are considered sensitive to change.

Mitigation and Enhancement

- 13.11.3. Mitigation is primarily embedded within the design of the Proposed Development, including retaining open areas and limiting infrastructure in parts of the Site that contribute to the setting of key heritage assets. These measures help to reduce visibility and maintain the rural context of the assets. No additional mitigation or specific heritage enhancements are proposed.

Conclusion on Likely Significant Effects

- 13.11.4. During construction, minor adverse impacts occur due to temporary disturbance, resulting in moderate adverse effects for higher-value receptors (Candwr Camp and All Saints Church) and slight adverse effects for others; however, all are not significant in EIA terms.
- 13.11.5. During operation, the presence of solar infrastructure leads to minor adverse effects on setting, equating to moderate adverse effects for the Scheduled Monument and Grade II* church, and slight adverse effects for other receptors, again not significant.
- 13.11.6. At decommissioning, baseline conditions are restored, resulting in neutral effects.
- 13.11.7. No cumulative effects are identified.
- 13.11.8. Overall, the Proposed Development results in no significant effects on built heritage receptors across all phases.

13.12. Transport and Access

Introduction

- 13.12.1. Chapter 11 of the ES assesses the potential effects of the Proposed Development on the highway network and movement of people and vehicles. It focuses on all phases of development, particularly construction and decommissioning when traffic levels are highest. The assessment considers a range of receptors, including road users, pedestrians, cyclists, public transport users, residents, and sensitive locations, and evaluates effects such as severance, delay, amenity, safety, and overall road safety using recognised guidance.

Baseline Conditions

- 13.12.2. The Site is located within a rural area served by a network of local roads and Public Rights of Way. The surrounding highway network includes narrow rural lanes with limited infrastructure, as well as more strategic routes such as the B4236 and A4042, which provide connections to nearby settlements. Traffic levels are generally low on local roads and higher on main routes, and there are no existing highway safety concerns based on collision data. Overall, the baseline reflects a rural transport environment with no significant constraints.

Mitigation and Enhancement

- 13.12.3. Mitigation is primarily provided through a Construction Traffic Management Plan and a Decommissioning Traffic Management Plan, which will manage routing, timing of deliveries, traffic control, and environmental measures to minimise disruption and maintain safety. Enhancements include improved access and connectivity through the provision of new permissive routes linking into the existing Public Rights of Way network, offering benefits for recreation and local movement.

Conclusion on Likely Significant Effects

- 13.12.4. During construction and decommissioning, most effects on receptors are negligible to minor and not significant. However, some rural roads would experience moderate adverse effects due to increased traffic and driver delay, which are significant but temporary and short-term.
- 13.12.5. During operation, traffic levels are minimal and effects are negligible and not significant.
- 13.12.6. No cumulative effects are identified.
- 13.12.7. Overall, the Proposed Development would result in predominantly not significant effects, with only limited, short-term significant impacts, and is considered acceptable in transport and access terms within the EIA context.

13.13. Air Quality

Introduction

- 13.13.1. Chapter 12 of the ES considers the likely significant effects of the Proposed Development on air quality, focusing on construction and decommissioning phases.

It considers emissions from traffic, plant and machinery, and dust, and their effects on nearby residential and ecological receptors, using relevant legislation, policy, and IAQM/EPUK guidance.

Baseline Conditions

- 13.13.2. Air quality at the Site is generally good, with pollutant levels well below national standards. The area is rural, with pollution mainly from road traffic and some agricultural activities. Background levels are low and improving, and the nearest AQMA is distant and not influential.

Mitigation and Enhancement

- 13.13.3. Standard good practice mitigation measures will be implemented (e.g., dust control, managing machinery use, and maintaining distances from receptors) through project management plans. No additional mitigation is required. The development will also provide a wider air quality benefit by generating clean energy.

Conclusion on Likely Significant Effects

- 13.13.4. With mitigation in place, construction and decommissioning effects are negligible and not significant. There are no significant operational effects, and the scheme contributes positively to air quality overall. Cumulative effects are also negligible, and the development will not result in significant adverse air quality effects. Overall, the Proposed Development is considered acceptable in terms of its impact on air quality within the EIA context.

13.14. Cumulative and In-Combination Effects

- 13.14.1. The ES responds to the requirement in the EIA Regulations to assess the cumulative effects of the Proposed Development. Within EIA, cumulative effects are generally considered to arise from inter-project cumulative effects (the combined effects of development schemes which may, on an individual basis be insignificant, but cumulatively, have significant effects); and intra-project cumulative effects (the combined effect of individual effects on a single receptor where deemed potentially significant).
- 13.14.2. Each technical assessment has considered inter-project cumulative effects (**Chapters 5–12**) for each of the three identified cumulative schemes (as required) set out in **Chapter 2: EIA Assessment Scope & Methodology** of the ES. These have been discussed in this summary chapter.
- 13.14.3. The second category, intra-project cumulative effects, is concerned with the combination of some or all the effects predicted by the EIA affecting a particular receptor which may collectively cause a change of greater significance than individually. These are referred to as synergistic effects and have been assessed by professional opinion. An example of a synergistic effect could be construction related visual intrusion, dust, noise and vibration combining to generate a significant adverse effect affecting a sensitive receptor.

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- 13.14.4. The ES has taken into consideration synergistic effects on identified receptors because of collective actions (refer to **Chapters 5–12**). Constraints and identified sensitive receptors have been considered in detail throughout the Proposed Development's design evolution, including the consideration of proposed site preparation and construction techniques.
- 13.14.5. The aim of this process has been to address the potential for significant adverse effects and ultimately to address significant residual effects in isolation or in-combination (i.e., synergistic effects). The measures identified to address the potential for significant effects have, for the most part, been designed-in to the Proposed Development and considered in the EIA as embedded or designed-in mitigation.
- 13.14.6. The designed-in features are detailed in **Figure 4.1 – Indicative Site Layout and Figure 5.5 – Indicative Landscape Strategy**. Any measure that is not specifically designed-in feature of the Proposed Development is described as an additional mitigation measure in the relevant technical chapter (and set out below in **Table 8.1**.) These are also of relevance when considering synergistic effects.

13.15. Conclusions

- 13.15.1. This Environmental Statement (ES) has been submitted as part of a planning application seeking to obtain planning permission for the construction, operation and decommissioning of Candwr Solar Farm, a ground mounted solar photovoltaic (PM) farm approximately 46 Mega Watts (MW) with all associated works, equipment and necessary infrastructure (the 'Proposed Development').
- 13.15.2. The aim of the ES has been to assess the '*likely significant effects*' of the Proposed Development in accordance with The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017. Detailed assessments with respect to pertinent environmental topics have therefore been undertaken in accordance with definitive standards and legislation where available. The ES will form part of the planning application documentation submitted to the Welsh Ministers and will inform their decision-making process. Alongside the ES is a suite of technical documents which consider other environmental matters.
- 13.15.3. The design process has been informed by the detailed environmental assessments so to ensure that key design measures are integral to the Proposed Development, so to limit any significant adverse effects. As a result of this process, taking into account mitigation measures, significant long term adverse residual effects are limited to landscape matters, specifically a small number of visual receptors very localized to the Site during the operational phase. With distance the majority of visual receptors experience non-significant effects. Additionally, significant adverse effects are identified on a limited number of rural road links, where temporary increases in traffic during construction and decommissioning give rise to moderate adverse effects associated with driver delay and traffic flow changes. These effects are short-term, reversible and confined to the construction/decommissioning periods, with no significant effects identified during operation.
- 13.15.4. No significant adverse effects have been identified for Ecology, Glint and Glare, Agricultural Circumstances, Water Environment, Built Heritage or Air Quality when considering the Proposed Development in isolation or with other committed developments in the area. In all cases, effects are either negligible to minor, temporary, or effectively mitigated through design and management measures, ensuring compliance with the EIA Regulations.
- 13.15.5. In conclusion, the ES demonstrates that the design of the Proposed Development has taken into account the potential environmental effects and where necessary mitigation measures form an integral part of the scheme, so to ensure that the environment is suitably protected and any impacts from the Proposed Development are minimised.

13.16. Summary of Mitigation Measures

13.16.1. The table below outlines the mitigation and enhancement measures identified within each of the environmental disciplines included within this ES; many of which are an integral part of the design of the Proposed Development.

Table 8-1: Summary of mitigation and enhancement measures

Environmental discipline	Measure to avoid, reduce or manage any adverse effects and/or to deliver beneficial effects	How measures would be secured		
		By Design	By S.106	By Condition
Landscape and Visual	Construction Environmental Management Plan (CEMP)			X
	Design Process/Layout	X		
	Landscape Ecological Management Plan (LEMP)	X		X
	Improvements to the PRoW Network			X
Ecology	Retention of existing habitats (woodland, hedgerows, trees, watercourses, ponds)	X		
	Buffer zones to ecological features	X		
	Habitat creation and enhancement (grassland, woodland, hedgerows, orchards, wetland)	X		
	Replacement planting (trees and hedgerows)	X		
	Protection of breeding birds through timing of works, pre-commencement checks and exclusion zones secured via CEMP			X

Environmental discipline	Measure to avoid, reduce or manage any adverse effects and/or to deliver beneficial effects	How measures would be secured		
		By Design	By S.106	By Condition
	Protection of protected/notable species (bats, dormouse, badger, otter, reptiles, amphibians, etc.) – through pre-construction surveys, licensing (if needed), and method statements secured via CEMP			X
	Pollution prevention and surface water protection – controls secured via CEMP			X
	Sensitive lighting design – lighting strategy secured via CEMP			X
	Invasive species management – survey, control and monitoring secured via CEMP/LEMP			X
	Watercourse crossing design and aquatic protection – method statements and timing restrictions secured via CEMP			X
	Monitoring and adaptive management – ongoing monitoring and remedial actions secured via LEMP			X
Glint and Glare	No mitigation measures identified			
Agricultural Circumstances	Soil Management Plan (SMP)			X
Water Environment	Consultation with the SAB has been undertaken and SAB advice has been implemented into the drainage strategy design.	X		

Environmental discipline	Measure to avoid, reduce or manage any adverse effects and/or to deliver beneficial effects	How measures would be secured		
		By Design	By S.106	By Condition
	The layout ensures that no greater vulnerability infrastructure such as the substation, inverters, transformers or distribution panels are located within areas at risk of Flooding from Surface Water and Small Watercourses.	X		
	Provision of 7m Ordinary Watercourse easement on Site that is free of Proposed Development.	X		
	Implementation of a Drainage Strategy and outline of future maintenance of any proposed SuDS on Site.			X
	Temporary drainage network and construction SuDS and will include silt management and control measures in the CEMP.			X
	Use of SuDS features to provide water quality treatment and use of permeable surfacing and infiltration (if applicable) should be designed to good practice standards.	X		
	A DEMP will be secured through planning conditions and will assess the impact of the decommissioning of the Proposed Development in full.			X
Built Heritage	To minimise harm to the significance of designated historic assets as arising through changes to their setting.	X		
	Construction Traffic Management Plan (CTMP)			X

Environmental discipline	Measure to avoid, reduce or manage any adverse effects and/or to deliver beneficial effects	How measures would be secured		
		By Design	By S.106	By Condition
Transport and Access	Decommissioning Traffic Management Plan			X
Air Quality	Construction Environmental Management Plan (CEMP)			X
	Construction Traffic Management Plan (CTMP)			X