Plas Power Solar and Energy Storage Project

3.0.9 Green Infrastructure Statement

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PLAS POWER SOLAR AND ENERGY STORAGE PROJECT

Green Infrastructure Statement



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1 INTRODUCTION

1.1 This Green Infrastructure Statement has been prepared by RPS on behalf of Lightsource SPV 192 Limited ("Lightsource bp" or "the Applicant") in respect of an application for the Plas Power Solar and Energy Storage Project (herein referred to as the 'Proposed Development'). The Proposed Development includes the construction and operation of a solar photovoltaic electricity generating station ('solar farm'), a Battery Energy Storage System ('BESS') and associated ancillary development. The solar element of the Proposed Development is anticipated to have an export capacity of 57MWac and the BESS will have an installed capacity of 57MWac. At the end of the Proposed Developments 40-year life it will be decommissioned, dismantled and removed with the site being restored.

1.2 Following recent revisions to Chapter 6 of Planning Policy Wales (PPW) and publication of PPW Edition 12, the purpose of this Green Infrastructure (GI) Statement is to outline the wider context of natural and semi-natural features that exist in the surrounding context of the Proposed Development and how this has influenced the Proposed Development's design, and its mitigation and enhancement measures. Furthermore, the statement will outline the Green Infrastructure Strategy to be adopted as part of the planning application, considering biodiversity and ecological resilience, the step-wise approach, DECCA framework, and the 12 Building with Nature Standards.

Policy Context

Planning Policy Wales

1.3 On 7th February 2024, Welsh Government published the 12th edition of Planning policy Wales (PPW) announced that Chapter 6 of Planning Policy Wales (PPW) Edition 11 has been revised with immediate effect. A key change to note is that a Green Infrastructure Statement should be submitted with all planning applications. The aim of this Green Infrastructure Statement ('GI Statement' or 'the Statement') is to evidence how green infrastructure has been incorporated into the proposal.

1.4 Green Infrastructure (GI) is the network of natural and semi-natural features, green spaces, rivers and lakes that intersperse and connect places. On a small development scale, GI measures can include landscaping, grass verges and sustainable drainage systems, whereas on a larger development scale this can consist of, but not limited to, the creation of species rich meadows, woodlands and the improvement of linkages between areas of biodiversity value.

1.5 PPW makes it clear that the quality of development should be enhanced by integrating GI through appropriate site selection and use of creative design. Para 6.2.11 under 'Integrating Green Infrastructure and Development' states:

> *With careful planning and design, informed by an appropriate level of assessment, green infrastructure can embed the benefits of biodiversity and ecosystem services into new development and places, help to overcome the potential for conflicting objectives, and contribute to health and well-being outcomes.*

1.6 Further to this, para 6.2.12 states:

> *The green infrastructure statement will be an effective way of demonstrating positive multi-functional outcomes which are appropriate to the Site in question and must be used for demonstrating how the step-wise approach has been applied.*

1.7 The GI Statement should highlight any baseline data considered and surveys and assessments undertaken, including habitats and species surveys, arboricultural surveys and assessments, sustainable drainage statements, landscape and ecological management plans, open space assessments, green space provision and active travel links.

1.8 Of this, it is important to demonstrate that the 12 Building with Nature Standards and step-wise approach to biodiversity is considered.

1.9 The PPW 12 Chapter 6 goes on to outline that the 12 Building with Nature standards represent good practice and are an effective prompt for developers to improve the quality of their schemes and demonstrate the sustainable management of natural resources (Para 6.2.14).

Local Policy Context

1.10 The Wrexham County Borough Council (WCBC) Local Development Plan 2013-2028 (LDP) was adopted on 20 December 2023 and is the basis for decisions on land use planning in the WCBC authority area.

1.11 The following policy SP19: Green Infrastructure, is of particular relevance to this strategy. The policy outlines the distinctive natural heritage of Wrexham, that provides a network of green and blue infrastructure. Protection, conservation and enhancement of natural heritage networks needs to be reconciled with the benefits of development.

1.12 Development will be required to maintain the extent, quality and connectivity of multifunctional green infrastructure on or near a Site, and, where appropriate to enhance it by:

i. Creating new interconnected areas of green infrastructure between the proposed Site and the existing network;

ii. Filling gaps in the existing network to improve connectivity;

iii. Protecting the features most valuable for both nature and people; and

iv. In instances where loss of green infrastructure is unavoidable, provide mitigation and compensation for the lost assets on a Site-specific basis.

1.13 Green Infrastructure includes established green spaces and naturally occurring habitats and new Sites and should thread through and surround the built environment and connect the developed area to its wider rural hinterland. Consequently it needs to be delivered at all spatial scales from sub-regional to local neighbourhood levels, accommodating both accessible natural green spaces and semi wild habitats within local communities and often much larger Sites in the developed fringe and wider countryside.

1.14 Proposed developments should demonstrate how the services provided by green infrastructure have been considered and integrated into the proposals at the design stage (para 3.130).

1.15 New developments should incorporate new and / or enhanced GI of an appropriate size, type and to ensure no fragmentation or loss of connectivity. Development should ensure that the protection of existing GI and the provision of proposed GI is clearly demonstrated at the design stage, being integrated alongside proposed grey infrastructure with due consideration regarding appropriate allocation of space thus reducing risk of future conflict between green and grey services built structures (para 3.136).

1.16 Development proposals should be designed, and will be assessed, to take into account all simultaneously occurring ecosystem services. For example, whilst an open greenspace may provide a space for children to play, space may also be allocated for the provision of important ecological habitat and contributions towards SuDS and other Water Sensitive Design features (para 3.137).

Structure of Statement

1.17 Taking the policy context above into account, the structure of this GI Statement is as follows:

- Section 2 – Wider Context and Site.
- Section 3 – Applying the 12 Building with Nature Standards
- Section 4 – GI Strategy
- Section 5 – Summary and Conclusion

2 CONTEXT AND SURROUNDING ENVIRONS

2.1 The Proposed Development Site (the 'Site') is located on the Plas Power Estate, Ruthin Road, Wrexham, approximately 2.5 km to the west of Wrexham city centre. It is wholly within the administrative boundary of Wrexham County Borough Council ('WCBC').

2.2 The Site occupies approximately 136 ha of pastural and arable agricultural land with field boundaries delineated by hedgerows and trees. Ruthin Road (A525) and Plas Buckley Road bisect the Site area from east to west, and a farm track bisects the north of the southern Site plan, as well as a footpath in the south.

2.3 The south the Site is bordered by agricultural land and woodland, with residential and agricultural buildings located in close proximity. Plas Buckley Road is located 35m south with the River Clywedog is located approximately 45m south. The west of the Site is bordered by further agricultural land, with areas of woodland and agricultural and residential buildings located adjacent. The north of the Site is bordered by Tanllan Lane, as well as agricultural land. The east of the Site is bordered by further agricultural land, woodland, and the A483 road. Wrexham City Centre is located in the wider area approximately 2.5km to the east. The centre of the Site is bisected by agricultural land, woodland, residential properties and farmyards, and Ruthin Road (A525).

2.4 A Public Right of Way (PRoW) (BER/1) runs north to south through the middle of the southern parcel of the Site. A ProW (BER/8) runs north to south on the eastern side of the northern parcel of the Site.

Landscape

2.5 The Site is not located within any Areas of Outstanding Natural Beauty (AONB), however, the Clwydian Range and Dee Valley AONB, is located nearby, circa. 2km to the west (at its nearest point). Bersham Conservation Area is located to the south of the southern parcel of the Site.

2.6 National Landscape Character Areas (NLCAs) are countrywide and form the broad scale landscape character assessment of Wales. The Site and majority of the 5km study area falls within NLCA 13: Deeside and Wrexham; with the easternmost parts of the 5km study area falling within NLCA 12: Clwydian Range.

Heritage

2.7 The baseline studies conducted established that there are no designated archaeological or built heritage assets (of High sensitivity) within the main body of the Site. The exact cable route connection from the Site is not yet confirmed and therefore several options have been considered and are included within the red line boundary. For one cable route option, there will be a requirement to cross Offa's Dyke Scheduled Ancient Monument (although this is not the preferred option). Should this cable route option be pursued, the cable will pass under Offa's Dyke by Horizonal Directional Drilling (HDD) and accordingly Scheduled Ancient Monument Consent will be obtained.

2.8 Within 3km of the Site, there are:

- 44 Scheduled Monuments;
- 287 Listed Buildings;
- Six Conservation Areas; and
- Two Registered Historic Parks and Gardens.

Water

2.9 The Flood Map for Planning shows the Site to be located within Flood Zone 1 (areas with a less than 0.1% chance of flooding from rivers each year, including the effects of climate change). The Development Advice Map, available online, indicates the Site is located within Zone A (little or no risk of fluvial or tidal/coastal flooding). The current NRW Flood Risk from Rivers and Sea mapping,

available online, shows the entirety of the Site is located at very low risk of flooding from fluvial and coastal flood sources. The NRW Flood Risk from Surface Water Map, available online, indicates that the Site is predominantly at “very low” risk of surface water flooding. This means that each year this area has a chance of flooding of less than 0.1%.

2.10 In terms of watercourses, a review of published OS maps and NRW data shows the Proposed Development does not have any main watercourses or ordinary watercourses present at the Site. Agricultural field drains are present at the Site. There are watercourses in proximity. These watercourses all form part of the River Dee catchment. A tributary of the River Gwenfro is located approximately 260m north east. The Site is situated within the middle extent of the River Gwenfro catchment.

2.11 The River Clywedog is located approximately 45m south, this flows in an easterly direction and feeds into the River Dee approximately 30km south east. A tributary of the Clywedog is also located adjacent east of the Site. According to the FEH Web Service the southern land parcel (south of the A525), in the centre and north flows are directed in an easterly direction to a tributary of the River Gwenfro. In the south flows are directed in a southerly direction directly into the River Clywedog. The Site is situated along the middle reach of the catchment. Eventually the river feeds into the River Dee, approximately 35km east.

Ecological Baseline and the DECCA Framework

2.12 The requirements of the Environment (Wales) Act 2016 (Section 6) focus on the resilience of ecosystems and refers to the use of the DECCA framework (summarised below) when assessing impacts on ecosystem resilience, i.e.:

- Diversity between and within ecosystems;
- Extent – maintain and increase the area of semi-natural habitat/features and linkages between them;
- Condition, including structure and functioning of ecosystems, which is affected by multiple complex pressures including climate change, pollution, invasive species, land management neglect etc;
- Connectivity between and within ecosystems; and
- Adaptability/Aspects of resilience, i.e. adaptability, recovery and resistance.

2.13 The Site comprises improved pasture fields and arable land in the northern parcel. The fields are bounded by hedgerows throughout. Mature trees are present in some of the hedgerows. Few areas of semi-improved grassland and field ditches are present. Several blocks of woodland adjoin the Site including Big Wood Local Wildlife Site through which the River Clywedog flows. Ponds are present in the off-site woodland.

2.14 There are several areas of Ancient Woodland within the study area and adjacent to the Site. A large area of Ancient Woodland is located along valley sides and banks of the River Clywedog and the Clywedog Trail runs through this woodland.

2.15 There are no designated sensitive areas (e.g. Special Area of Conservation (SAC), Special Protection Area (SPA) or Sites of Special Scientific Interest (SSSI)) on Site. However, a number of ecological designations including Sites of Special Scientific Interest (SSSI) and Special Area of Conservation (SAC) are located within proximity to the Site as below:

- River Dee and Stryt Las (SSSI) (approximately 1.9 km from Site)
- Ruabon/Llantysilio Mountains and Minera (SSSI) (approximately 8.1 km from Site)
- Johnstown Newt Sites (SAC) (approximately 1.9 km from Site)
- River Dee, Bala Lake and Berwyn a Mynyddoedd De Clwyd / Berwyn and South Clwyd Mountains (SAC) (approximately 7.1 km from Site)

2.16 To appreciate the ecological conditions of the Site and surrounding environs a desk-based assessment and the following surveys have been undertaken:

- Preliminary Ecological Appraisal;
- Breeding bird survey completed over three early morning transect survey visits to record the assemblage of species using the Site;
- Wintering bird survey completed over four early morning transect survey visits to record the assemblage of species using the Site;
- Great crested newt surveys comprising Habitat Suitability Index (HSI) assessment of on-Site ponds, environmental DNA (eDNA) survey and populations assessment survey 2023;
- Great crested newt surveys comprising Habitat Suitability Index (HSI) assessment of on-Site ponds, environmental DNA (eDNA) survey and populations assessment survey 2021;
- Otter survey to determine the suitability of habitat within and adjoining the Site for otters and check for signs of otter activity;
- Shadow Habitat Regulations Assessment;
- Landscape and Ecology Management Plan;
- Biodiversity Net Gain Assessment;
- Great Crested Newt Mitigation Strategy.

2.17 The findings of the surveys are provided in the Ecological Impact Assessment (EcIA), Chapter 6 of the Environmental Statement which is submitted with the planning application.

3 12 BUILDING WITH NATURE STANDARDS

3.1 The 12 Building with Nature Standards are a framework of best practice standards that collectively form a definition of high-quality green infrastructure. The standards, and how they have been addressed within the Proposed Development, are outlined below.

Standard 1: Optimises Multifunctionality and Connectivity

3.2 The purpose of Building Standard 1 is *"… to ensure that green infrastructure features form and contribute to creating an optimal multifunctional network within the development and wider area, contributing towards the restoration, creation and enhancement or expansion of these networks to achieve the maximum benefits for people, wildlife and environment".*

3.3 Hedgerow management and planting will enhance habitat resources and connectivity across the Site. This will improve habitat connectivity to facilitate species movement across the Site and into surrounding areas. Gapping up existing gappy hedgerows strengthens the existing connectivity and creation of new habitats, including ponds in the Biodiversity Enhancement Area provides enhanced habitats for species to continue to use the Site and the wider area.

Standard 2: Positively Responds to the Climate Emergency

3.4 The purpose of Standard 2 is "… *to minimise the vulnerability and exposure of the green infrastructure to wider climate-related hazards and impacts and ensure it maximises opportunities to contribute to net zero carbon goals and nature recovery*."

3.5 Climate change is the greatest environmental threat to the environment, in particular to biodiversity. The Proposed Development will provide renewable, sustainable electricity helping to responding to the climate emergency by reducing the country's Greenhouse Gases (GHGs), and climate change impacts. The beneficial whole life effect of the Proposed Development on climate change is reported in Chapter 9 of the Environmental Statement which is submitted in support of the Proposed Development.

3.6 Solar projects not only help reduce carbon emissions, but well-considered, designed and managed solar projects can also increase the diversity of plant species, encourage pollinators, as well as provide new and enhanced habitats for wildlife.

3.7 This site has been designed to minimise disruption to native species such as otters, newts, and birds. Existing habitats on site will be enhanced and new habitats will be created, including wildflower and tussocky grasslands, ponds, and invertebrate banks. The impact of the Proposed Development on Ecology is reported in Chapter 6 of the Environmental Statement which is submitted in support of the Proposed Development. An Illustrative Landscape and Ecology Masterplan has also been produced and is submitted in support of the Proposed Development which sets out the green infrastructure strategy for the site. A Landscape and Ecology Management Plan also submitted in support of the Proposed Development sets out measures for the short, medium and long-term management of the landscape and ecological features of the site and the Proposed Development.

3.8 Furthermore, the proposed planting and habitat creation, along with drainage on site will also help improve attenuation on site and reduce run-off and flood risk on-site and downstream. This is increasingly important with increased extreme weather events as a result of climate change.

Standard 3: Maximises Environmental Net Gains

3.9 The purpose of Standard 3 Maximises Environmental Net Gains is to "… *ensure new development uses green infrastructure to help mitigate any unavoidable residual harms to the local environment resulting from development, particularly from new sources of air or noise pollution and soil degradation. As with all Standards, the purpose here is to secure benefits that go beyond statutory*

minimums and encourage greater enhancement of the local environment for people and wildlife, which in-turn aids individual wellbeing, social cohesion, community wellbeing and supports wildlife".

3.10 The key characteristics of the standard include to:

1. mitigate unavoidable harmful environmental impacts through green infrastructure;
2. improve the local environment by delivering environmental net gains with regards to air, water and soil quality and, where there is scope, space for people and wildlife; and
3. where applicable, address local priorities for environmental net gain – demonstrated through meeting the linked Building with Nature Standards, in particular Standard 04 Champions a Context Driven Approach.

3.1.1 The Proposed Development has been carefully designed to mitigate any unavoidable harmful environmental impacts. By its very nature, solar development is generally not noisy infrastructure and for the BESS element, a Noise Impact Assessment (submitted as an Appendix to the Environmental Statement which is submitted in support of the Proposed Development) has carefully considered any impacts and has deemed that noise will not be increased to an unacceptable level. The nature of the operational Proposed Development is also such that there are very limited emissions – any emissions associated with the Proposed Development are also assessed as part of the Environmental Statement.

3.1.2 In fact, the incorporation of green infrastructure within the Proposed Development has resulted in may benefits – no least providing natural screening to reduce landscape and visual impacts and providing enhanced connectivity for ecology. The Illustrative Landscape and Ecology Management Plan, Environmental Statement Chapter 5 Landscape and Visual Impact and Chapter 6 Biodiversity provide detailed assessment and information which set out the benefits of the incorporation of green infrastructure in this respect. Other benefits of the green infrastructure strategy for the site include contribution towards improved natural drainage of soils and improved soil function through maintenance of existing green infrastructure and incorporation of new green infrastructure. The existing PRoWs on-site will be retained and enhanced with new planting to improve the user experience of these existing routes. The Proposed Development will therefore enhance the use of the site for both people and wildlife.

3.1.3 A Biodiversity Net Gain report has been produced to accompany the application. In summary, the Proposed Development will result in on-site habitat net gain of **64.34%** and hedgerow gain of **74.63%**. In terms of river units, this will remain unchanged.

3.1.4 The inclusion of new habitat creation within the Biodiversity Enhancement Areas and the sensitive management of the Site will also provide a net benefit for biodiversity.

Standard 4: Champions a Context Driven Approach

3.11 The purpose of Standard 4 is *"… to ensure from the outset that the project team and development's green infrastructure features take account of and is shaped by existing local policy, physical landscape and community priorities".*

3.1.1 The Proposed Development is supported by a planning Design and Access Statement which sets out how the Proposed Development responds to local policy. Chapter 5 of the Environmental Statement also includes an assessment against the relevant landscape policies. Overall, the site is not located within any locally (or nationally) designated landscape protections and has been assessed to be in full accordance with the relevant Local Development Plan (LDP) Policies SP14 Natural Environment and SP19 Green Infrastructure by including measures to protect and enhance the natural environment and improving connectivity, protection of valuable features and provision of mitigation measures as appropriate.

3.1.2 The Proposed Development includes a range of measures that have been specifically designed to reduce or avoid significant adverse landscape and visual effects including the removal of field parcels which were assessed to have had the most significant adverse impact on both the landscape itself, and the visual experience of the landscape. Existing field boundary planting including trees and hedgerows have been retained and enhanced as part of the Proposed Development through a carefully selected planting palette of native species trees, hedgerows and scrub areas. Existing woodlands have been enhanced through woodland edge tree planting and appropriate stand-offs.

3.12 The Applicant's approach to consultation follows best practice recommendations and has involved early and continuing dialogue with local interested parties such as local members and the public. That dialogue has extended to locally held events and drop-in sessions, site visits and meetings, in addition to extensive maildrops and online engagement. The PAC report submitted with the application summarises the activity pre-submission of the application.

3.13 Ongoing liaison with Wrexham County Borough Council Landscape, Ecology and Flood Risk Officers as well as Natural Resources Wales and other bodies has resulted in a design which has been developed based on advice and guidance from regulators and recognised environmental bodies.

3.14 The pre-submission activity captured information in terms of green infrastructure management, which has shaped the proposals in terms of landscape and ecological management and access, as well as other technical matters such as residential amenity and views onto the solar arrays.

Standard 5: Creates Distinctive Places

3.15 The purpose of Standard 5 is "... *to ensure the design of green infrastructure, alongside any built form, is integral to the creation of a great place and used to reinforce the distinctiveness of the local area."*

3.16 Existing mature hedgerows and woodlands border much of the site providing excellent screening of the built elements of the Proposed Development.

3.17 The planting proposals and management of existing hedgerows and trees will help provide a landscape buffer, additional screening, and connectivity with adjacent woodland. This will help blend the Proposed Development into the surrounding landscape, retaining landscape character of the local area as well as provide new habitats and increase species diversity across the Site.

3.18 The Biodiversity Enhancement Areas and the improvement to existing public access links throughout the Site result in a diversification from the current baseline of a managed agricultural environment and seek to contribute towards re-wilding the Site and its surroundings.

Standard 6: Secures effective Place-keeping

3.19 The purpose of Standard 6 is *"... to ensure early and effective planning for and implementation of management, maintenance and monitoring of green infrastructure".*

3.20 The key characteristics of the standard include to:

- achieve a more resource efficient approach to management and maintenance; and
- ensure the long-term management and maintenance of the green infrastructure, including through a suitable governance structure that can adapt the management plan as required to deliver the outcomes and benefits, sufficient funding, and appropriately trained and qualified personnel.

3.21 An Illustrative Landscape and Ecology Masterplan and Outline Landscape and Ecology Management Plan (oLEMP) have been produced to support this application and a final LEMP will be secured by condition. The development of these plans has been iterative, and informed by a comprehensive suite of site surveys and assessments, as well as consultation with statutory stakeholders and the community. The oLEMP provides detailed instructions relating to ecology

measures required during the Site clearance and construction phase, the post-construction aftercare / establishment phase, and for the duration of the operations phase, as well as Landscape Specifications and Plans. For example, all monitoring of the Site will be undertaken in Years 1, 2, 4, 6 and 10, followed by once every 5 years.

3.22 The final LEMP will include measures to protect species, and protect, create, enhance and manage habitats, including management of off-site mitigation areas. The aim of the measures in the plan will be to create a long-term net benefit to biodiversity. This will include information relating to:

- Methods for creating and maintaining the habitats;
- personnel and management responsibilities; and
- ecology monitoring and reporting requirements.

Standard 7 Brings Nature Closer to People

3.23 The purpose of Standard 7 is *"… to ensure green infrastructure features are available and accessible to all, at all times, optimising their use and enjoyment".*

3.24 Whilst the operational part of the Site will not be open to members of the public and therefore will only be accessed by those authorised to do so (i.e. those tasked with constructing and maintaining the Site), there are two PRoWs that run through the Site, BER/1 and BER/8. It is intended that both footpaths will be retained. In particular, footpath BER/8 in the northern parcel will be enhanced, as the pathway runs adjacent Ecological Enhancement Area 2 which will provide managed open grassland to enhance the visual experience of users of the PRoW. There will also be an information area provided with interpretation boards for users of the PRoW.

3.25 These measures promote the accessibility of the Site and aims to bring nature closer to people by making the development interactive and educational. The green infrastructure network locally also provides opportunities for people to experience the landscape that will, once enhanced as set out, promote further enjoyment by PRoW users.

Standard 8 Supports Equitable and Inclusive Places

3.26 The purpose of Standard 8 is *"… to ensure that green infrastructure is used to enhance social cohesion and overcome cultural barriers, encouraging all people to use and enjoy such features."*

3.27 Whilst the Site is not intended to be fully publicly accessible, there is still a positive effect upon social cohesion and health inequalities. This is due to public health being reliant on energy security for crucial day-to-day electricity use such as safe cooking and refrigeration of food, regulation of temperature and lighting of homes and schools, operation of health and social care services, maintenance of economic productivity and employment, and operation of technologies that improve quality of life.

3.28 Renewable energy generation helps to reduce adverse health effects associated with climate change through reducing Greenhouse Gases (GHGs) associated with other non-renewable energy sources. Negative health effects associated with climate change include heat-related disorders (e.g. heat stress and lower work capacity), respiratory disorders (e.g. worsened asthma), infectious diseases, food insecurity (e.g. lower crop yields), and injury and mental stress associated with natural disasters (e.g. drought, flooding, fires). Available and affordable renewable energy can also support transitions to electric vehicles, thereby further reducing GHGs and improving air quality.

3.29 Where the site is accessible, it has been designed to minimise impact on the users of the public rights of way, improve the users experience including accessibility for footpaths, access to to landscaped areas and information boards. The proposals ensure connectivity is maintained with the wider public right of way network.

Standard 9 Delivers Climate Resilient Water Management

3.30 The purpose of Standard 9 is *"… to ensure new development uses green infrastructure as a means of above ground water management for regulating water quality and water quantity and flow".*

3.31 The conceptual drainage strategy includes the provision of sustainable drainage systems (SuDS) to manage surface water and mitigate pollutants. This includes filter strips and swales which are expected to provide sufficient treatment to the run-off from impermeable areas associated with solar PV arrays. The gravel bases in which ancillary buildings e.g. transformers, substations etc. are positioned upon will filter pollutants from associated impermeable areas. This SuDS strategy mitigates any potential increase in runoff from the Proposed Development.

3.32 Furthermore, vegetation will be managed organically and will either be mowed or used for light grazing. It is proposed that the internal access tracks will be fully permeable with no tarmac or other hardstanding type surface. Most will follow existing farm tracks so would not be new access routes. As such they will have no impact with respect to surface water drainage.

Standard 10 Brings Water Closer to People

3.33 The purpose of Standard 10 is *"… to ensure that water management constraints and requirements on a project are used as opportunities to enhance the development to create and sustain better places and benefits for people and nature."*

3.34 The Illustrative Landscape and Ecology Masterplan proposes the creation of new ponds in a dedicated ecological enhancement area that will be undisturbed. The addition of this ponds will, in combination with other enhancement measures such as hedgerows, tussocky grassland and wildflower grassland, benefit a range of species including great crested newts, foraging bats and birds. This measure will enhance the natural environment, promote biodiversity through the creation of an additional habitat and can promote opportunities for outdoor recreation for people in the area.

3.35 Compared to agricultural (arable and livestock) use, the solar aspects are likely to create an overall betterment in surface water drainage than a continuation of the existing use. Additionally, the surface water and soil management measures incorporated within the Proposed Development will ensure that there is negligible alteration to local drainage patterns, flow directions and will manage suspended sediments from entering the drainage channels. Thus, there will be no significant adverse disadvantage to people or nature as a result of the Proposed Development.

Standard 11: Delivers Wildlife Enhancement

3.36 The purpose of Standard 11 is to *"… enhance existing and create new, linked habitat for wildlife … [support] the conservation status of priority species and habitats and [deliver] positive benefits for wildlife, within and beyond the boundary (and life) of the development".*

3.37 The key characteristics of the standard include to:

- deliver a biodiversity enhancement;
- follow the mitigation hierarchy approach; and
- employ appropriate mechanisms to secure the successful implementation of green infrastructure (e.g. an appropriate managing group, funding and personnel).

3.38 The Proposed Development has been designed avoid and limit impact on the environment and community close to the Site and deliver wider environmental and community benefits.

3.1.1 The inclusion of new habitat creation within the Biodiversity Enhancement Areas and the sensitive management of the Site will also provide a net benefit for biodiversity. This includes the creation of a pond, scrub and tussocky grassland within the Biodiversity Enhancement Areas and new and enhanced habitats across the Site. A Biodiversity Net Gain report has been produced to accompany

the application. In summary, the Proposed Development will result in on-site habitat net gain of **64.34%** and hedgerow gain of **71.76%**. In terms of river units, this will remain unchanged.

Standard 12 Underpins Nature's Recovery

3.39 The purpose of Standard 12 is to *"… ensure that opportunities to restore and improve the connectivity of existing and planned for habitats are taken"* to help sustain *"… wider ecological networks and nature recovery goals".*

3.40 Key characteristics of Standard 12 are to:

- identify and, where appropriate, protect existing and planned for key habitat areas for the benefit of priority species;
- identify and protect effective links with or stepping-stones to and from the Site and existing and planned for, local ecological networks, large-scale areas for wildlife and designated Sites beyond the Site;
- restore, enhance or create effective links with existing on-Site habitats (where present) and existing and planned for ecological habitats and networks beyond the Site; and
- maximise the potential for effective linkages between habitats and enhancement of adjacent and nearby wildlife assets and networks.

3.41 The design of the Proposed Development has been informed by a significant amount of Phase 1 and Phase 2 species and habitat surveys as set out in section 2 above. As necessary, important ecological features on the site have been avoided and development has been directed towards less sensitive locations – particularly as the cable route options locations, which have been sensitive sited to avoid any impact on otter present. The Illustrative Landscape and Ecology Management Plan has been designed cognisant of the surrounding ecological features to ensure that the site provides links within, and outside of the site to ensure that Proposed Development will be fully integrated into the existing environment and that enhancements offered on-site will be well connected off-site. Creation of new ponds has been sensitively located within Biodiversity Enhancement Area 1 to increase the likelihood that they will be populated by the species based on the survey data which has been obtained. Overall, the design of the built development on the site has been integrated within the green infrastructure strategy for the site.

4 GI STRATEGY

4.1 PPW 12 emphasises that biodiversity enhancement should be proportionate to the scale and nature of the development. Individual design measures can include *landscaping, green roofs, grass verges, sustainable drainage and gardens* (Paragraph 6.2.13, PPW). Meanwhile wider landscape measures, such as the creation of species rich meadows, woodlands and the improvement of linkages between areas of biodiversity value should be considered for larger scale development, discussed in the update to PPW 12.

4.2 **Figure 2: Illustrative Landscape Plan** outlines the following measures that are proposed in order to provide enhancement and interconnectivity between the Proposed Development and the wider environment, as outlined in Section 2.

4.3 The following measures are proposed as part of the GI strategy:

- Areas of winter cover crop will be created to provide a foraging resource for wintering birds.
- A new pond will be created in the Biodiversity Enhancement Area.
- New hedgerows will be planted and existing gappy hedgerows will be infilled. internal and boundary hedgerow reinforcement appropriate to the arable and pastural fields that would improve the Site's existing field structure, enhancing biodiversity and habitats for local wildlife and provide additional screening of the Site and solar PVs within views.
- Woodland edge scrub planting is proposed adjacent to existing areas of established woodland to improve connectivity and integration within the Site. Areas of Ancient Woodland are to be retained and protected.
- Structural woodland planting is proposed for the landscape treatment, where space allows and to help screen views of the solar PVs and enhance the wooded character within the Site.
- New areas of wildflower and tussocky grassland will be created. Various meadow grassland mixes are proposed for different habitat creation that include a tussocky grassland for grazing beneath the solar PVs, woodland meadow for the connectivity of areas adjacent to existing woodland, wetland meadow of wet areas and a wildflower meadow.
- The new habitat creation will enhance connectivity for foraging bats.

4.4 The mitigation strategy for the development proposal takes the approach of avoidance, mitigation then compensation. The strategy incorporates significant on-Site mitigation and enhancement including enhancement of grassland, hedgerows, field margins and woodland, as summarised below, which aligns with the objectives of the DECCA Framework:

4.5 Replacement foraging habitat for wintering birds will be created. The creation of new ponds, hedgerows, tussocky grassland and wildflower grassland will benefit a range of species including GCN. Grassland and pond creation alongside hedgerows will maintain flightlines and have the potential improve the value of the Site for foraging bats.

4.6 Specifically, there are two ecological enhancement areas proposed for location-specific enhancement measures.

4.7 **Area 1** is located in the north west corner of the Site, in the northern parcel and is allocated as an undisturbed nature area. Measures in this area consist of:

- Native tree and shrub planting
- Pond creation with native species marginal planting
- A series of invertebrate banks
- Hedgerow and trees to screen views of solar panels from residential properties to the west
- Hedgerow reinforcement and tree planting adjacent to the road.

4.8 **Area 2**, the open space amenity area, is located along the southern boundary of the northern parcel. Measures in this area consist of:

- Amenity grassland which will be mown.
- Information area located adjacent to the PRoW for pathway users.

5 CONCLUSION

5.1 The Proposed Development will provide a source of homegrown, renewable energy, helping to reduce carbon emissions, and strengthen energy security by reducing reliance on imported fossil fuel energy sources.

5.2 The Proposed Development has been designed taking into account Ecosystem Resilience and the DECCA framework (Welsh Government, 2024); relating to diversity, extent, connectivity, context and adaptability outlined in Planning Policy Wales 11. The design respects the wider context of natural and semi-natural features, minimising its impact on the environment and nearby communities, and maximising wider environmental and community benefits for the lifetime of the project, including green infrastructure.

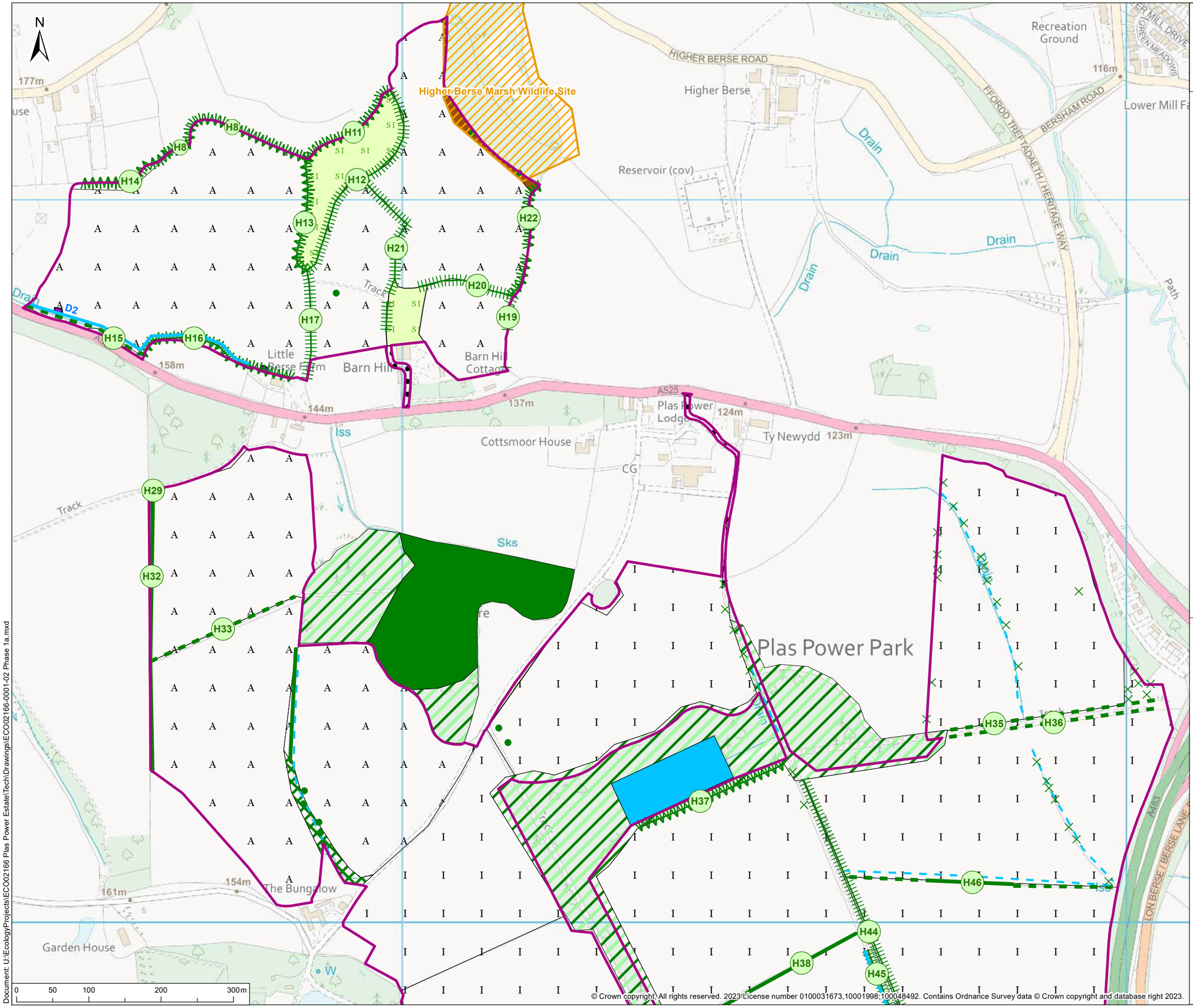
5.3 The proposed landscaping is shown on the Illustrative Landscape and Ecology Masterplan and retains higher value habitats and areas with higher species diversity, as well as providing new habitats to enhance biodiversity, including:

- Areas of winter cover crop will be created to provide a foraging resource for wintering birds.
- New areas of wildflower and tussocky grassland will be created.
- A new pond will be created in the Biodiversity Enhancement Area.
- New hedgerows will be planted and existing gappy hedgerows will be infilled.
- The new habitat creation will enhance connectivity for foraging bats.

5.4 The Landscape and Ecology Management Plan (oLEMP) provides details on creating, managing and maintaining habitats from construction through to operation ensure impacts are minimised, and benefits are maximised. In addition to landscape and ecology benefits, the Proposed Development will provide wider ecosystem services, such as improvements in hydrology on site.

5.5 This statement along with the application documents demonstrates the multi-functional benefits of the Proposed Development.

Figure 1: Phase 1 Habitat Survey



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- Survey Boundary
- Wildlife sites
- A — Arable
- Bare ground
- Bracken - continuous
- Broadleaved woodland - semi-natural
- I — Improved grassland
- Mixed woodland - plantation
- Japanese Knotweed
- SI — Poor semi-improved grassland
- Scrub - dense/continuous
- Standing water
- Defunct hedge - species-poor
- Dry ditch
- Hedge with trees - native species-rich
- Hedge with trees - species-poor
- Intact hedge - species-poor
- Standng water
- Scattered scrub
- Scattered tree - broadleaved
- H1 — Hedgerow number
- **F1** — Field number
- *W1* — Watercourse number
- D1 — Ditch number

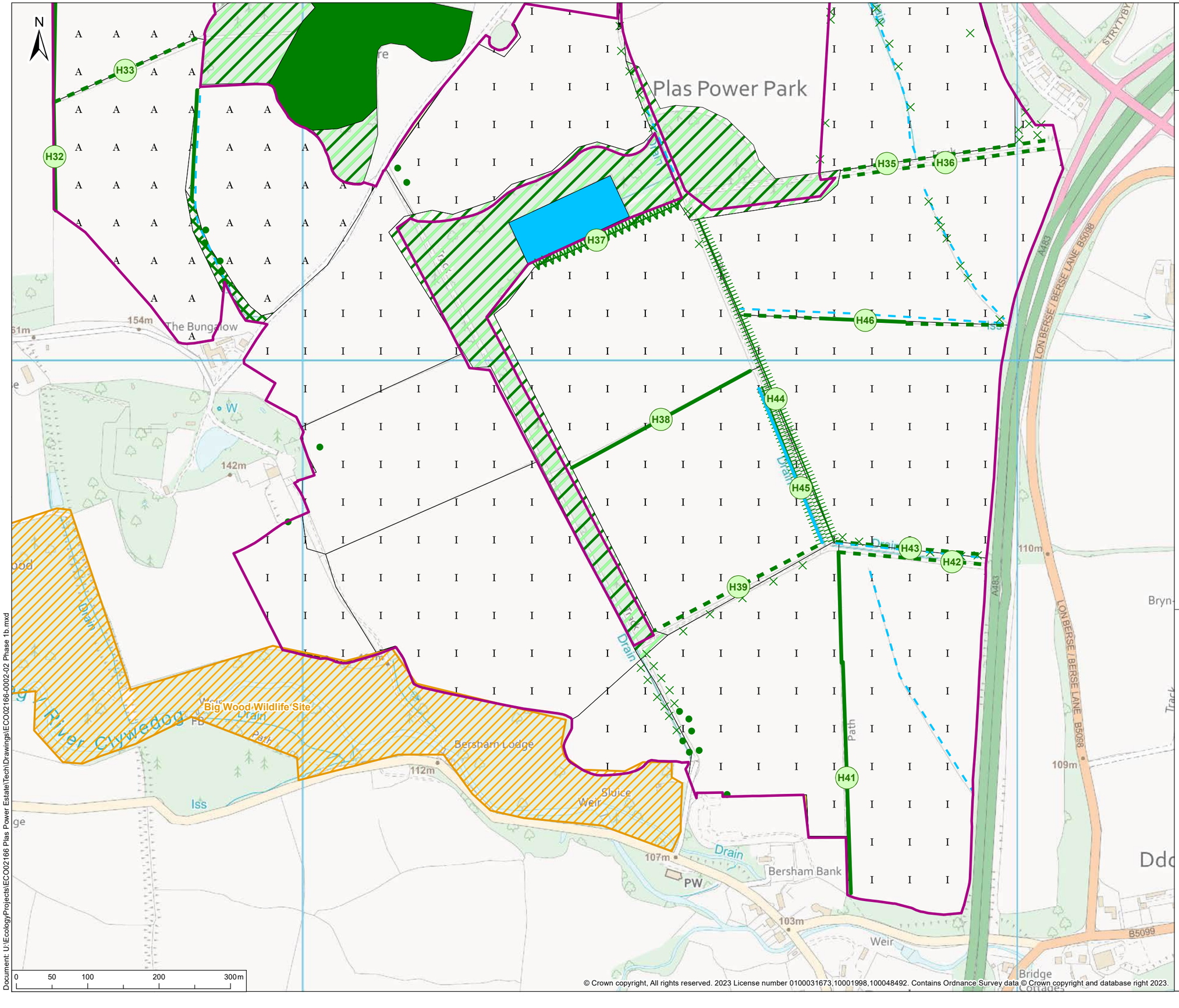
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Client	RPS Cardiff
Project	Plas Power Solar Park
Title	Phase 1 habitat map

Status	Drawn By	PM/Checked By
Draft	MP	GK
Project Number	**Scale @ A3**	**Date Created**
ECO02166	1:5,000	21/06/23
Figure Number		**Rev**
1a		**04**

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- Survey Boundary
- Wildlife sites
- Amentiy grassland
- Arable
- Bare ground
- Broadleaved woodland - semi-natural
- Improved grassland
- Mixed woodland - plantation
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ECO02166	1:5,000	21/06/23

Figure Number: **1b** Rev: **04**

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Figure 2: Green Infrastructure Strategy Plan

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Notes

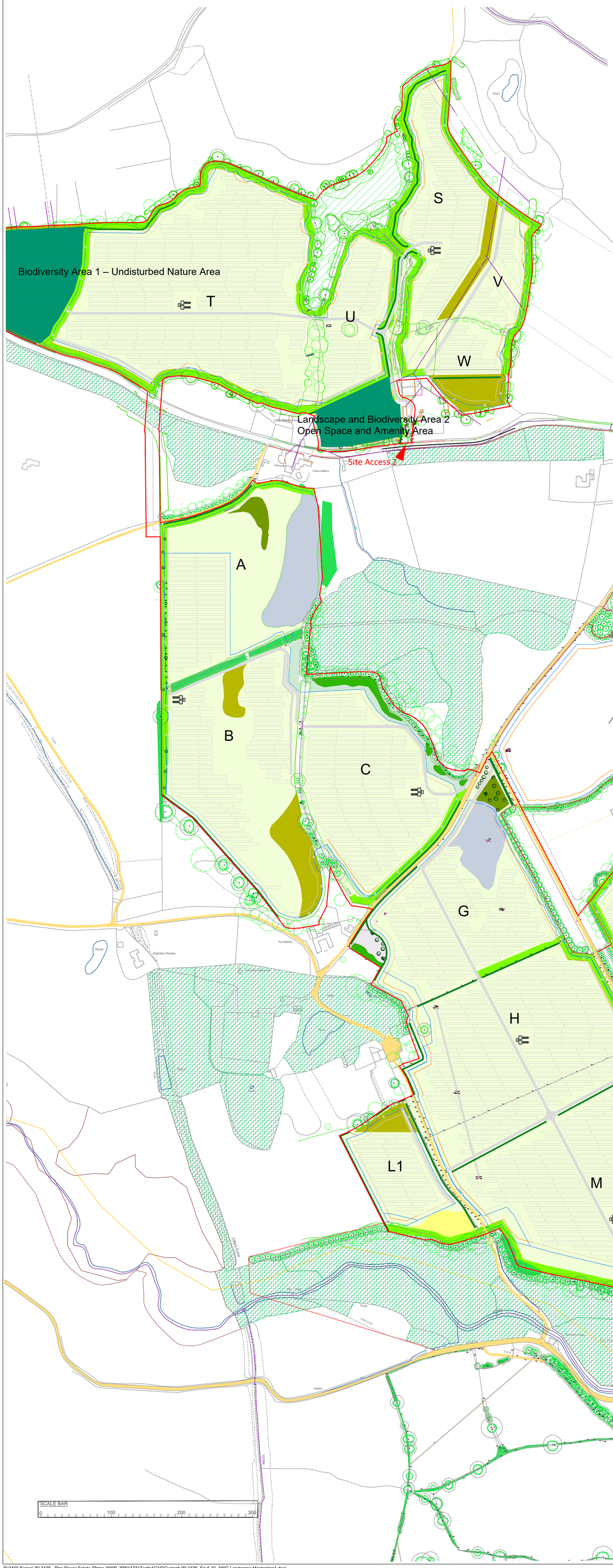
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Biodiversity Area 1 – Undisturbed Nature Area - Scale 1:1000



Landscape and Biodiversity Area 2 – Open Space and Amenity Area - Scale 1:1000



Key

Proposed elements

- APPLICATION SITE BOUNDARY
- SITE ACCESS
- MODULE PANELS (See Layout for further details)
- SECURITY FENCE TBC
- PROPOSED ACCESS TRACK
- STRUCTURES (See Layout for further details)
- A — FIELD REFERENCE For LVIA and G&G

SOFT LANDSCAPE

Proposed elements

- DECIDUOUS TREE Varied native species and stock sizes
- CONIFEROUS TREE Varied native species
- SPECIMEN SHRUB In shrub border or gravel area
- NATIVE HEDGEROW (WITH SPACED STANDARD TREES) Complementing existing hedge lines and providing new field boundaries
- NATIVE CLIPPED HEDGEROW Complementing existing hedge lines and providing new field boundaries
- STRUCTURAL WOODLAND AND SHRUB Varied structure native woodland planting
- WOODLAND EDGE SHRUB Varied structure native shrub planting
- GRAZING GRASSLAND
- FIELD MARGIN MEADOW
- TUSSOCKY GRASSLAND
- WOODLAND MEADOW
- WILDFLOWER MEADOW
- WETLAND MEADOW
- MOWN AMENITY GRASS
- SPRING FLOWERING BULB PLANTING

HARD LANDSCAPE

Proposed elements

- INTERPRETATION BOARD Varied information, refer to notes for details
- FOOTPATH Compacted gravel

BIODIVERSITY ENHANCEMENTS

- WILD BIRD SEED CROP 6m wide on southern side of hedgerows
- ECOLOGICAL ENHANCEMENTS As per ecological reports
- ECOLOGICAL ENHANCEMENT AREA See inserts for details

Existing features

- TREES To be retained and protected. New tree planting would complement existing species and provide ongoing variation and structure.
- WOODLAND To be retained, protected and managed appropriately for longevity
- HEDGEROW / SCRUB To be retained, protected and gapped up where appropriate and managed on rotational basis to a height of 2.5-3m
- PUBLIC RIGHTS OF WAY Maintained and opportunities to further connect (As traced from OS Explorer 1:25,000)
- ANCIENT WOODLAND CLASSIFICATION Ref to Arb reports for further detail
- WATERBODY To be retained, protected and enhanced as possible and recommended within ecological reports
- GRAVEL TRACK Existing gravel track to be retained

Note

The illustrated landscape treatment would not alter if the proposed development included PVs instead of the BESS

Field D has been removed from the development

N

Rev	Description	By	CB	Date
G	REVISED LAYOUT	JN	CL	05.24
F	REVISED LAYOUT	JN	CL	05.24
E	Additional screening to Biodiversity Area 1 and Field T	PL	CL	05.24
D	REVISED LAYOUT	PL	GL	01.24
C	REVISED LAYOUT	CL	KH	11.23
B	OPEN SPACE AMENITY AREA	CL	KH	10.23
A	REVISED LAYOUT 2023	CL	KH	09.23

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Project: Plas Power Solar and Energy Storage Project

Title: Illustrative Landscape and Ecology Masterplan

Status	Drawn By	PM/Checked by
Final	KH	GL

Job Ref	Scale @ A0	Date Created
JSL3436	See Scale Bar	Feb 2024

RPS Drawing / Figure Number: Figure 5.10

Rev: G

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