

# PARC BUSNES PORTH CYMRU – MODEL FARM

Environmental Statement Non-Technical Summary

JCD0064  
September 2024

## Contents

1	INTRODUCTION .....	1
2	SITE DESCRIPTION AND DEVELOPMENT PROPOSAL .....	2
3	PLANNING POLICY .....	3
4	TRANSPORT .....	4
5	LANDSCAPE AND VISUAL CHARACTER .....	6
6	BUILT HERITAGE .....	8
7	SOCIO ECONOMICS .....	10
8	CLIMATE CHANGE .....	12
9	ECOLOGY .....	14

## Figures

Figure 2.1 – Site Location Plan

Figure 2.2 – Indicative Concept Masterplan

## 1 INTRODUCTION

- 1.1 This Environmental Statement (ES) has been prepared on behalf of Legal & General (Strategic Land) Ltd in support of a hybrid planning application comprising demolition of existing buildings and erection of 44.75ha Class B1/B2/B8 Business Park, car parking, landscaping, drainage infrastructure, ecological mitigation and ancillary works (all matters reserved aside from access) within Area A and change of use from agricultural land to country park (Use Class D2) within Area B. ~~an outline planning application (all matters reserved aside from access) for the demolition of existing buildings and erection of a 44.79ha Class B1/B2/B8 business park, car parking, landscaping, drainage infrastructure, ecological mitigation and ancillary works on land at Model Farm, Port Road, Rhoose.~~
- 1.2 This ES has been prepared in September 2024 as requested by Planning and Environment Decisions Wales (PEDW) in its ES Completeness Report (Appendix 1.1) issued in respect of appeal reference CAS-02641-G8G7M5. This updated ES supersedes the original ES dated July 2019 and the subsequent ES Addendum dated April 2021.
- 1.3 The ES has been prepared in accordance with the Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017.
- 1.4 The purpose of the ES is to provide the local planning authority, when determining the planning application, with sufficient information to allow it to properly assess the likely significant environmental effects of the scheme.

## 2 SITE DESCRIPTION AND DEVELOPMENT PROPOSAL

2.1 The application site extends to 93.20ha ~~44.79ha~~ and lies wholly within the Vale of Glamorgan Council's administrative boundary. It sits adjacent to Cardiff Airport, 14km south west of Cardiff city centre and 2km east of Barry. The site is bounded to the north by Port Road (A4226), open agricultural land to the east, Porthkerry Country Park to the south and Cardiff Airport and associated infrastructure to the west. [The Site Location Plan is included at Figure 2.1](#)

2.2 The site is currently in agricultural use, with arable pasture fields being the dominant use. The land is considered to be of moderate to poor agricultural quality, with the majority in Grades 3b and 4.

2.3 The field system is enclosed by hedgerows of varying heights and density and is intensively managed through annual cutting. There are a number of buildings on the site including the farm house and agricultural buildings.

2.4 The site slopes gently from north to south in its upper reaches, before falling away steeply in the southern portion. This southern part of the site is characterised by more significant areas of mature vegetation, mostly woodland.

2.1.1 ~~There are no water features within the application site, but~~ Bullhouse Brook and Whitehouse Brook run east-west and north-south through the centre of the Application Site. ~~fall immediately outside of the application site boundary, and within the ownership of Legal & General.~~

2.5 A Public Right of Way (PRoW) runs along the eastern boundary of the site.

2.6 The application site itself does not include any heritage assets, but there are a number within a 1km radius. These comprise nine Grade II listed buildings and structures (including Porthkerry Viaduct), three Grade II\* listed buildings, two Conservation Areas and a number of buildings considered worthy of non-designated heritage asset status in the Vale of Glamorgan Council's County Treasures List. Furthermore, there are several Scheduled Ancient Monuments within a 1km radius.

2.1.1 Planning permission is sought for the ~~demolition of existing buildings and erection of 44.75ha Class B1/B2/B8 Business Park, car parking, landscaping, drainage infrastructure, ecological mitigation and ancillary works (all matters reserved aside from access) within Area A and change of use from agricultural land to country park (Use Class D2) within Area B. demolition of existing buildings and erection of a 44.79ha Class B1/B2/B8 business park, car parking, landscaping, drainage infrastructure, biodiversity provision and ancillary works. The planning application is submitted in outline with all matters reserved apart from access.~~ The Indicative Concept Masterplan is included at Figure 2.2.

2.7 The proposed primary access will be at the eastern end of the site, via a new arm off the existing Port Road/A4226 junction, with secondary access available from the existing Holiday Inn roundabout at the western end. ~~No operational development is proposed within the land to be included within the Porthkerry Country Park extension area.~~

2.8 Since the production of the original ES in 2019, there have been changes to employment sites and associated market demand and working practices. To inform the updated ES, the indicative mix of uses has been refreshed based upon current (2024) market conditions so that a consideration of the effects of the proposed development on receptors in current market conditions can be observed. The assessment of effects in the ES considers both those land use and floorspace assumptions assessed in the original 2019 ES, and the 2024 land use and floorspace assumptions. The application of land use and floorspace assumptions is relevant to the following chapters:

- Chapter 4: Highways and Transportation
- Chapter 7: Socio Economics
- Chapter 8: Climate Change

### 3 PLANNING POLICY

- 3.1 In assessing the acceptability of the proposals in planning and environmental terms, consideration has been given to the status and content of the Local Development Plan (LDP) and other relevant material planning considerations.
- 3.2 The application site is allocated as part of a 77.4ha site, the Gateway Development Zone, for employment uses under policies SP2, MG9 and MG10 of the adopted Vale of Glamorgan Local Development Plan. The application site is also part of the wider St Athan – Cardiff Airport Enterprise Zone, designated by Welsh Government in 2012.
- 3.3 The allocation and future development of the site is intended to cater for the needs of the aerospace industry and high-tech manufacturing. The policy position is clear that the allocation is not aimed at meeting local market demand for general industrial or office uses.
- 3.4 Policy MG28 allocates 42ha of land for the provision of open space and recreational facilities at Porthkerry Country Park. Supporting text to the policy makes it clear that extension will be delivered as part of the first phase of development proposed under Policy MG10.
- 3.5 The Vale of Glamorgan are currently preparing a replacement LDP (RLDP) which is currently at Preferred Strategy stage. Adoption of the plan is expected in Autumn 2026.
- 3.6 The site is allocated in the Preferred Strategy under Policy SP13: Employment Growth, as Major Employment Allocation 2. The draft allocation of the site recognises the value of its delivery to the local and regional economy.

## 4 HIGHWAYS AND TRANSPORTATION

4.1 Chapter 4 of the ES assesses the potential significant environmental effects of the Proposed Development in terms of transport. A comprehensive Transport Assessment has been prepared to inform this assessment and examines in detail the existing transport conditions around the application site including a review of Personal Injury Accidents. A Transport Note has been prepared to provide appropriate updates to the Transport Assessment where necessary to enable the highways and transportation chapter of the original ES to be updated.

4.2 There have been changes to employment sites and associated market demand and working practices since the preparation of the EIA. To inform the updated ES, the indicative mix of uses has been refreshed based upon current (2024) market conditions so that a consideration of the effects of the proposed development on highways and transportation receptors in current market conditions can be observed. The assessment of effects in this ES chapter considers both those land use and floorspace assumptions assessed in the original 2019 ES, and the 2024 land use and floorspace assumptions.

4.3 Construction effects: When operational the development proposal is expected to generate approximately 6,400 AADT light vehicle movements and 400 AADT heavy vehicle movements. Vehicle generation during the construction period is expected to be significantly less than the operational vehicle generation and therefore no assessment of the construction impacts has been undertaken.

4.4 Operational effects: The development proposal will increase daily travel demand in the area. A number of improvement measures are embedded in the proposal including:

- An improved access including an additional arm on the roundabout on the A4226 with suitable geometry to enable the traffic generated by the development proposal to be accommodated;
- A second access and spine road enabling public transport penetration;
- A shared cycleway alongside the spine road providing links to the existing walking and cycling network;
- Additional pedestrian links enabling access to additional public transport services;
- Cycle parking;
- An improvement scheme at Waycock Cross roundabout to reduce delay and its delivery will be discussed with The Vale of Glamorgan Council and 3rd party developers;
- A Travel Plan to encourage walking, cycling and use of public transport; and
- A Car Parking Management Plan to limit the availability of parking spaces and prevent overflow onto roads within the application site.

4.5 The effect of the development proposal operational flows is predicted not to have any significant effect on the majority of criteria for all links.

4.6 The exception to this is that it is predicted that the development proposal will have a moderate significant adverse effect on driver delay on the A4226 between the site access and the Waycock Cross roundabout. The delay has been identified from the operational assessments undertaken and reported in the Transport Assessment of the Waycock Cross roundabout junction.

4.7 With an improvement scheme at the Waycock Roundabout, the remedial effect is expected to be negligible/slight adverse effect.

4.8 The effect of the cumulative development traffic flows is predicted not to have any significant effect on the majority of criteria for all assessed transport links. The exception to this is a predicted cumulative moderate significant effect on driver delay on Link 9 – A4226, between A4226 roundabout and B4266 roundabout. The delay has been identified from the operational assessments undertaken and reported in the Transport Assessment of the Waycock Cross roundabout junction.

4.9 Proposed mitigation includes production of a Travel Plan and Car Parking Management Plan which will promote sustainable travel and limit the provision of parking on site. The proposed development will also provide walking and cycling links to the existing infrastructure and a spine road that enables public transport penetration. An improvement scheme at Waycock Cross is to be discussed with the Council and third-party landowners. The effect of the proposed mitigation would be to reduce driver delay on the A4226 and reduce the overall effect to negligible/ slight adverse.

4.10 It is concluded that the additional travel demand can be accommodated safely and satisfactorily on the local transport network with the above improvement measures incorporated into the proposals.

## 5 LANDSCAPE AND VISUAL CHARACTER

5.1 Chapter 5 of the ES presents the results of the Environmental Impact Assessment (EIA) for the potential landscape and visual impacts as the result of the development proposal. This chapter uses the findings of the Landscape and Visual Appraisal prepared in support of the planning application.

5.2 The land forms part of the Cardiff Airport – St Athan Enterprise Zone as identified within the Vale of Glamorgan Local Development Plan (LDP). It forms part of land allocated for employment use under Policies SP2, MG9 & MG10 of the LDP. Policy MG28 also refers to the allocation of a portion of the land for an extension to Porthkerry Park.

5.3 It is acknowledged that any development will give rise to change in the landscape character of the application site itself and to the views of people overlooking, visiting or walking through the area. The extent of change will influence the judgement on acceptability and will need to be weighed against the benefits delivered by the development proposal.

5.4 The application site does not form part of any statutory landscape designations and there are no nationally designated landscapes within the 5km study area. It is situated less than 100m south of the locally designated and non-statutory Nant Llancarfan Special Landscape Area (SLA) at its closest point in the northeast of the application site. Porthkerry Country Park which is locally designated as a Green Wedge in the LDP forms most of the southern boundary of the application site.

5.5 Analysis of the LANDMAP Aspect Areas reveal that the application site lies outside the SLA designations. Any potential adverse effects on landscape character within the Nant Llancarfan SLA in the wider landscape to the north east is likely to be very localised due to limited inter-visibility. The primary landscape qualities of the 5 Aspect Areas identified within the Zone of Theoretical Visibility (ZTV) are maintained and respected.

5.6 The land use of the application site would change from one of agriculture to one of development for mixed business use, comprising small business units (B1), industrial use (B1), general industrial use (B2), storage (B8), associated access infrastructure and landscape/ecological mitigation.

5.7 The construction activities within the local agricultural landscape would temporarily form an incongruous addition to a small part of the rural character area, although the low level and low-key nature of the activities would not be completely uncharacteristic of the landscape. The activities would be relatively well contained within the majority of the wider landscape context by vegetation within and around the application site and the locally undulating topography.

5.8 The development proposal would fit within and respect the existing field boundaries. The layout has been designed to retain the existing green infrastructure and the combination of the retention of the existing woodland, trees and field boundary hedgerows, together with the creation of new areas of woodland, scrub and rough grassland, would result in a longer-term benefit for both the application site and the surrounding landscape, especially along the boundary with the land to be transferred to extend Porthkerry Country Park.

5.9 There would be some loss of vegetation to accommodate the north east access along Port Road and the internal spine road, however this loss will be mitigated by the introduction of extensive areas of new native planting along the eastern, southern and western boundaries of the application site.

5.10 The proposed development would generally follow the contours of the application site respecting the topography which would remain largely intact except at a local level where remodelling will be required for site access roads, attenuation areas and localised regrading to create level platforms for the buildings. Consequently, the landscape pattern and complexity would not change extensively as a result of the development proposal.

5.11 There is very limited inter-visibility with the lower-lying local coastal settlements of Barry and Rhoose as the site benefits from a high level of visual containment created by the surrounding landscape, which arises from a combination of undulating topography and landscape components including

established blocks and belts of woodland limiting the effects on visual amenity from the surrounding area.

5.12 Cardiff Airport and its associated infrastructure is a dominant built element and a major detractor in the local host landscape. This complex is already visible when looking towards the application site from most of the sixteen representative viewpoints analysed as part of this study.

5.13 Of the sixteen representative viewpoints, 1 to 6 are local views which would undergo Substantial or Major effects on visual amenity as a result of the development proposal in Year 1 reducing in impact at Year 10 to Moderate or Minor when the mitigation planting has matured. It should be noted that all of these impacts are localised which is a predicted result of any type of development. Viewpoints 9 to 15 are medium and long range and would undergo Minor or Negligible effects on visual amenity, demonstrating there would be limited impacts on the wider landscape visual context including Nant Llancarfan SLA.

5.14 Consequently, there are a very limited number of visual receptors that would undergo the highest effects. These are limited to those in the immediate vicinity of the application site, namely residents living in the private residences associated with Upper and Lower Porthkerry Farm, Welford Farm private residences, walkers using the short section of PRoW P4/17/1 as it crosses the open field to the north east of the site and road users along short sections of Porthkerry Road and Port Road adjacent to the site boundaries. The proposal would appear as a prominent new element within localised views but not to such an extent that it prevents receptors enjoying wider views to the expansive landscape setting in which the proposal would be seen.

5.15 Landscape mitigation measures including extensive woodland, tree and hedge planting are proposed along the eastern, western and southern boundaries in association with the new attenuation areas and will create screening of the proposed development from views in from the south, Porthkerry Road along the western boundary and the existing PRoW P4/17/1 along the eastern boundary.

5.1.1 There are no significant adverse cumulative effects. The cumulative landscape change for the sites 'in planning' and 'consented' would be Low to Medium, with the Model Farm development having a moderate influence due to its size in comparison with the others. The overall effect would be Moderate (adverse) significance.

## 6 BUILT HERITAGE

6.1 This chapter of the ES summarises the potential effects of the proposed development on built heritage receptors.

6.2 The Built Heritage ES Chapter (Chapter 6) has been prepared to assess the likely impacts arising from the proposed development of the application site on identified built heritage receptors.

6.3 The application site predominantly comprises 44.79 ha of agricultural land and woodland set to the immediate east of Cardiff Airport and has historically largely remained as such.

6.4 The baseline survey identified a number of built heritage receptors, located within a search area of up to 1 km of the application site that might be affected by the construction and operational phase effects arising out of the development proposal. Several built heritage receptors sit within the vicinity of the site where the proposed development would have cause to harm their significance through change to their setting.

6.5 The designated **built** heritage receptors comprise:

- Grade II\* Church Farmhouse (HB4)
- Grade II\* Outbuilding north of Church Farmhouse (HB5)
- Grade II\* Church of St Curig (HB6)
- Grade II Lower Porthkerry Farmhouse (HB1)
- Grade II Upper Porthkerry Farmhouse (HB2)
- Porthkerry Conservation Area (HB7)

6.6 The non-designated heritage receptors comprise:

- Non-designated heritage asset Upper Porthkerry Farmhouse (HB3)
- Non-designated built heritage asset former Egerton Grey House Hotel (HB8)

6.7 Examination of relevant data sources supplemented by site inspection and field studies have identified that there are no designated or non-designated built heritage receptors situated within the site application site itself.

6.8 There will be changes to the settings of the identified built heritage receptors at construction phase and this will give rise to a range of significance of effects from a neutral to minor adverse significance of effect. There will be no significant effects arising from the proposed development at construction phase.

6.9 There are no significant effects on built heritage receptors at the operational phase of the proposed development. Specifically, there will be a permanent long-term Minor Adverse significance of effect on Lower and Upper Porthkerry Farmhouses (HB1 & HB2) and the Porthkerry Conservation Area (HB7). Church Farmhouse and associated Outbuilding (HB4 & HB5) will experience a permanent long-term Minor/Neutral Adverse significance of effect. These are not significant in EIA terms. A neutral significance of effect on the former stables associated with Upper Porthkerry Farmhouse (HB3), The Church of St Curig (HB6) and the Former Egerton Grey House Hotel (HB8) is also noted.

6.10 No mitigation, in addition to those built-in design measures already accounted for, are identified that would serve to reduce or off-set the low adverse significance of effect of proposed development on the built heritage receptors at Construction or Operational Phases.

6.11 In respect of residual effects there will be no change to the significance of effect for all identified built heritage receptors.

6.12 In respect of cumulative effects, there will be no significant adverse cumulative effects. Only one identified built heritage receptor (HB1 the Lower Porthkerry Farmhouse) will experience any cumulative effect as a result of filtered views of the proposed development and the Cardiff and Vale College Advanced Technology centre. The associated cumulative magnitude of change would be **Minor Adverse** which, for this receptor, would not be significant.

6.13 ~~The Vale of Glamorgan Council has confirmed it does not consider there are any other development proposals under consideration in the locality which would need to be assessed cumulatively. Notwithstanding this however, the application site is part of the wider 'Gateway Development Zone' allocation under Policy MG10 of the Vale of Glamorgan Local Development Plan 2011-2026 (June 2017) and accordingly consideration should be given to any cumulative effects that may arise from any further development of lands outside of the application site but within this Development Zone.~~

6.14 ~~No details are available in respect of scale, massing and build heights for any development on the additional Development Zone land. However, if development elsewhere in the Zone is built to a height commensurate with that proposed on the application site then, taken together, it is likely that it will result in no change to the significance of effect of the built heritage receptors. However, if build heights exceed that which is proposed on the application site it is likely that this will further compound the urbanising effect of the development proposal on the application site. This may cancel out any built in design mitigation measures already proposed and thus retaining a permanent long term neutral/minor adverse significance of effect for built heritage receptors HB4, HB5 & HB7.~~

## 7 SOCIO ECONOMICS

7.1 This chapter provides an assessment of the economic impacts associated with the development proposal.

7.2 The legislative and policy positions presented in this chapter highlight the need to: achieve sustainable economic growth through the creation of good quality employment opportunities; increase innovation and R&D by encouraging the establishment of sectoral clusters; and ensure Wales and the Vale of Glamorgan are attractive locations ~~to 'do business'~~ for businesses. The development proposal provides an opportunity to contribute towards all three of these policy priorities.

7.3 ~~The existing baseline conditions presented in this chapter indicate some weaknesses in the Vale of Glamorgan economy. These weaknesses include shortfalls in high value employment opportunities, low workplace-based wages, and a low workplace-based GVA per job figure. The development proposal provides an opportunity to address some of the weaknesses present in the Vale of Glamorgan economy.~~

7.4 Existing baseline conditions indicate the Vale of Glamorgan has a very strong concentration of businesses and employment in the aerospace and defence sectors, with a relatively high concentration of these indices in the advanced manufacturing and engineering sector.

7.5 Resident-based travel to work patterns suggest the Vale of Glamorgan is part of a functional economic area characterised by heavy out-commuting to Cardiff. These conditions suggest there is a shortfall of high-order occupations and high value employment opportunities for the residents of the Vale of Glamorgan to occupy, such that residents of the area are forced to travel outside the local authority in order to find suitable employment.

7.6 There have been changes to employment sites and associated market demand and working practices since the preparation of the socio-economics EIA. To inform the updated ES, the indicative mix of uses has been refreshed based upon current (2024) market conditions so that a consideration of the effects of the proposed development on socio-economic receptors in current market conditions can be observed. The assessment of effects in this ES chapter considers both those land use and floorspace assumptions assessed in the original 2019 ES and the refreshed (uplifted) land use and floorspace assumptions under low and high scenarios.

7.7 The assessment of significance of effects has determined that the development proposal is likely to have a beneficial effect on economic receptors. In terms of the construction phase, the economic impacts of the development proposal on employment, wages, and GVA are assessed to be of ~~minor~~ moderate (beneficial) significance. Consideration of the (uplifted) refreshed land use mix under both the low and high scenarios is also assessed to be of moderate (beneficial) significance, which is significant in EIA. In terms of the operational phase, the economic impacts of the development proposal on employment, wages, and GVA are assessed to be of ~~major~~ moderate (beneficial) significance. Consideration of the (uplifted) refreshed land use mix under both the low and high scenarios is also assessed to be of moderate (beneficial) significance, which is significant in EIA.

7.8 Regarding potential cumulative effects, during the construction phase cumulative projects are anticipated to make a positive economic contribution while ensuring sustainable and manageable delivery approaches via Resource Management Plans, with no adverse cumulative effects identified.

7.9 During the operation phase, the identified cumulative projects present the Vale of Glamorgan Council with an opportunity to maintain the required flexible approach to delivery of employment sites and premises. The delivery of a large quantum of high-quality floorspace suitable for high-tech, R&D, and innovation led activities is expected to attract businesses in CCR's priority sectors such as FinTech, MedTech, compound semiconductors, and green technologies. This alignment with priority sectors can further strengthen the region's economic base, supporting innovation and contributing to long-term economic resilience. No adverse cumulative effects are identified.

Impact	Value	Magnitude	Significance	Duration
<b>Construction Phase</b>				
Employment (person years)	Low	Medium	Minor beneficial	Long term
Wages	Low	Medium	Minor beneficial	Long term
GVA	Low	Medium	Minor beneficial	Long term
<b>Operational Phase</b>				
FTE employment	High	High	Major beneficial	Long term
Wages	High	High	Major beneficial	Long term
GVA	High	High	Major beneficial	Long term

## 8 CLIMATE CHANGE

8.1 This chapter provides an assessment of the potential climate change-related environmental effects associated with the development proposal.

8.2 As the Proposed Development is in outline design stage, detailed material quantities information is not available and only limited mitigation measures have been adopted at this stage.

8.3 Comparisons between the Met Office UKCP18 probabilistic dataset for the 2070-2099 time period to the 1981-2010 baseline suggests that the Proposed Development will experience increased temperatures and increased seasonality in precipitation patterns. Precipitation is projected to decrease during spring and increase during the autumn, while average temperatures are projected to increase throughout the year with the highest increases projected in July.

8.4 The most notable risk from climate change to the Proposed Development arises from increased ambient temperatures causing overheating of building users and the increased need for cooling, however this risk will be reduced by the inclusion of green infrastructure across the site and designing the buildings with sufficient ventilation. Flood risk has also been reduced due to mitigation measures outlined in the Sustainable Drainage Assessment.

8.5 There have been changes to employment sites and associated market demand and working practices since the preparation of the EIA. To inform the updated ES, the indicative mix of uses has been refreshed based upon current (2024) market conditions so that a consideration of the effects of the proposed development on receptors in current market conditions can be observed. The assessment of effects in this ES chapter considers both those land use and floorspace assumptions assessed in the original 2019 ES and the refreshed (uplifted) land use and floorspace assumptions.

8.6 With consideration of the mitigation measures identified, the potential risk posed to the Proposed Development would be reduced to an acceptable and non-significant level in EIA terms. Therefore, no further mitigation is required.

8.7 Greenhouse Gas (GHG) emissions, as a result of construction activities, which includes the construction of the proposed business park and car park, have been calculated to total 158,837 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) for the original 2019 floorspace and land use assumptions, and 128,158 tCO<sub>2</sub>e for the current 2024 floorspace and land use assumptions. As the Proposed Development is in outline detail only, no detailed material embodied carbon reduction measures can be calculated and therefore a high-level benchmark approach has been used instead. This results in a significant moderate adverse effect for both the original 2019 floorspace and land use assumptions, and current 2024 floorspace and land use assumptions.

8.8 As part of the Reserved Matters application, more detailed material quantities information will be available for accurate embodied carbon calculations and additional construction mitigation measures will be investigated and then implemented into the detailed design. Measures to be investigated include the use of alternative low carbon fuels and sustainable construction practices to minimise construction site emissions and the use of alternative low carbon materials and opportunities to reduce materials when constructing the building structure and supporting infrastructure. The residual effect of construction GHG emissions associated with the Proposed Development, following the adoption of further mitigation measures is considered to result in a minor adverse effect, which is not significant in EIA terms.

8.9 GHG emissions as a result of operational activities, including energy use and transport emissions, have been calculated to total 24,134 tCO<sub>2</sub>e in year one of operations for the original 2019 floorspace and land use assumptions, and 20,010 tCO<sub>2</sub>e in year one of operations for the current 2024 floorspace and land use assumptions. As the Proposed Development is in outline design stage only, an energy strategy is unavailable and only limited mitigation measures have been adopted. This would result in a significant moderate adverse effect for both the original 2019 floorspace and land use assumptions and current 2024 floorspace and land use assumptions.

8.10 As part of the Reserved Matters application, further operational mitigation measures will be implemented into the detailed design. Measures to be investigated include designing the development to be in line with the upcoming Future Buildings Standards and follow the energy hierarchy to be in line with building regulations. Adopting these operational design measures will ensure that the Proposed Development is net zero ready and compatible with UK and Wales net zero commitments. This is then considered to result in minor adverse effect, which is not significant in EIA terms.

## 9 ECOLOGY

9.1 This chapter provides an assessment of potential impacts and effects on ecological receptors as a result of the Proposed Development.

9.2 The ecological baseline conditions of the site have been studied since 2018. Three Preliminary Ecological Appraisals (PEA) have been undertaken, one in 2018, 2022 and 2024 (which have included habitat surveys and desk studies). A series of further ecological surveys and assessments have also been undertaken to inform the necessary avoidance and mitigation measures, all of which were undertaken in 2019. The following further ecological surveys and assessments were undertaken between 2023 and 2024 to update previous survey work, and to support the appeal:

- Bat emergence, activity and aerial inspection surveys;
- Dormouse surveys;
- Badger and otter surveys;
- Breeding bird surveys; and
- Great crested newt eDNA sampling

9.3 Ecological features are those that are important and potentially affected by the Proposed Development. This chapter details the analysis and assessment of likely significant effects predicted to arise from the Proposed Development on the following categories of ecological receptors:

- Non-statutory designated sites;
- Priority Habitats and Species; and
- Protected and notable habitats and species.

9.4 Embedded mitigation is an integral part of the design and includes areas which have been proposed for the provision of new and enhanced habitats. In addition to embedded mitigation, the following additional mitigation measures are proposed:

- Commitment to a Construction Environmental Management Plan, including dust management measures;
- A sensitive lighting plan during construction and operation;
- Commitment to a Detailed Biodiversity Strategy to include the necessary habitat prescriptions, management, and monitoring;
- Commitment to Site and vegetation clearance outside of the breeding bird season and peak dormouse breeding period;
- Precautionary Methods of Working (PMoW) (such as phased and sensitive methods of vegetation clearance) are to be implemented;
- Prior to construction, pre-construction surveys are to be carried out. This will confirm that conditions have not changed, and that no additional ecological receptors require consideration;
- Materials that could be used by sheltering animals will not be stored adjacent to potentially suitable habitat;
- Commitment to comply with best practice guidelines on environmental protection; and

- An Invasive Species Management Plan will be implemented, and biosecurity measures put in place to control the spread of invasive non-native plant species.

9.5 A series of mitigation measures would be employed during construction and operation to further avoid, reduce and offset impacts resulting from the Proposed Development. The detail of these measures are not confirmed at the current stage, but it is anticipated that they will be developed in greater detail alongside the ongoing design of the Proposed Development following planning consent. Detailed information will be included in a final, Detailed Biodiversity Strategy with precautionary measures and environmental best practice for construction set out within a Construction Environmental Management Plan.

9.6 During the construction phase, the Proposed Development would include the permanent removal of up to 14 ha of improved grassland and just over 19 ha of agricultural farmland. At present, it is uncertain how the phasing of the masterplan will be implemented but construction is anticipated to last for a period of up to 10 years. It is anticipated that development parcels would be brought forward for construction at different stages rather than removal of all areas at once, with some parcels potentially being cleared and constructed together and others cleared and constructed in isolation. Based on this notion, it is assumed that some habitats will remain intact in various areas at different periods throughout the construction phase.

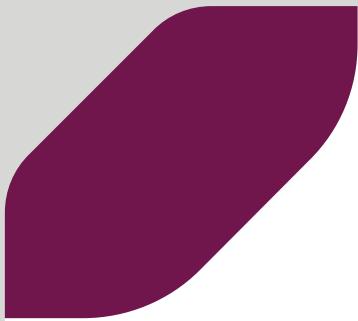
9.7 Upon implementation of the mitigation measures set out in paragraph 9.4 above, no significant adverse effects are anticipated on non-statutory designated sites. Upon successful establishment of the habitat creation and enhancement measures proposed either side of North Bullhouse Brook and North West Bullhouse Brook, impacts are likely to give rise to a beneficial impact that would be significant at a local scale during operation.

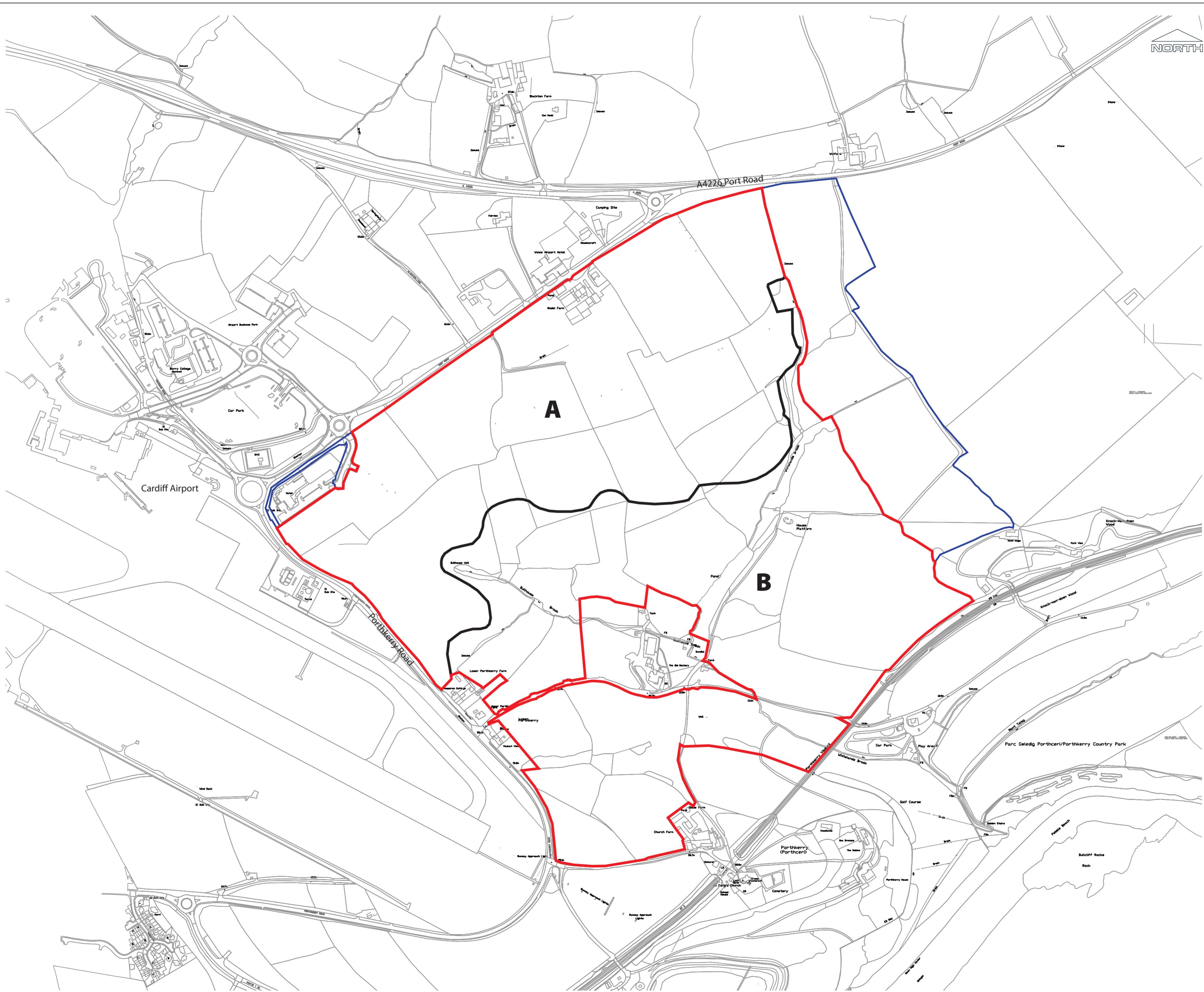
9.8 Significant adverse effects would remain in respect of priority habitats (hedgerows), though this would reduce to no effect once new hedgerows have established. On successful establishment of the proposed scrub planting and new woodland the operational phase is likely to lead to a significant beneficial effect at a district scale. With the cessation of agricultural runoff into Whitelands Brook during, reduced trampling by domesticated animals and establishment of the habitat management measures during operation, impacts on the watercourses are likely to be beneficial, with effects significant at a Site scale, increasing to an effect significant at a local scale in the medium-term.

9.9 Residual effects on protected and notable species are predicted to remain adverse during construction (bats and breeding birds only), though this would reduce to a Site level, with no residual effects anticipated upon maturation of the habitat creation proposals in the short-medium-term.

9.10 Significant adverse cumulative effects are anticipated in respect of bats and breeding birds as a result of the construction and operation of the proposed development and other identified cumulative developments. It is however anticipated that mitigation measures could potentially reduce the significance of the identified cumulative effects and could result in beneficial effects in the long-term.

**Figure 2.1**  
**Site Location Plan**





© 2021 RPS Group  
 Notes  
 1. This drawing has been prepared in accordance with the scope of RPS's appointment with its client and is subject to the terms and conditions of that appointment. RPS accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided.  
 2. If received electronically it is the recipient's responsibility to print to correct scale. Only written dimensions should be used.

- Land In Ownership of L&G
- Site Boundary

Rev	Description	Date	Initial	Checked



RPS | Consulting UK & Ireland  
 2 Callaghan Square, Cardiff, CF10 5AZ, United Kingdom  
 T: +44(0) 2920 668 662 E: rpsca@rpsgroup.com

Client Legal and General  
 (Strategic Land) Ltd

Project Parc Busnes Porth Cymru

Title Site Boundary Plan

Status	Drawn By	PM/Checked by
DRAFT	PO	RL/DP
Job Ref	Scale @ A2	Date Created
JCD0064	1:5000	MAY 2019
Drawing Number		Rev
JCD0064-001		D

**Figure 2.2**  
**Indicative Concept**  
**Masterplan**

