ECOLOGICAL APPRAISAL STATEMENT FOR MODEL FARM

RE: PARC BUSINESS PORTH CYMRU PLANNING APPLICATION AND THE ECOLOGICAL SURVEYS CONDUCTED BY R P S GROUP LIMITED

ON BEHALF OF

Vale Communities Unite (VCU)

17 March 2025

Emma Williams

Coal Spoil Fungi

71 Oxford Street

Maerdy, Rhondda CF43 4BL

Email: coalspoilfungi@yahoo.com

Tel: 07889925330

MF001/CSF/2005

CONTENTS

1. INTRODUCTION

2. SURVEYOR AND EXPERIENCE

3. METHODOLOGY

4. NOTABLE FINDS

5. REVIEW OF THE RPS LTD ENVIRONMENTAL STATEMENT – JCD0064 SEPTEMEBER 2024 & PRELIMINARY ECOLOGICAL APPRAISAL – ECO00138 24 MAY 2019

6. CONCLUSION

1 INTRODUCTION

1.1 I, Emma Williams, have been instructed by Vale Communities Unite (VCU) to undertake an appraisal and review of the ecological findings and Environmental Statement prepared by R P S Group Ltd on behalf of Legal & General (Strategic Land) Ltd in support of a planning application (ref 2019/00871/OUT/ CAS-02641-G8G7M5) for a proposed Business Park at Land at Model Farm, Port Road, Rhoose CF62 3BT.

1.2 The appraisal is also based upon findings made by me during casual surveys between June 2019 – March 2025. These surveys were conducted to assess potential and current value of habitats and grassland at model Farm, from a mycological perspective and wider Biodiversity value.

1.3 The appraisal is intended statement for the PEDW enquiry, due to commence 1st April 20025

2 SURVEYOR AND EXPERIENCE

2.1 I have studied Fungi and Ecology in depth for 15 years, and am one of the foremost field mycologists in Wales, specialising in surveying for grassland fungi, having undertaken work for several of the Welsh Biological Recording Centre, NRW/CCW, Natural England, Kew, National Botanical Garden of Wales, Wildlife Trust, RSPB, National Trust to name just a few major organisations, as well as numerous Welsh local authorities and private land owners and developers.

2.2 My work has taken me across Wales, England, Scotland and Isle of Man. I am also respected in Europe collaborating with other leading mycologists in finding and identifying fungi. I also teach Mycology and Habitats for conservation and mitigation, and microscopy from beginner to professional level, including staff of NRW and Natural England.

2.3 I am a published mycological writer for the British Wildlife Journal, and have delivered presentations for Plantlife, CIEM and various other leading organisations. A guest on TV programmes Coast to Country and Iolo Williams 'Iolo's Valleys', my skill and experience allow a deep understanding of ecological habitats, and broad knowledge of other Flora and Fauna; I am accomplished in ID skills which include new to Britain and to Wales Invertebrates. I have also accepted an Honorary Fellowship from the Museum of Wales, Cardiff.

2.4 I am a Member of the British Mycological Society and Fungus Conservation Trust. Honorary Research Fellowship, Museum of Wales.

3 METHODOLOGY

3.1 I conducted casual walk through surveys to determine habitat quality and to record Fungal biodiversity present. It is my practice to survey with only boundaries provided and no desk top information or biodiversity data, to avoid predetermining or having bias towards the potential value of a site.

3.2 All Hedgerow and arable margins were walked to check by eye for Fungal species, whilst noting other Flora and Fauna encountered.

3.3 I walked pastures in zig zag formation to determine broad sense of floral species, and Bryophyte presence, to assess for their potential to host high conservation value C.H.E.G.D+ Fungi, again noting where possible other taxa encountered. Due to timing of visits not in-line with accepted Waxcap survey period, only assessment was made of habitat suitability.

3.4 Woodland blocks, Tree lines, standalone trees, and areas of scrub were inspected for evidence of Mycorrhizal, Saprobic and Pathogenic Fungi. Tree cavities were visually inspected without invasive techniques to avoid disturbance of protected species, and where possible, logs and fallen trunks and boughs were overturned, again noting any other Flora and Fauna encountered.

3.5 Farm courtyard and outbuildings were visually inspected

4 NOTABLE FINDS

4.1 526 species were noted across all taxon groups, 348 being Fungal specific.

4.2 The photographs referred to in this section were taken by me at Model Farm of the species stated in the description.

4.3 ***Spongipellis delectans*** - **Spongy Mazegill** this species of Saprobic Fungus is exceptionally rare, this being the only the 2nd Welsh record. Reliant upon dead wood and cavities of veteran and ancient trees, primary host being Oak. Single Oak tree observed hosting on site. Photo taken by me on 11 February 2022.

4.4 **Waxcaps (Hygrocybe)** ***Cuphophyllus virgineus*****,** ***Cuphophyllus pratensis Hygrocybe conica*****,** ***Hygrocybe ceracea*** **, Corals/Clubs (Clavaria)** ***Clavulinopsis***

corniculata **(image attached),** ***Clavulinopsis helvola*** **, Pink Gill (Entoloma)** ***Entoloma sericeum*** were present throughout all pastures during 8 September 2019. Presence of these C.H.E.G.D species are evidential of pastures NOT being biodiversity poor and warrant full grassland survey. Photo taken by me on 8 September 2019.

4.5 ***Penniniporia ochroleuca*** This was a 1st find for South East Wales 8th September 2019, with its closest range being Pembrokeshire, and a target species from the Kew Lost and Found Project seeking out 101 of UK's rarest species. Saprobic species of Blackthorn. Photo taken by me on 6 October 2019.

4.6 ***Puccinia difformis*** **on Galium aparine**. This parasitic fungus is host specific and classified as Near Threatened Rust Fungus Red Data List and Census Catalogue for Wales, Ray G. Woods, R. Nigel Stringer, Debbie A. Evans and Arthur O. Chater. April 2015. This species, along with its host, was abundant throughout the Hedgerows, with denser populations throughout arable margins. A first record for vale of Glamorgan. Photo taken by me on 6 October 2019.

4.7 ***Platyrhinus resinosus*** **- Scarce Fungus Weavil** on its Fungal host Daldinia concentrica. This was a 1st find for the Vale of Glamorgan and is reliant upon the fungus for reproduction. Daldinia concentrica is found almost exclusively associated with Ash, and is saprobic on dead wood, thus requiring veteran/ancient trees. Immature Ash that have succumbed to Ash die back are not observed hosting this fungus, therefore any new tree planting will have no benefit to this species for decades. Photo taken by me on 30 March 2021.

4.8 ***Platycis minutus*** Confined to ancient woodlands and ancient wood pastures and so only occurs in high quality sites. It develops in white-rotten wood (caused by white rot fungi), and Ash and Beech are probably the favoured tree species. This was only the 8th modern record for Wales. Adults and larvae located within white rot cavities of Ash at Model Farm. Photo taken by me on 6 October 2019.

4.9 ***Pluteus aurantiorugosus*** **- Flame Shield** A rare species, proposed as Threatened on The Global Fungal Red List initiative, largely due to habitat destruction. Requires well rotten veteran / ancient trees. These specimens were located within same cavities as the above ***Platycis minutus.*** Photo taken by me on 6 October 2019.

5 REVIEW OF THE RPS LTD ENVIRONMENTAL STATEMENT – JCD0064 SEPTEMBER 2024 / ECO02103 (PEA) B February 2023 /PRELIMINARY ECOLOGICAL APPRAISAL – ECO00138 24 MAY 2019 / Report ECO00138 Model Farm Ecology Surveys Report A 11 October 2019

5.1 USE OF DESK STUDY

5.2 It is noted throughout reports the reliance upon Desk data for site biodiversity provided by various sources. However, this leans heavily on data from Biodiversity Records Centre, in this case SEWBREC. Farm land is by far some of the least recorded land by mass in UK, due largely to its very nature not being widely accessible to private individuals or recording groups, with only permissive access via limited right of way paths. Therefore, surveying for Biodiversity on farm land requires far more robust efforts to adequately assess its true value. It is also noted throughout that surveyors acknowledged they did not have sufficient time to survey site, which included surveys for protected species.

5.3 ECO00138 FIELD SURVEY

Habitats

Improved Grassland

> 3.11 'The majority of the site is agricultural pasture supporting improved grassland. These improved grassland fields are dominated by perennial rye grass Lolium perenne, with occasional nettle Urtica dioica, broad leaved dock Rumex obtusifolius, cocks-foot sp. Dactylis, meadow foxtail Alopecurus pratensis, white clover Trifolium repens, brome sp. Bromus, thistle sp. Cirsium sp. and creeping buttercup Ranunculus repens.'

5.4 Methodology of assessment has not been provided, neither if the surveyor botanist is FISC qualified to undertake assessment, and at what level 1-6. Although surveyor does state in report that time constraints limited survey, 22+ species were easily spotted in all but 1 field in a simple zig zag transect. Higher plants such as ***Plantago major***, ***Plantago lanceolata, Euphrasia sp etc Euphrasia*** were densely populating. Furthermore, dense bryophyte, largely ***Rhytidiadelphus squarrosus*** was evident throughout, which is potentially symbiotic with CHEGD+ Grassland Fungi and a distinct indicator of a quality conservation fungi grassland.

5.5 A site visit 8th September 2019 revealed 6 species of CHEGD fungi and other grassland species of Fungi. Presence of these disputes assessment as 'improved grassland' and warrant further surveys, including full C.H.E.G.D grassland assessment.

Broadleaf Woodlands & Scattered Trees

5.6 The description of trees on site have been largely downplayed, both in habitat they offer and their age. Many of the trees are remarkable, being several hundred years of age, presenting both wet and dry riot cavities that have potential to support wide range

of Flora, Fauna and Fungi. As stated further, Badger setts had not been located. It is therefore safe to assume that neither had vital bat roosts been located, as one sett is in base of ancient Oak.

5.7 Within a block of woodland I found impressive veteran Poplars, some of which are believed to be endangered native Black Poplar. Quoting a *Guardian* article of 14 March 2025, 'captured by John Constable in one of his most celebrated paintings, the black polar tree was once as common as oak and beech in Britain. Now the rarest and most threatened native species in the country…'[1]

5.8 These veteran Poplars contain large cavities suitable for species such as Bats. These again are allowed to stand and fall with age, and those that have succumbed to age, disease or storm damage are continuing to play a vital role in ecology for saproxylic invertebrates and Fungi.

Photos taken by me on 9 March 2025 demonstrating uprooted poplar tree lying in situ

[1] **'National Trust creates living gene bank of endangered native black poplar'**, ***The Guardian, 14.03.25 https://www.theguardian.com/environment/2025/mar/14/national-trust-creates-living-gene-bank-of-endangered-native-black-poplar***

5.9 Dr Kevin McGin, Head Botanist at National Botanic Garden of Wales, was asked to identify the trees to species from images. Dr McGin explained he was unable to do so as some trunks had burrs, which Hybrids supposedly have not, and to be absolutely certain he will require new leaf sample to check for basal glands, or alternatively a DNA sample. This season's new leaves are due to unfurl, weather dependent, at the end of April, at which time they will be collected and supplied to Dr McGin to allow him to determine species.

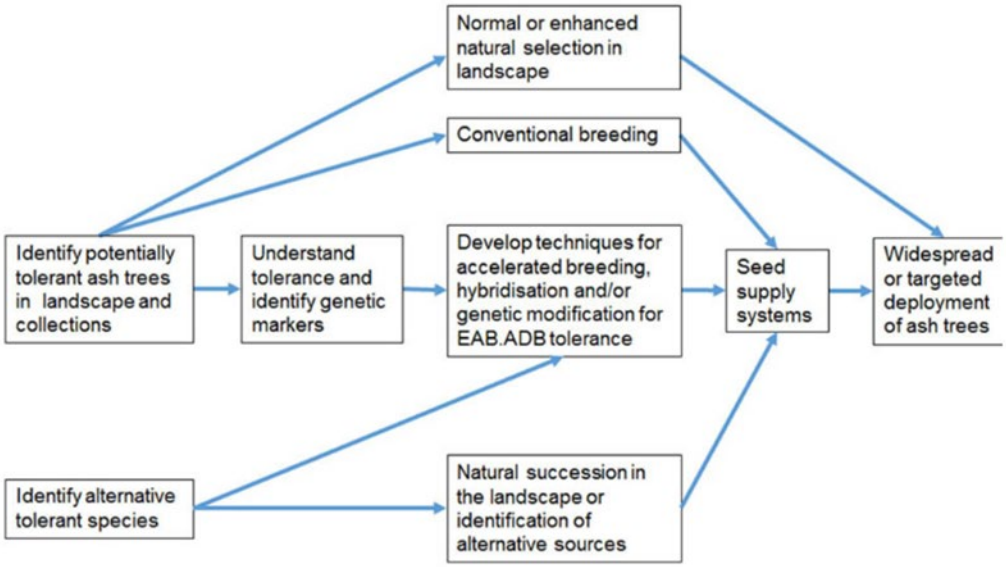
5.10 It must be noted that the tree inspection report from RPS had listed as well as Hybrid Populus x candensis, Populus sp, so it can be presumed that their qualified arborist was also unsure. Due to the deep fissures in bark, and the presence of burrs, I question if those identified as Populus sp are indeed Populus nigra as identification guidelines stipulate that Hybrids do not have burrs. If there are indeed native Black Poplar Populus nigra on site, these would be one of the UKs rarest species and again further investigation is required.

5.11 A photograph taken by me on 9 March of a burr on a poplar at Model Farm is at the end of this written statement.

5.12 Many of the trees are quite remarkable in the way they have been permitted to stand and fall as nature intended, providing a habitat that today is rarely observed, and certainly not within an area that would be accessible to public. The farm practice here does not harvest the mature or naturally fallen trees, and instead allows natural process. Without doubt, majority of these trees and vital habitat would be lost, both with feeling for safety of construction workers, and any tree stock gifted to Porthkerry Country Park would also be managed for public safety. Ash trees onsite are particularly valuable, not only for the rare invertebrate they support, but also due to the fact that many, including an ancient line of Ash which are in excess of 300 years old, are showing recovery from the devastating Ash Die-Back disease, a disease that will result in the commercial and biodiversity loss of some 80% of UK tree stock. The seeds of these trees may prove invaluable for future generations for tree stock and recovery of this vitally important native tree.

The UK policy objectives include:

- **assisting long term survival of native ash in the landscape**



Re. Policy paper
Conserving our ash trees and mitigating the impacts of pests and diseases of ash: A vision and high-level strategy for ash research
Published 6 June 2019

Hedgerows

'Native Species Poor
3.17 The majority of hedgerows were supported by a ground flora dominated by bramble and nettle with occasional dock, goosegrass Galium aparine, vetch and creeping buttercup.'

5.13 Hedgerows were far more abundant and floristically interesting than reported, with species such as Primula vulgaris, Vicia sepium, Arum maculatum, Viola odorata, Stellaria graminea to name just a few observed. These would be providing essential pollinator corridors and supporting higher food chain such as bats. The Hedgerows have been greatly undervalued, not only far more diversity than reported, but also supporting/ hosting other rare species, such as the Near Threatened Puccinia diformis (4.5) and require further surveys.

Protected / notable Species

ECO00138 24 MAY 2019

'Badger 3.28 Badger footprints were identified alongside Whitelands Brook (TN12). The whole site also provides suitable foraging habitat as well as suitable habitat to support badger setts. The thick areas of scrub within the site and woodland understory could have obscured any badger setts present due to the time constraints to undertake a comprehensive survey.

JCD0064 SEPTEMBER 2024

Badger 4.24 Badgers are afforded protection under the Protection of Badgers Act 1992 which makes it an offence to intentionally capture, kill or injure a badger, damage, destroy or block access to their setts and disturb badgers within their setts.
4.25 Suitable badger habitat is present throughout the site, with evidence of badger

also identified during the survey (TN12). In order to identify any setts in the vicinity of the development further survey would be required.'

5.14 Although site was recognised as having Badger activity, disappointingly no effort has been made to locate the setts, which has put the Badgers at direct risk of disturbance or harm should development commence. Setts were very easily located throughout the site, as were latrines and foraging activity. I have a plan showing the location of the 3 badger setts I found but will not make this publicly available to avoid public exposure of the setts. The Protection of **Badgers** Act 1992 prevents injury to and the disturbance of badgers. It also defines and protects their **setts**. Badgers are targeted by blood sport enthusiasts for 'Badger baiting', and any public exposure would put them at risk.

ECO00138 24 MAY 2019

'Otter 4.26 Otters are classified as a European Protected Species under Annex IV of the European Habitats Directive as well as being protected under the WCA 1981. They are also listed as a priority species under the UK post-2010 Biodiversity Framework. 4.27 Suitable habitat to support otter was identified during the field survey along the streams and bordering woodland. Should the development require works within 200 m of the watercourses a targeted otter survey would be recommended to identify the presence of any otters using the site.'

JCD0064 SEPTEMEBER 2024

'Otter 3.29 No direct evidence of otter Lutra lutra was identified during the survey. However, the site supports suitable habitat to support commuting otter as well as areas to support resting places such as within the woodland bordering the watercourses. 3.30 No records of otter were identified during the desk study.'

5.15 This is contradictory to another document issued by RPS ECO02103 (PEA) B February 2023 which provides desk based evidence of 12 Otters within the 2km of site.

Otter

3.3.9 No direct evidence of otter *Lutra lutra* was identified during the survey. However, the site supports suitable habitat to support commuting otter as well as areas to support resting places such as within the woodland bordering the watercourses.

3.3.10 There were 12 records of otter occurring within 2km of the site in the desk study. The closest record located was from a section of Whitelands Brook outside but adjacent to the southern boundary of the survey area.

5.16 It is very disappointing that County Ecologist of Vale has not objected on many points of this development, but more so where a document released September 2024 by RPS supersedes a previous document acknowledging Otters, and the fact of a public announcement made in February 2021 by Vale of Glamorgan Council:

"Our Countryside Services Team in partnership with the Local Nature Partnership are carrying out a project to establish the state of otter populations in the Vale of Glamorgan.

In Wales, it is a largely nocturnal animal and is rarely observed in the wild. It is however possible to detect its presence by searching for its distinctive droppings and footprints

☞ Otters have been sighted at various locations in the Vale, including local rivers, Porthkerry, Fonmon, Rhoose, Cosmeston, Lavernock and Llantwit Major.

If you would like to take part in the otter survey, please contact: MJStewart@valeofglamorgan.gov.uk or eshaw@valeofglamorgan.gov.uk ✉

This project is possible thanks to Waterloo Foundation funding.''

5.17 The lack of due diligence speaks for itself.

5.18 The above sightings included evidential wildcam footage at Porthkerry.

5.19 Otter tracks were also observed at Model Farm, March 2021, and were confirmed by Lee Jenkins of the South Wales Otter Trust. No scat or holts have been observed at Model Farm.

5.20 Sadly, the area has high incidence of RTA mortality due to otters transecting territory via road links in this immediate area.

5.21 Sunday, 9th March 2025, healthy mature lactating female was struck and killed just 1.8 miles from Model farm, well within a 5mile foraging range, which was the 2nd in a week. Otter was collected by NRW, and a post-mortem conducted by Cardiff University Otter Project which confirmed death by high speed impact of a lactating female bearing 2 uterine scars, which indicated at least 2 pups (if live birthed) potentially orphaned.

Image Location of Otter tracks through wet poached ground gated field entrance.

Image Location of RTA Otter (red) just 1.8m from Model Farm

Reptiles & Amphibians

> '3.32 No evidence of reptiles was recorded during the survey. However, the site provides low habitat suitability for common reptile species within the hedgerow field boundaries.
>
> 3.33 Recent records of adder, common lizard and slow worm were also noted from the wider area during desk study.'

5.22 With exception of GCN eDNA surveying being conducted, it would seem that only a presumption has been made of no Amphibians and Reptiles being present at Model Farm based on the already inadequately assessed habitats on site. I can find no evidence of surveys conducted either with reptile sheets, repeated visual surveys, or, searching / checking of potential suitable refugia for presence by ecologist at RPS.

5.23 Both Common Toad *Bufo bufo* and Common Frog *Rana temporaria* were encountered without effort whilst log turning October 6th 2019 within the woodland blocks and lower tree lines. Toad being more frequently encountered.

5.24 Furthermore, whilst checking document ECO02103 (PEA) B February 2023, the desk survey conducted by RPS Ecologist Alex Harper does indeed pick up on both Toad and Slow Worm being present on site:

> Common Toad Bufo bufo WCA5, S7, UKBAP, Bern, LBAP 10 On-site 2020
>
> Slow Worm Anguis fragilis WCA5, S7, UKBAP, Bern, LBAP 46 On-site 2021

Reptiles

3.3.12 The agricultural fields (improved pasture and arable land) provides low habitat suitability for common reptile species. The hedgerow field boundaries and margins of the brook provide greater areas of cover and have higher potential value for grass snake and slow worm.

3.3.13 Desk study records indicate use of the wider area by reptile species including adder, common lizard, grass snake and slow worm. There is a single slow worm record from an area of dense scrub in the southern part of the survey area, outside of the development zone.

5.25 No reference was made to these findings in the updated Environmental Statement, again highlighting failings to adequately survey for this evidence during 2024.

Image Locations of Toad & Frog

Nesting Birds

ECO00138 24 MAY 2019

JCD0064 SEPTEMBER 2024

5.26 Neither report mentions the **Barn Owls** *Tyto alba* present on site or having been surveyed for. Protected by Schedule 1 of the Wildlife and Countryside Act 1981.

5.27 Adult Barn owl observed in out buildings / hay barn July 17th 2019; pellets were spotted on ground before observing an adult on ledge that began hissing. During my visit, no nest/ chicks were observed, but as I do not have a barn owl licence, the following protocol was engaged, as per CIEM guidance, Shawyer, C. R. 2011. Barn Owl *Tyto alba* Survey Methodology and Techniques for use in Ecological Assessment: Developing Best Practice in Survey and Reporting. IEEM, Winchester.

Quotes as follows:

'If an unlicensed surveyor unexpectedly encounters breeding barn owls at a previously unknown nest site, then that person must withdraw immediately and if close examination of the nest site is considered necessary, a licensed surveyor must be engaged'.

2.3 Impacts of Development

Accurate information is required by both the developer and the local authority to determine an application lawfully, in a timely fashion and enable informed decisions to be made about the potential impact of the proposed development and any ecological constraints to it (Shawyer and Johnson 1990, Dewar 1996).

2.4 Survey Requirements Developers and their agents are advised to approach the planning authority before the planning application stage to seek advice on the

information required for an application, which will often include a barn owl survey. If insufficient information is provided by the applicant this may render the application invalid or lead to deferral or refusal of planning permission. Failure to consider the risk of harm or disturbance to this protected bird before land clearance, demolition, development or redevelopment of a site begins, through for example, an appropriate survey, could be deemed 'reckless' in law. This could lead to criminal prosecution should the risk be taken or ignored and the actions result in any damage to barn owls, their 'nests', eggs or young or disturbance to them whilst they are breeding. These offences can be punishable by fines of up to £5,000 for each nest, egg or chick and/or result in a six-month custodial sentence for those committing the offence. Barn owl surveys should, therefore, be given high priority at those sites where a development or change in use is under consideration.

5.28 As stated above, Barn Owl surveys should have been conducted before the planning application, and I consider this to be a gross failing in the ecologist's duties.

5.29 Also, Document MODEL FARM Ecology Surveys Report ECO00138 Model Farm Ecology Surveys Report A 11 October 2019, states

'3.2.1 Access into buildings within the barn complex was limited due to health and safety precautions. Several sections of the barn complex had unstable ceilings or roofs and due to this, the internal inspection was restricted to open hay/storage barns and one first floor location'

5.30 It must be noted that H&S is an individual assessment, however, these buildings are used daily.

5.31 RPS state the following on document ECO00138 24 MAY 2019, with no further amendment.

'Limitations

2.6 Due to the size of the site it was not possible to undertake a comprehensive search for protected and notable species in one visit. However, the report provides an assessment of the potential for protected and notable species to be present based upon the habitats identified within and in close proximity to the site.'

5.32 Failure to afford adequate time to survey a vast and ecologically sensitive site cannot be excused or used as an excuse.

6 CONCLUSION

6.1 Due to the failure to adequately survey the site, and by their own admission not having sufficient time to survey even for protected species, I strongly believe that the ecological reports fail to provide robust site data and to advise on appropriate and acceptable mitigation measures to limit the harm to biodiversity and protected species for a planning application.

6.2 Further to poorly conducted surveys, there has been failure to conduct Arable Botany survey. Arable land is renowned for supporting some of the UK's most endangered Flora and Fauna.

6.3 The UK is currently in an insect crisis, yet no Invertebrates surveys have been conducted to avoid loss or harm to rare species which are habitat reliant.

6.4 Welsh grazed pastures are renowned for being Jewels of Europe for globally most threatened species of Fungi, many of which are rarer than protected Pandas. Yet RPS did not check for the viability of this farm.

6.5 In mitigating, gifting to Porthkerry a large area of Farm land is highly unlikely to provide the promised 'boosts to Biodiversity' due to the difficulties faced by many parks, Porthkerry included, from heavy footfall compacting ground, dog fouling which includes insecticide (e.g. flea treatments) BANNED in agriculture due to its dangers to insect life, and woodlands would be heavily managed, likely felled for safety reasons. Retention of even logs for nature from felled trees has proven difficult in recent years due to high rate of theft for log burning.

6.6 Nature at Model Farm is afforded protection not seen within surrounding land, the Badger setts alone on site are a testament to that.

6.7 As stated in review, there are contradictions / omitted vital data from previous reports, which adversely affect nature and biodiversity, submitted for final ecological statement. The Environmental Statement is plainly inadequate.

6.8 It is my belief that Model Farm's value to Nature and Biodiversity has been greatly undervalued, and effectively 'written off' with poorly conducted surveys. It is my understanding that these surveys were conducted in 2 hr sessions, which considering the acreage of land mass frankly beggars belief that this is deemed acceptable.

6.9 The Vale of Glamorgan Council has a duty to reach the Welsh Government's Biodiversity target of 30-30 by 2030. Instead of being viewed as an asset for development, Model Farm would better serve as a site that greatly contributes to this target. Further surveys by independent ecologists would undoubtably provide a wealth of data and species.