

Our ref: JCD0064

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Dear Ceiri,

### 2019/00871/OUT - Model Farm

This letter provides final details as follows:

1. Amended red line plan for the application to include the land to be transferred for an extension to Porthkerry Country Park as required by Policy MG10.
2. Amended planning application form for hybrid application
3. Illustrative Concept Masterplan vS
4. Amended Parameters Plans x 3
5. Environmental Statement Addendum to match the revised red line for the application.
6. Updated ES Non-Technical Summary
7. Ecology mitigation plan - ECO01271-001-04
8. Ecology details as follows
  - a. Quantification of the area of scrub/coppice to be planted, the length of hedgerows to be lost and the length of hedgerows to be planted
  - b. Outline planting and management of the three SUDS swales/attenuation ponds.
  - c. SuDS Management
  - d. Contingencies for bat mitigation if units that would have contained mitigation features are not brought forward early in the site development.
9. Future Wales Policy 16 – Heat Networks

Items 3 and 4 above take into account the additional land for the country park extension and further ecology mitigation. The area for the business park remains the same 44.77 hectares. This area includes the attenuation ponds necessary for the business park development. The ponds are situated within the area as per LDP Policy MG28 (2) – Public Open Space Allocations. Other land controlled by the applicant but outside the MG28 allocation can more than compensate for the deficit. Policy MG10 requires that the development of the enterprise zone will include a 42 hectare extension to Porthkerry Country Park.

Besides the measures set out below there are extensive areas within the Country Park extension of grassland management for skylarks and areas of seed crop for wild bird cover. Further tree planting could be accommodated in the Country Park extension too.

### **Quantification of the area of scrub/coppice to be planted, the length of hedgerows to be lost and the length of hedgerows to be planted**

The hedgerow, scrub and woodland plan (ECO01271-001-04) illustrates the existing woodlands, new woodland planting and hedgerow network within the proposed development and country park extension.

A summary of the balance between loss and creation is presented in Table 1 below. The proposals for the country park extension include new areas of woodland and scrub planting on the northern boundary of the country park and linking with green infrastructure within the proposed development.

The areas of woodland planting will have a proportion of trees that over time will establish new blocks connecting the areas of existing ancient woodland. Mixed species native shrub will create woodland edge habitat and additional linear habitats between the SuDS features and the development areas creating a buffer

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for the future green infrastructure. All areas of planting will have a proportion of hazel within the planting mix. New woodland planting will have a minimum of 25% hazel. In a several locations, hazel would be the main species planted as illustrated on the hedgerow, scrub and woodland plan.

Together the planting will create a wide east-west wildlife corridor beyond the southern boundary of the development. The increased connectivity and planting mixes will increase the potential value of the country park for dormice and promote its value for foraging bats.

Within the country park extension, the planting of new hedgerows and infilling of gappy / defunct hedgerows will partly offset the loss associated with the development. The biodiversity value of the hedgerow network in the country park extension will increase through changes in management allowing them to increase in width and height and develop features that will have higher value for many species. The creation of additional hedgerows will further enhance the connectivity of the network.

**Table 1: Hedgerow and Scrub Loss and Creation**

	Total	Retained	Loss	Creation	Enhancement
Hedgerows (km)	9.44	6.83	1.58	0.73	0.30
Woodland planting				2.50	
Native Mixed Species Scrub (ha)			-	1.51	
Hazel dominated planting (ha)			-	1.50	

## Outline planting and management of the three SUDS swales/attenuation ponds.

The attenuation basins and swales are to be designed to provide additional enhancement for biodiversity.

The basins will be designed to drain to ground with no permanent open water in the bases. They will be periodically inundated following heavy and/or extended rainfall and will intermittently hold water but only for relatively short periods of time. Based on the anticipated substrates and

A wet grassland will be established in the base the basin. Species selection will include plants suited to the wet grounds conditions that can tolerate both periodic inundation and the drying out of ground. The conditions will enable the establishment of a wet grassland in its base. A native seed mix of 80% grass/rush to 20% wildflower will be used to establish the grassland. Where species are not available as native seed, they could be introduced as plugs to promote the diversity of wildflower species.

**Table 2. Indicative Wet Grassland Seed Mix (Grass and Rush)**

Species	English Name	Approximate Proportion
<i>Cynosurus cristatus</i>	Crested dog's-tail	30%
<i>Festuca rubra</i>	Slender creeping red fescue	30%
<i>Agrostis capillaris</i>	Common bent	15%
<i>Alopecurus pratensis</i>	Meadow foxtail	10%
<i>Juncus effusus</i>	Soft rush	5%
<i>Juncus conglomeratus</i>	Compact rush	5%
<i>Deschampsia cespitosa</i>	Tufted hair-grass	2.5%
<i>Anthoxanthum odoratum</i>	Sweet vernal-grass	2.5%

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**Table 3: Indicative Wet Grassland Plug Planting / Seed Mix**

Species	English Name	Approximate Proportion
<i>Achillea ptarmica</i>	Sneezewort	3%
<i>Angelica sylvestris</i>	Wild angelica	8%
<i>Cardamine pratensis</i>	Cuckoo flower	10%
<i>Eupatorium cannabinum</i>	Hemp agrimony	3%
<i>Filipendula ulmaria</i>	Meadowsweet	10%
<i>Iris pseudacorus</i>	Yellow iris	10%
<i>Lotus pedunculatus</i>	Greater bird's-foot trefoil	15%
<i>Lychnis flos-cuculi</i>	Ragged robin	5%
<i>Lycopus europaeus</i>	Gipsywort	10%
<i>Lythrum salicaria</i>	Purple loosestrife	10%
<i>Ranunculus acris</i>	Meadow buttercup	5%
<i>Scrophularia auriculata</i>	Water figwort	3%
<i>Stachys palustris</i>	Marsh woundwort	3%
<i>Vicia cracca</i>	Tufted vetch	5%

The sloping sides of the attenuation basins will be dry for the vast majority of the year. Consequently, the sides of the basin will be sown with a neutral wildflower meadow mix (Table 4).

**Table 4. Wildflower Meadow Seed Mix (Emorsgate EM1 or similar approved)**

Species	English Name	Approximate Proportion (by number)
<b>Grasses</b>		
<i>Cynosurus cristatus</i>	Crested dog's-tail	40%
<i>Festuca rubra</i>	Red fescue	28%
<i>Agrostis capillaris</i>	Common bent	8%
<i>Phleum bertolonii</i>	Smaller cat's-tail	4%
<b>Wildflowers</b>		
<i>Achillea millefolium</i>	Yarrow	0.5%
<i>Centaurea nigra</i>	Common knapweed	2%
<i>Galium verum</i>	Lady's bedstraw	1%
<i>Leucanthemum vulgare</i>	Oxeye daisy	2%
<i>Lotus comiculatus</i>	Bird's-foot trefoil	2%
<i>Plantago lanceolata</i>	Ribwort plantain	2%
<i>Poterium Sanguisorba (Sanguisorba minor)</i>	Salad burnet	3%
<i>Ranunculus acris</i>	Meadow buttercup	3%
<i>Rumex acetosa</i>	Common sorrel	0.4%
<i>Silene vulgaris</i>	Bladder campion	2%
<i>Silene dioica</i>	Red campion	2%

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<i>Silene vulgaris</i>	Bladder campion	2%
<i>Trifolium pratense</i>	Wild red clover	0.1%

**SuDS Management**

The neutral grassland on the sides of the basin will mown/cut twice annually; once in spring (early April) and again in early September. After the autumn cut the vegetation will be left on the ground from between 2 and 7 days to all seed to be shed from the arisings.

After both the spring and autumn cuts all the arisings and all the dead grass in the base of the grassland will be raked off and removed from the site.

This management approach should create gaps in the grassland for wildflowers to establish and sustain populations while controlling the abundance of lower value coarse grasses and tall ruderals. Cutting will also control the colonisation of scrub.

**Table 5. Indicative Management Specifications**

Habitat	Specification	Timing
<b>Year 1 - Establishment</b>		
<b>Attenuation Basin - Wet Grassland and Neutral Grassland</b>	<ul style="list-style-type: none"> <li>- First cut - once sward height exceeds 100mm, mow using a bladed cutter to reduce sward height to 50mm</li> <li>- Subsequent cuts to reduce sward height to 50mm</li> <li>- All arisings to be removed immediately after cutting.</li> </ul>	Dependent on grass establishment, growth rate and height
	<ul style="list-style-type: none"> <li>- Regularly remove any litter that collects in the basins</li> </ul>	Monthly
<b>Year 1 - Provisional</b>		
	<ul style="list-style-type: none"> <li>- Control injurious weed species if they colonise into the new grassland habitat – through physical removal of plant and root system or where applicable herbicide</li> </ul>	As required
	<ul style="list-style-type: none"> <li>- Eradicate any invasive non-native plant species (INNS) that colonise the basin (with the aid of specialist support where needed)</li> <li>- Prepare strategy/method for eradication and monitor outcomes</li> </ul>	Following colonisation by a INNS
<b>Year 2 Onwards</b>		
Attenuation Basin - Wet grassland base and neutral grassland banks	<ul style="list-style-type: none"> <li>- Cuts to reduce sward height to 30mm, collect and remove all arisings and place in a defined composting area on site or remove from site</li> </ul>	September / October

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	<ul style="list-style-type: none"><li>- Scarify to remove all dead grass thatch in the base of the grasland</li></ul>	
<b>Provisional</b> Attenuation Basin - Neutral Grassland	<ul style="list-style-type: none"><li>- Cut in early spring to reduce sward height to 50mm</li><li>- All arisings to be collected immediately following cutting; placed in a defined composting area within the site or removed from site..</li></ul>	April Where wildflower cover in the previous September was less than 10% or where common coarse grasses occur at 30% cover or higher.

**Contingencies for bat mitigation if units that would have contained mitigation features are not bought forward early in the site development.**

The extension to the country park encompasses a number of blocks of woodland with mature and large semi-mature trees. Eleven areas are identified on the Indicative Bat Box Installation Plan (01271-002-001) where there are areas of woodland or tree lines with mature trees.

The plan defines where a total of 28 bat boxes could be installed across the country park extension linked to foraging habitat and flight lines. It is proposed that the bat boxes are installed in four phases over a ten year period: at the outset of construction activities (Year 1) and then no later than the end of Year 2, Year 4 and Year 6.

All bat boxes would be installed before the completion of the development or before the start of Year 7 if development proceeds at a slower rate than anticipated.

- No bat boxes will be installed on ash trees
- Only long lasting bat box types will be installed - woodcrete or equivalent
- Bat boxes will be installed in pairs on trees facing south-east and south-west on the trunk above 4m from the ground level.
- Trees will be selected with clear flight lines and the boxes placed in positions that will receive some sunlight.
- Each box will be securely installed to the tree using both nails and strapped around the trunk.

**Future Wales Policy 16 – Heat Networks**

The policy requires *within Priority Areas for District Heat Networks planning authorities should identify opportunities for District Heat Networks and plan positively for their implementation.*

*Large scale mixed-use development should, where feasible, have a heat network with a renewable / low carbon or waste heat energy source. Planning applications for such development should prepare an Energy Masterplan to establish whether a heat network is the most effective energy supply option and, for feasible projects, a plan for its implementation.*

The spatial priority is for the suitability and viability of District Heat Networks to be investigated in the towns and cities identified as Priority Areas, this includes Barry and Cardiff. The Priority Areas have been identified on the basis of having a sufficiently high heat density to make them viable. They take into account settlement size, mix of uses, development potential and any existing work being undertaken to develop heat networks.

Policy MG10 of the LDP refers to: The incorporation of sustainable energy centre at the Cardiff Airport and gateway development zone. The business park application at Model Farm falls within part of the gateway development zone. The business park has been the subject of an independent viability exercise, which has confirmed there is little scope to fund measures over and above enabling the business park to come forward

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as an opportunity to accommodate jobs in the Enterprise Zone. Policy MG10 also requires the provision of sustainable transport infrastructure in the St Athan - Cardiff Airport Enterprise Zone. Land at Model Farm previously identified as part of the business park has been identified for an active travel route along the Port Road and further land to be safeguarded for a rapid transit route to the airport.

Notwithstanding the location of the business park outside the Priority Areas for heat networks and the viability challenges the applicant is prepared to work with the Enterprise Zone partners, as has been the case to date, to consider options and the basic feasibility of sustainable energy centre for the EZ. The applicant will adhere to the energy hierarchy for planning set down in Figure 10 of PPW 11. Given the proximity to the airport on shore wind energy isn't likely to be an option whereas solar energy could be considered.

If you or colleagues have any queries regarding the content of this letter and the attachments, please contact myself or Emma Fortune.

Yours sincerely,  
for RPS Consulting Services Ltd



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