



Biodiversity Enhancement Strategy

Land at Merryhill Mushrooms, Storrington Road, Thakeham, RH20 3ED

December 2025



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001	08/12/2025	Hannah Baker BSc (Hons) MSc ACIEEM – Director and Principal Ecologist

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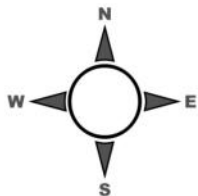
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Legend

 Development boundary

Ecological Enhancements

-  Bat box
-  Insect block
-  House sparrow box

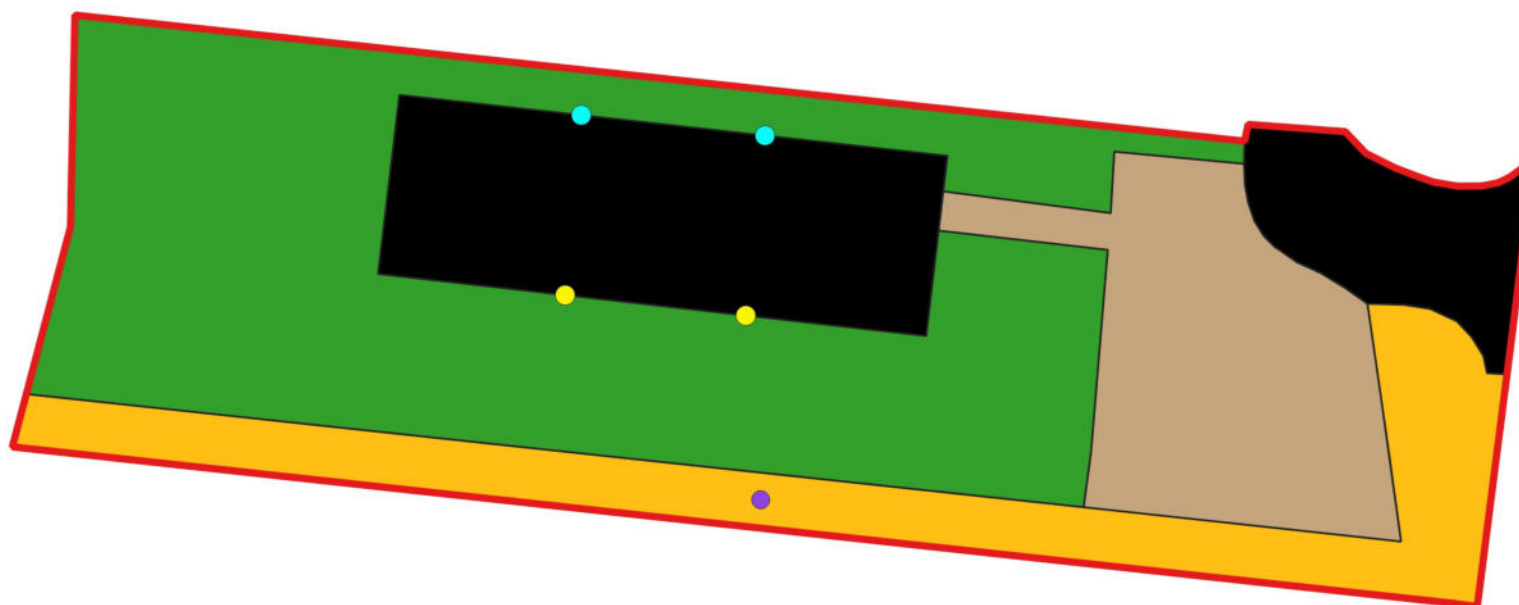


Figure Title:		
Proposed Ecological Enhancements		
Client/ Project Reference:		
C-NJA-019-003 Kieran Rucklidge		
Figure number:	Revision:	Scale at A4:
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Cartographer:	Date drawn:	Approver:
HB	08/12/2025	HB



1. Introduction

1.1 Development Location

1.1.1 Kieran Rucklidge is proposing a development (grid reference: TQ 10071 15638) at Merryhill Mushrooms, Merryhill, Storrington Road, Thakeham, RH20 3ED (see Figure 1). The above address is hereafter referred to as ‘the site’ and Kieran Rucklidge as the ‘applicant’.

1.1.2 The local planning authority for the site’s location is Horsham District Council (HDC).

1.2 Development Proposals

1.2.1 The applicant seeks planning consent for a development (as per DMA Building Designs - Drawing reference: DE1223/06-P2) that includes:

- Construction of a new outbuilding; and
- Associated landscaping within the development boundary.

1.2.2 The proposals above are hereafter referred to collectively as ‘the development’ in this report and the location of the development as the development boundary (see Figure 1)

1.3 Brief and Objectives

1.3.1 Arun Ecology Ltd were commissioned by the applicant to produce a Biodiversity Enhancement Strategy outlining the following:

- Purpose and conservation objectives for the proposed enhancement measures;
- Product descriptions to achieve stated objectives;
- Mapping to show the locations of proposed enhancement measures;
- Persons responsible for implementing the enhancement measures; and
- Details of initial aftercare and long-term maintenance (where relevant).



2. Biodiversity Enhancement Strategy

Background

- 2.1.1 This section outlines the proposed ecological enhancement opportunities, which have been developed with reference to the final landscape design for the development (as detailed in drawing: DMA Building Designs. DRG No.DE1223/06).

Light Pollution

- 2.1.2 To ensure the development avoids adverse impacts on bat foraging and commuting habitats that are located within the development boundary, external lighting as part of the proposed development will be installed in line with current guidance issued by the Bat Conservation Trust and Institute of Lighting Professionals: Guidance Note 08/23: Bats and Artificial lighting in the UK (BCT & ILP 2023).
- 2.1.3 The lighting strategy for the site as a minimum should aim to:
- Avoid illumination of all hedgerows within the development boundary; and
 - Minimise the overall levels of light pollution within the site as a result of the development by:
 - Selecting appropriate lighting sources such as LED lighting that lack UV components, have peak wavelengths higher than 550 nm and that have a warm white light (2,700 kelvin or lower);
 - Appropriate fitting of lighting to include horizontal mounting with no light output above 90° and/or no upward tilt, or as a last resort the use of baffles, hoods or louvres to reduce light spill and direct lighting to only where it is needed;
 - Using light only when necessary, within the site, by using timers and motion sensors; and
 - Providing natural screens in landscaping plans to break up artificial light where light spill cannot be avoided.
- 2.1.4 Full details of the lighting strategy are set out within the Wildlife Sensitive Lighting Design Scheme (MerryHill Mushrooms, 2025), submitted in support of this application (see Appendix II).



Proposed Enhancement Measures

- 2.1.5 The development will be required to implement ecological enhancements into the design of the development to ensure it is compliant with national and local planning policy.
- 2.1.6 The following ecological enhancements relevant to the development will be implemented:
- One bat box for crevice dwelling bats on a mature tree within the development boundary;
 - Two house sparrow nest boxes to be mounted on the new outbuilding within the development boundary; and
 - Two insect blocks to be mounted on the new outbuilding within the development boundary.
- 2.1.7 Detailed descriptions of each enhancement measure, including the responsible persons for implementation and the targeted benefits for biodiversity are provided in Table 1 below. The locations for the enhancement measures within the development boundary are illustrated in Figure 1.



Table 1 – Proposed artificial habitats within the development boundary

Proposed Habitat Type	Location	Height	Aspect	Brand	Model	Persons responsible for implementing and maintenance required	Targeted Benefits for Biodiversity and Notes
1 x Bat box	Mature tree within the existing hedgerow, within development boundary	At least 4 meters	South, south-east or south-west	Schwegler	Schwegler 2F Universal Bat Box (or similar alternative)	- Responsibility:- Appointed contractor - The bat box specification proposed is self-cleaning, and as such, future cleaning will not be required. - The box should be checked from ground level at least annually to ensure it is still sufficiently mounted and is not damaged or blocked. - Internal inspections should only be undertaken by a suitably qualified ecologist.	- Increased roosting provisions for bats within the development boundary. - Suitable alternative models include: Schwegler 1FF Schwegler bat box.
2 x House sparrow boxes	Mounted on the new outbuilding within the development boundary	2-4 meters	Between north and east	Vivara Pro	WoodStone House Sparrow Nest box (or similar alternative)	- Responsibility:- Appointed contractor - Clean out the box once a year outside of the breeding bird season, ideally between October and January. - The box should be checked at least annually and on an ad hoc basis to ensure it is sufficiently mounted and is not damaged.	Increased nesting provisions for house sparrows within the development boundary.
2 x Insect blocks	Mounted on the new outbuilding within the development boundary	At least 2 m from the ground	South facing	Vivara Pro	WoodStone Insect Block (or similar alternative)	- Responsibility:- Appointed contractor - The holes of the box should be kept clear from vegetation, by ensuring no plants are overgrowing or blocking the holes. - The holes can be cleaned with a pipe cleaner at the end of the season (around late September to October) after all the bees have emerged.	Increased habitat provisions for bees and other insects within the development boundary.



3. Appendix I – Legislation & Planning Policy

3.1 Background

3.1.1 This section provides a summary of the legislation and planning policy that could be relevant to the development. Where possible we have limited this section to the areas relevant to this report. This means the legislation and planning policy outlined below is not included in its entirety.

3.1.2 This section does not constitute legal advice, and only represents the interpretation and professional judgement of the ecologists named in this report, on the legislation and planning policy considered relevant to the development.

3.2 Conservation of Habitat and Species Regulations, 2017

3.2.1 The Conservation of Habitats and Species Regulations, 2017 transposes the EC Habitats Directive and some elements of the EC Bird Directive into national law in England and Wales. The objective of the Habitats Directive is to protect biodiversity through the conservation of natural habitats and species of wild fauna and flora. The directive lays down rules for the protection, management and exploitation of such habitats and species.

Protected Species

3.2.2 The regulations include provisions that prohibit certain actions from the protection of species listed under Annex II of the Habitat Directive. It is a criminal offence for a person to ‘intentionally or recklessly’ take the following action:

- Deliberately capture, injure or kill any wild animal of a European Protected Species (EPS);
- Deliberately disturb wild animals of any such species in such a way as to be likely to affect significantly the local distribution or abundance of the species to which they are likely to belong;
- Deliberately take or destroy eggs of any such wild animal;
- Deliberately pick, collect, uproot or destroy a wild plant of an EPS; and
- Keep transport, sell or exchange, or offer for sale or exchange, any live or dead wild animal or plant of an EPS, or any part of or anything derived from such an animal or plant.



3.2.3 The disturbance of such animals includes in particular; any disturbance that is likely to impact their ability;

- To survive, to breed or reproduce, or to rear or nurture their young;
- In case of animals of a hibernating or migratory species, to hibernate or migrate; or
- To affect significantly the local distribution or abundance of the species to which they belong.

3.3 The Wildlife and Countryside Act, 1981 (as amended)

3.3.1 The Wildlife and Countryside Act, 1981 (as amended) primarily transposes the UK Governments obligations under the Bird Directive and Bern Convention into law. The act outlines provisions for the protection of nationally important sites for nature conservation and provides protection at different levels for certain animals and plants, including certain prohibitions.

Protection of Animals

3.3.2 Part 1 – Section 9 of the act includes certain prohibitions for the protection of certain animals named in schedule 5. In summary offences include:

- If any person intentionally or recklessly kills, injures or takes any wild animal included in schedule 5;
- If any person has in his possession or control any live or dead wild animal included in schedule 5, or any part of, or anything derived from, such an animal;
- If any person intentionally or recklessly damages or destroys, or obstructs access to, any structure or place which any wild animal included in schedule 5 uses for shelter or protection; or
- Disturb any such animal while it is occupying a structure or place which it uses for that purpose; and
- Sells, offers or exposes for sale, or has in their possession or transports for the purpose of sale, any live or dead wild animal included in schedule 5, or any part of, or anything derived from, such an animal, or publishes or causes to be published any advertisement likely to be understood as conveying that they buy or sell, or intends to buy or sell, any of those things.



3.4 Countryside Right of Ways Act, 2000 (CRoW, 2000)

- 3.4.1 The Countryside Right of Ways Act, 2000 (CRoW Act, 2000) makes provisions for public access, amends the law for public rights of ways and amends existing law on nature conservation and the protection of wildlife as well as makes further provisions for Areas of Outstanding Natural Beauty.

Wildlife Legislation

- 3.4.2 Part III of the CRoW Act, 2000 includes provisions for wildlife protection and nature conservation and includes amendments to the Wildlife & Countryside Act, 1981.
- 3.4.3 Schedule 9 of the CRoW Act, 2000 increases powers for the protection and management of SSSI. There are increased powers for appropriate authorities to secure management agreements for SSSI. A duty is placed on public bodies to have regard for the continued conservation and enhancement of SSSI. Furthermore, there are increased penalties for the prosecution of wildlife crime, including for third parties that damage SSSI.
- 3.4.4 Schedule 12 of the CRoW Act, 2000 makes certain offences under the provision of the Wildlife and Countryside Act, 1981 arrestable. Greater powers are given to police and appointed wildlife inspectors under the CRoW Act, 2000 and enables heavier penalties for the prosecution of wildlife crime.

3.5 Natural Environment & Rural Communities Act, 2006

- 3.5.1 The Natural Environment and Rural Communities Act (NERC), 2006 is primarily intended to implement key aspects of the governments rural strategy published in July 2004. It also addresses a wider range of issues relating broadly to the natural environment.

Section 40

- 3.5.2 Section 40 of the NERC Act, 2006, places a duty on any public authority and statutory undertaker to have due regard for the conservation and enhancement of biodiversity when delivering their functions, extending the provisions outlined under section 74 of the CRoW Act, 2000.
- 3.5.3 The policy goes on to state that conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population of that habitat.

Section 41

- 3.5.4 Section 41 of the NERC Act, 2006 requires the secretary of state in consultation with Natural England to outline Species of Principle Importance (SPI) and Habitats of



Principle Importance (HPI) that in their opinion are important for the conservation of biodiversity.

3.5.5 The secretary of state is required to:

- Take such steps as appear to the secretary of state to be reasonably practicable to further the conservation of the living organisms and types of habitats included in any list published under this section; or
- Promote the taking by other of such steps.

3.5.6 The NERC Act, 2006 also provides some amendments to the Wildlife & Countryside Act, 1981 (as amended) and includes provisions for enforcement powers and the protection of SSSI.

3.6 National Planning Policy Framework (2024)

3.6.1 The National Planning Policy Framework (NPPF, Ministry of Housing Communities and Local Government, 2024) sets out the Governments planning policies for England and how these should be applied. It provides a framework which locally prepared plans for housing and other developments can be produced.

3.6.2 The NPPF supplements Government Circular: Biodiversity and Geological Conservation 06/2005 (Office of the Deputy Prime Minister, 2005).

Conserving and Enhancing the Natural Environment

3.6.3 Paragraph 187 states: Planning policies and decisions should contribute to and enhance the natural and local environment by:

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and



future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs;

- e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

3.6.4 Paragraph 188 states: Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

3.6.5 Paragraph 189 states that: great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and National Landscapes which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas and should be given great weight in National Parks and the Broads. The scale and extent of development within all these designated areas should be limited, while development within their setting should be sensitively located and designed to avoid or minimise adverse impacts on the designated areas.

3.6.6 Paragraph 190 states that: When considering applications for development within National Parks, the Broads and National Landscapes, permission should be refused for major development other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest. Consideration of such applications should include an assessment of:

- a) the need for the development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy;
- b) the cost of, and scope for, developing outside the designated area, or meeting the need for it in some other way; and
- c) any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.



- 3.6.7 Within areas defined as Heritage Coast (and that do not already fall within one of the designated areas mentioned in paragraph 189), planning policies and decisions should be consistent with the special character of the area and the importance of its conservation. Major development within a Heritage Coast is unlikely to be appropriate, unless it is compatible with its special character.

Habitats and biodiversity

- 3.6.8 Paragraph 192 states that: To protect and enhance biodiversity and geodiversity, plans should:
- Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
 - Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.
- 3.6.9 When determining planning applications, local planning authorities should apply the following principles:
- a) If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
 - b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
 - c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and



- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

3.6.10 The following should be given the same protection as habitats sites:

- a) potential Special Protection Areas and possible Special Areas of Conservation;
- b) listed or proposed Ramsar sites; and
- c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

3.6.11 The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

3.7 Biodiversity and Geological Conservation Circular 06/2005

3.7.1 Biodiversity and geological conservation circular 06/2005 provides administrative guidance on the application of the law relating to planning and nature conservation as it applies in England. It complements the national planning policy in the NPPF, 2024 and the Planning Practice Guidance. Broadly the guidance covers designated sites, the conservation of habitats and species, including outside of designated sites, protected species by law and the duties and powers used by planning authorities.

3.7.2 Paragraph 82 of the guidance states that ‘in determining the application for development that is covered by up-to-date standing advice, a planning authority must take into account this standing advice’.

Protected Species and Planning

3.7.3 Paragraph 98 of the guidance states ‘the presence of a protected species is a material planning consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat’.

3.7.4 Paragraph 98 also states that ‘they (the planning authority) should consider attaching appropriate planning conditions or entering into planning obligations



under which the developer would take steps to secure the long-term protection of the species.

- 3.7.5 Paragraph 99 of the guidance goes on to state: ‘it is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision’. Paragraph 99 also states that ‘this is justified only, where there is a reasonable likelihood of the species being present and affected by the development.’

3.8 Horsham District Council Adopted Local Plan (2015)

- 3.8.1 This section includes the deliberate inclusion of revisions made to Policy 31 outlined below under the draft HDC Local Plan (2020). This has been undertaken in view of recent legislative changes in the UK and additional local requirements that are reasonably likely to be considered at determination for this planning application.

Policy 25

- 3.8.2 Policy 25 sets out Horsham District Councils (HDCs) commitment to protecting the Natural Environment and Landscape Character. Policy 25 states:
- 3.8.3 The Natural Environment and landscape character of the District, including the landscape, landform and development pattern, together with protected landscapes and habitats will be protected against inappropriate development. The Council will support development proposals which:
- 3.8.4 Protects, conserves and enhances the landscape and townscape character, taking into account areas identified as being of landscape importance, the individual settlement characteristics, and maintains settlement separation.
- 3.8.5 Maintain and enhances the Green Infrastructure Network and addresses any identified deficiencies in the District.
- 3.8.6 Maintains and enhances the existing network of geological sites and biodiversity, including safeguarding existing designated sites and species, and ensures no net loss of wider biodiversity and provides net gains in biodiversity where possible.
- 3.8.7 Conserve and where possible enhance the setting of the South Downs National Park.



Policy 31

- 3.8.8 Development will be supported where it can demonstrate that it maintains and enhances the existing network of green infrastructure, the Nature Recovery Network, natural capital and biodiversity. Proposals that would result in the loss of existing green infrastructure or part of the Nature Recovery Network will be resisted unless it can be demonstrated that new opportunities will be provided that mitigates or compensates for this loss and ensures that the ecosystem services of the area are retained.
- 3.8.9 Proposals will be expected to retain and enhance existing freshwater features, hedgerows, trees and deciduous woodland and the provision of additional hedgerow and tree planting will be sought subject to appropriate consideration of local and wider context, habitats and species.
- 3.8.10 Where the felling of a tree is necessary, for example due to disease, replacement planting with a suitable species and location to retain the link with the wider network of habitats and Green Infrastructure, will be required.
- 3.8.11 Development proposals will be expected to remove invasive species and will be required to contribute to the enhancement of existing biodiversity and deliver, as a minimum, a 10% net gain through the delivery of appropriate on-site biodiversity net gain or, where this is not practicable, to off-set the delivery to the Nature Recovery Network.
- 3.8.12 Proposals should create and manage appropriate new habitats, taking into account pollination, where practicable. The Council will support new development which retains and /or enhances significant features of nature conservation on development sites. The Council will also support development which makes a positive contribution to biodiversity, and where appropriate the Nature Recovery Network, through the creation of green spaces, and linkages between habitats to create local and regional ecological networks and allow the movement of wildlife through development sites.
- 3.8.13 Particular consideration will be given to the hierarchy of sites and habitats in the District as follows:
- Special Protection Area (SPA) and Special Areas of Conservation (SAC);
 - Sites of Special Scientific Interest (SSSI) and National Nature Reserves (NNRs);
 - Local Wildlife Sites (LWS), Local Nature Reserves (LNRs) and any areas of Ancient Woodland, traditional orchards, local geodiversity or other irreplaceable habitats not already identified in a & b above.



- 3.8.14 Where development is anticipated to have a direct or indirect adverse impact on sites or features of importance to nature conservation, development will be refused unless it can be demonstrated that:
- The objectives of a site's designation, where applicable, and integrity of the area will not be undermined;
 - The reason for the development clearly outweighs the need to protect the value of the site; and,
 - That appropriate mitigation and compensation measures are provided.
- 3.8.15 Any development with the potential to impact Arun Valley SPA or the Mens SAC will be subject to a Habitats Regulation Assessment to determine the need for an Appropriate Assessment. In addition, development will be required to be in accordance with the necessary mitigation measures for development set out in the HRA of this plan.



3.9 Bibliography – Appendix II

- 3.9.1 Countryside Right of Ways Act, 2000 (C37) (Online) London, The Statutory Office. Accessed January 2024. Available at <http://www.legislation.gov.uk>.
- 3.9.2 Horsham District Council Adopted Local Plan (2015). Available online <https://www.horsham.gov.uk/planning/local-plan/read-the-current-local-plan>
- 3.9.3 Ministry of Housing, Communities & Local Government (2024) National Planning Policy Framework. (Online) Ministry of housing and Local Government, Fry Building, 2 Marsham Street, London, SW1P 4DF.
- 3.9.4 Natural Environment & Rural Communities Act, 2006. (Online). Available at <http://legislation.gov.uk>.
- 3.9.5 ODPM Circular 06/2005. Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their impact within the Planning System (2005). Norwich: HMSO. Accessed January 2024. Available a <http://www.go.uk/goverment/publications/biodiversity-and-geological-conservation-circular-06-2005>.
- 3.9.6 The Conservation of Habitat & Species Regulation (2017) (Online). London: The Statutory Office. Available from <http://legislation.gov.uk>.
- 3.9.7 Wildlife and Countryside Act, 1981 (As amended). (Online). Available at <http://www.legislation.gov.uk>.



4. Appendix II – Wildlife Sensitive Lighting Design Scheme

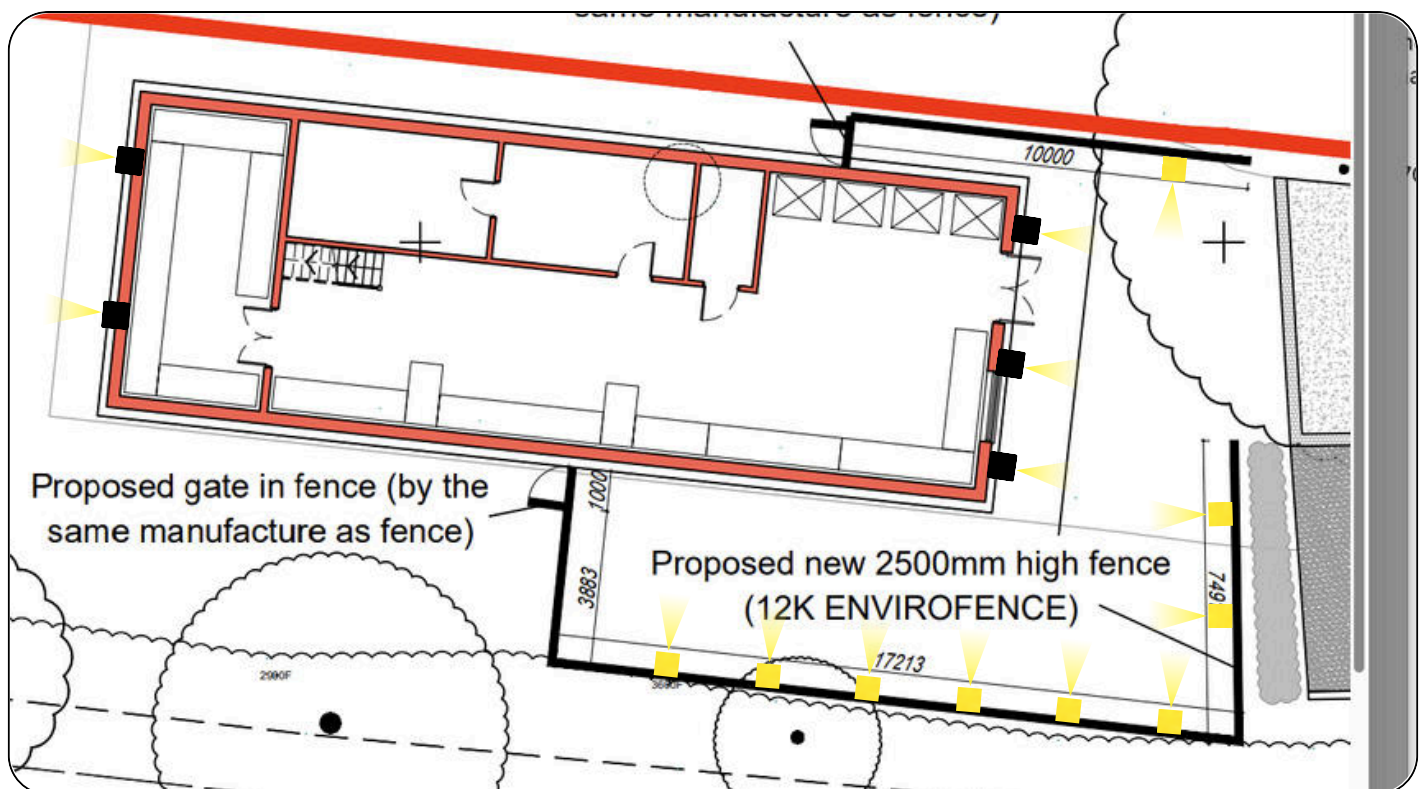


Wildlife Sensitive Lighting Design Scheme

The Plan details the external lighting that will be present on the east and west faces of the site.

The lighting has been selected to not shine upwards and be 90 degrees or lower. The lighting will be used will be either solar or mains and PIR sensor driven, to save power and lighting duration.

Lighting will use exclusively LED bulbs and be “warm” in colour (2700k or lower)



Key



Solaris Solar Lighting- Warm LED (2700k) Down lighting,
fence mounted

Phillips E27 Warm LED (2700k) Downlight spotlights - PIR
Sensor

Acoustic Fence Lighting - details



SPECIFICATIONS

- ▶ 30 lumen brightness
- ▶ 2V 0.45W solar panel
- ▶ 1.2V 800mAh battery
- ▶ IP65 rainproof
- ▶ Unit Dimension: 81*79*60mm
- ▶ Unit Weight: 102g

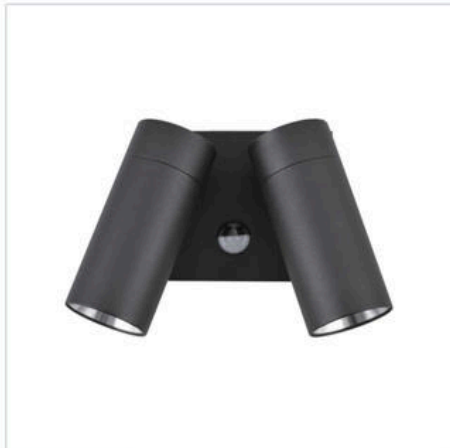
FEATURES

- ▶ 30° Small beam with lens, lights perfectly focus on the wall or fence.
- ▶ Bottom switch for easy access and rainproof.
- ▶ AUTO ON/OFF, light up ONLY in dark.
- ▶ Charge at least 4 hours by solar before use.
- ▶ Install to long time direct sunlight place for sufficient charge.
- ▶ Fully charged battery can last all night lights.
- ▶ Working time will be shorter in winter and cloudy days.

Solar fence lighting mounted at 2 meters high on the acoustic fence panels, offering warm, soft down lighting to provide security and safe walking conditions during poor weather etc.

Wall mounted barn lighting - details

Home / Exterior Lighting / Wall Lights / Spotlights / Outdoor Adjustable Twin Spotlight with PIR Sensor IP65 GU10



Outdoor Adjustable Twin Spotlight with PIR Sensor IP65 GU10

Product Code: AR1153G-BK

ARROW ELECTRICAL

Get it by: **Tomorrow**

This is an estimated delivery date. [Enter your postcode](#) for accurate delivery information.

£47.95

Finish: Black

Black

- 1 +

Add to basket

Description

Illuminate your space with the modern **Outdoor Adjustable Twin Spotlight with PIR Sensor**. Designed for versatility, this light is perfect for both indoor and outdoor use, providing focused illumination for small areas. Ideal for enhancing the front of your house, it combines practicality and style with a sleek design, available in black or white finishes...

[Read More](#)

Specifications

- Bulb Type: GU10
- Wattage (W): Max 35
- Dimmable: Yes
- Adjustable: Yes
- Finish: White, Black
- IP Rating: IP65
- Base Height: 100mm
- Base Width (mm): 130
- Head Length: 125mm
- Head Diameter: 55mm
- Depth (mm): 35
- Sensor: Yes

The downlighting ensures the lighting scheme is dark sky compliant and the GU10 bulbs we will use will be Warm Led (2700k) detailed below. The unit is IP65 rated. A total of five will be used, three on the “front” and two on the “back” using even spacing. The lighting will point downwards and use a PIR sensor to save power and reduce lighting duration.



Philips LED Classic Light Bulb 6 Pack [GU10 Spot] 4.6 W - 50 W Equivalent, Warm White (2700K), Non Dimmable [Energy Class F]

[Visit the Philips Store](#)

4.6 ★★★★★ (26,908)

Amazon's Choice

1K+ bought in past month

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Size Name: **6 Pack**

1 Count 2 Count 3 Count

Product Information Sheet

COMMISSION DELEGATED REGULATION (EU) 2019/2015 with regard to energy labelling of light sources

Supplier's name or trade mark: PHILIPS

Supplier's address: Customer Care Philips, I.B.R.S./C.C.R.I. /Numéro 10461, 5600VB Eindhoven, NL

Model identifier: 9290012152C

Type of light source:

Lighting technology used:	LED	Non-directional or directional:	DLS
Light source cap-type (or other electric interface)	GU10		
Mains or non-mains:	MLS	Connected light source (CLS):	No
Colour-tuneable light source:	No	Envelope:	-
High luminance light source:	No		
Anti-glare shield:	No	Dimmable:	No

Product parameters

Parameter	Value	Parameter	Value
General product parameters:			
Energy consumption in on-mode (kWh/1000 h), rounded up to the nearest integer	5	Energy efficiency class	F
Useful luminous flux (Φ_{use}), indicating if it refers to the flux in a sphere (360°), in a wide cone (120°) or in a narrow cone (90°)	355 in Narrow cone (90°)	Correlated colour temperature, rounded to the nearest 100 K, or the range of correlated colour temperatures, rounded to the nearest 100 K, that can be set	2 700
On-mode power (P_{on}), expressed in W	4,6	Standby power (P_{sb}), expressed in W and rounded to the second decimal	0,00
Networked standby power (P_{net}) for CLS, expressed in W and rounded to the second decimal	-	Colour rendering index, rounded to the nearest integer, or the range of CRI-values that can be set	80
Outer dimensions without separate control gear, lighting control	Height	Spectral power distribution in the range 250 nm to 800 nm, at full-load	See image in last page
	Width		
	Depth		

parts and non-lighting control parts, if any (millimetre)				
Claim of equivalent power ^(a)	Yes	If yes, equivalent power (W)	50	
		Chromaticity coordinates (x and y)	0,458 0,410	
Parameters for directional light sources:				
Peak luminous intensity (cd)	700	Beam angle in degrees, or the range of beam angles that can be set	36	
Parameters for LED and OLED light sources:				
R9 colour rendering index value	0	Survival factor	0,90	
the lumen maintenance factor	0,93			
Parameters for LED and OLED mains light sources:				
displacement factor (cos ϕ 1)	0,70	Colour consistency in McAdam ellipses	6	
Claims that an LED light source replaces a fluorescent light source without integrated ballast of a particular wattage.	..(b)	If yes then replacement claim (W)	-	
Flicker metric (Pst LM)	1,0	Stroboscopic effect metric (SVM)	0,4	

(a) : not applicable;

(b) : not applicable;

