

## Appropriate Assessment for Knoll House Hotel, Studland (P/FUL/2022/06840)

This document represents the Habitats Regulations Assessment undertaken by Dorset Council as Competent Authority in accordance with the requirements of Regulation 63 of the Conservation of Habitats and Species Regulations 2017 and having due regard to its duties under Section 40(1) of the NERC Act 2006 to the purpose of conserving biodiversity.

### HRA Screening

In accordance with *People Over Wind & Sweetman v Coillte Teoranta* (Case C-323/17), Dorset Council has concluded that, discounting any mitigation, the above application will have a likely significant effect on the Dorset Heaths and Poole Harbour European wildlife sites (see table below).

Designated site	LSE Y/N	Cause of Adverse effects
Dorset Heaths (Purbeck and Wareham) and Studland Dunes SAC	Y	The Dorset Heaths (Purbeck and Wareham) and Studland Dunes Special Area of Conservation (SAC) is designated on account of the rare and vulnerable dry and wet heaths, bog pools and bog woodland within valley mires, and large acidic dune system which includes the shallow oligotrophic lake known as 'Little Sea'.
Dorset Heathlands Ramsar		The Dorset Heathlands Special Protection Area (SPA) is notified on account of heathland bird species including nightjar <i>Caprimulgus europaeus</i> , Dartford warbler <i>Sylvia undata</i> , and Woodlark <i>Lullula arborea</i> during the breeding season, and Hen Harrier <i>Circus cyaneus</i> and Merlin <i>Falco columbarius</i> over winter.
Dorset Heathlands SPA		<p>The Dorset Heaths Ramsar site is designated on account of the high species richness, supporting nationally scarce wetland plant and invertebrate species, and high ecological diversity of wetland habitat types and transitions, with wet heaths and acid mire habitats present.</p> <p><i>Recreational pressure</i></p> <p>The intensification of residential development in Dorset and the resultant pressures placed upon the Dorset Heaths by the increase in population close to the protected areas has resulted in adverse impacts upon the Dorset Heaths. Various studies have found that public access to lowland heathland, from nearby development, has led to an increase in wildfires, damaging recreational uses, the introduction of incompatible plants and animals, loss of vegetation and soil erosion and disturbance by humans and their pets amongst other factors have an adverse effect on the heathland ecology.</p> <p>According to the Dorset Heathlands Planning Framework 2020-25, an adopted Supplementary Planning Document (SPD), residential development within 400m of the Dorset Heaths European Site is not</p>

permitted due to impacts upon the designation. Residential development within the area between 400m and 5km from the Dorset Heaths will result in a likely significant effect which must be adequately mitigated in order to avoid an adverse effect upon integrity of the designation.

The proposed development includes the redevelopment of the existing hotel to provide:

- Tourist accommodation (C1 Class) comprising 30 hotel rooms;
- Residential accommodation (C3 class) comprising 18 apartments and 26 villas; and
- Leisure facilities including indoor and outdoor swimming pools, spa treatment facilities, jacuzzi, steam room, sauna, fitness studio, and restaurant.

The proposed development result in an increase in overnight accommodation, including C3 use, approximately 60m from the Dorset Heaths SAC, SPA and Ramsar.

Therefore, the proposed development is considered likely to have a significant effect upon the Dorset Heaths European site as a result of recreational pressure.

#### *Water Quality/Hydrology*

A qualifying feature of the Dorset Heaths (Purbeck and Wareham) and Studland Dunes SAC are '3110 Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*)'.

The largest example of this habitat at Studland is Little Sea, which is a shallow lake of recent origin (less than 500 years old), formed as a large body of seawater became landlocked by the growing sand dunes. This water is now fresh and is replenished by acidic, oligotrophic water draining off the adjacent heathland, which then flows through the dune slacks and into the sea.

Pipley Swamp (also known as Pipley Pools) is a smaller surface water feature in the area of the Knoll Beach Car Park in Studland, and is believed to be hydrologically linked to Little Sea.

Pollution from sources including surface water drainage and urban runoff can affect water quality and introduce nutrients to the natural low nutrient environment of these water bodies.

Furthermore, changes in drainage regimes can influence the complex and delicately balanced natural hydrological processes at Little Sea and Pipley Swamp.

	<p>Little Sea is located approximately 600m to the north and Piplely Swamp approximately 350m to the northeast.</p> <p>Given the proximity of the site to these surface water features and the proposed drainage strategy, which indicates that the surface water drainage will be discharged into a nearby water course and surface water feature, it is concluded that a likely significant effect will result.</p> <p><i>Air Quality</i></p> <p>The deposition of airborne nitrogen-based pollutants may result in the enrichment of soils within the heathland habitat. This favours faster growing plants and the spread of species not normally found on heathlands which outcompete and inhibit the recovery of the heathland habitats. Ammonia and nitrogen oxides also have direct toxic effects on plant communities.</p> <p>Therefore, emissions to air of nitrogen-based pollutants may result in the degradation of the heathland habitat and contribute to the European Site being in an unfavourable condition.</p> <p>There are multiple sources of airborne nitrogen-based pollutants, including agriculture and vehicle exhaust emissions.</p> <p>The site is located approximately 60m from the Dorset Heaths European site, and access to the site from the north would be via Ferry Road (B3351) which runs through the Dorset Heaths SAC, SPA, and Ramsar and is directly adjacent to the European site.</p> <p>Given the potential for visitors and residents to the proposed development to result in additional traffic within close proximity of the Dorset Heaths, it is considered likely to have a significant effect upon the Dorset Heaths European site as a result of air quality.</p> <p><i>Functionally linked land/supporting habitat</i></p> <p>The loss, deterioration, or compromise of supporting habitat or functionally linked land, which is defined as habitat outside of the boundary of a European site which is critical or necessary for the function of qualifying features within the designated site, may affect the integrity of a European site.</p> <p>This is particularly true for more mobile species, such as birds. The Dorset Heathlands SPA supports rare and vulnerable heathland bird species, including nightjar <i>Caprimulgus europaeus</i>, Dartford warbler <i>Sylvia undata</i>, and Woodlark <i>Lullula arborea</i> during the breeding season, and Hen Harrier <i>Circus cyaneus</i> and Merlin <i>Falco columbarius</i> over winter. In addition, the Dorset Heaths (Purbeck and Wareham) and Studland</p>
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		<p>Dunes SAC supports rare reptiles such as sand lizard <i>Lacerta agilis</i> which may be affected.</p> <p>Natural England advise that there is a requirement for competent authorities to consider the potential impacts of functionally linked land when assessing new projects.</p> <p>Given the scale of the proposed development and proximity to the Dorset Heathlands European Site, there is the potential for the loss of habitat which supports the function of SPA bird species and SAC reptile species. Therefore, a likely significant effect upon functionally linked land has been identified.</p>
Poole Harbour SPA	Y	<p>Poole Harbour is a large natural harbour, comprising extensive tidal mudflats, seagrass beds and saltmarsh, together with associated reedbed, freshwater marsh and wet grassland.</p> <p>Whilst Poole Harbour is classified as an estuary, as several rivers flow into it, it has many of the qualities of a large lagoon due to the narrow harbour entrance and small tidal range.</p> <p>Poole Harbour supports bird populations of international importance, including:</p> <ul style="list-style-type: none"> <li>• Common tern <i>Sterna hirundo</i>;</li> <li>• Sandwich tern <i>Sterna sandvicensis</i>;</li> <li>• Mediterranean gull <i>Larus melanocephalus</i>;</li> <li>• Little egret <i>Egretta garzetta</i>;</li> <li>• Eurasian spoonbill <i>Platalea leucorodia</i>;</li> <li>• Pied Avocet <i>Recurvirostra avosetta</i>;</li> <li>• Shelduck <i>Tadorna tadorna</i>; and</li> <li>• Icelandic-race black tailed godwit <i>Limosa limosa islandica</i></li> </ul> <p><i>Water quality</i></p> <p>Poor water quality due to elevated concentrations of phosphorus and nitrogen in Poole Harbour is contributing to the Poole Harbour SPA and Ramsar being in an unfavourable condition. Excessive levels of nutrients have caused the rapid growth of algal mats through the process of eutrophication. These mats restrict the availability of invertebrates, which provide food to wading birds including those upon which the SPA is designated, resulting in severe declines in the population of some bird species. Eutrophication also affects other important features within the harbour, causing the loss of saltmarsh and resulting in an absence of eelgrass over large areas of the harbour.</p> <p>Nitrogen is generally considered the main nutrient causing eutrophication. However, there is evidence that phosphorus also contributes significantly to eutrophication. An imbalance of nitrogen relative to phosphorus may also be an important factor, as it leads</p>
Poole Harbour Ramsar		

to a dominance of dinoflagellates within the marine plankton. Furthermore, modelling in relation to the abundance of macroalgae suggests that with continued high phosphorus loads greater reductions in nitrogen will be required than might otherwise be the case. Therefore, reductions in both nutrients are necessary for the restoration of the marine ecology within Poole Harbour, but a substantial reduction in nitrogen remains the primary driver.

Nutrient enrichment in Poole Harbour is believed to arise from a number of sources. For example, the majority (~85%) of nitrogen entering Poole Harbour from land sources is generated by agriculture within the Poole Harbour catchment. A smaller proportion (~15%) of the nitrogen entering Poole Harbour is from human sewage discharged within the Poole Harbour catchment, since wastewater treatment works (WWTW) remove only part of the nutrient from human waste.

On 16th March, Natural England advised that development which results in a net increase in overnight accommodation, and therefore an increase in local population served by the wastewater system which discharges into the Poole Harbour catchment, should be considered to have a likely significant effect upon the Poole Harbour SPA and Ramsar and require an Appropriate Assessment.

The proposed development is not within the surface water catchment for Poole Harbour, and therefore the nutrients in the surface water run off will not be discharged into Poole Harbour. However, the proposed development is within the catchment of the Studland Water Recycling Centre (WRC) which does discharge into Poole Harbour.

However, the proposal would result in a decrease in the estimated occupancy of the site from 269 people to 142 people using the overnight accommodation. This would result in an overall decrease in the discharge of nitrogen and phosphorus into Poole Harbour, and therefore the proposal will not result in a likely significant effect upon Poole Harbour as a result of water quality.

#### *Recreational pressure*

Studies show that recreational activities in Poole Harbour and its immediate surroundings, such as sailing and paddleboarding, walking, dogs and bait digging along the shoreline, may result in disturbance to the SPA bird species.

These recreational activities may influence a bird's behaviour and ultimately its survival, as disturbance can result in:

		<ul style="list-style-type: none"> <li>• a reduction in the time spent feeding, due to repeated flushing/increased vigilance;</li> <li>• increased energetic costs;</li> <li>• avoidance of areas of otherwise suitable habitat, which may result in birds potentially using poorer quality feeding/roosting sites instead;</li> <li>• increased stress; and</li> <li>• can lead to reduced fitness and breeding success.</li> </ul> <p>Studies have shown a link between the proximity of peoples' homes to Poole Harbour and the frequency of visits, with those who live around the harbour being more likely to visit it to participate in recreational activities. This draw is probably due to the uniqueness of the features in the harbour close to their homes, and the unique characteristics of the harbour for certain recreational activities such as watersports.</p> <p>Natural England advises that the cumulative effect of further residential and tourism development and therefore a population increase within a defined 'Poole Harbour Recreation Zone', which encompasses the areas surrounding the harbour, would have a significant effect upon the Poole Harbour SPA and Ramsar Site.</p> <p>The proposed development would result in an increase in overnight accommodation (including C3 use) within the Poole Harbour Recreation Zone, and will therefore result in a likely significant effect as a result of recreational pressure.</p>
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Appropriate Assessment

The HRA screening identified likely significant effects upon the Dorset Heaths and Poole Harbour European Sites as a result of additional recreational pressure, effects upon functionally linked land, and impacts upon air quality. Therefore, an Appropriate Assessment is required to determine whether the proposal would result in an adverse effect upon the integrity of these European sites (see following table).

<b>Designated site affected</b>	Confirmation that adverse effects on integrity are avoided for <u>all</u> features with avoidance/mitigation secured by adherence to the SPD <b>Y/N</b>
Dorset Heaths (Purbeck and Wareham) and Studland Dunes SAC	<p><i>Recreational pressure</i></p> <p>The proposed development includes the provision of residential development (C3 use class), tourist accommodation (C1 use class) and leisure facilities approximately 60m from the Dorset Heaths.</p>
Dorset Heathlands Ramsar	According to the Dorset Heathlands Planning Framework 2020-25, residential development within 400m of the Dorset Heaths European Site is not permitted due to impacts upon the designation. This is because the recreational pressure effects are most marked for development within 400m of the heathland, in particular disturbance and predation, and many act together synergistically to result in effects which are greater
Dorset Heathlands SPA	

in magnitude than each individual effect. Residential development is not permitted within 400m of the Dorset Heaths European Site as these impacts cannot be adequately mitigated given the magnitude of the impacts.

The Dorset Heathlands Planning Framework 2020-25 states that hotels (Class C1) may be permitted within 400m of the Dorset Heaths, but will be considered on a case by case basis with advice from Natural England given the highly variable nature of hotel users.

The Dorset Heathlands Planning Framework 2020-25 doesn't address the impacts of leisure facilities upon the Dorset Heaths.

The applicant is proposing the following mitigation measures to address the recreational pressure impacts:

- circular walk of approximately 1.72km in length;
- removal of an existing access point onto Godlingston Heath;
- enclosed dog walking area;
- reinstatement of a former heathland mire; and
- prohibiting cats.

However, Natural England have raised concerns that some of the proposed offsite mitigation has not been agreed with the landowner and therefore there is uncertainty over whether this mitigation can be delivered.

Furthermore, there are concerns that providing dog walking facilities will attract those with dogs to the C1 hotel located adjacent to the Dorset Heaths, resulting in additional recreational pressure impacts.

There is also uncertainty as to whether staff at the proposed hotel and leisure facilities would visit the heathlands for recreational purposes. The staff survey for existing in-house staff indicates that 80.8% of the current 66 members of staff visit the heathlands. Whilst it is appreciated that these staff live on site and future staff wouldn't stay at the complex overnight, there remains uncertainty over how regularly the 115 future staff members would visit the heaths and therefore their contribution to recreational pressure. This is a concern which Natural England have also highlighted.

The proposed development would result in a decrease in the estimated occupancy of the site from 269 people to 142 people using the overnight accommodation (although there will be an almost two-fold increase in staff which is not taken into account in the future occupancy of 142 people).

However, the proposed development would also result in 44 additional C3 units approximately 60m from the Dorset Heaths. As previously mentioned, and as explained in the Dorset Heathlands Planning Framework 2020-25, mitigation is not effective for residential development within 400m of the Dorset Heaths given the magnitude of the impacts within close proximity to the heaths.

Therefore, the proposed development would result in an adverse effect upon the integrity of the Dorset Heaths due to the provision of C3 units within 60m from the Dorset Heaths. Natural England concur with these findings.

*Water Quality/Hydrology*

Natural England have raised concerns about the proposed surface water drainage into the water course and surface water feature. Natural England states in their consultation response from 9<sup>th</sup> May 2023 that the surface water would drain into Little Sea and Pibley Swamp, and that the applicant must bring forward a solution to address this issue.

I understand that an alternative solution has been suggested which involves the discharge of surface water runoff into a sewer. However, insufficient details of the sewer, such as its route, ownership and capacity, have been provided and therefore there is uncertainty that this alternative solution is deliverable.

Natural England, the appropriate nature conservation body through the Appropriate Assessment process, have advised that the Council cannot conclude no adverse effect on the adjoining designated sites as a result of the effects upon Little Sea and Pibley Swamp.

*Air quality*

The proposed development is approximately 60m from the Studland and Godlingston Heaths SSSI component of the Dorset Heaths SAC, SPA and Ramsar, and would be accessed via Ferry Road (B3351) which runs through the Dorset Heaths SAC, SPA, and Ramsar and is directly adjacent to the European site.

Given the potential for the proposed development to result in additional traffic adjacent to the Dorset Heaths, the HRA screening stage identified a likely significant effect upon the Dorset Heaths European site from air quality.

The adopted Dorset Heathlands Interim Air Quality Strategy 2020-25 SPD provides an approach to addressing the adverse effects of airborne nitrogen upon the Dorset Heathlands habitats site.

The strategy suggests a series of mitigation measures, paid for through developer contributions. The types of measure include direct measures targeting vehicle emissions adjacent to heathland. These include projects to encourage modal shift to other forms of transport, reduce vehicle speeds adjacent to heathlands, encourage the use of zero emission vehicles and through heathland management alongside roads. The strategy also addresses wider measures to reduce nitrogen deposition from agricultural land near to heathlands, or the re-siting or cleaning up of certain operations that generate emissions.

The proposed development will provide a financial contribution through the Community Infrastructure Levy (CIL).



	<p>The mitigation provided through the Dorset Heathlands Interim Air Quality Strategy 2020-25 SPD is considered sufficient to address the potential air quality impacts upon the Dorset Heaths.</p> <p><i>Supporting habitat</i></p> <p>The applicant has indicated the existing habitats at the site are not suitable to support the qualifying species of the European designated sites, which it is claimed is supported by the ecological survey work which has not identified any qualifying features at the site.</p> <p>The development site comprises the current hotel buildings. It is possible that the supporting habitat immediately surrounding the hotel building supports mobile species, such as the SPA bird species, which may be affected by the proposal.</p> <p>In particular, the area surrounding the site may provide supporting habitat for Nightjar. Since Nightjar are largely active at night, light disturbance from the proposed development could adversely affect the population of foraging Nightjar.</p> <p>The applicant proposes the following in paragraph 5.16 of the Shadow HRA:</p> <p>“A sympathetic lighting regime is proposed to reduce potential impacts from light spill to adjacent tree/woodland habitats to the Application Site as part of the proposed development.”</p> <p>In order to secure this mitigation, a planning condition must be added to ensure that a Lighting Strategy which accords with the Bat Conservation Trust Lighting Standards is produced by the applicant and approved by the local planning authority to avoid impacts upon foraging nightjar and prevent an adverse effect upon the integrity of the Dorset Heaths as a result of damage to supporting habitat.</p>
<p>Poole Harbour SPA</p>	<p><i>Recreational pressure</i></p> <p>The Poole Harbour Recreation 2019 – 2024 SPD provides a strategy for addressing the potential adverse impacts from recreational pressure upon the Poole Harbour SPA and Ramsar.</p>
<p>Poole Harbour Ramsar</p>	<p>The SPD sets out a framework for collecting financial contributions for additional overnight accommodation within the Poole Harbour Recreation Zone, which is used to implement the mitigation strategy which consists of Strategic Access Management and Monitoring (SAMM) and Poole Harbour Infrastructure Projects (PHIPs). The SAMMs mitigation includes raising awareness of the issues, employing a project coordinator and warden, and monitoring. The PHIPs projects are physical infrastructure works such as the provision of better marked routes around the Harbour edge or planting to provide protection to vulnerable birds.</p> <p>The mitigation required to address the potential adverse effects upon the Poole Harbour SPA and Ramsar from recreational pressure will be provided through a financial contribution</p>

	towards the mitigation delivered through the Poole Harbour Recreation 2019 – 2024 SPD. The financial contribution will be collected through the Community Infrastructure Levy (CIL).
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Having concluded that the application will have a likely significant effect in the absence of avoidance and mitigation measures on the above European sites, this document represents the Appropriate Assessment undertaken by Dorset Council as Competent Authority in accordance with requirements under Regulation 63 of the Conservation of Habitats and Species Regulations 2017 and having due regard to its duties under Section 40(1) of the NERC Act 2006 to the purpose of conserving biodiversity.

The Appropriate Assessment concluded that the proposed development will result in an adverse effect upon the integrity of the Dorset Heaths (Purbeck and Wareham) and Studland Dunes SAC and Dorset Heathlands SPA and Ramsar. Therefore, in accordance with Regulation 63(5) of the Conservation of Habitats and Species Regulations 2017, Dorset Council as competent authority may not give planning consent for the proposed development.