

## **WOODLAND MANAGEMENT PLAN**

**KNOLL HOUSE HOTEL, FERRY ROAD,  
STUDLAND, DORSET, BH19 3AH**

**for**

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## CONTROL SHEET

### Kingfisher Resorts Studland Ltd

**Knoll House Hotel, Ferry Road, Studland, Dorset, BH19 3AH**

### Woodland Management Plan

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## **1. INTRODUCTION**

This management plan is for Knoll House Hotel woodland and sets out the long term policy and lists the Key Features which drive management actions. The Key Features are specific to Knoll House Hotel woodland as identified in August 2019; their significance is outlined together with their long term vision and short (5 year) term objectives. The short term objectives are complemented by a Work Programme for the period of this management plan. The management put forward in this plan is aimed at maintaining and where possible increasing local biological diversity. Particular focus is given to habitats and species of National and local importance. The Management Plan will be reviewed at the agreed intervals and, when necessary, amended or up-dated to meet changing circumstances.

## 2. GENERAL SITE DETAILS

### 2.1 Site Description & Location

**Table 1:** Knoll House Hotel woodland location details

<b>Woodland Name:</b>	Knoll House Hotel woodland
<b>Location:</b>	The woodland is directly to the north and west of the Knoll House Hotel, Ferry Road, Studland, Swanage BH19 3AH
<b>Grid Reference:</b>	SZ 02980 83294

Please refer to Annex 8.1.1 for a plan showing the location of Knoll House Hotel woodland.

Knoll House Hotel woodland is dominantly a species-poor mix of non-native trees growing on a steep west-facing slope with a narrow strip of wet woodland in a valley mire at the bottom of the slope. The woodland covers approximately 4.6ha with an altitudinal range from 12m to 30m above sea level: topography was mixed. The woodland has naturally wet very acid sandy and loamy soils. The main surface texture class is sandy. The Natural Drainage Type is naturally wet with very low natural fertility (<https://magic.defra.gov.uk/MagicMap.aspx>).

Knoll House Hotel woodland is of secondary origin and presently receives minimal management. Knoll House Hotel leases the land on which the woodland grows from the National Trust. There is a planning application for the adjacent Knoll House Hotel (Planning Application: Full Planning Permission - 6/2018/0566). This management plan for the Knoll House Hotel woodland, currently within the leasehold but outside of the red line planning application site, will need to be agreed with the landowners and statutory authorities.

A small stream flows northwards along the western and northern woodland boundary. The southern and eastern boundaries are either open or delineated by non-native leylandii, wooden fences or tall ruderal vegetation.

### **3. VISION & OBJECTIVES**

#### ***3.1 Long Term Vision***

The long term vision for Knoll House Hotel woodland is that it will provide a biodiverse, species-rich and mixed-aged woodland environment that will provide opportunities for informal recreation around the hotel fringe and divert pressure away from more sensitive habitats such as the surrounding heathlands. Sensitive management (as prescribed below) will have a positive effect in terms of biodiversity, silviculture and visitor potential, as well as improving the woodlands natural resilience to climate change, pests and disease.

The long term work in the woodland will be low-key and will concentrate on gradually bringing the woodland into sustained management with a progressive restructure of the woodland to achieve a range of tree-age classes and species diversity so the woodland is as resilient as possible to future changes. Management will aim to be appropriate to landscape character and deliver clear enhancements for biodiversity, habitat connectivity and public amenity.

This will largely include a mix of removing non-native trees, allowing natural regeneration of native species and replanting where necessary after years of non-intervention. There will be a gradual restoration process of the plantation woodland focusing on overarching wildlife and conservation objectives whilst facilitating social engagement where appropriate. Mature wet woodland in the wet woodland in the valley bottom will be left unmanaged for nature conservation.

#### ***3.2 Management Objectives***

In order to achieve the long term vision eleven objectives have been identified. Below are the objectives of management which demonstrate how sustainable woodland management is to be achieved. These objectives are a set of specific, quantifiable statements that represent what needs to happen to achieve the long term vision.

**Table 2:** Management Objective for Knoll House Hotel woodland

Objectives		Compartment
1	To gradually replace the plantation woodland in Compartment 1 with a lowland mixed broadleaved/conifer woodland through phased felling, natural regeneration and planting so as to extend the species and age range diversity. The general rule should be to do the minimum necessary to ensure adequate establishment and growth of the desired tree species.	Compartment 1 & 2
2	To manage Compartment 2 with minimum intervention and in consultation with Natural England. Silvicultural operations to remove non-native trees such as sweet chestnut will follow Natural England guidance.	Compartment 2
3	To remove and control non-native species with particular emphasis on the removal of bamboo, <i>Rhododendron ponticum</i> and holm oak.	Compartment 1 & 2
4	To protect any veteran trees and retain the standing or fallen deadwood, where not a hazard to the public.	Compartment 1 & 2
5	To increase structural diversity by: a) encouraging a woodland understorey to develop; b) restoring hazel coppice; and c) planting a species-rich hedgerow.	Compartment 1
6	To create and maintain new glades by removing non-native vegetation and potentially the brick built structures to open up the canopy, benefitting woodland edge wildlife such as reptiles.	Compartment 1 & 2
7	To provide a managed network of paths through the woodland that will provide habitat variety and biodiversity interest for the visitor, as well as benefitting woodland edge wildlife and flora and removing pressure on designated sites.	Compartment 1
8	To provide bins for dog waste and litter.	Compartment 1
9	To install interpretation boards around the woodland.	Compartment 1
10	To keep the woodland as safe as possible for visitors.	Compartment 1 & 2
11	To ensure all practices are met in accordance with UK Forestry Standard guidelines (UKFS) and with regard to Health & Safety regulations.	Compartment 1 & 2

## 4. WOODLAND DESCRIPTION

The two Management Compartments are described below and their location shown on the plan in Annex 8.2.2.

### **4.1 Compartment 1 Description**

Compartment 1 is dominated by planted Scots pine (*Pinus sylvestris*) and sweet chestnut (*Castanea sativa*). Scattered mature pedunculate oak (*Quercus robur*) is present in low numbers. The community best matches National Vegetation Classification W10d *Quercus robur* - *Pteridium aquilinum* - *Rubus fruticosus* woodland, *Holcus lanatus* sub-community woodland and covers approximately 2.9ha of the woodland. There is a narrow range of tree species. The understorey is sparse: holly (*Ilex aquifolium*) and to a lesser extent rhododendron (*Rhododendron ponticum*) has naturally invaded any gaps in the canopy. The mature high forest canopy has resulted in an impoverished understorey and species-poor and scarce ground flora. Bracken (*Pteridium aquilinum*) is locally abundant in the field layer with occasional to frequent bramble (*Rubus fruticosus*) scrub. There is no evidence of spring bulbs such as bluebell (*Hyacinthoides non-scripta*) or wood anemone (*Anemone nemorosa*) typically found in W10 woodland. Bryophyte cover is low with occasional bryophytes such as the cypress-leaved plait-moss (*Hypnum cupressiforme*) on the bark of mid-aged to mature deciduous trees and around tree bases, and swan's-neck thyme-moss (*Mnium hornum*), that is local frequent around tree bases and on soil. Two stands of bamboo are growing in the woodland and also the non-native invasive pirri-pirri-bur (*Acaena novae-zelandiae*) plant and cotoneaster species.

Minimal management and wind throw has resulted in a build-up of the fallen and standing dead wood in Compartment 1. The canopy is dense although frequent fallen and toppling mature and over-mature trees are creating a few small openings in the canopy. There is also a lack of understorey/young trees and there is abundant browsing damage by deer especially to holly (*Ilex aquifolium*) saplings and seedlings. Areas of bare ground are frequent under the canopy. Leaf litter is frequent to locally abundant.

#### **4.2 Compartment 2 Description**

Compartment 2 is a largely undisturbed wilderness - a tangle of woody species, shade-tolerant herbs and lower growing plants. The linear stand of NVC W4 *Betula pubescens* - *Molinia caerulea* woodland in the valley bottom covers approximately 1.7ha. A small stream flows north-east along the Compartment boundary at the bottom of the slope. Compartment 2 is grazed by deer. The Compartment is part of Unit 8 of Studland and Godlingston Heaths Site of Special Scientific Interest.

The wet woodland canopy is characterised by a mix of irregular multi-stemmed salix willow species with varying amounts of downy birch (*Betula pubescens*), and grey willow hybrid (*Salix cinerea* hybrid). Ash (*Fraxinus excelsior*) is also present. Other woody species are scarce although occasional honeysuckle (*Lonicera periclymenum*), holly (*Ilex aquifolium*) and to a lesser extent rhododendron (*Rhododendron ponticum*) grow on drier soils. Sphagna is prominent forming extensive patches in the wet runnels between purple moor-grass (*Molinia caerulea*) tussocks and the occasional soft-rush (*Juncus effuses*). Feathery bog-moss (*Sphagnum cuspidatum*) and spiky bog-moss (*Sphagnum squarrosum*) are both community constants. Other bryophytes are frequent and included common haircap (*Polytrichum commune*) around tussocks, bank haircap (*Polytrichastrum formosum*) on well-rotted stumps and fallen timber, bog groove-moss (*Aulacomnium palustre*) and common feather-moss (*Kindbergia praelonga*). Occasional through the field layer are the herbs hard-fern (*Blechnum spicant*), common marsh-bedstraw (*Galium palustre*) and lesser skullcap (*Scutellaria minor*)

Bare moist ground was occasional to locally frequent throughout the sub-community dependent on water levels. Trees are falling over or dying upright.

## 5. WOODLAND KEY FEATURES

Woodland management constraints and designations are described below.

### 5.1 Designations

Designated areas within and/or adjacent to Knoll House Hotel woodland are listed below (see Table 3). Part of Compartment 2 is within Unit 8 of Studland and Godlingston Heaths Site of Special Scientific Interest (SSSI) and part of Compartment 1 is within the SSSI Impact Risk Zone and the area of Studland and Godlingston Heaths Site of Special Scientific Interest, (see plan in Annex 8.2.2)

**Table 3:** Designated areas within and/or adjacent to Knoll House Hotel Woodland.

Biodiversity Designations	Feature Within		Feature Adjacent to	
	Cpt 1	Cpt 2	Cpt 1	Cpt 2
Dorset Heath and Studland Dunes Special Area of Conservation.	No	Yes	Yes	Yes
Dorset Heathlands Special Protection Area.	No	Yes	Yes	Yes
Dorset Heathlands Ramsar Site.	No	Yes	Yes	Yes
Studland & Godlingston Heath National Nature Reserve.	No	No	Yes	Yes
Studland and Godlingston Heaths Site of Special Scientific Interest.	No	Yes	Yes	Yes
SSSI Impact Risk Zone.	Yes	Yes	n/a	n/a
Nitrate Vulnerable Zone.	No	No	Yes	Yes
Wild Bird General Licence Exclusion Zone.	Yes	Yes	n/a	n/a
Wild Bird General Licence Restriction Zone.	No	Yes	Yes	Yes
Local Nature Reserve.	No	No	No	No

**Key:**

Compartment 1 (Cpt 1) = Dry woodland

Compartment 2 (Cpt 2) = Wet woodland

### 5.2 Woodland Biodiversity

This section identifies biodiversity features that are both present in Knoll House Hotel woodland and where appropriate on land adjacent to the woodland (see Table 4, below).

**Table 4:** Biodiversity Features that are present in Knoll House Hotel Woodland

Feature	Within Wood	Cpt	Notes
<b>Biodiversity - European Protected Species</b>			
Bat	Yes	All	No known survey in the woodland. Bat species are likely to use the woodland for roosting and foraging. Common pipistrelle and soprano pipistrelles recorded roosting in adjacent Knoll House Hotel in 2019.
Dormouse	No	n/a	No known survey. Unlikely to be present.
Great crested newt	No	n/a	No records of great crested newts have been returned with the woodland and adjacent hotel complex. The small stream is considered to be of limited suitability for the species and there are no ponds within the woodland.
Otter	No	n/a	No records within 2km of the woodland.
Sand lizard	Yes	All	None recorded in the woodland but the species was found 387m east of the woodland in June 2019 and sand lizards can disperse into woodland.
Smooth snake	Yes	All	The smooth snake is predominantly associated with dry heathland but is also known to disperse into woodland and use woodland margins.
Natterjack toad	No	n/a	No records within 2km of the woodland. Unlikely to be present.
<b>Priority Species</b>			
Birds	Yes	All	Twenty bird species have been seen and/or heard including spotted flycatcher, dunnock, siskin, blackcap and green woodpecker in or near to the woodland. A typical woodland bird assemblage and associated nesting habitat is likely to be present due to suitable habitat. The spotted flycatcher is a Red Listed bird of Conservation Concern owing to a 62% decline in woodland habitats.
Mammals (red squirrel, water vole, badger, etc.)	Yes	All	Non-native sika deer and grey squirrel present in the woodland. Badger latrines were recorded within the woodland.
Reptiles (grass snake, adder, common lizard etc.)	Yes	All	Grass snake, slow-worm and common lizard recorded within woodland in June 2019. All six UK reptile species have been recorded within 2km of the site.
Plants	No	n/a	No legally protected (creeping marshwort, Killarney fern, early gentian etc.) or notifiable (e.g. Japanese knotweed) plant species were recorded within the woodland.
Fungi/Lichens	Yes	All	No known survey. Presence likely due to suitable habitat along rides and within dead wood.
Invertebrates (butterflies, moths, beetles etc.)	Yes	All	The wet woodland is likely to be of considerable interest to invertebrates. The deadwood features throughout the woodland provides habitat for saproxylic invertebrates and additional nesting opportunity for red ants. Numerous butterfly species

Feature	Within Wood	Cpt	Notes
			are present.
Amphibians (pool frog, common toad, etc.)	Yes	Cpt2	Possible presence in riparian zone.
Other (please specify):	Yes	All	Red wood ant (listed as lower risk/near threatened on the IUCN Red List of threatened species) nests are within the woodland. Some Scots pine will be retained because pine resin has antibacterial properties, so by incorporating this into their nests, wood ants are protected from bacteria and fungi that could otherwise harm them.
<b>Historic Environment</b>			
Scheduled Monuments	No	n/a	-
Unscheduled Monuments	No	n/a	-
Registered Parks and Gardens	No	n/a	-
Boundaries and Veteran Trees	No	n/a	-
Listed Buildings	No	n/a	-
Other (please Specify):	No	n/a	Ditch and bank systems are present in the woodland and indicate the locations of historic field boundaries as shown on OS maps. Although not veteran trees there are a number of mature oak standards and at least two mature over-stood sweet chestnut coppice stools.
<b>Landscape</b>			
National Character Area	Yes	All	South Purbeck National Character Area
National Park	No	n/a	-
Area of Outstanding Natural Beauty	Yes	All	Dorset Area of Outstanding Natural Beauty
Other (please Specify):	No	n/a	-
<b>People</b>			
CROW Access	No	n/a	-
Public Rights of Way (any)	No	n/a	-
Other Access Provision	Yes	All	Hotel guests and their dogs can access the woodland on foot and numerous unsurfaced tracks pass through the woodland. Steps and a series of informal unsurfaced tracks pass within the upper wooded slopes. No paths were found in the wet woodland (which is difficult to access).
Public Involvement	No	n/a	-
Visitor Information	Yes	All	All Knoll House Hotel bedrooms are to be supplied with Visitor Information packs in relation to nearby designated sites and promoting other less sensitive areas.
Public Recreation Facilities	Yes	All	There is no public right of access to the woodland. However, the habitat is used for informal walking and dog exercising by hotel guests.

Feature	Within Wood	Cpt	Notes
Provision of Learning Opportunities	No	n/a	-
Anti-social Behaviour	No	n/a	-
Other (please Specify):	No	n/a	-
<b>Water</b>			
Watercourses	Yes	All	-
Lakes	No	n/a	-
Ponds	No	n/a	-
Other (please Specify):	Yes	All	Drainage ditches are present in the woodland.

### 5.3 Woodland Habitat Types

The habitat types within Knoll House Hotel woodland that might impact/inform management decisions are given below (see Table 5).

**Table 5:** Habitat Types that are present in Knoll House Hotel Woodland

Feature	Within Wood	Cpt	Notes
<b>Woodland Habitat Types</b>			
Ancient Semi-Natural Woodland	No	n/a	-
Planted Ancient Woodland Site (PAWS)	No	n/a	-
Semi-natural features in PAWS	No	n/a	-
Lowland beech and yew woodland	No	n/a	-
Lowland mixed deciduous woodland	Yes	Cpt 1	W10 <i>Quercus robur</i> - <i>Pteridium aquilinum</i> - <i>Rubus fruticosus</i> woodland. This woodland type is not inherently fragile. List as a priority UK BAP habitat and subsequently as a 'habitat of principal importance for the purpose of conserving biodiversity in England' within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.
Upland mixed ash woods	No	n/a	-
Upland Oakwood	No	n/a	-
Wet woodland	Yes	Cpt 2	W4 <i>Betula pubescens</i> - <i>Molinia caerulea</i> woodland. List as a priority UK BAP habitat and subsequently as a 'habitat of principal importance for the purpose of conserving biodiversity in England' within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.
Wood-pasture and parkland	No	n/a	-
Other (please Specify):	No	n/a	-
<b>Non Woodland Habitat Types</b>			
Blanket bog	No	n/a	-

Feature	Within Wood	Cpt	Notes
Fenland	No	n/a	-
Lowland calcareous grassland	No	n/a	-
Lowland dry acid grassland	No	n/a	-
Lowland heath land	No	n/a	-
Lowland meadows	No	n/a	-
Lowland raised bog	No	n/a	-
Rush pasture	No	n/a	-
Reed bed	No	n/a	-
Wood pasture	No	n/a	-
Upland hay meadows	No	n/a	-
Upland heath land	No	n/a	-
Unimproved grassland	No	n/a	-
Peat lands	No	n/a	-
Wetland habitats	No	n/a	-
Other (please Specify):	No	n/a	-

#### 5.4 Woodland Protection

Woodlands in England face a range of threats. Those potential threats applicable to Knoll House Hotel woodland during the plan period are given below. To assist with the management of these identified threats, the impact and action to be taken is considered and described (see Table 6, below).

**Table 6:** Potential Threats that are applicable to Knoll House Hotel Woodland

Feature	Notes
<b>Plant Health</b>	
Threat (e.g. ash dieback, <i>Phytophthora</i> , needle blight etc.)	<p>Of particular concern at the present time in the Purbeck forests is the spread of <i>Dothistroma</i> needle blight and the potential threat from <i>Phytophthora ramorum</i>, <i>Phytophthora kernoviae</i> and Chalara ash dieback (<i>Chalara fraxinea</i>).</p> <p><i>Dothistroma</i> needle blight affects conifers, most commonly pine. It causes premature needle defoliation, resulting in loss of yield and, in severe cases, tree death.</p> <p><i>Phytophthora ramorum</i> is known to cause the disease sudden oak death.</p> <p><i>Phytophthora kernoviae</i> infects <i>Rhododendron ponticum</i>.</p> <p>Chalara ash dieback causes ash dieback, a chronic fungal disease of ash trees in Europe characterised by leaf loss and crown dieback in infected trees.</p>

Feature	Notes
Likelihood of presence (high/medium/low)	Medium
Impact (high/medium/low)	Medium
Response (inc. protection measures)	Scots pine forms a principal component of Compartment 1. Future management is to remove most of this so any infection would bring forward any felling and therefore represents a low threat level. <i>Rhododendron ponticum</i> also to be removed.  Monitor for sign of disease on annual basis. Inform Forestry Commission if evident and refer to updated advice from Forest Research for best practice guidance at the time.
<b>Deer</b>	
Likelihood of presence (high/medium/low)	High: visible signs of heavy browsing and grazing damage in Compartments 1 and 2.
Impact (high/medium/low)	High
Response (inc. protection measures)	Any grazing of deer will impede the natural regeneration and coppicing regrowth required to maintain a diverse age structure within the woodland. Can be controlled but only by fencing. Protection of young regrowth/restock areas will be considered on a coupe-by-coupe basis. Monitoring of regeneration should be carried out by the woodland manager.
<b>Grey Squirrels</b>	
Likelihood of presence (high/medium/low)	Medium
Impact (high/medium/low)	Moderate levels of bark stripping being recorded on native broadleaf species.
Response (inc. protection measures)	Follow practical advice given by Forestry Commission.
<b>Livestock and Other Mammals</b>	
Threat (sheep, horse, rabbit etc.)	None noticed
Likelihood of presence (high/medium/low)	Low
Impact (high/medium/low)	Low
Response (inc. protection measures)	None required
<b>Water/Soil</b>	
Threat (soil erosion, acidification of water, pollution incidents etc.)	Water pollution and soil compaction in Compartment 2.  Forestry works on the steep slopes in Compartment 1 may lead to soil erosion.
Likelihood of presence (high/medium/low)	Medium
Impact (high/medium/low)	High

Feature	Notes
Response (inc. protection measures)	<p>The planning application for Knoll House Hotel includes a potential drainage strategy (Ref: Knoll House Hotel Drainage Strategy Issue 1 dated 1st October 2018). The drainage strategy should be in place for the woodland and adjacent planning application site prior to any works taking place on site.</p> <p>All contractors to have spillage kits and will work to the forest water guidelines.</p> <p>Cpt2 will be left undisturbed by woodland management to limit damage to the fragile soils.</p>
<b>Environmental</b>	
Threat (pollution, fire, flood, wind, invasive species, etc.)	Invasive species: bamboo, <i>Rhododendron ponticum</i> , <i>Acaena novae-zelandiae</i> , holm oak and <i>Cotoneaster</i> sp. are present in the woodland.
Likelihood of presence (high/medium/low)	High
Impact (high/medium/low)	Medium
Response (inc. protection measures)	Remove, control, and monitor annually.
<b>Social</b>	
Threat (Rights of Way, CROW, permissive access, events sporting rights, anti-social behaviour etc.)	Compartment 1 is reasonably well used by local dog walkers with potential disturbance to wildlife.
Likelihood of presence (high/medium/low)	Medium
Impact (high/medium/low)	Low
Response (inc. protection measures)	No current issues other than dog faeces near footpath entrances. A small sign encouraging owners to “bag and bin” will be erected at the entrances.
<b>Climate Change</b>	
Threat (uniform structure, provenance, lack of diversity etc.)	Uniform structure and lack of tree species diversity.
Likelihood of presence (high/medium/low)	High
Impact (high/medium/low)	Medium
Response (inc. protection measures)	Increase species and structural diversity. Much of the wood is even aged and any selection felling/restocking should help address this situation. Regular cutting will encourage genetic ‘churn’ of natural regeneration, supplemented by planting of a wider range of native species and provenance diversity.

## 6. MANAGEMENT STRATEGY

**IMPORTANT the introduction of, or changes in, tree or woodland management and any modification of natural or man-made features will require prior permission from Natural England.**

This section describes the projects identified to meet the above requirements and the prescription developed in order to attain them. The projects have been identified as at August 2019. Additional projects may be added as required with the passage of time and in response to changes in the habitat and species biodiversity and other conditions of the site. It is important to be mindful of the appropriate requirements and regulations relating to nesting birds and bat roosts, etc., for example when undertaking scrub clearance, tree surgery, etc., and to reptiles, wild animals and plants generally.

Targets Notes (TN) (see plan in Annex 8.2.2) are used to show approximate location of management feature/project.

## 7. PROJECTS

### 7.1 Woodland & Plant Health

- Cut and stump treat all rhododendron in the woodland.
- Dig up the two stands of bamboo, including rhizomes and remove from the woodland (TN1).
- Search for and remove all non-native invasive pirri-pirri-bur (*Acaena novae-zelandiae*) plant and cotoneaster species (and any other invasive non-native plant species) from the woodland.
- Gradually open up the canopy of Compartment 1 (over a period of 5 years) by the removal of 95% sweet chestnut, 95% of the holm oak and 50% Scots pine in management coupes of approximately 0.5ha. Location of coupes to be decided on the ground using existing historic earth banks as coupe boundaries.

### 7.2 Deer & Regeneration

- Erect deer exclusion fencing around the cleared areas: this should favour heath flora and fauna in the early stages of succession and encourage the natural regeneration of native tree species such oak, ash, birch and holly.
- To create structural diversity the regeneration will need to be monitored. There may be a need to plant up gaps in possible birch regeneration with late successional species such as oak. Non-native regeneration will need to be cut out periodically during conversion to native species.
- Maintain exclusion fences monthly. Remove redundant fences.
- Compartment 2 will receive minimum management. Non-native species will need to be removed during Years 1 and 2. The desirability of maintaining its woody (dominantly birch species) extent needs to be considered carefully if

there are signs of the site drying out. Monitor habitat annually following guidance and recommendations from Natural England.

- Re-coppice hazel along boundary with hotel and car park and also in the south of Compartment 1 (TN2). Install deer exclusion fencing around all coppice. Coppice on a 10-15 year rotation, dependent on growth rate.
- Remove *Leylandii* and defunct fencing and plant native hedgerow shrubs ideally of local provenance along the woodland boundary with Knoll House Hotel (TN3). Install exclusion fencing around all new plantings. Planting will comprise of two year old, 600 – 900mm, bare root whips, planted in a double staggered row at a rate of 3 to 5 plants per metre. A layer of mulch to a depth of 75mm will be applied around the base of each shrub to suppress weeds. The hedgerows will require monitoring during the first years of growth, and any saplings which fail should be re-planted in order to prevent the development of gaps. Species will include hawthorn, blackthorn, bramble, holly, dog rose and field rose: all species which are thorny and a deterrent by nature. Initially the newly planted hedgerows will be trimmed lightly.
- Gradually open up the ground around any mature/veteran oak trees whilst avoiding extraction damage from adjacent silvicultural operations.

### **7.3 Pathways**

- Restore a disused track/path along a strip of land parallel with the north-east woodland boundary (TN4): between an historic boundary bank and Ferry Lane. Link the newly opened track to the existing path network to create a circular pedestrian and dog exercising pathway.
- Maintain the existing network of paths and manage on an annual basis. Path margins will be maintained by cutting each side on alternate years (biennial mowing) and strimming path-side vegetation to enhance habitat for butterflies and ground flora.

#### **7.4 Reptile Habitat Enhancement**

- Retain log piles and the standing or fallen deadwood, where not a hazard to the public.
- Remove miscellaneous concrete and brick built structures where possible following discussion with statutory authorities and landowner.
- Open up the canopy by creating glades particularly in areas of cleared bamboo, Rhododendron and sweet chestnut and the potentially the brick built structures to open up the canopy. Glades should aim to be approximately 0.4 ha. Glades will be cleared of existing scrub encroachment and maintained as open space with annual mowing in late summer or early autumn to a height of approximately 5cm. All arisings will be removed from the woodland. Two potential glade areas are shown on the plan in Annex 8.2.2 (TN5).

#### **7.5 General**

- Remove windblown and discarded rubbish and household items from around the eastern woodland boundary of Compartment 1. Monitor annually.
- Provide bins for dog waste and litter, including their regular emptying, to ensure waste and litter do not become a problem in the woodland.
- Litter pick around the woodland monthly to maintain cleanliness.
- Species and habitat information will be made available on and off the site to enable visitors to explore and navigate the woodland habitat and to appreciate its inherent qualities. Interpretive sign boards will be installed to provide information on Knoll House Hotel woodland: the boards will display information regarding access, habitats, management *etc.* Information will encourage visitors to stick to paths, keep their dogs on leads and check for pirri-pirri bur seeds on dogs and clothing before they leave the woodland.

- Undertake annual safety inspections of trees in areas of public access and remove dangerous trees where necessary.
- Appoint a woodland manager to ensure the measures prescribed in this Management Plan are upheld in situ and that good environmental practice is observed at all times.

### **7.6 Monitoring & Site Visits**

- A programme of annual site visits should monitor woodland development and measure progress towards key targets as set out in this management plan.

#### Key Targets:

- a) removal of non-native trees and shrubs;
  - b) control of browsing;
  - c) control of regeneration of non-native trees and shrubs; and
  - d) establishment of native trees and shrubs. All monitoring should be recorded in accurate and properly archived records.
- This Management Plan will be reviewed annually and, when necessary, amended or updated to meet changing circumstances.

Table 7 below presents the work programme for the projects listed in the previous paragraphs.

**Table 7:** Work Programme for the Management of Knoll House Hotel Woodland

Project	Notes	Year(s)	Season	Frequency
Remove rhododendron.	Cut stump; treat with herbicide within a 7-day period from cutting	Year 1	Spr/Sum	Annually
	Foliar regrowth application live stumps	Year 3	Spr/Sum	Annually
Remove bamboo.	Dig up and remove creeping rhizomes and roots	Yrs. 1, 2, 3, 4, 5	Spr, Sum, Aut, Win	Annually
	Monitor for and dig up any new growth	Yrs. 1, 2, 3, 4, 5	Spr & Aut	Twice yearly
Eradicate all non-native invasive plant species from the woodland.	Treat non-native species with appropriate herbicide and dig up/remove plants from woodland	Yrs. 1, 2, 3, 4, 5	Spr/Sum	Twice yearly
Clear fell 95% sweet chestnut, 95% holm oak and 50% Scots pine over 5 years in coupes of approximately 0.5ha Location of coupes partly based on existing historic earth banks.	Note: Tree and scrub clearance and exclusion works should be undertaken in winter (Sep-Mar) when reptiles are hibernating and to avoid disturbance to nesting birds	Yrs. 1, 2, 3, 4, 5	Aut/Win	Annually
Erect deer exclusion fencing around the cleared areas.			Aut/Win	
Monitor regeneration Plant up gaps Hand-pull non-native regeneration.			Aut/Win	
Maintain exclusion fences monthly Remove redundant fences.			Spr, Sum, Aut, Win	Monthly
Compartment 2: Remove non-native species and Monitor habitat.	Consult with Natural England and agree SSSI management	Yr. 1	Any	n/a
	Removal of non-native species as above, if agreed	Yrs. 1 & 2	Aut/Win	Annually
Re-coppice hazel . Install deer exclusion fencing around coppice.	All works should be undertaken in winter (Sep-Mar).	Yr. 3	Aut/Win	10-15 year rotation

Project	Notes	Year(s)	Season	Frequency
Remove Leylandii and plant native hedgerow. Install exclusion fencing. Monitor establishment and re-plant gaps. Trim lightly.	Weed control either re-mulching or chemical control.	Yrs. 1, 2, 3, 4, 5	Aut/Win	Annually
Scrub clearance around mature oaks.				
Restore a disused track/path. Maintain existing paths.	Footpath strategy to be agreed with Natural England	Yrs. 1 & 2	Aut/Win	n/a
Retain log piles and the standing or fallen deadwood, where not a hazard to the public.				Ongoing
Remove miscellaneous concrete and brick built structures where possible following discussion with statutory authorities and landowner.	Discuss with Natural England and landowner	Yr. 1	Any	n/a
Create and manage glades. Clear existing scrub encroachment. Annual mowing in late summer or early autumn to a height of approximately 5cm.	All works should be undertaken in winter (Sep-Mar)	Yrs. 1, 2, 3, 4, 5	Aut/Win	Annually
Remove rubbish from around the boundary.				
Provide bins for dog waste and litter. Empty bins.	Ongoing	Yrs. 1, 2, 3, 4, 5	Any	Annually
Litter pick around the woodland.				Monthly
Install interpretive sign boards.	Design, produce and install interpretive sign boards	Yr. 1		n/a
Annual safety inspections of trees.	Ongoing			Annually

Project	Notes	Year(s)	Season	Frequency
Appoint a woodland manager.	Prior to any silvicultural operations taking place in the woodland	Yr. 1	Any	n/a
Monitoring visit.  Monitoring recorded.	Ongoing	Yr. 1	Any	Annually

**Key:**

Spr = Spring; Sum = Summer; Aut = Autumn; Win = Winter

## **8. ANNEXES**

8.1 Plans

8.2 Contact Information

8.2 References & Bibliography

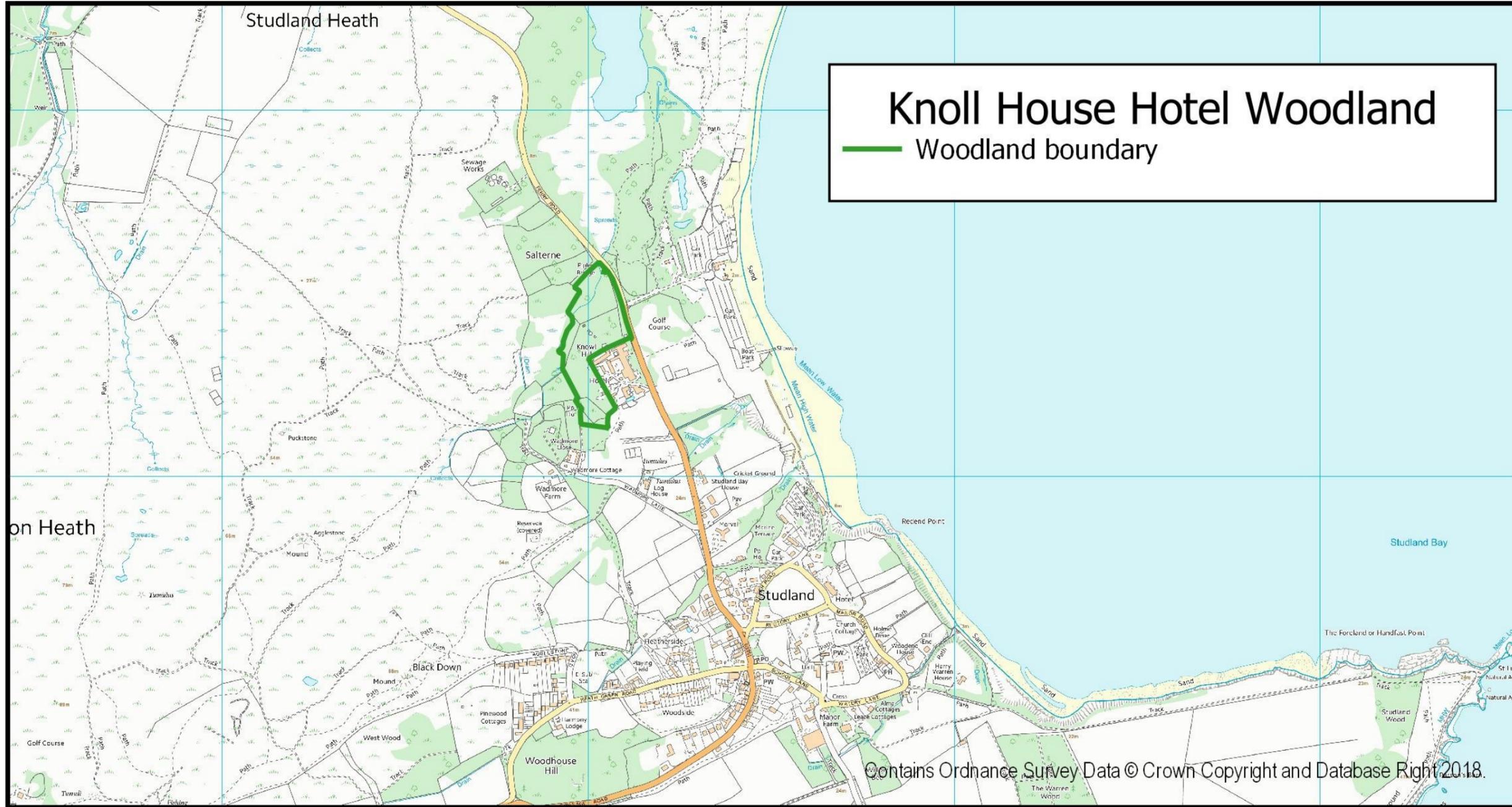
**8.1 Plans**

Plans:

8.1.1 Location Plan

8.2.2 Knoll House Hotel Woodland Plan

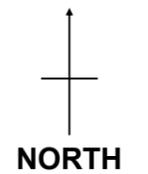
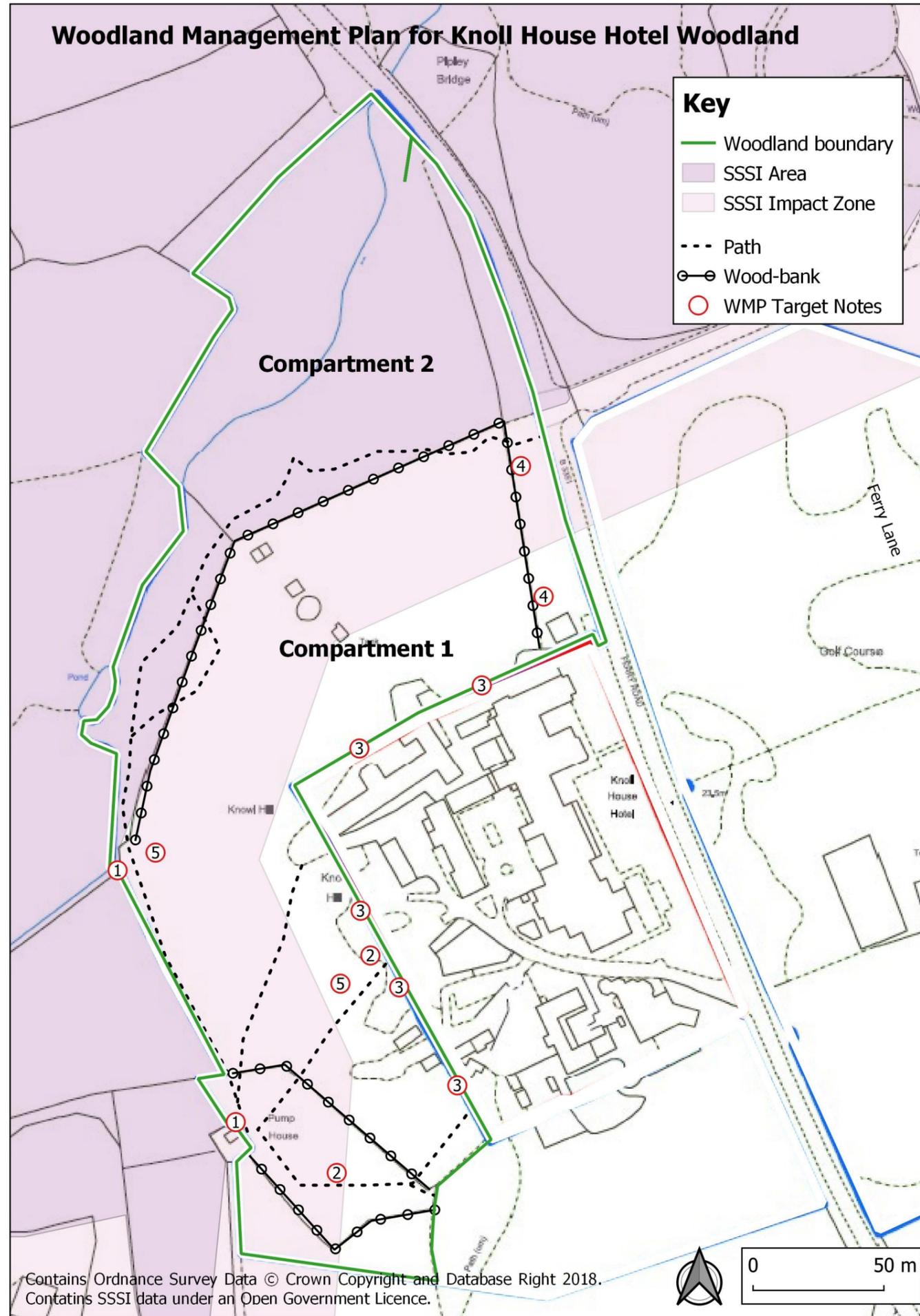
8.1.1 Woodland Location Plan



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**Client:** Kingfisher Resorts Studland Ltd  
**Site:** Knoll House Hotel, Ferry Rd, Dorset  
**Title:** Woodland Location Plan  
**Contract:** 1122  
**Date:** August 2019

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**Client:** Kingfisher Resorts Studland Ltd  
**Site:** Knoll House Hotel, Ferry Rd, Dorset  
**Title:** Knoll House Hotel Woodland Plan  
**Contract:** 1122  
**Date:** August 2019

## **8.2 Contact Information**

### Ecological Clerk of Works

**Name:** Focus Ecology Ltd (Lead Ecologist: Emma Seaton)

**Contact No:** 01905 780 700

### Arboricultural Surveyor

**Name:** Focus Ecology Ltd (Lead Arborist: Callum Andrew)

**Contact No:** 01905 780 700

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## 9. QUALIFICATIONS & EXPERIENCE

Focus Ecology has the expertise to provide sure-fire environmental solutions to a wide range of projects. The company ethos forges the highest standards of professional scientific practice with a best value approach for our clients. Our core area of expertise is in the production of specialist ecological and arboricultural reports and advice to support planning applications. We are also building an enviable reputation for innovative habitat creation and management solutions. Our flexible approach, range of skills and broad project experience from major infrastructure contracts to smaller projects allows us to adapt to your individual requirements. Focus Ecology is situated in Worcestershire, providing a convenient and central UK location.

### **Dr Ann Hill BSc (Hons) PhD CBiol MSB MCIEEM**

Ann is a skilled ecologist and vegetation scientist with wide-ranging experience of applied ecological science. She has extensive practical understanding of factors affecting ecology in relation to biodiversity and the built and natural environment. Ann has specialist skills in several areas, including botanical surveying, bryophyte identification and extensive National Vegetation Classification experience in survey of all lowland habitats to Phase 1 and 2 levels. Ann has particular interest in woodland and grassland ecology, phytosociological analysis and bryophytes. She holds a white-clawed crayfish licence and a great crested newt survey licence. Ann is an active member of Worcestershire Biological Recording Committee and the appointed bryophyte recorder for the vice-county of Worcestershire.

### **Emma Seaton BSc (Hons) GradCIEEM**

Emma is an Ecologist who joined Focus Ecology in 2014. Emma holds a BSc (Hons) degree in Biology from the University of Sheffield and has since gained a postgraduate certificate in Ecological Consultancy. She has acted as the Lead Ecologist on over one hundred projects for both residential and commercial developments for clients in the public and private sector. Her ecological experience includes Preliminary Ecological Appraisals, Ecological Impact Assessments (EclA), and surveying for notable and European Protected Species. She holds Natural England survey licences for bats (Class 2), great crested newts and white-clawed crayfish, as well as a Natural Resources Wales survey licence for bats. Emma has been the 'Named Ecologist' on Natural England (development) licences for bats and has experience of developing suitable mitigation strategies and overseeing licensable works. She has also prepared great crested newt EPSL applications and mitigation strategies for reptiles. Emma is a Graduate member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

**This report has been checked for quality and content by:**

### **Fern Fellowes-Day BSc (Hons) MSc MCIEEM MRSB**

Fern has over fifteen years of professional experience in the ecological consultancy field. She holds BSc (Hons) in Zoology from the University of Wales, Aberystwyth and MSc in Habitat Creation and Management from Staffordshire University. Fern has considerable experience in conducting

Preliminary Ecological Appraisals and Ecological Impact Assessments (EclA). Fern's particular expertise is with protected species surveys, she has extensive knowledge in dealing with the badgers, with practical experience in artificial sett design and creation and has held numerous Natural England licences to close or disturb badger setts. In addition Fern holds survey licences for great crested newts, bats and white-clawed crayfish. Fern has held Natural England Mitigation (development) licences for great crested newts (including being a Registered Consultant for the new Great Crested Newt Low Impact Class Licence) and Conservation licences for white-clawed crayfish. She is particularly experienced in dealing with newt issues affecting the quarrying, mineral extraction and landfill industry. Fern is also a competent surveyor of reptiles, water vole and otters.