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Ecological and Landscape Management and Maintenance Plan

for

Grasslands, New Dover Road, Capel le Ferne

Issue

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landscape architecture urban design environmental planning

Quality control

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Ecological and Landscape Management and Maintenance Plan

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1 Introduction

1.1 Background to the project

1.1.1 The Landscape Partnership (TLP) was initially commissioned in 2013 by Jarvis Homes Ltd to provide landscape and ecology consultancy for a site at New Dover Road, Capel le Ferne, Kent now termed 'grasslands'.

1.1.2 A preliminary ecology appraisal in 2013 was followed in 2014 by detailed protected species surveys. The combined results of the ecology surveys are contained in the Ecological Assessment February 2015, which is submitted in support of a planning application for residential development on the Site.

1.1.3 TLP also made submissions on behalf of Jarvis Homes Ltd in September 2014 seeking modifications to the wording of the emerging policy for the Site. This submission provided supporting evidence on the history and land use of the Site relevant sections of which are provided below.

1.1.4 It should be noted that after the preparation of the above reports the majority of the semi-mature woodland vegetation was cleared from the northern section of the site in winter 2015. The existing tree and scrub cover to the southern part has been retained together with key trees and hedges around the site perimeter to the north, west and east.

1.2 Site location

1.2.1 The Site is located to the north east of Folkestone, within the village of Capel le Ferne. New Dover Road lies to the north and Old Dover Road to the south. The western boundary is marked by rear gardens of the properties on Helena Road and to the east is Capel Court Caravan Park.

1.2.2 The Site is located close to the coast and English Chanel, which lie to the south beyond Old Dover Road. The Site is approximately 3 hectares in extent and currently comprises a mix of young woodland and scrub habitat. The approximate central grid reference for the Site is TR 254 385.

1.3 Purpose of the report

1.3.1 The purpose of this report is twofold as follows:

- To provide a justification for the internal subdivision of the Site between housing to the north and open space to the south and
- To provide a comprehensive ecological and landscape management plan to demonstrate how the site will be established and maintained to promote the ecological value of the site.

1.3.2 The report is illustrated by a number of Figures and supporting appendices as listed in the contents.

1.3.3 In the event of any point of doubt or lack of clarity in understanding or interpreting the clauses in this document, clarification should be sought from The Landscape Partnership Limited.

1.4 Definitions

1.4.1 The following terms are used in the report:

1.4.2 **Ecologist** – shall mean a suitably skilled, qualified and certified or licensed (as required) personnel to carry out or monitor ecological mitigation measures at an appropriate time of year and advise on maintenance requirements as required.

1.4.3 **Landscape Architect -** shall mean a Chartered member of the Landscaper Institute (CMLI)

1.4.4 **Adopting Organisation -** shall mean the body with responsibility for managing the areas of communal open space outside the demise of individual landowners property.

2 Land use strategy

2.1 Biodiversity criteria

2.1.1 The Site is allocated in the Dover District Council Land Allocations Local Plan (LALP) as Policy LA24 and a description of the background and Policy is provided at pages 91-92 of the LALP document. [NB The following extracts have been underlined by the author of this report for emphasis.]

2.1.2 Para 3.290 of the LALP identifies that, '*The Kent Wildlife Habitat survey classifies the whole of the site as chalk grassland which is of national importance for biodiversity. The biodiversity interest, is however, restricted to the southern part of the site located nearest to the cliffs but the lack of management has led to it becoming scrubbed over.*'

2.1.3 The LALP goes on to state at para 3.292, '*owing to the biodiversity value of the site development is only acceptable provided that it includes the improvement and long-term management arrangement of the chalk grassland to the south of the site. This southern part has been designated as protected open space for visual amenity and informal recreation. To ensure the long term protection of the chalk grassland, the area will remain outside of Capel's settlement confines.*'

2.1.4 Para 3.296 states, '*The area of land to south comprises semi-natural open space which is in decline. Residential development of the northern portion of land is only acceptable provided that the biodiversity interest of the land to the south is enhanced and maintained through long-term management arrangements secured through the planning application process. The precise boundary between the developed and undeveloped parts of the site will be established on the basis of ecological evidence.*

2.1.5 This report aims to provide a rationale for the extent of the proposed chalk grassland and treatment of the southern part of the site together with a management plan for the establishment and long term management of the habitats.

Designations

2.1.6 The Site is not currently designated for landscape or ecological reasons. To the north of the site beyond New Dover Road lies the North Downs AONB. To the south the site and beyond Old Dover Road there are various designations along the coast including: the North Downs AONB, Heritage Coast, a SSSI and the Local Nature of Reserves and Country Park.

Previous surveys and ecological target and opportunity areas

2.1.7 The Site lies within the East Kent Downs Target Area. This area encompasses the eastern end of the North Downs. Priorities for this area include to maintain/restore/create areas of important habitats, including chalk downland.

2.1.8 The Site is also located within a Biodiversity Opportunity Area: Dover and Folkestone Cliffs and Downs, identified by Kent Wildlife Trust. The targets set in the Opportunity Area Statement, and which are relevant to this Site are:

- Extend, reconnect, restore and enhance areas chalk grassland, to include restoration of at least 30ha and creation of an additional 75ha by 2015. Pursue opportunities for:
- Additional chalk grassland creation where this would contribute to the county-wide target of 250ha by 2015; and
- Additional chalk grassland restoration to meet the county-wide target of 150ha by 2015
- Enhance or reinstate woodland management, and restore plantations on ancient woodland sites to native woodland; extend and reconnect fragmented woodlands where this would not conflict with grassland conservation and enhancement.

2.1.9 The LALP identifies that while the Kent Wildlife Habitat survey classifies the whole of the Site as chalk grassland, which is of national importance for biodiversity, that the area of interest is

restricted to the southern part of the Site located nearest to the cliffs and that the lack of management over the last 20+ years has led it to become scrubbed over.

2.1.10 The results of the most recent 2013-14 survey data (TLP Ecological Assessment 2015) confirms that the Kent Wildlife Habitat survey is at best out of date but also potentially incorrect based on the aerial photograph records as described below.

Approach to chalk grassland recreation/restoration

2.1.11 The aim of chalk grassland recreation/restoration should be to enable the development of a species rich calcareous grassland flora over nutrient poor soils.

2.1.12 Lowland calcareous grasslands are characterised by lime-loving plants and are found mainly, but not entirely, in the south and east of the UK, where they occur on shallow, calcareous soils generally overlying limestone rocks, including chalk. The flora can be very rich including many nationally rare and scarce species and an equally diverse invertebrate fauna.

2.1.13 Chalk grassland species are typically of low stature, and are adapted to grow in parched soils under low-nutrient conditions. If these soil conditions are not available, then typically a rank, ruderal sward will develop, in which chalk grassland species cannot compete. It is therefore important to ensure that the soil conditions are appropriate for the development of chalk grassland. Soil conditions are unlikely to be appropriate where woodland cover has persisted for more than 20 years, as such areas would have a build-up of humus rich soils which would also tend to support rank, ruderal species.

2.1.14 Appropriate guidelines for the creation of chalk grassland at the Site are therefore likely to be as follows:

- Protect, maintain and restore the remaining area of chalk grassland in the south of the site
- Increase the extent of semi-natural chalk grassland by expanding the remaining area
- Ensure that new areas of grassland are open and unshaded (i.e. south-facing)
- Avoid chalk grassland restoration in areas which have been under woodland cover for longer than 20 years
- Ensure that restoration and re-creation of chalk grassland minimises the loss of another habitat of value, e.g. cliff-top woodland
- Aim to create/maintain natural habitat transitions from open chalk grassland through scrub to mature woodland
- Maintain and increase populations of key species, such as wild marjoram *Origanum vulgare* and wild basil *Clinopodium vulgare*

2.1.15 This report will now examine the development of vegetation at the Site over time, in order to identify those areas of habitat which might readily be restored to chalk grassland; and areas where the presence of existing or recently cleared woodland vegetation would be more unsuitable in restoring chalk grassland on nutrient enriched soils.

Current/recent vegetation status

2.1.16 An Ecological Appraisal including an extended Phase 1 habitat survey was undertaken by The Landscape Partnership in spring 2013. The survey methodology followed the standard Phase I methodology. Phase 1 survey is a standardised system for surveying, classifying and mapping wildlife habitats. Four habitat types were identified on the Site as follows (see also Figure 01).

Semi-improved Calcareous Grassland

2.1.17 The majority of the study area was evidently formerly unimproved or semi-improved grassland habitat, although little now remains. Extant grassland was noted close to the northern

boundary of the Site, where it is heavily shaded, and also along the southern boundary, where, despite encroaching scrub, some small patches of species rich grassland still occur on the edge of the road. The grassland here was dominated by Red fescue (*Festuca rubra*), with other species present including Black knapweed (*Centaurea nigra*), Sorrel (*Rumex acetosa*), Carrot (*Daucus carota*), False brome (*Brachypodium sylvaticum*), and, where shade becomes heavier, Greater stitchwort (*Stellaria holostea*). Wild chive (*Allium schoenoprasum*) was also present in some quantity, but is likely to be naturalised.

Scattered Scrub

2.1.18 The grassland is becoming rapidly invaded by scrub, to the extent that all grassland is likely to be lost in the next few years. The species present in this community include dense stands of Bramble (*Rubus fruticosus*) and Blackthorn (*Prunus spinosa*) with Hawthorn (*Crataegus monogyna*) being scattered through the grassland. Scrubby Oak (*Quercus robur*) and young Ash (*Fraxinus excelsior*) and Dog rose (*Rosa canina*) also occur.

Continuous Scrub

2.1.19 The scrub becomes increasingly dense further north, and is similar to that described above, only with a closed cover and little understorey vegetation. Wild clematis (*Clematis vitalba*) and Ivy (*Hedera helix*) are also present in this habitat.

Broad-leaved semi-natural woodland

The central and northern parts of the Site support/ed a semi-mature woodland cover, probably up to 20-25 years old. The dominant species here are Ash and Sycamore (*Acer pseudoplatanus*) in fairly even aged stands, suggesting that the original colonisation of the Site by woody vegetation occurred quite rapidly. Also present are Oak, Bramble and Blackthorn with increasing amounts of Hawthorn. Holly (*Ilex aquifolium*), Spindle (*Euonymus europaeus*) and Hazel (*Corylus avellana*) are increasingly common further north in the oldest stands of woodland. The understory is variable, comprising dense bramble and other shrubs in the most open woodland areas. In the taller even aged stands, the ground cover is much sparser, but includes mats of Ivy and dense stands of Hartstongue fern (*Phyllitis scolopendrium*) and Broad bucker fern (*Dryopteris dilatata*). Perennial dog's mercury (*Mercurialis perennis*) an ancient woodland indicator species and Tutsan (*Hypericum androsaemum*), which may be native in this habitat, were also recorded.

Consideration of results of Phase 1 survey

2.1.20 The Phase 1 survey demonstrates that well over 50% of the Site was occupied by semi-mature woodland, with the remainder areas being scrub, scattered scrub over grassland, and a small area of semi-improved chalk grassland in the far south of the Site (see Figure 01). This situation is now very much at variance to the description of the Site in the Kent Wildlife Habitat survey cited in the Land Allocations Local Plan.

Historical land use and development of vegetation at the Site

Consideration of map-based evidence

2.1.21 The precise nature of land-use cannot be easily elucidated from map sources (from 1870 onwards). However, the Site appears as a relatively small enclosed field, presumably bounded by fieldbanks or hedgerows, from the 1870s. It is probable that the land was either under

arable cultivation or intensively grazed. The size of the field is similar to many of the fields further to the north. However, the extensive grazing management typical of chalk downland is unlikely, as chalk downland is typified by minimal enclosure. The Ordnance Survey maps also typically differentiate rough grazing land (e.g. chalk grassland) from more intensively managed land, as can be seen by symbols for rough grassland on the Folkestone to Etchinghill Escarpment. The arrival of the New Dover Road as shown on the 1930 OS map indicates a narrow strip of land severed by the road from the larger field to the north forming the northern boundary of the Site. At 1930 built development to the west at Helena Road is indicated and by 1970 the caravan park to the east of the Site is also indicated.

Consideration of aerial imagery

2.1.22 Aerial photographs are available on the 'GoogleEarth' website. The earliest image from 1940 indicates the Site was most likely under improved grassland or possibly arable management, as indicated by faint lines on the 1940 aerial photograph, which could be attributable to either cultivation furrows or mowing. Boundary hedgerows to the north and west along the current bridleway are visible. The 1960 aerial photograph shows clearer north-south and east-west cultivation lines and field headlands to the margins, which indicate that the Site was clearly under cultivation and again either arable or improved grassland. The strip of land to the north is unlikely to have been used for arable cultivation due to its narrow remnant form. By 1960 the vegetation to the eastern boundary around the caravan park had grown substantively while on the New Dover Road scrub was developing on the field edge.

2.1.23 By 1990 the Site was clearly unmanaged with open rough grassland and colonisation by scattered scrub and some more mature trees along the New Dover Road. Informal paths running through the Site are clearly visible indicating probable informal use. Scrub invasion appears to be predominantly from the west of the Site but with some areas also to the eastern boundary close to the caravan park. An aerial image from early 2002 shows the Site with over 75% scrub and tree cover, with the areas of densest and presumably more mature woody cover being in the west of the Site, and this is confirmed by an image dating from 2006 which shows dense tree and scrub cover over the entire western portion of the Site and throughout the central part of the Site, with relict open grassland in the northeast and southeast. The 2013 image identifies the current situation and the internal visual character of the semi-mature woodland.

Conclusion on the Site vegetation

2.1.24 Whilst situated in an area of calcareous soils, the Site appears to have been under cultivation and /or improvement management from at least the 1940s through to the 1960s, after which it was abandoned in 1969 (as understood from the landowner at the time) and allowed to revert to rough/unmanaged grassland. Some of the woody vegetation now present on Site will therefore date from shortly after this time, although the majority of the trees will have colonised from 1990 onwards. It is therefore reasonable to surmise that the more mature woodland areas are around 20-25 years old.

2.1.25 Although the Kent Wildlife Habitat survey classifies the whole of the Site as chalk grassland, the site clearly does not support chalk grassland, with a relict area of this habitat being present only in the extreme south and southeast. The Site is therefore not an obvious candidate for chalk grassland restoration, having been under arable management for a period of at least 25 years. However, there is potential to restore the south-east corner and extend this habitat over suitable adjacent areas.

2.1.26 Following improvements to the Site in the mid-20th century, the natural fertility of the ground is likely to have been improved. This would also make the Site less suitable the chalk grassland creation. This relative fertility and the depth of soils on site may also indicate the relative speed

of colonisation on the site towards woodland cover. The presence of woodland would also make parts of the Site less suitable for chalk grassland restoration, as the leaf-fall would lead to nutrient enrichment of the upper horizon of the soil.

2.1.27 Therefore, while it may be possible to manage the southern part of Site to create improved chalk grassland habitats the Site the adjacent areas that could be improved for chalk grassland will need some soil stripping to reduce the fertility. It is therefore considered that, although chalk grassland could potentially be restored in those parts of the Site, which developed scrub cover most recently, it is not a viable option over much of the remainder of the Site. It is therefore recommended that the proposed treatment of the southern part of the Site retained as open space be managed for combination of existing and enhanced chalk grassland together with areas of scrub and woodland cover to the fringes that provide important habitats for local reptile and bird populations.

2.1.28 The LALP states in the supporting text that the developable portion of the site amounts to 1.42 ha (a figure less than 50% of the total Site area). However, it also states in the Policy wording itself that, '*the precise boundary between the developed and undeveloped parts of the site will be established on the basis of ecological evidence'.* The ecological evidence provided above indicates that the creation of chalk grassland to the south is based on a small remnant core area to the south-east corner only. The additional areas of chalk grassland proposed will require significant soil stripping to create a suitable low nutrient base. It is therefore our view that based on the evidence that the 'existing chalk grassland on the southern part of the site' is in reality relatively small and that the additional proposed extension more than reasonably adds to the existing chalk grassland resource.

2.1.29 Furthermore, the LALP states that the site is suitable for up to 50 dwellings. The proposed layout is for 41 dwellings, considerably less than the maximum indicated, but over a larger area than 1.42ha. Based on the ecological evidence on the extent and value of the existing chalk grassland it is considered unnecessary to devise a much denser residential layout to safeguard a very restricted areas of identified existing chalk grassland.

2.2 Landscape criteria

2.2.1 The LALP states that, '*the land to the north of the site is located in the AONB and is undeveloped countryside and as there is no visual screening between the AONB and New Dover Road this results in extensive views over the AONB. Existing residential development is located to the west, and a caravan park to the east. A public bridleway ER252 runs along the western boundary.*

2.2.2 The LALP also notes in regard to the Site access that, '*Vehicular access to the site would be created from New Dover Road. This would require the creation of a right hand turning lane, provided that it can be demonstrated that adequate sight lines can be achieved and turning movements safely accommodated. The access should be designed to minimise the loss of existing trees and vegetation along New Dover Road as this screens the site from the adjacent AONB to the north of the site.*'

2.2.3 The site access has been designed by Vectos who explain the approach. A section of mature hedging can be retained to the north west of the access point. However, the remaining site frontage vegetation is limited and this currently provides an open aspect to the New Dover Road. In addition, pre-application discussions with officers at DDC have advised that the properties along New Dover Road should face towards the road rather than back onto it.

2.2.4 Therefore, a belt of native planting is proposed set back adjacent to the site boundary fronting New Dover Road. This will comprise trees and understory shrubs. The units all face to the north to the road and a number of pedestrian access points are provided between the native belt to also create an active street frontage and provide access and permeability into the Site. This approach has been used to meet criteria ii) of Policy LA24 which requires that, '*Development proposals are sensitively designed in terms of height and massing in order to ensure the development does not have an adverse impact on the AONB and countryside;*'

2.2.5 The supporting text of the LALP sates that, '*The informal public use of land to the south should be encouraged by incorporating the existing public bridleway into the design and layout.*' The route within the site has been retained together with individual trees along the route. In addition, further native species are planted to the east of the route to provide a wider corridor between the rear boundaries of the properties on Helena Road and the rear gardens of the proposed houses within the development. The southern extent of the Bridleway passed through an area enclosed by the adjacent residential property fronting Old Dover Road. Public use has informally run off-route outside this property boundary and within the Site. However, this is not the definitive route and is therefore not included or supported in the proposals.

2.3 Landscape strategy

2.3.1 Landscape proposals have been developed for the scheme (refer to the Landscape Layout and Planting Strategy (see Figure 06 and 07)). The strategy for these proposals was four-fold:

- to enhance the ecological value of the retained grassland and scrub in the south of the site
- to minimise the impact of the development upon surrounding properties and publically accessible viewpoints including the AONB to the north and south
- to fit the proposed scheme into the wider landscape structure
- to provide an attractive internal arrangement and setting for the development

2.3.2 To achieve this strategy native tree and shrub species are proposed to the perimeter of the Site and to the open space to the south. Species selected would reflect those found in the surrounding countryside and at other similar locations in the vicinity, and would be suited to the local site conditions, e.g. the microclimate and soils. A mix of native and ornamental species of trees and shrubs suitable to a chalky seaside location are included within the residential area.

2.3.3 The landscape strategy for the scheme comprises the following elements.

- Retention and maintenance of a small area of woodland to the west of the open space, to screen views of the development from neighbouring properties.
- Restoration and recreation of chalk grassland habitat, which will be delivered through a combination of scrub removal and stripping of the nutrient enriched layers of topsoil.
- Retention and enhancement of a vegetated buffer to New Dover Road.
- Planting will be incorporated to the perimeters of the site to the north to soften views from the AONB; to the west along the bridleway corridor; and to the east adjacent to the caravan park.
- Landscape measures will also be incorporated within the development and the central access road allowing for views through to the open space and sea to the south.

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3 Objectives for the management plan

3.1.1 This Management Plan should be read in conjunction with the Landscape Planting Schedules (see Appendix 1), the Landscape Proposals Drawing Showing Ecological Enhancements (see Figure 02), the Soil Stripping, Planting and Seeding Drawing (see Figure 03), the Reptile Mitigation Plan (see Figure 04) and the Management Plan (see Figure 05). The Landscape Planting Schedules includes detail of the planting and seeding that will take place in the semi-natural areas.

3.2 Duration of the Management Plan

3.2.1 The Management Plan covers a period of 10 years. It can be sub-divided into two phases of management and maintenance works.

- **Phase 1** covers the first five years of the Management Plan, and details the works required to establish the landscape works within: the housing area, the southern open space and the site perimeters. The Phase 1 works would be undertaken by a suitably qualified landscape contractor as part of the main construction works contract. Phase 1 is anticipated to commence in 2015 and end in 2019.
- **Phase 2** covers the long-term management that will take place for the 5 years following the establishment period. It is envisaged that these works will be undertaken by a suitably qualified landscape contractor, either as an extension of the Phase 1 works, or as a separate contract. Phase 2 is anticipated to commence in 2020 and end in 2024.

3.2.2 Following completion of the 10 year period, it is anticipated that the site management will continue on a rolling programme that repeats Years 6-10, unless agreed otherwise by the Client/Adopting Organisation.

3.2.3 The Local Planning Authority must be advised of, and agree in writing to any proposed changes to this management plan which take place during the period that the management plan is in effect.

3.3 Management Responsibilities

3.3.1 It is anticipated that the communal areas of open space including: the chalk grassland, retained woodland and scrub habitats, areas of new planting to the New Dover Road, along the Bridleway and areas outside domestic curtilages within the development will be managed by a Management Company funded by a service charge from the residents. The Management Company will be required to implement and maintain the operations set out in this Management Plan using a suitably competent contractor with experience of managing both areas for nature conservation and ornamental landscape areas. Alternatively, these areas will be offered to Dover District Council for adoption.

3.4 Standards of maintenance

3.4.1 The Landscape Contractor shall maintain all soft landscape elements in a good condition i.e. in good condition, clean, free from all hazards, and free of nuisance weeds. This objective will be ensured through regular inspection and attendance by trained personnel and such works as necessary carried out. Maintenance of soft landscape may include but not be limited to, mowing, weeding, pruning, fertilising, replacement of failed planting and other such works as set out in the clauses below.

3.5 Enhancement Objectives

3.5.1 To ensure that all soft landscape elements, including woody planting and grassland areas are maintained to maximise landscape, amenity and ecology potential, and parts or the whole replaced over time as necessary.

3.6 Amenity Objectives

3.6.1 To ensure that

- the site is attractive, in order to encourage its sympathetic use
- to maintain and enhance the landscape and wildlife value of the site
- to provide foot, bridleway and cycle links
- to maintain a safe environment for all users
- the site is maintained in a condition such that it can be used to maximum enjoyment and effect

4 Protected habitats and species

4.1.1 An Ecological Impact Assessment of the site was undertaken by TLP in 2013-14. Folkestone Warren SSSI lies immediately to the south of the site beyond the Old Dover Road, and covers an area of 300ha comprising the marine and terrestrial habitats associated with chalk cliffs, gault clay and greensand. Folkestone Warren Local Nature Reserve lies immediately to the south of the site. Folkestone Warren is an area of rough grass and scrub at the foot of the cliffs of interest for plants and invertebrates, including Wild cabbage, Nottingham catchfly and Adonis blue butterfly.

4.1.2 Survey also confirmed the presence on the site of species of animal that are protected by law.

4.1.3 The features of ecological interest can be summarised as follows:

- habitats of wildlife value (woodland, scrub and relict chalk grassland)
- notable fauna including a number of uncommon species, and legally protected species: Common Pipistrelle bat occurs regularly at the site and there is thought to be a bat roost in a nearby building; three species of native reptile (slow worm, common lizard and adder); breeding birds including Song Thrush, House Sparrow, Linnet, Dunnock and Lesser Redpoll. The woodland and scrub is also important for migratory bird species.

4.1.4 Detail of the protected species interest is set out below. The timing of management works set out in this plan has been designed to minimise impact upon protected wildlife, and to allow enhancement of habitats to support such wildlife.

4.2 Reptiles

4.2.1 Sites used by reptiles during their active season include 'wasteland', long grassland, scrub, including bramble scrub, the base of hedgerows and open woodland. Possible hibernation sites, or hibernacula, (potentially occupied from mid September to early April) include banks, piles of cut logs, fly-tipped material including tin or plastic sheets, rubble, turves and mounds of soil, beneath tree roots, in mammal burrows and any other cavities or crevices above the winter water table. Several reptile species are present on site and should be assumed to occur throughout. The reptile population is likely to increase as a consequent of the creation of chalk grassland.

4.3 Breeding birds

4.3.1 Birds utilise a wide range of habitats, both natural and manmade, in which to nest: new and mature planting, trees, shrubs and scrub, woodland, grassland and a number of other semi-natural habitats. There are numerous features with nesting potential within the site and nests should be assumed to be present in any suitably dense vegetation during the period March to July inclusive.

4.4 Bats

4.4.1 There are no trees within the site that are considered to have bat roosting potential at present, although an adjacent building appears to have a bat roost. Future use of trees by bats in the longer term is probable.

4.5 Development of habitat and species interest

4.5.1 The proposed chalk grassland will result in an area of new habitat of high nature conservation value being created at the site. Chalk grassland is a priority (Section 41) habitat type and is protected under local planning policy. The management of the chalk grassland on the Site is also a specific criterion within the LALP and Policy LA25 for the Site.

4.5.2 Through the delivery of the management measures set out in this management plan, the chalk grassland would develop botanical interest over time, which may include colonisation by legally protected plant species such as orchids. The invertebrate fauna associated with the chalk grassland is also likely to include rare and scarce species.

4.6 Relevant legislation and policy

4.6.1 There are a number of pieces of legislation, regulations and policies specific to ecology, which underpin the management plan. These are relevant at an International, National, Regional and/or Local level. References to legislation are given at Appendix 3 as a summary for information only and should not be construed as legal advice.

4.7 Management potentially affecting Protected and Priority Species or Habitats

4.7.1 A number of legally protected species are present or potentially present on the Site as outlined above. No vegetation future clearance or trimming works shall be carried out during the bird breeding season (March to July inclusive), without first referring to the Ecologist. All vegetation management must be in accordance with the Annual Maintenance Programme.

4.7.2 No changes should be made to the landscape design, vegetation management programme, lighting scheme, path layout etc. without first referring to the Ecologist.

5 Habitat creation

5.1 Scrub and woodland clearance and mowing

5.1.1 Scrub and woodland clearance carries with it a high risk of killing and injury to reptiles, which are a legally protected species, and disturbance of nesting birds and mortality of nestlings.

5.1.2 Reptile mitigation will comprise exclusion fencing around the area to be developed, protection and retention of scrub and grassland habitat, phased exclusion strimming and establishment of chalk grassland habitat. The strategy would enhance habitats and increase capacity for reptile populations at the site (see table below for further information).

5.1.3 In respect of breeding birds, site clearance operations should avoid the breeding season; March to July inclusive. Similarly, site clearance in October and November and February to April should be avoided so as to reduce impact upon migrant bird species.

5.1.4 Proposed further clearance works are set out in the table below and in the Management Schedule. All work must be undertaken under the direct supervision of an Ecologist.

5.1.5 It is important to adhere to the dates set out in the table below. Any slippage will necessarily result in a delay of subsequent aspects of the work until the following May, with consequent impacts upon delivery of the development.

Item	Action	Resourcing/other requirements	Timing
Woodland and scrub clearance	Clear trees and scrub where the soil strip is to take place down to c20cm above ground level, working broadly from the west and north of the site towards the southeast. This work to be undertaken using handtools/powered handtools to avoid risk of mortality to protected wildlife.	Work MUST be carried out in warm (in excess of 15ºC), sunny weather and under direct ecological supervision.	Late summer 2015, between August and September inclusive. Work MUST be complete by end September.
Create reptile hibernacula	Create a minimum of 3 reptile hibernacula along the north-eastern boundary of the retained open space using cut wood in areas as indicated on site by the Ecologist	Work MUST be carried out under direct ecological supervision.	Late summer 2015, between August and September inclusive.
Reptile exclusion mowing	Mow all grassland working from west to east (both any within the development footprint and that where the soil strip is to take place (NOT the area of retained grassland and scrub in the east and north-east of the site)) in two stages. Stage 1 is to mow grassland to a minimum cut height of 15cm above ground level, working from the southwest of the site towards the retained scrub and hibernacula on the eastern and northeastern boundary. After 48 hours, Stage 2, comprising a second cut should be carried out, which would take the sward down to within 5cm of ground level. All work should be undertaken using a reciprocating mower/power scythe or strimmer. All arisings must be raked off and removed from site after completion of each Stage.	Work MUST be carried out in warm (in excess of 15ºC), sunny weather and under direct ecological supervision.	Late summer 2015, between August and September inclusive, immediately following woodland and scrub clearance.
Erect reptile fence	Reptile exclusion fencing should be erected along the southern margin of the proposed housing, with a return alongside the bridleway and along the boundary with the caravan site. Installation would	Work MUST be carried out in warm (in excess of 15ºC), sunny weather and under direct ecological	Late summer/early autumn 2015, between August and September inclusive,

	require a shallow trench to be dug using small plant, and rigid fencing (Hepertosure or similar) to be installed according to suppliers instructions. Fence to be removed only after completion of all construction works.	supervision.	immediately following mowing.

5.2 Creation of chalk grassland

5.2.1 Three types of chalk grassland are being created. Type 1 will be grassland which is restored from lightly scrubbed areas in the southeast of the site (see Figure 01). The Type 1 area will be cleared of scrub in late summer 2015 in accordance with the Management Schedule and the table below and subsequently mown. No further management of this area would then take place until Year 4 (2018). The existing earth bank to Old Dover Road would be retained.

5.2.2 Type 2 grassland would be created in areas which currently support dense scrub and woodland cover. Woodland, scrub and any grass areas would be cut and strimmed down in accordance with the Management Schedule and the table below in late summer 2015. Soils and roots of trees and scrub would be stripped and removed from site to reveal nutrient and humus poor subsoils in early autumn 2015. Seeding would take place in spring 2016.

5.2.3 Type 3 grassland is a strip of ground adjacent to the woodland on the southwestern boundary. It is not anticipated this area would develop high quality chalk grassland habitat as soil stripping is not possible due to the need to protect the root zone of the adjacent woodland. This area would therefore be seeded with the same chalk grassland mix as the adjacent land, but would develop as rough grassland habitat and be mown along with the chalk grassland.

5.2.4 Type 2 and Type 3 grassland would need to be mown for the first time in the second growing season following seeding (Year 3).

Item	Action	Resourcing/other requirements	Timing
Soil Strip	Strip soils within the area indicated on the plan, working from the southwest and west of the site to the east and northeast. It is anticipated heavy plant would be required for this operation. Soil should be stripped down to nutrient poor and humus-free subsoil levels (likely to a minimum of 0.25m and a maximum of 0.5m). Soils should be removed from site immediately following stripping, and not stockpiled.	Work MUST be carried out in warm (in excess of 15°C), sunny weather and under direct ecological supervision.	Early autumn 2015 between September and mid October inclusive, immediately following mowing.
Seeding	Prepare ground within 'new' chalk grassland area by raking to a fine tilth or as advised by specialist subcontractor (supplier). Actual seeding work to be carried out by specialist subcontractor (supplier)		Spring of the first growing season following clearance and soil strip, i.e. early spring 2016

5.3 Tree and shrub planting

New tree and shrub planting in the southern part of the Site forming part of the habitat creation should take place in Year 2, in accordance with the Planting Schedules.

5.4 Planting in Housing area

5.4.1 Planting within the residential areas and the associated Site perimeter to the west, north and east to take place in the planting season (November to March) following completion of the dwellings.

5.4.2 All areas of proposed planting/seeding to be cleared of materials including building debris, stones, brick and concrete over 50mm in diameter. Any contamination and soils unsuitable for landscape purposes to be removed from site. All areas of proposed planting/grass seeding affected by construction works to be relieved of compaction.

5.4.3 All groundworks and planting operations shall be in accordance with the following British Standards:

BS 3975 Glossary for Landscape Work -

Part 4: Plant Description

Part 5: Horticultural, Arboricultural and Forestry Practice

BS 4428 General Landscape Operations

5.4.4 All plants shall be supplied in accordance with the National Plant Specification, by nurseries accredited by the Horticultural Trade Association.

5.4.5 Effective weed control shall be carried out prior to cultivation. All planting areas to be cultivated to a depth of 300mm, all proposed grass areas to be cultivated to a depth of 150mm, except within 4.0m of any existing tree stem, unless otherwise stated in the specification.

5.4.6 Pits for containerised trees and shrubs (2L or 3L) to be 300 x 300 x 300mm. Pits for feathered trees and larger trees to be 1.2 x 1.2 x 0.6m. Hedgerows to be notch planted in a 1.0m wide cultivated strip 300mm deep. All transplants to be planted in pits 300x300x300mm or notch planted as appropriate.

5.4.7 Apply peat-free tree and shrub planting compost by thoroughly incorporating it with topsoil into planting holes at the rate of 8 litres per transplant and 2-3L containerised plants. Feathered trees and larger trees to have 40 litres per tree.

5.4.8 All plants to be watered before and after planting and as necessary during the growing season to ensure planting thrives.

5.4.9 All feathered and standard trees including Containerised RB and BR, shall be supported by 1No. 50mm dia x 1200mm long stakes angled to avoid rootball and angled to the north with 400mm above ground level, tied with Standard Nylon Reinforced Rubber Belts, 37.5mm with Extra Large Pads spacer - supplied by J Toms ltd or similar approved. 14-16 & 16-18cm girth trees to be supported by 2no. 75mm dia x 1900mm double stake, cross-bar and tie. All specimen trees and EH standard trees in paving to be underground guyed using Platipus Tree Anchoring System.

5.4.10 Surface mulching to be supplied to all hedges, shrub areas and around and individual trees in grass (500mm radius) to a depth of 75mm of ornamental bark mulch.

5.4.11 All trees and native shrubs to the site perimeter to be protected with 600mm high, clear spiral guards with ventilation holes. For transplants spirals to be supported by a stout cane 1m long pushed 400mm into the ground.

Management and maintenance operations Years 1-5 (2015-2019)

5.5 Maintenance operations to new individual trees

Where

5.5.1 These operations relate to trees planted within the housing development and along the road frontage to New Dover Road.

General

5.5.2 Whilst undertaking maintenance every effort to avoid damage to the bark of young or established trees, such as during strimming operations shall be taken. Damage to the base of trees (young or mature) as a result of strimming, is not acceptable.

5.5.3 All trees shall be kept free of pests and disease at all times.

Firming-up

5.5.4 All plants which have become loosened, lifted up or out of the ground shall be set upright and re-firmed by treading.

Pest and disease control

5.5.5 All plants shall be kept free of pests and diseases.

Plant supports

5.5.6 The landscape operatives shall check and when necessary adjust any stakes, canes, tree ties and tree stakes, tree guards etc: ties should be loosened progressively to prevent damage to the tree trunk. The Landscape Architect may instruct replacement of any trees which are damaged. The majority of tree stakes would be removed at the end of the initial 5 year maintenance period unless tree stability has yet to be achieved. Any remaining supports can be reviewed periodically and removed when appropriate to do so.

General pruning to individual trees

5.5.7 All straggling stems, unwanted suckers and dead, misshapen or broken branches from trees and shrubs shall be removed by pruning back with a clean smooth cut to the main stem, or a sound and living outward growing lateral.

5.5.8 Tree canopies shall be maintained to prevent obstruction to vehicular or pedestrian areas and street lighting.

Replacement planting

5.5.9 Any plants that die, substantially die-back (by disease or poor health) or are damaged (including plants damaged during management operations), shall be replaced with stock of the size originally specified. This shall include any plants that are destroyed by vandalism, theft or similar cause.

5.6 Maintenance Operations to native trees, shrubs and hedgerows

Where

5.6.1 These operations relate to the proposed hedgerow along the eastern boundary of the development within rear gardens adjacent to the Caravan Park and the native planting along the New Dover Road and along the Bridleway to the west of the proposed housing.

General

5.6.2 The hedgerow to the eastern boundary is to be maintained by property owners. It is advised that hedge clipping operations should be carried out in January or early February. It is important that clipping is not undertaken during the bird nesting season, from March through to

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July. Following completion of the 5 year maintenance period, cut top and side of hedge to 2m height and width. Repeat every 2 years cutting the sides alternately.

5.6.3 Hedgerows located adjacent to public highways, pedestrian paths/cycle paths and public rights of way to the north and west of the site should be trimmed back so as not to cause an obstruction or danger to users.

5.6.4 All planting areas shall be maintained weed free. Plants to be firmed twice in the planting season as required and guards, stakes and ties checked and adjusted as required.

5.6.5 Any dead, dying or diseased plants shall be removed and replaced in the next planting season with equivalent species. In the case of contagious diseases alternative species shall be provided.

5.7 Maintenance Operations to existing woodland/mature scrub

Where

5.7.1 These operations relate to retained woodland and mature scrub along the western and eastern boundaries of the open space. A narrow corridor of wooded vegetation would be retained along the length of the bridleway.

General

5.7.2 No maintenance works are proposed to the woodland area and wooded corridor along the western boundary of the site, with the exception of removal of shrub shelters as plants mature and no longer require protection.

5.7.3 Pruning and other trimming operations along the bridleway to the western boundary is required to ensure that vegetation does not cause an obstruction or danger to users. In the event that works need to take place during the bird nesting season (March-August inclusive), advice should first be sought from an Ecologist.

5.7.4 No maintenance works are currently proposed to the retained mature scrub along the extreme eastern site boundary of the open space. Longer term (years 10-20 and onwards), a long rotation coppice scheme may be implemented here.

5.8 Maintenance Operations to existing scrub areas

Where

5.8.1 These operations relate to retained scrub close to the eastern boundary of the open space set back from the planting on the boundary (see Figure 05).

General

5.8.2 The management regime proposed for areas of scrub habitats is a rotational coppice programme, designed to ensure that this vegetation does not develop into woodland, nor encroach into chalk grassland. This cycle to commence on the establishment of the chalk grassland at c. Year 2-3. A maximum of 50 % of the area shall be coppiced to ground level in January-February with further clearance /coppicing to the remaining areas within Years 6-10.

5.9 Maintenance Operations to amenity /verge grassland

Where

5.9.1 These operations relate to amenity grassland along the frontage with the New Dover Road, and within the housing development.

General

5.9.2 All verge mix grassland, including the road verges shall be maintained between 25-50mm in height. Bare areas shall be reseeded in April to May or September to October.

5.10 Maintenance Operations to Ornamental shrub areas

Where

5.10.1 These operations relate to ornamental shrubs in communal areas within the housing development. Ornamental planting within private curtilages will be the responsibility of the householder.

General

All ornamental shrub beds are to be maintained weed free. Shrubs are to be pruned where they overhang footpaths or roads. Any dead, dying or diseased plants shall be removed and replaced in the next planting season with equivalent species. In the case of contagious diseases alternative species shall be provided.

5.11 Maintenance Operations to Chalk grassland areas

Where

5.11.1 These operations relate to existing, restored and new chalk grassland in the open space.

General

5.11.2 The chalk grassland is to be mown annually, in late July of each year from Year 3 onwards. The final cut height should be less than 50mm.

5.11.3 Mowing may only be undertaken on a warm, dry, sunny day and when the air temperature is in excess of 15°C to avoid mortality to reptiles. Cutting must be staged so as to minimise impact upon reptiles (a legally protected species), firstly to an average height of 100mm. Rake off arisings. Second cut after 48hrs, to a maximum height of 50mm. Remove all cuttings. Mowing may only be undertaken on a warm, dry, sunny day and when the air temperature is in excess of 15°C to avoid mortality to reptiles. The direction of cut should always be from the west towards the east so that displaced reptiles can take refuge in retained scrub.

5.11.4 Repair damaged meadow areas by raking to a fine tilth and re-seeding as per the Planting Schedule (see Appendix 2).

5.12 Maintenance Operations to Rough grassland areas

Where

5.12.1 These operations relate to new rough grassland in the open space adjacent to the retained woodland.

General

5.12.2 The area to be seeded with chalk grassland mix would include a strip of ground adjacent to the woodland on the south-west boundary, but it is not anticipated this area would develop high quality chalk grassland habitat as soil stripping is not possible due to the need to protect the root zone of the adjacent woodland. This area would therefore develop as rough grassland habitat and be mown along with the chalk grassland.

5.13 Installation of bird and bat boxes

5.13.1 A total of 20 Schwegler nestboxes (squirrel-proof) – or similar approved and suitable for a variety of hole nesting species on retained trees would be erected on site in Year 1, to replace lost nesting opportunities resulting from woodland clearance.

5.13.2 6No. Schwegler bat boxes or similar approved and suitable for a range of bat species, would be erected on retained standard trees in unlit parts of the Site in Year 1.

5.13.3 A Schedule detailing boxes is provided at Appendix 2. Boxes should be situated and erected under the guidance of an Ecologist. Figure 02 gives approximate locations.

5.14 Alien species

5.14.1 Invasive alien species occurring in the site should be managed as they occur, using appropriate control techniques.

6 Management and maintenance operations Years 6-10 (2019-2024) and ongoing

6.1 Maintenance operations to trees

Where

6.1.1 These operations relate to trees planted within the housing development and along the road frontage to New Dover Road.

General

6.1.2 Whilst undertaking maintenance every effort to avoid damage to the bark of young or old trees, such as during strimming operations shall be taken.

6.1.3 The majority of tree stakes will have been removed at the end of the initial 5 year maintenance period unless tree stability has yet to be achieved; and all stake holes backfilled with topsoil. Any remaining supports can be reviewed periodically and removed when appropriate to do so.

6.1.4 All trees shall be kept free of pests and disease at all times. .

Pest and disease control

6.1.5 All plants shall be kept free of pests and diseases.

General pruning to individual trees

6.1.6 All unwanted suckers and dead, misshapen or broken branches from trees in the development area shall be removed by pruning back with a clean smooth cut to the main stem, or a sound and living outward growing lateral. New trees within the semi-natural habitat area do not require such management.

6.1.7 All tree canopies shall be maintained to prevent obstruction to vehicular or pedestrian areas, and street lighting. Branches overhanging roadways shall be crown lifted to maintain forward visibility along the highway. .

Replacement planting

6.1.8 Any plants within the residential area including to the suite perimeter that die or are damaged (including plants damaged during management operations), shall be replaced with healthy stock of the size originally specified. This shall include any plants that are destroyed by vandalism, theft or similar cause.

6.2 Maintenance Operations to native trees, shrubs and hedgerows

Where

6.2.1 These operations relate to the proposed hedgerow along the eastern boundary of the development within rear gardens adjacent to the Caravan Park and the native planting along the New Dover Road and along the Bridleway to the west of the proposed housing.

General

6.2.2 The hedgerow to the eastern boundary is to be maintained by property owners. It is advised that hedge clipping operations should be carried out in January or early February. It is important that clipping is not undertaken during the bird nesting season, from March through to July. Following completion of the 5 year maintenance period, cut top and side of hedge to 2m height and width. Repeat every 2 years cutting the sides alternately.

6.2.3 Hedgerows located adjacent to public highways, pedestrian paths/cycle paths and public rights of way to the north and west of the site should be trimmed back so as not to cause an obstruction or danger to users.

6.2.4 All planting areas shall be maintained weed free. Plants to be firmed twice in the planting season as required and guards, stakes and ties checked and adjusted as required.

6.2.5 Any dead, dying or diseased plants shall be removed and replaced in the next planting season with equivalent species. In the case of contagious diseases alternative species shall be provided.

6.2.6

6.3 Maintenance Operations to existing woodland/mature scrub

Where

6.3.1 These operations relate to retained woodland and mature scrub along the western and eastern boundaries of the open space. A narrow corridor of wooded vegetation would be retained along the length of the bridleway.

General

6.3.2 No maintenance works are proposed to the woodland area and wooded corridor along the western site boundary, with the exception of removal of any remaining shrub shelters.

6.3.3 Pruning and other trimming operations along the bridleway to the western boundary is required to ensure that vegetation does not cause an obstruction or danger to users. In the event that works need to take place during the bird nesting season (March-August inclusive), advice should first be sought from an Ecologist.

6.3.4 No maintenance works are currently proposed to the retained mature scrub along the extreme eastern site boundary of the open space. Longer term (years 10-20 and onwards), a long rotation coppice scheme may be implemented here.

6.4 Maintenance Operations to existing scrub areas

Where

6.4.1 These operations relate to retained scrub close to the eastern boundary of the open space set back from the planting on the boundary (see Figure 05).

General

6.4.2 The area of retained scrub within the Site (parallel to the scrub on the extreme eastern boundary) shall be maintained on a rotational basis as coppice with the clearance of 50% of the area at a time

6.4.3 The management regime proposed for areas of new and existing scrub habitats is a rotational coppice programme, designed to ensure that this vegetation does not develop into woodland, nor encroach into chalk grassland. A maximum of 50 % of the area shall be coppiced to ground level in January-February and then repeat with the remainder after a further 5 years have elapsed so that all scrub is coppiced on rotation once every 10 years or to maintain an area of dense scrub up to a maximum of 3m in height.

6.4.4 Coppicing should be carried out so that small sections are coppiced alternately, in order to ensure that vegetation cover is not removed in a wholesale fashion.

6.5 Maintenance Operations to amenity /verge grassland

Where

6.5.1 These operations relate to amenity grassland along the frontage with the New Dover Road, and within the housing development.

General

6.5.2 All verge mix grassland, including the road verges shall be maintained between 25-50mm in height. Bare areas shall be reseeded in April to May or September to October.

6.6 Maintenance Operations to Ornamental shrub areas

Where

6.6.1 These operations relate to ornamental shrubs in communal areas within the housing development. Ornamental planting within private curtilages will be the responsibility of the householder.

General

All ornamental shrub beds are to be maintained weed free. Shrubs are to be pruned where they overhang footpaths or roads. Any dead, dying or diseased plants shall be removed and replaced in the next planting season with equivalent species. In the case of contagious diseases alternative species shall be provided.

6.7 Maintenance Operations to Chalk grassland areas

Where

6.7.1 These operations relate to existing, restored and new chalk grassland in the open space.

General

6.7.2 The chalk grassland is to be mown annually, in late July of each year. The final cut height should be less than 50mm.

6.7.3 Mowing may only be undertaken on a warm, dry, sunny day and when the air temperature is in excess of 15°C to avoid mortality to reptiles. Cutting must be staged so as to minimise impact upon reptiles (a legally protected species), firstly to an average height of 100mm. Rake off arisings. Second cut after 48hrs, to a maximum height of 50mm. Remove all cuttings. Mowing may only be undertaken on a warm, dry, sunny day and when the air temperature is in excess of 15°C to avoid mortality to reptiles. The direction of cut should always be from the west towards the east so that displaced reptiles can take refuge in retained scrub.

6.7.4 All arisings must be raked off or baled and removed to a composting facility.

6.8 Maintenance Operations to Rough grassland areas

Where

6.8.1 These operations relate to new rough grassland in the open space adjacent to the retained woodland.

General

6.8.2 This area of rough grassland habitat shall be mown along with the chalk grassland.

6.9 Alien species

6.9.1 Invasive alien species occurring in the site should be managed as they occur, using appropriate control techniques.

7 Monitoring

7.1 Inspections

7.1.1 An Annual Review inspection should be undertaken by appropriately qualified persons within the Adopting Organisation in mid July of each year for the duration of the Management Plan. A report of the inspection should highlight any remedial works that may be required or other such factors/issues that may need addressing in order to deliver the management strategies detailed within this Management Plan to a satisfactory standard.

7.1.2 The inspection should consider the condition of grass areas, soil structure, trees and planted areas to ensure that they meet minimum ecological standards, as specified below, and are in a safe and sustainable condition. The inspection should itemise any remedial works required, as well as detailing measures required to ensure the continued health and improvement of wildlife habitats.

7.1.3 The site inspection should be undertaken so as to ascertain whether the management regimes are attaining adequately the aims and objectives of the ecological aspects of the scheme. Management schedules should be updated to record the outcome of inspections and recommended actions.

7.1.4 For the initial 5 year period following planting/seeding, the inspection and review shall also address issues of general horticultural husbandry such as requirement for re-seeding, the removal of stakes and ties, and other such issues that are important in sustaining vegetation within the site.

7.2 Specified limits

7.2.1 Specified limits have been developed for all semi-natural habitats, amenity grassland and planted trees and shrubs. The Annual Review inspection should include an evaluation of the site habitats against the specified limits set out below:

Habitat Objective	Specified limits
To safeguard and enhance the amenity grassland	This habitat should be mown 12 times per annum between March and October inclusive. The target cut height is 30mm and the maximum acceptable cut height is 40mm. Scrub invasion of this habitat is not acceptable. Verges to be maintained clear of litter etc.
To safeguard and enhance the chalk grassland habitat (Meadow Seed Mix 1)	These communities should mown annually on rotation, with a maximum acceptable sward height following cutting of 50mm. Cut material should be removed from site. Scrub invasion of these areas should not exceed 5% before clearance takes place. Grassland areas to be maintained clear of litter etc. Mowing may only be undertaken on a warm, dry, sunny day and when the air temperature is in excess of 15ºC to avoid mortality to reptiles. The direction of cut should always be from the north and west towards the east and south.

To enhance the Hedgerow habitat (Hedge Mix 1)	Hedges should be managed to a final maximum height of 2m. Hedgerow maintenance must not be undertaken during the bird nesting season (March to July inclusive). Hedgerows located adjacent to public highways or pedestrian paths/cycle paths should be trimmed back so as not to cause an obstruction or danger to users. Management as per planting schedules. Habitat to be maintained clear of litter etc.
To safeguard and enhance the deciduous/mixed woodland habitats (Woodland Mixes 1-2, previously existing woodland)	Woodland areas should be maintained at the extent which results from implementation of the Landscape Plan. Self-sown non-native (alien) species should be removed as they occur. Habitat to be maintained clear of litter etc.
To safeguard and enhance the scrub communities (previously existing scrub)	These communities should be retained at the extent maintained at the extent which results from completion of the proposed planting (Figure 06). Management to specific scrub types by coppicing 50% of scrub habitat every 5 years. Coppicing should be carried out so that small sections are coppiced alternately, in order to ensure that vegetation cover is not removed in a wholesale fashion. Habitat to be maintained clear of litter etc.
To maintain in healthy condition and good form ornamental trees and shrubs	Cut back overhanging braches and shrubs from footpaths and roads to prevent obstructions. Replace dead specimen trees and/or replant beds when over mature.

7.3 Review of Management Plan

7.3.1 The Management Plan will be reviewed and updated as necessary (at least annually) by the Adopting Organisation and any necessary remedial measures identified; for example, to take account of new protected species or nuisance species found to have colonised the road corridor or its vicinity.

7.3.2 Dover District Council must be advised of, and agree in writing to, any proposed changes to this Management Plan which take place during the period that the management plan is in effect.

8 Management Schedule

New Dover Road Capel-le-Ferne
10 Year Maintenance Programme

Item/Area	Action	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Woodland and scrub clearance	Clear trees and scrub in accordance with prescription in Management Plan in late summer 2015										
Bird/Bat boxes	Erect bird and bat boxes on mature retained trees as early as possible in Year 1										
Reptile hibernacula	Create a minimum of 3 reptile hibernacula using cut wood in areas as indicated on site by the Ecologist										
Reptile exclusion mowing	Reptile exclusion mowing in accordance with prescription in Management Plan in late summer 2015, immediately following woodland and scrub clearance										
Reptile fence	Erect reptile fence in accordance with prescription in Management Plan in late summer 2015, immediately following woodland and scrub clearance (remove following completion of all construction works)										
Soil Strip	Strip soils in accordance with prescription in Management Plan in autumn 2015										
Seeding and planting	Seeding and planting would be undertaken in spring of the first growing season following clearance, i.e. early spring 2016										
Existing chalk grassland and managed rough grassland	YEAR 4 onwards: Annual cut late July with reciprocating mower/power scythe. All arisings raked off and removed from site.										
Seeded chalk grassland	YEAR 3 onwards: Annual cut late July with reciprocating mower/power scythe. All arisings raked off and removed from site.										
Mowing general	Mowing to be undertaken with air temperature above 12°C and working from southwest of the site to northeast.										
Amenity grassland	Mowing to be carried out 12 times per year, between March and October. Arisings to be removed from site.										
Retained scrub	Coppice 50% on 10 year rotation (Nov-Jan) to create scalloped margin, create and retain nesting and foraging value for birds.			50%				50%			
Bridleway hedgerows	Annual trim of overhanging and encroaching branches along bridleway.										
Path margins	3 No. cuts per year using collecting mower. Arisings removed from site.										
Bird and bat boxes	Inspection and cleaning of bird and bat boxes. Replace where necessary.										
Annual inspection visit	Undertake annual inspection visit to all planted & seeded areas, prepare Inspection Report & submit to Adopting organisation. Update Management Plan as required & agree any changes with LPA.										

Management Schedule is to be read in conjunction with Landscape Management Plan, Planting Schedules & Figures

Appendices

Landscape Planting Schedules
Mixes for natural/wildlife areas

Grass mixes

Amenity Mix 1

Type/Source:	Native seed mixture, as supplied by Emorsgate or similar.
Location/area of use:	For use throughout open space for verge seeding
Sowing rate:	25g/m^2 or 250kg/ha
Time of sowing:	October-April
Establishment cut:	First cut: when 75% of bare ground is vegetated
Long-term management:	Cut 12x annually between March and October inclusive to maintain a range of 25-50mm.

Meadow Seed Mix 1

Type/Source:	Native chalk grassland seed mixture, as supplied by Wild Flower Lawns and Meadows (https://www.wildflowerlawnsandmeadows.com/).Alternatives are not acceptable.
Location/area of use:	For use throughout open space on bare soil areas away from woodland
Sowing rate:	4g/m^2 or 40kg/ha
Time of sowing:	October-April
Establishment cut:	First cut: July, 3rd growing season after seeding
Long-term management:	Cut annually in late July, firstly to an average height of 100mm. Rake off arisings. Second cut after 48hrs, to an average height of 50mm. Remove all cuttings.

Individual shrubs

Shrubs

Location/area of use:	Shrub planting within grassland areas		
Planting density:	varies by species, as noted below		
Long-term management:	50% of scrub habitat to be managed by coppicing every 5 years.		
Crataegus monogyna	hawthorn	2L container grown	30-40cm height Density: 1m centres

Hedge Mix 1

Location/area of use:	native hedgerow for new garden boundary hedging (eastern margin) and along bridleway		
Planting density:	plant as double staggered row, evenly distribute 5Nr plants/lin.m, 250mm between rows		
Long-term management:	after 5 years, cut top and one side of hedge to 2m height. Repeat every 2 years.[1]		
100% *Crataegus monogyna*	hawthorn	bareroot	1+1 transplant, 40-60cm height

[1] ADVISORY – management of planted hedge becomes responsibility of land landowner

Hedge Mix 2

Location/area of use: Native planting to New Dover Road

Planting density: plant at 1 metre centres

Long-term management: after 5 years, cut top and one side of hedge to 2m height. Repeat every 2 years.[2]

25%	Acer campestre	*field maple*	bareroot	1+1 transplant, 40-60cm height
25%	Corylus avellana	hazel	bareroot	1+1 transplant, 40-60cm height
25%	*Crataegus monogyna*	hawthorn	bareroot	1+1 transplant, 40-60cm height
25%	Ligustrum vulgare	privet	bareroot	1+1 transplant, 40-60cm height

Standard trees

Location/area of use: as Figure 06 Planting Plan

Planting density: as Figure 06 Planting Plan

Long-term management: as specified in Management Plan

Acer campestre	Field maple	5L CG	2-2.5m height
Acer campestre 'Streetwise'	Field maple	40 CG	16-18 cm girth
Betula pendula	Silver birch	40 CG	16-18 cm girth
Betula utilis	Himalayan birch	5L CG	2-2.5m height
Carpinus betulus	Hornbeam	40 CG	16-18 cm girth
Corylus avellana	Hazel	5L CG	2-2.5m height
Quercus robur	Oak	5L CG	2-2.5m height
Prunus avium	Wild cherry	5L CG	2-2.5m height
Sorbus aria	Whitebeam	40 CG	16-18 cm girth
Sorbus torminalis	Wild Service tree	5L CG	2-2.5m height

Woodland Mix 1

Location/area of use: Dry woodland shrubby understory mix (western margin) -for infilling larger gaps

Planting density: evenly distribute at 1.5m centres

Management: none required

40%	*Ilex aquifolium*	holly	3L CG	40-60cm height, bushy form
20%	*Buxus sempervirens*	box	3L CG	20-40cm height, bushy form
10%	*Daphne laureola*	spurge-laurel	3L CG	20-40cm height, bushy form
10%	*Daphne mezereum*	mezereon	3L CG	20-40cm height, bushy form
10%	*Viburnum opulus*	guelder rose	3L CG	40-60cm height, bushy form
10%	*Hypericum androsaemum*	tutsan	3L CG	40-60cm height, bushy form

Woodland Mix 2

Location/area of use: Dry woodland herbaceous flora mix (western margin)

Planting density: evenly distribute at 1.0m centres

Management: none required

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[2] ADVISORY – management of planted hedge becomes responsibility of land landowner

30%	*Phyllitis scolopendrium*	hart's-tongue fern	1L CG
30%	*Dryopteris felix-mas*	male fern	1L CG
20%	*Dryopteris dilatata*	broad buckler-fern	1L CG
20%	*Iris foetidissima*	stinking iris	1L CG

Schedule of bird and bat boxes

Enhancement Type	Target species	Specification	Location	No.
Bird Boxes				
	'Small bird'	Schwegler 1B 26mm	Retained trees, min 2.5m above ground level	6
	'Small bird'	Schwegler 1B 32mm	Retained trees, min 2.5m above ground level	6
	Starling	Schwegler 3SV	Retained tree, min 3m above ground level	2
	Robin/Small Bird	Schwegler 2H	Retained scrub min 1.5m above ground level	6
Bat Boxes				
	Pipistrelle/BLE	Schwegler 2F	Retained tree, min 4m above ground level	6

Boxes available from www.alanaecology.com/index.html or other approved

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The Landscape Partnership

Relevant legislation and policy

Legislation, regulations and policies specific to ecology which underpin the management plan are relevant at an International, National, Regional and/or Local level. References to legislation are given a summary for information only and should not be construed as legal advice.

Birds Directive

The European Community Council Directive on the Conservation of Wild Birds (79/409/EEC), normally known as the Birds Directive, sets out general rules for the conservation of all naturally occurring wild birds, their nests, eggs and habitats. It was superseded by the 'new' Birds Directive (2009/147/EC) which generally updated the previous directive.

These requirements are interpreted into English law by the Wildlife and Countryside Act 1981 (as amended) with regard to protection of birds, and the Conservation of Habitats and Species Regulations 2010 with regard to the registration and regulation of Special Protection Areas.

Habitats Directive

The European Community Council Directive on the Conservation of Natural Habitats of Wild Fauna and Flora (92/43/EEC), normally known as the Habitats Directive, aims to protect the European Union's biodiversity. It requires member states to provide strict protection for specified flora and fauna (i.e. European Protected Species) and the registration and regulation of Special Areas of Conservation.

These requirements are interpreted into English law by the Conservation of Habitats and Species Regulations 2010 with regard to European Protected Species and the registration and regulation of Special Areas of Conservation.

Conservation of Habitats and Species Regulations 2010

The Conservation of Habitats and Species Regulations 2010 interpret the Birds Directive and Habitats Directive into English and Welsh law. For clarity, the following paragraphs consider the case in England only, with Natural England given as the appropriate nature conservation body. In Wales, the Countryside Council for Wales is the appropriate nature conservation body.

Special Protection Areas and Special Areas of Conservation are defined in the regulations as a 'European site'. The Regulations regulate the management of land within European sites, requiring land managers to have the consent of Natural England before carrying out management. Byelaws may also be made to prevent damaging activities and if necessary land can be compulsorily purchased to achieve satisfactory management.

The Regulations define competent authorities as public bodies or statutory undertakers to make an appropriate assessment of any plan or project they intend to permit or carry out, if the plan or project is likely to have a significant effect upon a European site. The permission may only be given if the plan or project is ascertained to have no adverse effect upon the integrity of the European site. If the competent authority wishes to permit a plan or project despite a negative assessment, no alternatives and imperative reasons of over-riding public interest must be demonstrated, and there is a process involving the Secretary of State and the option of consulting the European Commission. In practice, there will be very few cases where a plan or project is permitted despite a negative assessment. This means that a planning application has to be assessed by the Local Planning Authority, based on information provided by the applicant, and the assessment must either decide that it is likely to have no significant effect on a European site or ascertain that there is no adverse effect upon the integrity of the European site.

The Regulations also are applicable to Land use plans, including Local Plans. If the plan is likely to have a significant effect upon a European site, the permission may only be given if the plan is ascertained to have no adverse effect upon the integrity of the European site. This approach gives rise to a hierarchy of plans each with related appropriate assessments.

European Protected Species of animals are given protection from deliberate capture, injuring, killing, disturbance or egg taking / capturing. Their breeding sites or resting places are also protected from damage or destruction, which does not have to be deliberate. A number of species are listed as European Protected Species, with those most likely to be involved in planning applications being bats, dormouse, great crested newt and otter. Natural England may give a licence for actions that are otherwise illegal, subject to them being satisfied on the three tests of no alternatives, over-riding public interest, and maintenance of the species in favourable condition.

European Protected Species of plant are also listed and given protection. These species are generally very rare and unlikely to be present in proposed development sites.

Wildlife and Countryside Act 1981

The Wildlife and Countryside Act 1981 has been amended many times, including by the Countryside and Rights of Ways Act 2000. It contains provisions for the notification and regulation of Sites of Special Scientific Interest, and for protected species.

The Regulations regulate the management of land within Sites of Special Scientific Interest, requiring land managers to have the consent of Natural England before carrying out management.

All public bodies are defined as 'S28G' bodies, which have a duty to further the nature conservation of Sites of Special Scientific Interest in the undertaking of their functions. In practice, this prevents planning applications being permitted if they would harm a Sites of Special Scientific Interest as it would be a breach of that duty.

The Act makes it an offence to intentionally kill, injure, or take any wild bird, take, damage or destroy the nest of any wild bird while that nest is in use or being built, or take or destroy an egg of any wild bird. Special penalties are available for offences related to birds listed on Schedule 1, for which there are additional offences of disturbing these birds at their nests, or their dependent young.

The Act makes it an offence to intentionally kill, injure or take any wild animal listed on Schedule 5, and prohibits interference with places used for shelter or protection, or intentionally disturbing animals occupying such places. It is also an offence to intentionally pick, uproot or destroy any wild plant listed in Schedule 8.

National Planning Policy Framework

The National Planning Policy Framework dated March 2012 (NPPF) replaces previous Government Policy in relation to nature conservation and planning, which was set out in Planning Policy Statement 9. Paragraph 109 of the NPPF says that the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible.

Paragraph 113 describes policy for designated sites, where Local planning authorities should set criteria based policies against which proposals for any development on or affecting protected wildlife or geodiversity sites or landscape areas will be judged. Further policy is within paragraph 118, where local planning authorities should aim to conserve and enhance biodiversity when determining planning applications by applying the following principles:

- if significant harm 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;
- opportunities to incorporate biodiversity in and around developments should be encouraged;
- planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss.

Government circular 'Biodiversity And Geological Conservation – Statutory Obligations and their Impact Within the Planning System' referenced ODPM 06/2005 and Defra 01/2005 has not been replaced and remains valid. It sets out the legislation regarding designated and undesignated sites and protected species, and describes how the planning system should take account of that legislation. It does however pre-date the NERC Act 2006 (see below) which includes a level of protection for a further list of habitats and species regardless of whether they are on designated sites or elsewhere.

Natural Environment and Rural Communities (NERC) Act 2006

This Act includes a list of habitats and species of principal importance in England. Local Authorities are required to consider the needs of these habitats and species when making decisions such as on planning application.

Planning policy

The Local Plan of the Local Planning Authority contains policies which relate to the protection of ecological features.

Figures