

ECOLOGICAL IMPACT ASSESSMENT

Land adjacent to Paddock Grange, Homestead Road, Medstead

On Behalf of: HF Architecture Ltd.

Planning Issue

Client:	HF Architecture Ltd.			
Project:	Land adjacent to Paddock Grange, Homestead Road, Medstead			
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Validity:

This report is valid for 18 months from the date of the site visit. If works have not commenced by this date, an updated site visit should be carried out by a suitably qualified ecologist to assess any changes in the habitats present on site, and to inform a review of the conclusions and recommendations made.



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SUMMARY

Lizard Landscape Design and Ecology has been commissioned by HF Architecture Ltd. to undertake an Ecological Impact Assessment of the proposed development of Land adjacent to Paddock Grange, Homestead Road, Medstead (*Grid Reference: SU 6519 3633 – hereafter referred to as 'the site'*). An initial habitat appraisal survey was undertaken on 3rd November 2023 to evaluate the ecological resources of the site, to highlight any potential ecological constraints and opportunities to inform scheme design, and to identify the need for further assessment prior to application. A full EcIA has been compiled to assess the scale of any impacts to important ecological features, and to set out any avoidance, mitigation or compensation measures necessary to ensure proposals meet local and national policy legislation.

The site covers c. 0.3 hectares (ha) and is located to the south of Homestead Road between a line of residential dwellings. The site is formed of 2no. buildings, a native hedgerow, non-native hedgerows, line of trees, scrub and artificial unvegetated unsealed surface with ruderal vegetation. The site is long and narrow in form, it is located between Paddock Grange to the west and Little Barn to the east. Access to the site is along Homestead Road, which is to the north of the site.

The site is located within a nutrient neutrality zone whereby any increase in overnight accommodation has the potential to increase water discharge into the river Itchen SAC, which could in turn result in a reduction in water quality, detrimental to the conservation features of the SAC. A nutrient neutrality assessment will be undertaken, and mitigation in the form of the purchase of nutrient credits shall ensure the scheme does not result in any increase in nutrient discharge into surrounding protected sites.

The site offers some suitable habitat for amphibians, reptiles, bats, badgers / small terrestrial mammals, birds and invertebrates. Avoidance and mitigation measures are built into the design in accordance with the mitigation hierarchy (CIEEM, 2018) (BSI, 2013), including some limited Reasonable Avoidance Measures, and will be adhered to.

Once avoidance, mitigation and compensation measures have been taken into account, the impacts of the planned development upon biodiversity will be **negligible and non-significant** with proposed ecological enhancements resulting in a Biodiversity Net Gain.

1.0 INTRODUCTION

- 1.1 Lizard Landscape Design and Ecology has been commissioned by HF Architecture Ltd. to undertake an Ecological Impact Assessment of the proposed development of Land adjacent to Paddock Grange, Homestead Road, Medstead (Grid Reference: SU 6519 3633– hereafter referred to as 'the site').
- 1.2 The scope of this assessment has been determined with consideration of best-practice guidance provided by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2018) and the Biodiversity: Code of practice for planning and development published by the British Standards Institute (BS 42020:2013) (BSI, 2013).

Site Information

- 1.3 The site covers c. 0.3 hectares (ha) and is located to the south of Homestead Road between a line of residential dwellings. The village of Medstead is c. 600m (metres) north-east of the site. The site is formed of 2no. buildings, a native hedgerow, non-native hedgerows, a line of trees and artificial unvegetated unsealed surface with ruderal vegetation. The site is long and narrow in form, it is located between Paddock Grange to the west and Little Barn to the east. Access to the site is along Homestead Road, which is to the north of the site.
- 1.4 At the time of the survey, the site had been largely cleared of vegetation and as a result, much of the site was covered with chippings with limited ruderal vegetation growing through.

Surrounding Landscape

1.5 The surrounding landscape is rural, dominated by arable fields and grazing land interspersed with tree lines, hedgerows, and pockets of woodland. The nearest town is Alton, which is located c. 6km northeast of the site.

Development Proposals

1.6 It is understood that proposals include the demolition of the former onsite buildings, and the construction of a new residential dwelling to be located in the northern section on the site. The existing access is to be retained.

Report Aims

- 1.7 The aim of the baseline surveys and Ecological Impact Assessment has been:
 - · Describe baseline conditions at the site;
 - Determine the importance of features which may be impacted by the scheme;
 - Identify impacts of the proposed development and set out appropriate avoidance, mitigation and compensation measures;
 - To identify any residual impacts;
 - To provide details of enhancements to be incorporated into the scheme;
 - Provide sufficient information to determine whether the project accords with relevant nature conservation policies and legislation, and where appropriate, to allow conditions or obligations to be proposed by the relevant authority.

2.0 PLANNING POLICY AND LEGISLATION

Legislation

- 2.1 Legislation relating to wildlife and biodiversity of particular relevance to this EcIA includes:
 - The Conservation of Habitats and Species Regulations 2017;
 - The Wildlife and Countryside Act 1981 (as amended);
 - The Natural Environment and Rural Communities (NERC) Act 2006; and
 - The Environment Act 2021
- 2.2 This above legislation has been addressed, as appropriate, in the production of this report.

National Planning Policy

- 2.3 The National Planning Policy Framework (NPPF) 2021 sets out the government planning policies for England and how they should be applied. 'Chapter 15:

 Conserving and Enhancing the Natural Environment' states that development should be 'minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.'
- 2.4 The Government Circular 06/2005, which is referred to by the NPPF, provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system.

Local Planning Policy

- 2.5 East Hampshire District Local Plan: Joint Core Strategy Adopted June 2014 relevant policies include:
 - CP21 Biodiversity: Development proposals must maintain, enhance and protect the district's biodiversity and its surrounding environment. New development will be required to:
 - a) maintain, enhance and protect district wide biodiversity, in particular the nature conservation designations.

- b) extend specific protection to, and encourage enhancement of, other sites and features which are of local value for wildlife, for example important trees, rivers, river corridors and hedgerows, but which are not included in designated sites.
- c) contribute towards maintaining a district—wide network of local wildlife sites, wildlife corridors and stepping stones between designated sites and other areas of biodiversity value or natural green space. This will help to prevent the fragmentation of existing habitats and allow species to respond to the impacts of climate change by making provision for habitat adaptation and species migration. This is supported by Policy CP28 (Green Infrastructure) and the District's Green Infrastructure work.
- d) ensure wildlife enhancements are incorporated into the design to achieve a net gain in biodiversity by designing in wildlife and by ensuring that any adverse impacts are avoided where possible or, if unavoidable, they are appropriately mitigated for, with compensatory measures only used as a last resort.
- e) protect and, where appropriate, strengthen populations of protected species.
- f) protect and enhance open spaces in accordance with the District's
 "Open Space, Sports and Built Facilities Study", Policy CP17 (Protection of
 open space, sport & recreation) and Policy CP28 (Green Infrastructure).
 The provision of open space should be in advance of the relevant new
 developments being occupied.
- CP22 Internationally Designated Sites: Any new housing that is proposed to be located within 400m of the boundary of the Wealden Heaths Phase II SPA will be required to undertake a project-specific Habitats Regulations Assessment (HRA). This must form a part of the planning application process to demonstrate that either no adverse effect on the ecological integrity of the SPA will occur or that adequate measures will be put in place to avoid or (as a secondary solution) adequately mitigate any adverse effects. Such measures must be agreed with Natural England and the planning authority. In order to undertake such an assessment, it is likely that information on the distribution of birds for which the SPA is designated would be required.

To help protect the Solent SPA, SAC and Ramsar sites along the coast, the Council will work with local authorities to monitor the progress of ongoing assessments and recreational management studies being undertaken by the Solent Forum on these sites. Planning permission will only be granted for development that responds to the emerging evidence from the Solent Disturbance and Mitigation Project, the published recommendations, and future related research.

3.0 METHODOLOGY

3.1 Desk Study

- 3.1.1 The Multi-Agency Geographical Information Centre (MAGIC) was consulted for information regarding priority habitats, statutory designated sites and permitted European Protected Species Mitigation Licences (EPSML's) within a potential zone of influence of the development site. The following potential zones of influence have been used when identifying designated sites in the local area: Local Nature Reserves (LNRs), National Nature Reserves (NNRs) and Sites of Special Scientific Interest (SSSIs) were searched for within a 2.0km radius of the site, and internationally designated sites including Special Protection Areas (SPAs) and Special Areas of Conservation (SACs), within a 10km radius of the site. Where SACs designated for their bat interest exist in the local area, the Zol was extended to 12km in accordance with recent guidance (SDNP, 2020).
- 3.1.2 MAGIC was used to provide information on all Priority Habitats within a 2.0km radius of the site, and all records of granted European Protected Species Mitigation licences within a 1.0km radius of the site.
- 3.1.3 Protected and notable species data within 1.0km of the site was provided by Hampshire Biodiversity Information Centre (HBIC) on the 1st November 2023.
- 3.1.4 The site was subject to a Preliminary Ecological Appraisal (PEA) survey by Jonathan Taylor (Hons) MCIEEM on 30th May 2019 (Senior Ecologist at J Taylor Ecology Consulting). This report was reviewed and used to inform important background information in relation to the ecological history of the site and has been referenced herein.
- 3.1.5 In accordance with Natural England's GCN Mitigation Guidelines (English Nature, 2001) a desktop search was undertaken to identify ponds within 500m and 250m of the site, which may have the potential to support breeding great crested newts (GCN) *Triturus cristatus*, using Ordnance Survey mapping, the MAGIC database and aerial photography.

3.2 Daytime Bat Walkover

- 3.2.1 A Daytime Bat Walkover (DBW) was undertaken on 3rd November 2023 by a Suitably Qualified Ecologist (Hayley Swann, PgCert, 2 years professional experience, accredited agent under 2016-20460-CLS-CLS) in line with existing best practice guidance (Collins, 2023). Weather conditions were mild (c. 16°C), with a mild south-westerly wind (Beaufort Scale 1) with up to 40% cloud cover.
- 3.2.2 The DBW survey entailed a slow walkover of the site, during which time the surveyor identified any structures, trees and other features that could be suitable for bats to roost in, and any habitats which could be suitable for bats to commute, forage or swarm in.
- 3.2.3 During this survey any direct evidence of bats was searched for and recorded, such as grease marks, urine stains, bat droppings, feeding remains and dead / live bats. Furthermore, trees which offered features with the potential to support bats were noted. This included the identification of features such as, but not limited to, cracks, crevices and holes naturally formed by trees. For structures this included the identification of features such as, but not limited to, slipped, missing or uneven tiles, gaps around the soffit / barge board, raised flashing.

3.3 Field Survey

- 3.3.1 The field survey comprised a walkover inspection of the site and immediately adjacent land and boundaries features, in which ecological features were noted and mapped in accordance with principles of the UKHabs-Professional Classification System (UKHabs Ltd., 2023). A minimum mapping unit of 25m2 was used and habitats were identified to at least level 4 wherever practicable.
- 3.3.2 A list of plant species noted was compiled, together with an estimate of relative abundance made according to the DAFOR scale (Table No. 07). In addition, Target Notes (Table No. 08) were used to provide supplementary information on any features encountered which were notable, relevant to the assessment or too small to map.

3.4 Preliminary Bat Roost Assessment

3.4.1 All suitable bat habitat was assessed in accordance best practice criteria (Collins, 2023), which is outlined herein. During the survey all trees within and immediately adjacent to the site were assessed using the following criteria:

Table No. 01 - Criteria for Assessing the Bat Roosting Suitability of Trees

Suitability	Description	
None	Either no potential roosting features in the tree, or highly unlikely	
	to be any.	
FAR	Further assessment required to establish if potential roosting	
	features are present in the tree.	
PRF	A tree with at least one potential roosting feature present.	

3.4.2 Furthermore, all structures were assessed externally, and internally wherever possible for their potential to support bats, using the following criteria:

Table No. 02 - Criteria for Assessing the Bat Roosting Suitability of Structures

Potential	Description		
Suitability			
None	No habitat features on site likely to be used by any roosting bats at		
	any time of year.		
Negligible	No obvious habitat features on site likely to be used by roosting bats.		
	However, some small uncertainty remains, as bats can use small and		
	apparently unsuitable features occasionally.		
Low	A structure with one or more potential roost sites that could be used		
	by individual bats opportunistically at any time of year. However,		
	these do not provide enough shelter, space, protection, appropriate		
	conditions or suitable surrounding habitat to be used on a regular		
	basis or by larger numbers of bats.		
Moderate	A structure with one of more potential roost sites that could be used		
	by bats due to their size, shelter, protection, conditions and		
	surrounding habitat, but unlikely to support a roost of high		
	conservation status, irrespective of species conservation status.		
High	A structure with one or more potential roost sites that are obviously		
	suitable for use by larger numbers of bats on a more regular basis		
	and potentially for longer periods of time due to their size, shelter,		
	protection, conditions and surrounding habitat, with the potential to		
	support high conservation status roosts irrespective of species		
	conservation status.		
Confirmed	Direct evidence of bats identified.		

3.4.3 Finally, an assessment of the winter hibernation potential of the structures was made, in accordance with the following criteria:

Table No. 03 - Criteria for Assessing the Winter Bat Roosting Suitability of Structures and Trees

Potential	Description
Suitability	
Low	No or very limited potential winter roosting habitat
Moderate	Non classic site
High	'Classic sites', which offer stable humidity and consistent
	temperatures throughout the winter period, such as underground
	sites, cellars, tunnels etc.

3.5 Badger Walkover Survey

- 3.5.1 The initial field survey was undertaken on 3rd November 2023 by an experienced ecologist. The survey area covered the red line boundary of the site, and all land within a 30m radius (where access was available).
- 3.5.2 The survey area was systematically searched for any evidence of badger in line with current guidance (Harris et al, 1998) such as:
 - Setts.
 - · Latrines.
 - · Snuffle Holes.
 - · 'Push-unders' through boundary fencing.
 - Hair caught on fencing or sett entrances.
 - Prints left in mud or sand.
 - Mammal tracks.

3.6 Ecological Impact Assessment

3.6.1 The methodology for Ecological Impact Assessment (EcIA) follows best practice guidelines set by the Chartered Institute of Ecology & Environmental Management (CIEEM): 'Guidelines for Ecological Impact Assessment' (CIEEM, 2018). This includes identifying the baseline conditions on the site and subsequently rating the potential effects of the development based on the sensitivity and value of the resource affected, combined with the magnitude, duration and scale of the impact (or change). This is initially assessed without mitigation measures, and then assessed again after allowing for the proposed mitigation measures; this provides the residual effects. The assessment is divided into construction effects and longer-term operational effects.

- 3.6.2 The CIEEM guidelines (2018) state that ecological features should be considered within a 'defined geographical context'. The geographical frame of reference used to determine ecological importance in this assessment is detailed below:
 - International and European;
 - National;
 - · Regional;
 - County;
 - District;
 - Local;
 - Site Level;
 - Negligible.
- 3.6.3 Based upon CIEEM guidance, value was determined with reference to the following factors:
 - Its inclusion as a Designated Site or other protected area;
 - The presence of habitat types of conservation significance, e.g. Habitats of Principal Importance (NERC 2006);
 - The presence (or potential presence) of species of conservation significance e.g. Species of Principal Importance (NERC 2006);
 - The presence of other protected species e.g. those protected under The Wildlife and Countryside Act 1981;
 - The sites social and economic value.
- 3.6.4 The ecological impacts resulting from the proposals were then described according to a defined set of characteristics as defined within 'Guidelines for Ecological Impact Assessment in the UK and Ireland' (CIEEM, 2018). When describing impacts the assessment refers to characteristics such as the extent; magnitude; duration; frequency; and, reversibility of the impact in order to provide justification for any conclusions about the nature and likelihood of the impact described.

3.6.5 Where initial impacts have been identified as significant, avoidance, mitigation and compensation measures have been proposed to avoid, prevent or offset such effects. This assessment then considers residual impacts (once all mitigation has been taken into account), with any significant effects highlighted. A significant effect is defined as "an effect which either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general'. Enhancement has been proposed to ensure that the development represents a net gain in biodiversity in accordance with National Policy.

3.7 Constraints and Limitations

- 3.7.1 Due to the field survey consisting of only one site visit, certain species, particularly some of the flowering plants, may not have been visible and hence overlooked. These are accepted constraints associated with the standard Survey Methodology.
- 3.7.2 No other limitations were encountered, or assumptions made during either the desk study or the field survey and it is considered that with the access gained and recording undertaken an accurate assessment of the site's ecological value has been made.

4.0 BASELINE ECOLOGICAL CONDITIONS

4.1 Designated Sites

Statutory Protected Sites

4.1.1 The following statutory protected sites were noted within the potential zone of influence of the proposed site:

Table No. 04 - Statutory Protected Sites

Site	Description – Internationally Important Sites	Location
River Itchen	The site is designated under article 4(4) of the	c. 7.1km SW
SAC	Directive (92/43/EEC) as it hosts the following	
	habitats listed in Annex I:	
	Water courses of plain to montane level with	
	Ranunculion fluitantis and Callitricho-Batrachion	
	vegetation	
	Annex II species that are a primary reason for	
	selection of this site include:	
	Southern damselfly Coenagrion mercurial	
	Bullhead Cottus gobio	
	Annex II species present as a qualifying feature,	
	but not a primary reason for site selection include:	
	White-clawed crayfish Austropotamobius	
	pallipes	
	Brook lamprey Lampetra planeri	
	Atlantic salmon Salmo salar	
	Otter Lutra lutra	
East	The site is designated under article 4(4) of the	c. 8.3km S
Hampshire	Directive (92/43/EEC) as it hosts the following	and SE
Hangers SAC	habitats listed in Annex I:	
	Asperulo-Fagetum beech forest	
	Tilio-Acerion forests of slopes, screens and	
	ravines	
	Annex I habitats present as a qualifying feature,	
	but not a primary reason for selection of this site	
	include:	
	Semi-natural dry grasslands scrubland facies on	
	calcareous substrates	
	Taxus baccata woods of the British Isles	
	Annex II species present as a qualifying feature,	
	but not a primary reason for site selection include:	
	Early gentian Gentianella Anglica	

- 4.1.2 The site is located within the Impact Risk Zone (IRZ) of Alresford Pond SSSI and River Itchen SSSI. Development does not meet the criteria that would require the LPA to consult with Natural England regarding potential impacts upon protected sites.
- 4.1.3 The site is within the nutrient impact area and therefore must demonstrate nitrate neutrality.

Non-Statutory Protected Areas

4.1.4 Local Wildlife Sites (LWSs) are designations applied to the most important nonstatutory nature conservation sites. They are recognised by the National Planning Policy Framework (2021) and as such are material considerations when assessing planning applications. The following LWSs were identified within 1.0 km of the site:

Table No. 05 - Non-Statutory Protected Sites

Site	Location
Hook Wood LSW	c. 0.2km NW
South Town Wood LWS	c. 0.5km SE
Grove Wood LWS	c. 0.9KM NW

Pond Study

4.1.5 There were no ponds within the site boundary, however 2no. ponds were identified within 500m of the site, based on OS mapping and Satellite imagery. Pond 1 is located c. 380m north of the site boundary and is associated with a dwelling; the pond is c. 475m². Pond 2 is located c. 445m south-east of the site boundary within a small parcel of woodland north of Paice Lane; the pond is c. 100m².

Priority Habitat

4.1.6 Within 2.0km of the site there are *Priority Habitats* of, *Lowland Mixed Deciduous Woodland (some of which is ancient)* and *Traditional Orchards.* Land c. 6m north of the site is designated *Priority Habitat – Lowland Mixed Deciduous Woodland* (none of which was designated as 'ancient').

4.2 Habitats

Desk Study

- 4.2.1 The Preliminary Ecological Appraisal undertaken by J Taylor Ecology Consulting in 2019 described the native hedgerow, non-native and ornamental hedgerow and the line of trees as they were found during the site visited completed by this consultancy, as detailed in sections 4.2.6 4.2.8.
- 4.2.2 Within their report, tall ruderal vegetation was noted to run along the eastern boundary, and to a lesser extent adjacent to the western boundary. Additionally, tall ruderal vegetation was noted within the construction zone of the site. Species included a dominance of bramble Rubus fruticosus agg, with abundant creeping thistle Cirsium arvense and ribwort plantain Plantago lanceolata with occasional creeping buttercup Ranunculus repens, smooth hawk's-beard Crepis capllaris and forget-me-not Myosotis sylvatica. Grass species such as perennial rye grass Lolium perenne and cocksfoot Dactylis glomerata were also noted along the eastern boundary. Located south of the buildings, close to the eastern boundary, were two mature Monterey Cypress Cupressus macrocarpa trees in good condition.
- 4.2.3 Habitats within and adjacent to the site include:
 - u1b5.10 Buildings with Scattered Scrub
 - u1c.81 Artificial Unvegetated, Unsealed Surface with Ruderal / Ephemeral
 - h2a Native Hedgerow
 - **h2b** Non-native and Ornamental Hedgerow
 - w1f.33 Line of Trees
 - h3 Dense Scrub

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- Buildings with Scattered Scrub
- 4.2.4 There were 2no. buildings present on site, both of which are proposed for demolition. A preliminary bat roost assessment of the buildings was completed and is detailed in section 4.4.7 Table No. 06. Building B1 comprised a corrugated steel covered timber shed and building B2 was a dilapidated brick and block building with a failed roof. There was scrub vegetation, which was dominated by bramble, in and around these buildings, they were therefore assessed as low site ecological value.
 - Artificial Unvegetated, Unsealed Surface with Ruderal / Ephemeral
- 4.2.5 At the time of the survey, the site had been largely cleared of vegetation, as a result much of the site was covered with chippings, with ruderal vegetated growing through. Bare ground covered c. 90% of the land, with ruderal vegetation restricted to discrete pockets of the site. Species present included frequent bramble., with occasional nettle *Urtica dioica*, creeping buttercup *Ranunculus repens* and ragwort *Jacobaea vulgaris*. Examination of the previous ecological report (J Taylor Ecology Consulting, 2019) showed vegetation along the eastern and part of the western boundary, as well as the southern end of the site. Aerial imagery appears to show the site as previously containing areas of scrub, ruderal, grassland and trees. This habitat was of **site** value.

Native Hedgerow – Priority Habitat

4.2.6 Along the northern end of the eastern boundary of the site was a narrow, single line of shrubs which had been closely planted, and were subject to regular strimming (B2). The hedgerow would be considered a Priority Habiat under Section 41 of the NERC Act 2006. Species present included a dominance of hawthorn *Crataegus monogyna* with frequent elder *Sambucus nigra* and ivy *Hedera helix*. Due to the recent cleared nature of the site, ground flora within this habitat was limited to bramble. This habitat is unlikely to be above **site** level value.

Non-native and Ornamental Hedgerow

4.2.7 Located along the northern boundary, adjacent to Homestead Road, was a line of mature non-native cherry laurel *Prunus laurocerasus* with bramble to the base (B3). This habitat was of **low site** value.

Line of Trees

4.2.8 At the southern end of the eastern boundary was a line of trees, which were a continuation of the native hedgerow at the northern end (B4). There were 2no. early mature ash *Fraxinus excelsior* trees at the northern end of the line, with frequent hawthorn and cherry *Prunus sp.*, and occasional holly *Ilex aquifolium* towards the southern end. There was a pile of logs located along this tree line (TN01). There was another line of trees along the northern boundary, with frequent hawthorn and occasional hazel *Corylus avellana* and ash (B5). There was a further short line of early mature Leyland cypress *Cupressus × leylandii* along the northern end of the western boundary (B6). This habitat is unlikely to be above **site** level value.

Dense Scrub

4.2.9 Along the southern boundary of the site was an area of dense bramble scrub with frequent ivy and occasional hazel and hawthorn. Within this habitat was a selection of logs from trees which has been previously felled. Additionally, there was scrub vegetation growing in and around the buildings. This habitat was of **low site** value.

4.3 Invasive Species

4.3.1 At the time of the survey, cherry laurel was noted growing along the northern boundary of the site. This is a non-native species listed on the Hampshire Invasive Non-native Species (INNS) list (Hampshire Biodiversity Information Centre) however cherry laurel is not listed on Schedule 9 of the Wildlife & Countryside Act (1981) (as amended). No other non-native species were noted on site during the time of the survey.

4.4 Protected Species Assessment

Amphibians

Desk Study

4.4.1 HBIC returned no records of amphibians within the search area. Great crested newts receive protection under Conservation of Habitats and Species Regulations (2017) (as amended). The previous report concluded that the construction zone did not support habitat suitable for great created newt and other amphibians (J Taylor Ecology Consulting).

Site Assessment

4.4.2 The site was very sparsely vegetated and the 2no. ponds noted were outside of the 250m buffer in which most adult great crested newts tend to stay within, unless connected by highly suitable habitat (Langton *et al*, 2001). However, the areas of scrub on site, not noted within the previous report, could provide some terrestrial habitat therefore the site was considered to be of **low site** value to GCN and other amphibians.

Reptiles

Desk Study

4.4.3 HBIC returned records of grass snake *Natrix Helvetica* within the search area. The nearest record was of grass snake from 2004, located c. 0.7km north-east of the site boundary.

Site Assessment

4.4.4 Reptiles require a mosaic of habitats to persist in a landscape, including vegetative cover for refuge opportunities, open areas for basking and a diverse flora to support viable invertebrate prey throughout the year. The boundary vegetation provided some cover for reptiles; however, the extent was limited. In the previous report it was recommended that, "as a precaution, the following mitigation methodology must be followed under the direction of a suitably qualified ecologist to ensure that the interior of the site remains largely unsuitable for reptiles". Mitigation measure included protective fencing, removal of any refugia by hand and a phased cut of the vegetation (J Taylor Ecology Consulting).

4.4.5 The areas of scrub within the site, along with the log piles (TN01), could be used by reptiles for foraging and refugia therefore the site has been assessed as being of **low site** value to reptiles.

Bats

Desk Study

4.4.6 HBIC returned records of common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, serotine *Eptesicus serotinus*, noctule *Nyctalus noctule*, myotis *Myotis sp.* and long-eared *Plecotus sp.* The nearest European Protected Species Licence was from 2017, located c. 0.7km south-east of the site which allowed the damage of a resting place of brown long-eared and common pipistrelle bat species. Annex II species western barbastelle *Barbastella barbastellus* were also recorded within the search area, the nearest record was from 2017, located c. 110km south-east of the site boundary.

Preliminary Roost Assessment

4.4.7 There were 2no. buildings located on site. Each building was subject to an internal and external inspection to allow the bat roost suitability to be categorised. Results are summarised below (for reference to building numbers see Site Habitats Plan in Figure No. 01):

Table No. 06 - Preliminary Bat Roost Assessment Results - Buildings

Building	External assessment	Internal assessment	Overall
Ref			result
B1	B1 (see Appendix A,	There was no internal roof	Negligible
	photograph 07) comprises	space and the roof had failed	
	a corrugated steel covered	in a number of locations. The	
	timber shed, with a door	single thickness corrugated	
	along the eastern	sheet resulted in the building	
	elevation. Corrugated	being draughty and subject to	
	sheet steel is considered	extremes of temperature and	
	unsuitable for bats, as the	humidity. There was no	
	high thermal conductivity	evidence of bats internally.	
	results in the surface		
	becoming excessively hot		
	or cold. There was no		
	evidence of bats externally.		
B2	B2 (see Appendix A,	Opportunities for bats was	Negligible
	photograph 08) was a	limited to the remains of the	
	dilapidated brick and block	brick and block structure,	
	outbuilding with a collapsed	which was inspected for gaps	
	roof. There was no	that could be used by crevice	
	evidence of bats externally.	dwelling bats. The brickwork	
		was in good condition with no	
		suitable feature identified. The	
		absence of the roof resulted in	
		most of the brickwork being	
		wet and damp. There was no	
		evidence of bats internally.	

Foraging and Commuting Value

4.4.8 The site lacked any significant vegetation cover and therefore it is unlikely to offer any significant foraging opportunities for bats. However, although small in extent the southern scrub and woodland parcel could be suitable for foraging bats, therefore bats may use the limited onsite boundary vegetation. Overall, it was determined that the site is of no more than site value to commuting and foraging bats.

Winter Roosting Value

4.4.9 The buildings lacked any underground elements, which could offer stable temperature and humidity conditions for winter hibernating bats. Opportunities were limited to individual crevices between bricks therefore the building was assessed as offering **low** winter roosting potential.

Dormice

Desk Study

4.4.10 HBIC returned no records of hazel dormouse *Muscardinus avellanarius* from within the search area. Hazel dormice are protected under *The Wildlife and Countryside Act (1981) (as amended)* through their inclusion on *Schedule 5* and *The Conservation of Habitats and Species Regulations (2017).*

Site Assessment

4.4.11 Dormice are most frequently associated with mature broadleaf woodland and hedgerows and require extents of relatively undisturbed habitat with diverse arboreal connections to persist in a landscape. Dormice require a variety of fruiting species to maintain a sequence of foods through the seasons (Bright et al, 2006). Although there was a hedgerow on site, it was dominated by hawthorn and was less than 1m in width with limited amounts of fruiting species. Additionally, the site is subject to anthropic disturbance. These factors, along with an absence of records, determined the site was of negligible value to dormice.

Badger

Desk Study

4.4.12 Badger *Meles meles* records are confidential and were not provided within the search. Badgers receive protection under the Protection of Badgers Act (1992).

Site Assessment

4.4.13 No evidence of badger such as tracks, snuffle holes, latrines or setts were recorded anywhere within or adjacent to the site. The construction zone is level and open, which is generally unsuitable for sett building badgers. However, badgers could be present within the southern boundary scrub and woodland, although this is unlikely. Overall, it was determined that badgers may pass through the site therefore the site was assessed as being of low site value to commuting and foraging badgers.

Hedgehog

Desk Study

4.4.14 HBIC returned no records of hedgehog *Erinaceous europaeus* within the search area. Hedgehogs are UKBAP priority species (NERC, 2006) and receive protection under the *Wild Mammals Protection Act (1996)*, which makes it illegal to kill or capture them, and prohibits cruel treatment to them.

Site Assessment

4.4.15 The construction zone offers limited nesting and foraging opportunities for hedgehogs. However, the hedgerows along the boundaries could provide a commuting route for hedgehogs. The site was therefore assessed as being of low site value to commuting and foraging hedgehogs.

Breeding Birds

Desk Study

4.4.16 HBIC returned numerous records of protected / notable bird within the search area, including 9no. records of skylark *Alauda arvensis*, 15no. records of yellow hammer *Emberiza citronella* and 7no. records of fieldfare *Turdus pilaris* on the Birds of Conservation Concern (BoCC) Red List (Stanbury *et al*, 2021). Records for birds of prey such as peregrine *Falco peregrinus*, merlin *Falco columbarius* and red kite *Milvus milvus* were also returned. Wild birds are protected under the *Wildlife and Countryside Act (1981) (as amended)*, making it an offence to intentionally kill, injure or take any wild bird, or to intentionally take, damage or destroy the egg of any wild bird. Furthermore, it is an offence under the same act to intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young.

Site Assessment

4.4.17 The site itself is unsuitable for ground nesting birds due to its small size, proximity to boundary features and limited vegetation, although the site may be used for foraging by common widespread birds such as black bird *Turdus merula* and wood pigeon *Columba palumbus*. The trees and hedgerows along the boundaries contained suitable nesting habitat for birds such as yellow hammer, and the scrub could also provide some suitable nesting opportunities. Overall, owing to the sites small size and habitats of limited notability, the site itself was assessed as being of **site** value to nesting birds.

Invertebrates

Desk Study

4.4.18 HBIC returned a low number of records of protected / notable invertebrates within the search area including 2no. records of ghost moth *Hepialus humuli*, 2no. records of dot moth *Melanchra persicariae* and 3no. records of cinnabar moth *Tyria jacobaeae*.

Site Assessment

4.4.19 Given the recent clearance of the site and the lack of a diverse vegetation, the construction zone is not considered likely to support protected or priority species of invertebrate. However, the areas of scrub are likely to support a range of common and widespread invertebrates and therefore the site has been assessed as being of site value to invertebrates.

Other Mammals

Desk Study

4.4.20 HBIC did not return records for any other protected and / or notable terrestrial mammals from within the search area however rabbit *Oryctolagus cuniculus* may pass through the site.

Site Assessment

4.4.21 The construction zone offers limited foraging opportunities for rabbits, however the hedgerows along the boundaries could provide an access route. The site was therefore assessed as being of **low site** value to foraging rabbits.

5.0 ASSESSMENT OF EFFECTS

- 5.0.1 Using the Guidelines for Ecological Impact Assessment (IEEM, 2006 & updated by CIEEM, 2018), the assessment set out below considers the potential impacts of the scheme prior to mitigation. Detailed avoidance, mitigation and compensation measures are then discussed, with residual impact identified once these measures have been taken into account. Wherever possible mitigation measures have been designed into the scheme as this gives greater certainty over deliverability and ensures the correct application of the 'Mitigation Hierarchy' (as advocated by BS42020:2013, Defra 2019 and CIEEM, CIRIA & IEMA 2016).
- 5.0.2 Protected species for which the site offers negligible suitability have been scoped out of further assessment.

5.1 Designated Sites

Potential Impacts

- 5.1.1 The site does not lie within or adjacent to any statutory or non-statutory designated sites. The closest statutory site within the zone of influence is the River Itchen, located c. 7.1km south-west of the site. The site is located within a nutrient neutrality zone whereby any increase in overnight accommodation has the potential to increase water discharge into the river Itchen SAC, which could in turn result in a reduction in water quality, detrimental to the conservation features of the SAC.
- 5.1.2 3no. non-statutory Local Wildlife Sites were identified within 1km of the site, the nearest was Hook Wood LWS located c. 0.2km north-west of the site. Given the small scale of the proposals and the nature of the site, non-statutory sites were considered to be of sufficient distance from the site not to be subject to either direct or indirect impacts.

Mitigation and Compensation

5.1.3 A nutrient neutrality assessment will be undertaken, and mitigation in the form of the purchase of nutrient credits shall ensure the scheme does not result in any increase in nutrient discharge into surrounding protected sites.

Residual Impacts

5.1.4 Once mitigation measures have been considered, there shall be **no likely significant adverse** effect upon any designated site as a result of this development.

5.2 Habitats

Potential Impacts

- 5.2.1 Development proposals will result in the loss of artificial unvegetated, unsealed surface with ruderal vegetation and small patches of scrub, which are of low ecological value, the loss of which would be of minor impact magnitude at the site level.
- 5.2.2 In the absence of mitigation, the line of trees / hedgerows to the boundaries of the site could be adversely impacted by vehicles striking the trees, pollution events, root damage and compaction during construction and maintenance visits during operation. These impacts would be significant at the site scale and certain to occur.

Mitigation and Compensation

5.2.3 Access to the site will be via the existing gateway, avoiding the need for removal of any boundary features other than the cherry laural which will be replaced with a native hedgerow, thus resulting in an ecological enhancement. All work will be undertaken in accordance with BS:5837 (BSI, 2012) to ensure the protection and retention of boundary features. To protect the small woodland parcel to the south of the site, vegetated buffers shall be planted. Works during the construction phase will be undertaken in accordance with best practise guidelines to control excess dust creation which may impact adjacent habitats. Measures shall include sheeting of lorries carrying loose loads to and from site, wheel wash facilities, water suppression and reduced height of load tipping.

- 5.2.4 All re-fuelling and chemical storage shall take place in an appropriate location, at least 10m from the site boundaries, with appropriate containment measures in place and spill kits available.
- 5.2.5 Compensation for the loss of scrub and the ruderal vegetation, which was noted within the previous report prior to the recent site clearance, will be provided through the enhancement of other areas within the site. This will ensure the scheme achieves the required levels of Biodiversity Net Gain.

Residual Impacts

5.2.6 Once mitigation measures have been considered, there shall be **no likely** significant adverse effect upon any habitats as a result of this development.

5.3 Amphibians

Potential Impacts

5.3.1 In the absence of avoidance / mitigation, works could result in the killing or injuring of great crested newts and other amphibians, and removal of small areas of suitable habitat, which would constitute an offence under the *Wildlife* and Countryside Act (1981) (as amended).

Mitigation and Compensation

- 5.3.2 As the site is small and distant from any ponds, as well as supporting habitat of limited suitability for GCN, further protected species surveys for this species are highly unlikely to be required, providing the following measures are incorporated, which could be secured through an appropriately worded planning condition. The following Reasonable Avoidance Measures (RAMs) shall be implemented during site clearance and construction to avoid any potential harm to any amphibian species present:
 - No works will be undertaken at night when newts are most active.

- Vegetation requiring removal will be undertaken in stages under ecological supervision from a suitability qualified ecologist who shall provide a tool box talk to all contractors prior to commencement. An initial cut will reduce vegetation to a height of 15cm, this will then be left for 24 hours in suitable weather conditions to allow any newts present to naturally disperse. Clearance shall avoid the hibernation season.
- Vegetation within the construction zone will be kept short prior to and during the construction phase to prevent colonisation by GCN.
- All loose materials will be stored away from the boundaries of the site to prevent these areas being used by GCN. If necessary, loose materials will be stored off the ground on pallets or in dump bags.
- Trenches or drainage works will be backfilled overnight or have ramps installed to prevent newts becoming trapped. These areas will be checked each morning before works beginning to ensure no newts are present.
- Should GCN be found, all works will cease while a suitable qualified ecologist is contacted for advice.

Residual Impacts

5.3.3 Once mitigation measures are taken into account, the impact of the scheme shall be **negligible**.

5.4 Reptiles

Potential Impacts

5.4.1 In the absence of avoidance / mitigation, works could result in the killing or injuring of common, widespread reptiles and removal of small areas of suitable habitat, which would constitute an offence under the *Wildlife and Countryside Act (1981) (as amended).*

Mitigation and Compensation

5.4.2 As a precautionary measure, the following Reasonable Avoidance Measures (RAMs) shall be implemented during site clearance and construction to avoid any potential harm to any reptile species present, and will be complementary / simultaneous to the RAMs outlined for amphibians herein:

- All contractors should be given a toolbox talk to make them aware of the potential presence of reptiles in the locality.
- Any areas of scrub within the site such to the south of the site and around the buildings should be cleared in phases under ecological supervision, with an initial cut reducing vegetation to no less than 150mm above the ground. The area should be checked for reptiles and then cut to less than 50mm in height.
- Following phased clearance, a destructive search should take place
 whereby a suitable qualified ecologist will oversee the careful scraping
 back of the first 150mm of soil by a skilled operative and 3 or 5 tonne
 excavators using a toothed bucket. This will be carried out as soon as
 possible, after the scrub and ruderal vegetation clearance.
- All cut vegetation shall be removed from site to prevent the formation of compost piles which could serve to attract reptiles.
- All log piles, debris and brash shall be carefully removed by hand under ecological supervision. Any reptiles found shall be caught and released into suitable habitat adjacent to the southern section of the site.
- Removal of any potential refugia or hibernation features (such as log piles, tree/shrub stumps, brash or rubble) should be removed during the summer months (April September inclusive) when reptiles are active and able to move away from harm.
- Any vegetation regrowth on site during the construction phase will be removed through regular strimming to ground level, in order to prevent reptiles from recolonising the area.
- Construction works shall only be permitted to begin once all potential refugia and suitable vegetation has been removed from site, and the site is declared free of reptiles by the supervising ecologist.
- A written record / letter of all clearance shall be sent to the local planning authority by the project / site manager on completion of the works. This will be written by the supervising ecologist.

Residual Impacts

5.4.3 Once mitigation measures are taken into account, the impact of the scheme shall be **negligible.**

5.5 Bats

Potential Impacts

5.5.1 The protected species assessment identified that the site itself is likely to be of no more than **site** level value to foraging and commuting bats. Annex II species, Barbastelle, are known to exist relatively close to the site, however due to the limited vegetation within the site they are likely to use habitats to the north and south of the site for foraging as they are larger in extent. In the absence of mitigation, the development could lead to the disruption of commuting corridors and foraging habitat through inappropriate lighting, with adverse impacts significant at the **site** level.

Mitigation and Compensation

5.5.2 Proposals show the retention of boundary features which will help ensure that direct impacts to the foraging and commuting value of the site are limited. However, proposals should be mindful of the potential for bats to occur in the area by ensuring that the boundary vegetation is protected from inappropriate nocturnal lighting. In order to ensure that the foraging and commuting value of the site is safeguarded, a buffer should be maintained between the site and the boundary hedgerows, with all light spill on these areas avoided. All artificial lighting should be fully compliant with best practice guidance in relation to bats and lighting (BCT & ILP, 2023). Any lighting plans should be reviewed by a suitably qualified ecologist to advise on their compliance with best practice (BCT & ILP, 2023).

Residual Impacts

5.5.3 Once mitigation measures are taken into account, the impact of the scheme shall be **negligible.**

5.6 **Badgers / Small Terrestrial Mammals**

Potential Impacts

5.6.1 The protected species assessment identified the site supports the potential for badgers / small terrestrial mammals to pass through. In the absence of mitigation, the proposals may cause the trapping of badgers or small mammals in footing or pipework. Badger welfare is protected under *Protection of Badgers* Act (1992) with adverse impacts significant at the **site** level.

Mitigation and Compensation

- 5.6.2 All trenches or excavations over 0.5m deep should be covered overnight or have a broad and shallow ramp installed to prevent badgers of other small mammals becoming trapped. Any exposed pipework greater than 200mm diameter shall be blocked to prevent mammals gaining entry.
- 5.6.3 The scheme shall include incorporation of 'Hedgehog Homes' and hedgehog holes within any close board fencing within the design to mitigate habitat fragmentation impacts. These measures could be secured through an appropriately worded planning condition.

Residual Impacts

5.6.4 Once mitigation measures are taken into account, the overall impact of the scheme will be negligible.

5.7 Breeding Birds

Potential Impacts

5.7.1 The protected species assessment identified the site is unlikely to be above **site** value to breeding birds. Removal, pruning and trimming of vegetation could cause the damage or disturbance of an active bird nest, which would constitute an offence under the Wildlife and Countryside Act (1981) (as amended) with adverse impact at site level.

Avoidance and Mitigation

- 5.7.2 All vegetation shall be removed outside the main bird nesting season, avoiding March to August inclusive. Ideally, removal, pruning and trimming should be carried out in January as this maximises the winter foraging resources for wild birds and avoids nesting season at the start of February. Where this is not possible, removal should take place following inspection by a suitability qualified ecologist no less than 24 hours prior to removal, to ensure no active nests are present. Should active nests be identified it will be necessary to cordon off the area and works cease in that area until the birds have fledged.
- 5.7.3 Compensation for the loss of any nesting habitat shall be provided through the provision of 2no. general purpose nesting boxes.

Residual Effects

5.7.4 Providing the avoidance and mitigation measures outlined above are incorporated, no adverse impacts to nesting birds are anticipated, and works would comply with the Wildlife and Countryside Act (1981) (as amended).

5.8 Invertebrates

Potential Impacts

5.8.1 In the absence of mitigation, a small area of suitable habitat for common widespread invertebrates would be lost. Due to the small size of the habitat, the impacts would be of minor impact magnitude but certain to occur, unlikely to exceed above **site** level significance.

Mitigation and Compensation

5.8.2 Compensation for the loss of the ruderal vegetation and scrub will be provided within the soft landscape scheme. This will include herbaceous plants such as broad-leaved dock *Rumex obtusifolius*, groundsel *Senecio vulgaris*, hazel *Corylus avellana*, elder *Sambucus nigra*, burdocks *Arctium sp.* and white clover *Trifolium repens* to benefit the invertebrate species returned by the desk study.

Residual Impacts

5.8.3 The overall impact of the scheme will be **negligible**, with a positive impact in the long-term once vegetation has established.

5.9 Future Baseline

5.9.1 The site is subject to management, therefore general habitats are likely to remain within a similar state to that found during the initial habitat assessment

6.0 ECOLOGICAL ENHANCEMENTS

- There is a requirement laid out in national planning policy (Ministry of Housing, Communities & Local Government, 2021) and in East Hampshire District Local Plan: Joint Core Strategy *Policy CP21: Biodiversity*, that development should result in net gains for biodiversity. Furthermore, 10% calculable Biodiversity Net Gain is mandated by the Environment Act (2021), which shall become legally binding via amendment to the Town and Country Planning Act (1990) (anticipated 2024). Opportunities for ecological enhancements, in addition to compensation measures outlined above, which could be incorporated into the scheme design and secured through the provision of an appropriately worded planning condition, such as for an ecological enhancement plan, are provided below:
 - Incorporation of bird boxes suitable for a range of species within the northern aspect of the proposed building / trees.
 - Bat boxes suitable for a range of species to be incorporated into the southern aspect of the proposed building / trees.
 - Installation of invertebrate boxes suitable for a range of invertebrates to south facing walls / trees and in more sheltered areas in vegetation to provide for a range of species.
 - Creation of log piles along the site boundaries to provide refugia for reptiles, with a creation of a small bare earth 'bee bank' to provide habitat for mining bees.
 - Creation of areas of wildflower grassland seeded with species of local provenance.
- These enhancements could be stated within an Ecological Enhancement Plan, which could be secured through planning condition.

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7.0 CONCLUSIONS

- 7.1 The site covers c. 0.3 hectares (ha) and is located to the south of Homestead Road between a line of residential dwellings. The village of Medstead is c. 600m north-east of the site. The site is formed of 2no. buildings, a native hedgerow, non-native hedgerows, line of trees, scrub and artificial unvegetated unsealed surface with ruderal vegetation. The site is long and narrow in form, it is located between Paddock Grange to the west and Little Barn to the east. Access to the site is along Homestead Road, which is to the north of the site.
- 7.2 The site is located within a nutrient neutrality zone whereby any increase in overnight accommodation has the potential to increase water discharge into the river Itchen SAC, which could in turn result in a reduction in water quality, detrimental to the conservation features of the SAC. A nutrient neutrality assessment will be undertaken, and mitigation in the form of the purchase of nutrient credits shall ensure the scheme does not result in any increase in nutrient discharge into surrounding protected sites.
- 7.3 The site offers some suitable habitat for amphibians, reptiles, bats, badgers / small terrestrial mammals, birds and invertebrates. Avoidance and mitigation measures have been built into the design in accordance with the mitigation hierarchy (CIEEM, 2018) (BSI, 2013) and shall be adhered to.
- 7.4 Once avoidance, mitigation and compensation measures have been taken into account, the impacts of the planned development upon biodiversity will be **negligible and non-significant**, with proposed ecological enhancements resulting in a Biodiversity Net Gains.

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Table No. 07 - Species List for Habitat Parcels

Artificial Unvegetated Unsealed Surface with Ruderal / Ephemeral

Common Name	Scientific Name	DAFOR
Annuel meadow grass	Poa annua	0
Bramble	Rubus fruticosus agg.	F
Creeping buttercup	Ranunculus repens	0
lvy	Hedera helix	0
Nettle	Urtica dioica	0
Ragwort	Jacobaea vulgaris	0

Native Hedgerow

Common Name	Scientific Name	DAFOR
Ash	Fraxinus excelsior	ο
Bramble	Rubus fruticosus agg.	F
Elder	Sambucus nigra	F
Hawthorn	Crataegus monogyna	D
Holly	llex aquifolium	R
lvy	Hedera helix	F

Non-native and Ornamental Hedgerow

Common Name	Scientific Name	DAFOR
Bramble	Rubus fruticosus	F
Cherry laural	Prunus laurocerasus	Α
Leyland cypress	Cupressus × leylandii	Α

Line of Trees

Common Name	Scientific Name	DAFOR
Ash	Fraxinus excelsior	0
Cherry	Prunus sp.	F
Hawthorn	Crataegus monogyna	F
Hazel	Corylus avellana	0
Holly	llex aquifolium	0

Dense Scrub

Common Name	Scientific Name	DAFOR
Annuel meadow grass	Poa annua	F
Bramble	Rubus fruticosus agg.	D
Hawthorn	Crataegus monogyna	0
Hazel	Corylus avellana	0
lvy	Hedera helix	F

D - Dominant; A - Abundant; F - Frequent; O - Occasional; R - Rare

Table 08 - Target Notes

Target Note	Feature
TN01	Log Piles throughout the site.

Appendix A - Site Photographs

Image 01 - View (south to north) of the artificial unvegetated unsealed surface, with building B02 and a log pile on the left side.



Image 02 - View of the eastern boundary line of trees and a log pile.



Image 03 – View of the site from south to north.



Image 04 – View of the site from north to south.



Image 05 - View of the cherry laurel and Leyland cypress hedgerow.



Image 06 - View of the scrub and log piles along the southern boundary.



Image 07 - View of building B1 and scrub vegetation.



Image 08 - View of building B2 and scrub vegetation.



