LIZARD
Landscape Design and Ecology

PRELIMINARY ECOLOGICAL APPRAISAL

Hayling Pump Track, Hayling Island

On behalf of: Havant Borough Council

Client:	Havant Borough Council			
Project:	Hayling Pump Track, Hayling Island			
Reference:	LLD3305-ECO-REP-001-01-PEA			
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Validity:

This report is valid for 18 months from the date of the site visit, providing conditions on site have not changed. 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 (LLDE) has been commissioned by Havant Borough Council to undertake a Preliminary Ecological Appraisal (PEA) of land at Hayling Pump Track, Hayling Island (located around central grid reference: SZ 70965 99897 – hereafter referred to as 'the site'). This report presents the results of an initial scoping survey which was undertaken on 12th of August 2024 to evaluate the existing ecological resources within and adjacent to 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, where required.

The site covers an area of 0.19ha and is located towards the south of Hayling Island. The site consists of an area of bare ground interspersed with tall forbs surrounded by trees and bramble scrub. The greatest ecological interest at the site is associated with the boundary trees which should be retained and protected throughout proposals, wherever practicable.

The habitats within and adjacent to the site were found suitable to support reptiles, therefore presence / absence surveys should be completed to allow formulation of a mitigation strategy (if required). The site also supports suitable habitat for amphibians, hedgehog and breeding birds. Measures for the avoidance of harm to these species has been outlined within this report.

Proposals have negligible potential to impact upon any statutory designations identified within a potential zone of influence of development. Therefore, further assessment in regard to the *Habitat Regulations (2017)* or site-specific mitigation would be required.

Subject to implementation of survey and mitigation, no major ecological constraints have been identified which would prohibit the proposed scheme.

1.0 INTRODUCTION

1.1 Lizard Landscape Design and Ecology (LLDE) has been commissioned by Havant Borough Council to undertake a Preliminary Ecological Appraisal (PEA) of land at Hayling Pump Track, Hayling Island (located around central grid reference: SZ 70965 99897 – hereafter referred to as 'the site').

1.2 The purpose of this report is to establish the site's suitability for development, inform the design process for future proposals, record the ecological baseline and identify key potential ecological constraints and opportunities associated with future development proposals. This report has been prepared with due consideration for existing best practice guidance (CIEEM, 2017) (BSI, 2013) and aims to provide general advice on ecological constraints associated with the development of the site. The report includes recommendations for further assessment where necessary. It is not intended that this report should be submitted with a planning application for the development of the site unless supported by the results of further surveys and a detailed assessment of the effects of the proposed development.

Site Information

1.3 The site covers an area of c. 0.19 hectares (ha) and is comprised of a roughly rectangular dirt BMX park, with a series of connected dirt tracks of various elevations and unmanaged grass interspersed between, with an area of bramble scrub in the south-west of the site. A line of trees surrounded the site but was located outside of the red line boundary, and a public footpath ran parallel to the north-western border. The site is primarily used as a recreation area and is adjacent to farmland in the north, east and west, with an industrial estate and residential buildings to the south.

Surrounding Landscape

1.4 The site's surroundings are predominantly suburban, located c. 1.2km west of Gable Head, Hayling Island. The wider landscape is comprised of residential and agricultural areas and lies on a bed of loamy soil with a naturally high groundwater level. Located south of the site are a series of coastal towns and villages, with coastal sand dunes found to the south-west. The land to the north and east is agricultural farmland with a small section of woodland approximately 2.1km east of the site. On the west and east coast of the Island sits Langstone Harbor and Chichester Harbor,

each defined by areas of mudflats and coastal salt marsh.

Development Proposals

1.5 It is understood that the proposals intend to resurface and recontour the current grassland and bare ground habitats with a new bike pump track, surrounded by a newly created area of grassland with 4no. new trees planted throughout the site.

2.0 SCOPE OF THE ASSESSMENT

2.1 In accordance with current guidance (CIEEM, 2017), the aim of the Preliminary Ecological Appraisal has been to:

- Identify the likely ecological constraints associated with a project;
- Identify any mitigation measures likely to be required, following the 'Mitigation Hierarchy' (BSI, 2013);
- Identify any additional surveys that may be required to inform an Ecological Impact Assessment (EcIA); and
- Identify the opportunities offered by a project to deliver ecological enhancement.

3.0 METHODOLOGY

3.1 Desk Study

3.1.1 The Multi-Agency Geographical Information Centre (MAGIC) website[1] was consulted for information regarding the location of waterbodies, priority habitats, statutory designated sites and existing wildlife mitigation licences, within a potential zone of influence of the site. Additionally, the Local Planning Authority (LPA) website was consulted for information regarding the location of non-statutory designated areas, and satellite imagery and historic mapping was used to inform an assessment of the recent land use changes and habitat types within the area. The following potential zones of Influence's have been used for the following potential ecological receptors during the desk study assessment:

[1] www.magic.gov.uk

Table No. 01 – Zones of Influences for Ecological Receptors

Potential Zone of Influence	Type of Record / Designation/s / Ecological Receptor
0.5km	• Ponds, ditches and other water bodies.
2.0km	• Priority Habitats (UKBAP) (NERC, 2006); • European Protected Species Mitigation Licences (EPSMLs); • Local Nature Reserves (LNRs); • National Nature Reserves; • Sites of Special Scientific Interest (SSSIs); and • Local Wildlife Sites (LWS) / Site of Nature Conservation Interest (SNCI).
10.0km	• Special Protection Areas (SPAs); • potential Special Protection Areas (pSPAs); • Ramsars (Wetlands of International Importance); • proposed Ramsars (pRamsar); • Special Areas of Conservation (SACs); and • possible Special Areas of Conservation (pSACs).
12.0km	• Special Areas of Conservation (SACs) and possible Special Areas of Conservation (pSACs) designated for supporting Annex II bat species.

3.1.2 Given the scope of the proposed development, a local biological records centre search has not been provided. A data search of available records within a 2.0km radius of the site was conducted instead on the 05th of November 2024.

3.1.3 The Local Planning Authority website was consulted to inform of additional relevant information to this assessment, including local development plan policies in relation to ecology and biodiversity (see *Appendix A – Planning Policy and Legislation*) as well as any Local Nature Recovery Strategies, Nature Improvement Areas (NIAs) and Biodiversity Opportunity Areas (BOAs) etc.

3.2 Field Survey

3.2.1 The field survey was undertaken on the 12th of August 2024 by a Suitably Qualified Ecologist (Eve Hills, FdSc, BSc, MRes). The weather was clear and sunny with a wind speed (Beaufort) of 1 to 2 and a temperature of 27°C.

3.2.2 The field survey comprised a walkover inspection of the site, immediately adjacent land and boundary 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 25m^2 / 5m length was used and habitats were identified to at least level 4 wherever practicable.

3.2.3 A list of plant species noted was compiled, together with an estimate of relative abundance made according to the DAFOR scale (Table No. 9).

3.3 Evaluation of Ecological Features

3.3.1 An assessment was made to determine the likely importance of any flora/habitats present, as well as determining whether any qualified as being of conservation merit, such as those listed as habitats and species of principal importance for the conservation of biodiversity (NERC, 2006). Likely importance was determined in reference to a predefined geographical frame of reference, as laid out in *Guidelines for Ecological Impact Assessment* (CIEEM, 2022), this was assessed in accordance with the accordance with the criteria outlined below:

Table No. 02 – Likely Importance Assessment Criteria

Likely Importance Categories	Likely Importance Criteria
Negligible	Of no notable ecological value.
Site	Ecologically valuable within the context of the site
Local	Ecologically valuable within the context of the immediate surrounds, i.e., c. 1km^2
District	Ecologically valuable within the context of the wider surrounds / LPA district, i.e., c. 10km^2
County	Ecologically valuable within the context of the wider county, i.e., c. 100km^2
Regional	Of ecological value within the region, i.e., south east, south west, midlands etc.
National	Of ecological value within the context of the United Kingdom, such as a SSSIs, NNR's etc.
International	Ecological value of global significance, such as SACs, SPAs etc.

3.3.2 Habitats within and adjacent to the site were assessed to determine their potential to support protected and notable fauna. This assessment was based on professional judgment and experience, with due consideration to industry standard best practice guidance for the relevant taxa, as laid out in the table below. The possible presence of each taxon was summarised as either negligible, low, moderate, high or confirmed.

Table No. 03 – Habitat Suitability Assessment References

Fauna	Relevant Best Practice Guidance
Great Crested Newts	*Great Crested Newt Conservation Handbook* (Langton *et al*, 2001) & *Evaluating the Suitability of Habitat for the Great Crested Newt* (Oldham *et al,* 2000)
Reptiles	*Herpetofauna Workers' Manual* (Gent and Gibson, 2003)
Bats	*Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition)* (Collins, 2023)
Dormice	*The Dormice Conservation Handbook* (English Nature, 2006)
Badger	*Survey Badgers* (Harris *et al,* 1989)
Water Vole	*The Water Vole Mitigation Handbook* (Dean *et al,* 2016)
Birds	*Guidance for Bird Surveys in Relation to Development* (NE, 2022)
Invertebrates	*Considering Terrestrial Invertebrates in Preliminary Ecological Appraisals* (Jukes, 2021) and *Organising Surveys to Determine Site Quality for Invertebrates* (English Nature, 2005)

3.3.3 Photographs were taken as evidence and to illustrate any notable ecological features on site. These have been provided within the body of the relevant parts of the Results section, where appropriate.

3.4 Daytime Bat Walkover Survey

3.4.1 A Daytime Bat Walkover (DBW) survey was undertaken as part of the field survey assessment by the suitably experienced surveyor.

3.4.2 The Daytime Bat Walkover (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.

3.4.3 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, any structures or trees which offered features with the potential to support bats were noted. For trees this included the identification of features typically associated with decay, 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 and raised flashing etc.

3.4.4 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. 04 – 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.

3.4.5 If it was possible to adequately assess a Potential Roosting Feature (PRF) from ground level then this was completed, and the feature classified as either:

- **PRF-I**: Feature only suitable for individual or very small numbers of bats, either due to size or lack of suitable surrounding habitat; or
- **PRF-M**: PRF is suitable for multiple bats and therefore has the potential to be used by a maternity colony.

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

Table No. 05 – Criteria for Assessing the Bat Roosting Suitability of Structures

Potential Suitability	Description
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.

3.4.7 Finally, an assessment of the winter hibernation potential of the structures was made in consideration of the criteria used for assessing structures and trees, in combination with the potential presence of classic hibernation features, known roosts and suitability of habitat in the surrounds.

3.5 Great Crested Newts – Habitat Suitability Assessment

3.5.1 Any ponds identified within or adjacent to the site were subject to a Habitat Suitability Index (HSI) assessment to determine their suitability to support GCN, in line with current guidance (Oldham *et al*, 2000). The HSI is a numerical index, between 0 and 1 (0 representing completely unsuitable habitat and 1 representing optimal habitat), calculated based on the suitability of 10 calculable indices.

3.5.2 HSI assessment is useful to aid in determining how suitable a given waterbody is for GCN, but it does not directly correlate with GCN presence or population numbers and serves as information only.

3.5.3 The 10 indices considered as part of the HSI assessment include geographic area, pond area, permanence of waterbody, water quality, shading, waterfowl presence, fish presence, number of ponds within 1.0km, suitability of terrestrial habitat and macrophyte cover, which were investigated during the field survey assessment.

3.6 Badgers

3.6.1 A walk over assessment of the site, and all land within 30m of the site where access was available and practicable, was conducted in order to search for evidence of badgers. This survey was conducted in line with best practice guidance (Harris *et al,* 1989) and included a systematic search for signs such as:

- 'Push-throughs';
- 'Snuffle-holes';
- Latrines;
- Badger guard hairs;
- Setts;
- Badger footprints; and
- Mammal runs.

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 or may have been otherwise inconspicuous at the time of the survey and hence overlooked. These are accepted constraints associated with the UKHabs Survey Methodology.

4.0 RESULTS

4.1 Desk Study

Pond Study

4.1.1 Based on OS mapping and satellite imagery, 1 no. pond was identified approximately 200m to the east of the site. Said pond was located within the southeast corner of the farmland adjacent to the site, separated from the field by fencing around its perimeter, initial observations identified the area as an attenuation pond, fed by a series of ditches also found throughout the field east of the site.

Priority Habitats

4.1.2 In accordance with the MAGIC dataset, within a 2.0km search radii of the site there were UKBAP Priority Habitats (NERC, 2006) of Coastal Saltmarsh, Coastal Sand Dunes, Coastal Vegetated Shingle, Mudflats Coastal Floodplain Grazing Marsh, Lowland Dry Acid Grassland, Lowland Meadow, Deciduous Woodland, and Traditional Orchards.

European Protected Species Mitigation Licence (EPSML) Search

4.1.3 In accordance with the MAGIC dataset, within a 2.0km search radii of the site, the following records for existing European Protected Species Mitigation Licences (EPSMLs) were returned: 1 no. bat mitigation licence, c. 1.5km northeast of the site, affecting common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), and brown long-eared (*Plecotus auritus*); the license allowed for the damage and destruction of a resting place from 13/04/2018 to 31/03/2019.

Local Non-Statutory Designated Areas

4.1.4 The following non-statutory designated areas were identified within 2.0km of the site.

Table No. 06 – Non-Statutory Designated Areas

Site	Location
Beachlands East (SNCI)	c. 1.6km SE
The Kench Shrubs (SNCI)	c. 1.6km W
Gun Site Car Park and Open Space (SNCI)	c. 1.1km SE
Sinah Stables (SNCI)	c. 1.0km W, SW

Sinah Warren Village Marsh (SNCI)	c.1.0km W
Saltmarsh Lane E (SNCI)	c. 0.2km N
Saltmarsh Lane C (SNCI)	c. 0.2km NE
Landfill Meadow (SNCI)	c. 0.6km N, NE
Hayling Billy C (SNCI)	c. 1.8km N, NE
Hayling Billy D (SNCI)	c. 1.5km N, NE
Hayling Billy E (SNCI)	c. 1.4km N, NE
Hayling Billy F (SNCI)	c. 1.2km N, NE
Hayling Billy G (SNCI)	c. 0.8km N, NE
South of Daw Lane H (SNCI)	c. 1.1km NE
Pound Marsh B (SNCI)	c. 1.9km NE
Hayling Secondary School Playing Field (SNCI)	c. 1.6km E, NE
Tournerbury Farm A (SNCI)	c. 1.9km E, NE
South of Daw Lane D (SNCI)	c. 1.8km NE
South of Daw Lane C (SNCI)	c. 1.7km NE
South of Daw Lane A (SNCI)	c. 1.9km NE

Statutory Designated Sites

4.1.5 Statutory designated sites identified within a potential zone of influence of the site include:

Table No. 07 – Statutory Designated Sites

Site	Description	Location
Statutory Designated Sites within 2.0km		
The Kench LNR	This area contains salt marsh and mudflats and was designated for its importance as a sheltered feeding spot for various bird species.	c. 1.7km W, SW
Hayling Billy Line LNR	Locally designated for its views of the unspoilt areas of Langstone Harbour; it also houses some rare plant species and overlaps with many other designated sites.	c. 0.07km N
Sinah Common SSSI	The site is primarily designated for its extensive sand dunes and vegetated shingle beaches, which are of value to many important flora and protected species.	c. 1.0km SW
Langstone Harbor SSSI	The site contains one of the largest mixed salt marsh habitats on the south coast. Its rich intertidal system supports high densities of invertebrates, birds and grasses. Along with the connected Portsmouth and Chichester Harbours the site	c. 0.5km NW

Site	Description	Location
	forms one coherent ecosystem of crucial importance to UK bird species.	
Chichester Harbor SSSI	The site is an area of mudflats and sandflats significant for wintering and breeding birds. The area also exhibits a wide range of intertidal and associated terrestrial habitats, housing a diverse group of species. Along with the connected Portsmouth and Langstone Harbours the site forms one coherent ecosystem of crucial importance to UK bird species.	c. 2.0km E
International Statutory Designated Sites within 10/12km		
Chichester and Langstone Harbour Ramsar/SPA	Two large estuarine basins linked by a channel and including extensive intertidal mudflats, salt marsh, sand and shingle spits, and dunes supporting reedbeds and some grassland. Numbers of wintering waterbirds regularly exceed 20,000 individuals and include internationally and nationally important numbers of several species.	c. 0.5km NW
Portsmouth Harbour Ramsar/SPA	An area of mudflats and tidal creeks containing extensive beds of eelgrass, green algae and sea lettuce that support internationally important numbers of birds and house a diverse range of unique and valuable flora.	c. 8.8km NW
Solent and Isle of Wight Lagoons SAC	Designated for containing the following annex 1 habitat: • 1150 Coastal Lagoons (priority feature)	c. 5.0km NE
Solent Maritime SAC	Designated for containing the following Annex 1 habitats: • 1130 Estuaries • 1320 Spartina swards (*Spartinion maritimae*) • 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) The following Annex 1 and Annex 2 habitats and species are also present • 1110 Sandbanks which are slightly covered by sea water all the time • 1140 Mudflats and sandflats not covered by seawater at low tide • 1150 Coastal lagoons (priority feature)	c. 2.4km SE

Site	Description	Location
	• 1210 Annual vegetation of drift lines • 1220 Perennial vegetation of stony banks • 1310 *Salicornia* and other annuals colonizing mud and sand • 2120 "Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes")" • 1016 Desmoulin's whorl snail (*Vertigo moulinsiana*)	
South Wight Maritime SAC	Designated for containing the following Annex 1 habitats: • 1170 Reefs • 1230 Vegetated Sea Cliffs of the Atlantic and Baltic Coasts • 8330 Submerged or partially submerged Sea Caves	c. 9.4km S

4.1.2 The site is located within the Impact Risk Zone of Sinah Common SSSI and Chichester and Langstone Harbours SSSI, however development proposals are unlikely to meet the criteria which would require the local planning authority to consult with Natural England regarding potential impacts.

4.2 Existing Habitat Assessment

Site Assessment

4.2.1 Habitats within and adjacent to the site include:

- Bare Ground
- Tall Forbs
- Bramble Scrub
- Line of Trees
- Built Linear Feature

Bare Ground

4.2.2 This habitat defined the entirety of the site; it was characterised primarily by large areas of bare-ground and dirt tracks created by management and/or repeated recreational use, see *Picture No. 01*. The margins of these tracks were dominated by low-quality grasses with poor species diversity. Overall, this habitat was assessed to be of **negligible** value.

Picture No. 01 – Photograph of the Pump Track from the south aspect.

Modified Grassland with Tall Forbs

4.2.3 Present throughout the site but found in greater frequency towards the northern extent, this area consisted of sections of species-poor habitat fragmented by the dirt tracks. Its composition was predominantly cocksfoot *Dactylis glomerata* and Yorkshire fog *Holcus lanatus* and its sward height ranged from 7 to 30 cm. This habitat was assessed to be of **site** value.

Picture No. 02 – Photograph of the tall forbs at the north extent of the site.

Bramble Scrub

4.2.4 Bramble scrub was found running along the boundary trees/wire fence in the top half of the site, with further areas found along the southern border and in large amounts at the site's southwest corner. Overall, this habitat was assessed to be of **site** value.

Picture No. 03 – Photograph of bramble scrub to the southwest.

Line of trees

4.2.5 Encompassing the site on its north, south, and east edge was a connected line of trees, continuing along the southern half of the west boundary. This boundary provided some connectivity to wider habitats and was comprised of broadleaved species, primarily oak *Quercus robur* and ash *Fraxinus excelsior*. Overall, this habitat was assessed to be of **local** value.

Picture No. 04 – Photograph of the east Line of trees bounding the site.

Built linear feature

4.2.6 The stretch of land adjacent to the west and northwest of the site, was a gravel path, open to pedestrians and cyclists, running along the foundations of an old railway line. The track extended along the length of the site boundary and continued north with trees bounding its sides, where the path met the northwest site boundary a wire mesh fence with wooden pillars was present instead.

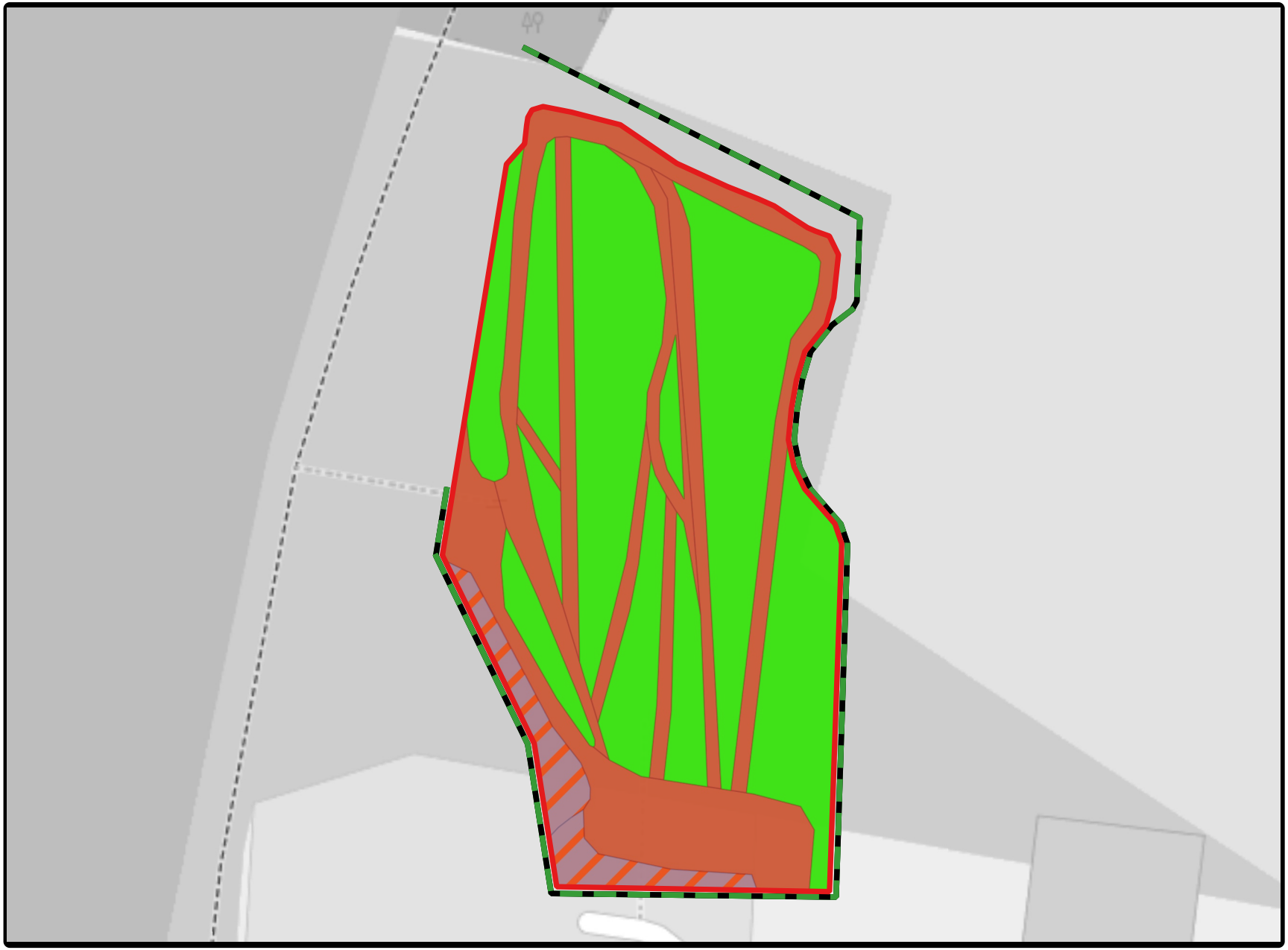

Figure No. 01 - Baseline Site Habitat Plan

1:500

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Client
Havant Borough Council

Project Title & Location
Hayling Pump Track,
Hayling Island

Drawn by	Approved by	Rev	Date
OB	SH	00	28/03/25

4.3 Invasive Species

4.3.1 No invasive species were identified during the field survey, the list of species found during the site visit is displayed in Table No. 9.

4.4 Protected and Notable Fauna - Likely Presence Assessment

Amphibians

Desk Study

4.4.1 The desk study returned records of 2 no. amphibian species within a 2.0km search radius including 1 no. common toad *Bufo bufo* and 1 no. common frog *Rana Tempoaria*. The closest record was of a common toad c. 0.8km northeast of the site. No GCN records were found within the search area.

Site Assessment

4.4.2 The site does provide opportunities for foraging and shelter for amphibian, due to the presence of areas of rough grassland, scrub and woodland within and on its site boundary.

Pond Assessment

4.4.3 An assessment of the single waterbody located within range of the site was found to be an attenuation pond. The land surrounding this pond was primarily arable land and residential housing; with the area between the pond and the site being the former. The HSI assessment returned a score that suggests the conditions of the pond are **below average** suitability. No other ponds are present within a commutable distance of the site. A full summary of the HSI assessment is shown below in *Table No. 8*.

Table No. 8 – Summary of HSI Results

HSI Criteria	P1	
Location	1	Zone A
Pond Area	0.9	950 m2
Permanence	0.5	Sometimes Dries
Water Quality	0.33	Poor
Shade	1	<10% cover
Waterfowl	0.67	Minor
Fish	0.67	Possible
Pond Count	0.2	<0.5 per km^2

Terrestrial Habitat	0.33	Poor
Macrophytes	0.6	30% cover
HSI Score	**0.55**	**Below Average**

Overall Assessment

4.4.4 Once the conditions of both the pond and terrestrial habitats are considered, the assessment of conditions found the area to be **low** suitability for GCN and other amphibians.

Reptiles

Desk Study

4.4.5 The desk study returned records of 5 no. reptile species within a 2.0km search radius including 14 no. adder *Vipera berus*, 5 no. slow worm *Anguis fragilis* and 2 no. common lizard *Zootoca vivipara*. The closest record was of adder c.0.6km southwest of the site. Records of sand lizard *Lacerta agilis* were also found north of the site.

Site Assessment

4.4.5 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. Upon assessment of the site, the bramble scrub and areas of tall forbs within hold the potential to provide such opportunities; however, the tall forbs were found to be species-poor, likely only capable of supporting small numbers of invertebrates and this habitat is dispersed amongst dirt bike tracks, limiting viable space for basking. As such the site was assessed as of **moderate** habitat suitability.

Bats

Desk Study

4.4.6 The desk study returned records of 4 no. bat species within a 5.0km search radius including 20 no. common pipistrelle *Pipistrellus pipistrellus*, 4 no. serotine *Eptesicus serotinus* and 21 no. soprano pipistrelle *Pipistrellus pygmaeus*. The closest record was of common pipistrelle c. 0.6km southeast of the site.

Preliminary Roost Assessment

4.4.7 No trees with potential roost features were identified on site which may be

impacted by these proposals.

4.4.8 No buildings were found on site. The site is therefore of **negligible value** to roosting bats.

Winter Roosting Potential

4.4.9 Given that the results of the preliminary roost assessment found no evidence of potential roost features, it was determined that the site offered **negligible** winter roosting potential.

Foraging and Commuting Suitability

4.4.10 The boundary hedge and treelines are mature and are well connected to suitable habitats within the wider landscape, however the surrounding land is dominated by arable farmland and recent housing developments which is likely to be of little value to any species other than those which are gap tolerant, such as common pipistrelle and noctule. The habitat on site is of **low** suitability given its small size.

Dormice

Desk Study

4.4.11 The desk study returned records of 2 no. hazel dormouse *Muscardinus avellanarius* within a 2.0km search radius, found c. 0.8km northeast of the site.

Site Assessment

4.4.12 The treelines surrounding the site are connected to vegetation which runs along the Hayling Billy trail. Vegetation however ends to the immediate south of the site and as such the site would not provide an important commuting route. Habitat which shall be impacted by the development is limited to bare ground and modified grassland which is of **negligible** value to dormice. Surrounding habitat is of **moderate** suitability for this species.

Badgers and Hedgehogs

Desk Study

4.4.13 A small number of records of hedgehog exist within the vicinity of the site. Information on populations and distribution of badgers is restricted as per the protections afforded to them, additionally, the desk study found that the wider area containing the site did not contain any badger records.

Site Assessment

4.4.14 An assessment of the site and adjacent area found no evidence of badgers and the site is therefore considered to be of **negligible** value to this species. The grassland on site could offer some suitable foraging habitat while the surrounding treelines and scrub could offer habitat for shelter and hibernation. Habitats within the site are of **moderate** suitability for hedgehog.

Birds

Desk Study

4.4.15 The desk study returned records of 194 no. bird species within a 2.0km search radius, of those records 42 no. of species were listed on Schedule 1 (Wildlife and Countryside Act, 1981) (as amended), such as spoonbill with 104 no. records, kingfisher *Alcedo atthis* with 12 no. records and peregrine falcon *Falco peregrinus* with 11 no. records. A further 41 no. of species were listed on the Birds of Conservation Concern (BoCC) Red List including curlew *Numenius arquata* with 117 no. records, lapwing with 42 no. records and yellow wagtail *Numenius phaeopus* with 28 no. records. The closest record was of swift *Apus apus* c. 592m northeast of the site.

Site Assessment

4.4.16 The surrounding trees offer moderate suitability nesting habitat for common and widespread bird species. The habitat within the site is however of **negligible** suitability for ground nesting species or winter wildfowl due to its regular disturbance and enclosed nature.

Invertebrates

Desk Study

4.4.17 The desk study returned records of 690 no. invertebrate species within a 2.0km search radius including 2 no. species listed under Schedule 5 of the Wildlife and Countryside Act; 148 no. records of stag beetle *Lucanus cervus* and 1 no. record of swallowtail butterfly *Papilio machaon*. The closest record was Stage beetle c. 625m southwest of the site.

Site Assessment

4.4.18 Surrounding trees and scrub offer some suitable habitat for common and widespread invertebrates. The grassland within the site was relatively species-poor and unlikely to offer a significant food resource for invertebrate

species. The resource within the site is therefore of **low** suitability for common widespread invertebrate species.

5.0 ECOLOGICAL CONSTRAINTS AND RECOMMENDATIONS

5.1 Internationally Designated Sites

5.1.1 A number of designated sites were identified within the zone of influence of the development. The site is also located within a nitrate neutrality area, as well as being within the 5.6km recreation disturbance buffer from Chichester and Langstone Harbours SAC / SPA. However, given the current and proposed use of the site, and the small scale of the development, no direct or indirect impact upon any designated site is predicted to occur.

5.2 Nationally and Locally Designated Sites

5.2.1 Several nationally and locally designated areas were identified within a potential zone of influence of the site. However, these areas are unlikely to be impacted by proposals due to the small scale, existing and proposed site use.

5.3 On Site Habitats

5.3.1 The existing areas of bare ground and modified grassland are regularly disturbed, species-poor and of generally low ecological value.

5.3.2 The greatest ecological interest at the site associated with surrounding treelines. Proposals should aim to retain and protect these areas wherever practicable through the inclusion of suitable semi-natural buffers to the margins of the site to ensure the protection of root protection areas.

5.3.3 Areas of bramble scrub on site may require removal to facilitate development proposals. These habitats are of medium distinctiveness and consideration must be given as to how the loss of these areas could be compensated for within the scheme.

5.4 Protected and Notable Species

5.4.1 Varying levels of legal protection are afforded to certain protected animals, certain species of conservation importance and broader biodiversity (see *Appendix A – Planning Policy and Legislation*). Therefore, in order to ensure proposals accord with statutory legislation further surveys for these taxa may be required to determine their presence and, if present, to devise an appropriate mitigation strategy. Any protected / notable species assessed as having negligible potential to exist on site during the possible presence assessment were scoped out of further assessment at this stage.

Amphibians

5.4.2 The protected species assessment identified that the site and adjacent habitats offered **low** potential to support GCN and the HSI assessment of the attenuation pond suggests the water body is of below average suitability. Overall, it is likely that GCN are absent, however the implementation of Reasonable Avoidance Measures as outlined below shall ensure the protection of amphibians in the unlikely event that they are present on site:

- All existing habitat to the margins of the site shall be retained and protected throughout construction. The habitat shall be fenced using Heras fencing or similar clearly marked with signs to make it clear the area is an ecological exclusion zone.
- Areas of grassland within the centre of the site shall be cleared via a phased cut under ecological supervision. The first cut shall reduce the length of the sward to no less than 150mm, and the area shall then be subject to a fingertip search by the supervising ecologist. Vegetation shall then be reduced to <50mm, and kept this short until all works are complete to ensure it remains unsuitable for reptiles.
- All equipment and materials are to be stored off site, away from suitable habitat to be retained wherever possible.

Reptiles

5.4.3 The protected species assessment identified that the site and adjacent habitats offered moderate potential to support reptiles. As reptiles are protected from reckless killing and injury (Wildlife and Countryside Act, 1981), a suite of seven reptile presence / absence surveys should be completed between May to October inclusive, in line with current guidance

(Froglife, 1999), to determine whether reptiles are present at the site. Should reptiles be present then the survey data would be used to provide information on distribution and, ultimately, to inform a mitigation strategy.

Bats

5.4.4 The protected species assessment identified that treelines adjacent to the site offered low / moderate potential to support foraging bats. The site is unlikely to support a notable assemblage of foraging / commuting bats and therefore, bat activity surveys are unlikely to be required. However, proposals should be mindful of the potential for bats to occur in the area by ensuring that new nocturnal lighting is avoided.

Dormice

5.4.5 The protected species assessment identified that the surrounding habitats supported moderate potential to support dormice. All surrounding trees should be retained with an appropriate buffer to ensure their protection.

Hedgehogs

5.4.6 The measures outlined for the protection of amphibians shall also ensure the protection of any hedgehogs, should they be present on site. Standard mammal protection measures should also be incorporated into the construction phase, to include trenches or excavations being covered overnight or having a broad and shallow ramp installed to prevent mammals becoming trapped.

Birds

5.4.7 The protected species assessment identified that the adjacent trees and scrub provides suitable nesting habitat. Crown lifting / pruning of some surrounding trees may be required to facilitate construction access. Any such proposed works should take place outside of the main bird nesting season, which is March – August inclusive, or first be subject to a bird nesting check prior to removal, to be conducted by suitably qualified ecologist or arborist.

Invertebrates

5.4.8 All valuable invertebrate habitat, such as mature trees should be retained within the scheme. Compensation for the loss of grassland areas should be provided through the provision of new areas of diverse grassland seeding within the scheme.

6.0 OPPORTUNITES FOR ECOLOGICAL ENHANCEMENTS

6.1 Net gains for biodiversity are a requirement outlined in National Planning Policy Framework (Department for Levelling Up, Housing & Communities, 2023) and local planning policy guidance. Opportunities for ecological enhancements which could be incorporated into the scheme design are provided below:

- Installation of 2no. crevice bat boxes, such as Greenwoods Ecohabitat Small Single Crevice, or similar, to the southern aspect of adjacent trees.
- Installation of 2no. general purpose bird boxes, such as Vivara Pro Seville 32mm nest box, or similar, to the northern aspect of adjacent trees.
- Creation of log piles to provide refugia for reptiles and amphibians
- Creation of areas of wildflower grassland to the margins of the site and between the pump track to provide additional invertebrate habitat.

7.0 CONCLUSIONS

7.1 The site covers an area of 0.19ha and is located on the south of Hayling Island. The site consists of an area of bare ground interspersed with tall forbs and a boundary containing lines of trees and bramble scrub. Habitats adjacent to the site included residential housing in the south, and arable land to the north, east and west. The greatest ecological interest at the site is associated with the boundary trees which should be retained and protected throughout proposals, wherever practicable.

7.2 The habitats within and adjacent to the site were found suitable to support reptiles, therefore presence / absence surveys should be completed to allow formulation of a mitigation strategy (if required). The site also supports suitable habitat for amphibians, hedgehog and breeding bird, however once detailed avoidance measures are implemented impacts shall be negligible.

7.3 Proposals have negligible potential to impact upon any statutory designations identified within a potential zone of influence of development. Therefore, further assessment in regard to the *Habitat Regulations (2017)* or site-specific mitigation would be required.

7.4 Subject to implementation of survey and mitigation, no major ecological constraints have been identified which would prohibit the proposed scheme.

8.0 REFERENCES

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Table No. 9 – Species List for Habitat Parcels

Tall Forbs and Bramble Scrub

Common Name	***Scientific Name***	***DAFOR***
Bramble	*Rosaceae spp.*	**LD**
Broad-leaved Dock	*Rumex obtusifolius*	**O**
Broadleaved Plantain	*Plantago major*	**R**
Canadian Fleabane	*Erigeron canadensis*	**R**
Cocksfoot Grass	*Dactylis glomerata*	**D**
Common Bent Grass	*Agrostis capillaris*	**F**
Common Comfrey	*Symphytum officinale*	**R**
Common Dandelion	*Taraxacum officinale*	**F**
Common Hogweed	*Heracleum sphondylium*	**R**
Common Ivy	*Hedera helix*	**A**
Common Mallow	*Malva sylvestris*	**R**
Common Nettle	*Urtica dioica*	**LF**
Hedge Parsley	*Torilis spp.*	**O**
Ragwort	*Senecio spp.*	**F**
Seashore False Bindweed	*Calystegia soldanella*	**A**
Spear Thistle	*Cirsium vulgare*	**R**
White Clover	*Trifolium repens*	**O**
White Dead-nettle	*Lamium album*	**R**
Winter Heliotrope	*Petasites fragrans*	**O**
Yarrow	*Achillea millefolium*	**O**
Yorkshire Fog Grass	*Holcus lanatus*	**D**

Line of Trees

Common Name	***Scientific Name***	***DAFOR***
Ash	*Fraxinus excelsior*	***D***
Blackthorn	*Prunus spinosa*	***O***
Crab Apple	*Malus sylvestris*	***R***
Crack Willow	*Salix fragilis*	***R***
Field Maple	*Acer campestre*	***F***
Hornbeam	*Carpinus betulus*	***R***
Oak	*Quercus robur*	***A***
Poplar	*Populus sp.*	***R***
Wild Cherry	*Prunus avium*	***R***

D – Dominant; A – Abundant; F – Frequent; O – Occasional; R – Rare; L – Locally