

HABITAT REGULATIONS ASSESSMENT REPORT


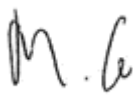
JULY 2024

Hogshaw Farm
Fairfield,
Buxton,
SK17 7HN

U R B A N
G R E E N



QUALITY MANAGEMENT

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1 Introduction

1.1 Background to the Scheme

Urban Green have been appointed to produce a Habitat Regulations Assessment (HRA) report in consideration of the proposed residential development at Hogshaw Farm.

This document provides information to assist the Local Planning Authority (LPA), High Peak Borough Council, the 'Competent Authority', in carrying out a Habitats Regulations Assessment ('HRA') in accordance with Article 6(3) and 6(4) of the EU Habitats Directive (92/43/EEC). The primary aim is to provide information to assist the Competent Authority to determine whether or not the proposed development of the site would have a likely significant effect on those European conservation sites and Ramsar sites that fall within a 10 km radius of the site, either alone or in combination with other plans or projects. Once these likely significant effects have been identified, an assessment of the impact of these effects will be carried out and any mitigation that is to be required will be detailed. This is equivalent to the requirements of Stage 1 and Stage 2 of the HRA process, following the procedures set out in European and current national guidance (European Commission, 2001; ODPM, 2005).

1.2 Site Context

The site is located at National Grid Reference SK 06584 74409 and comprises a total area of approximately 5.6ha (see Figure 1).

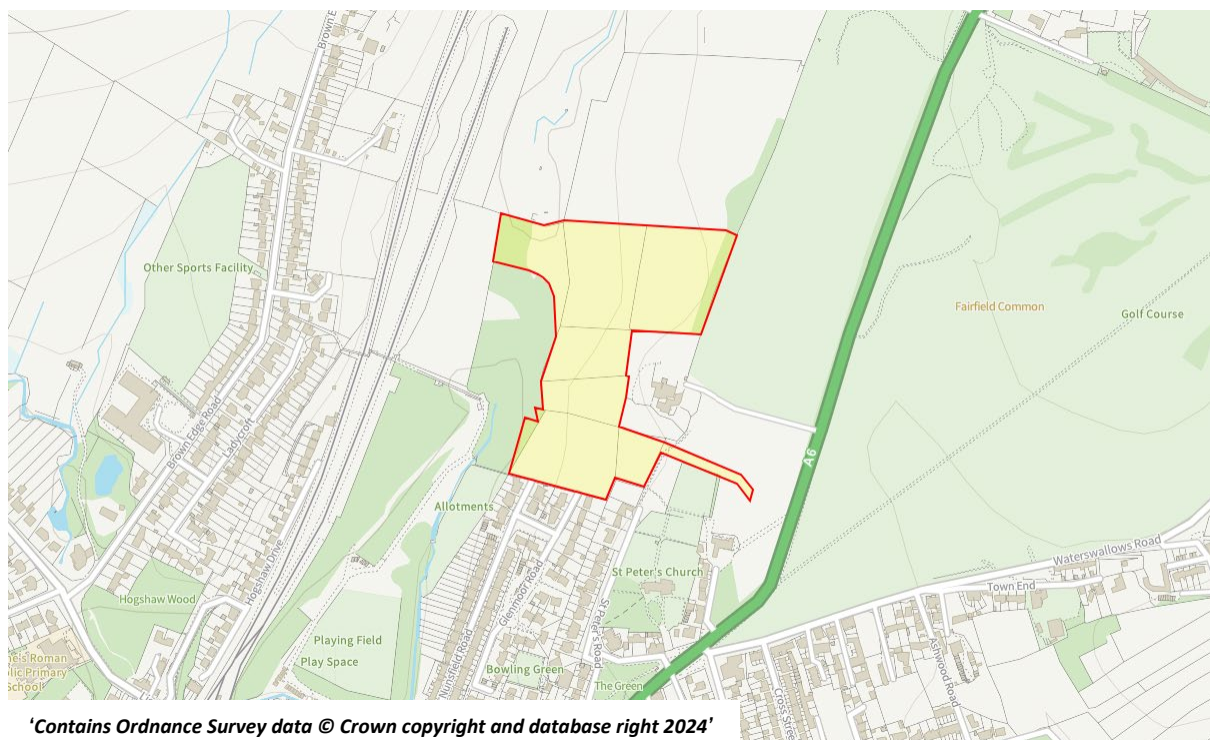


Figure 1 – Site Extent

The site is located in the rural-urban fringe of Buxton, approximately 1.5km north-east of the town centre. The A6 lies approximately 50m east of the site, with Nun Brook adjacent to the north of the site. Residential housing lies immediately south of the site, with areas of recreational green space to the east and west and agricultural land to the north. An industrial unit is present along the central aspect of the eastern boundary of the site.

1.3 Project Description

The proposed plans for the site include the construction of a new residential development, with associated hard and soft landscaping.

1.4 Purpose and Scope of the report

The scope and approach taken in preparing the report to inform the HRA is summarised as follows:

- Set out the conservation objectives of the national site network sites;
- Describe the elements of the project that are likely to give rise to significant effects on the national site network sites;
- Describe how the project will affect the key species and key habitats of the national site network sites;
- Describe how the integrity of national site network sites is likely to be affected by the project;
- Identify likely significant affects that will require an appropriate assessment to be conducted.
- Conduct an appropriate assessment of the impact of the identified likely significant effects on the integrity of the national site network sites
- Detail any mitigation requirements that may be necessary to minimise these effects.

The approach taken in preparing this document is based on standard methods and current good practice guidance.

2 Legislative and Policy Context

2.1 National Policy and Legislation

Article 6 (3) of the Habitats Directive (Council Directive 92/43/EEC on the conservation of natural habitats and of wild flora and fauna) states:

‘Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site’s conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.’

Article 6 (4) states: *‘If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.’*

The Conservation of Habitats and Species Regulations 2017 (as amended), hereafter referred to as the ‘Habitats Regulations’, implement the provisions of the Habitat Directive in UK law. The Habitats Regulations consolidate the Conservation (Natural Habitats &c.) Regulations 1994, and Offshore

Marine Conservation (Natural Habitats &c.) Regulations 2007. The Habitats Regulations were amended by the Conservation of Habitats and Species (Amendment) Regulations 2012. This provides for clearer transposition of the provisions of the Birds Directive into UK law, and revokes two Regulations (20 & 22) which duplicate measures to control potentially damaging activities on SSSIs. Regulation 9A sets out the duties of appropriate authorities and nature conservation bodies with respect to the Birds Directive. Regulation 9A (8) provides the legislative basis for considering pollution or deterioration of habitats inside or outside a designated site, transposing Article 4 (4) of the 2009 Birds Directive.

Regulation 61 (1) of the Habitats Regulations states:

‘A competent authority, before deciding to undertake, or give any consent, permission, or other authorisation for, a plan or project which-

(a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and

(b) is not directly connected with or necessary to the management of the site, must make an appropriate assessment of the implications for the site in view of that site’s conservation objectives.’

The ‘competent authority’ in this case is High Peak Borough Council as the LPA.

Following the exit of the UK from the European Union on January 1st, 2021, the Habitats Regulations were amended by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 to transfer the role of the European Commission to the appropriate Authorities in England. The 2017 Regulations (Regulation 9(1)), as amended by the 2019 Regulations, require the Secretary of State to secure compliance with the requirements of the Nature Directives. Any new powers in the 2019

Regulations must be exercised in line with the Directives and retained EU case law up to 1st January 2021.

European Sites in the UK

The National Site Network comprises Special Areas of Conservation (SAC) designated under the EU Habitats Directive (Council Directive 92/43/EEC), and Special Protection Areas (SPA) designated under the EU Birds Directive (Council Directive 2009/147/EC) within the UK.

Ramsar sites are wetland sites of international importance designated under the 1971 Ramsar Convention on Wetlands. Although not part of the National Site Network, the UK government has chosen to apply the same assessment procedures to plans and projects affecting Ramsar sites (ODPM, 2005 paragraph 6), and they therefore need to be considered in the HRA process.

2.2 Local Policy

The local plan Habitats Regulations Assessment report has identified the potential for adverse effects from development on the integrity of the Peak District Moors (South Pennine Moors phase 1) SPA, South Pennine Moors SAC, and Peak District Dales SAC. These have been considered within this report.

Policy EQ5 – Biodiversity of the adopted Local Plan states:

The biodiversity and geological resources of the Plan Area and its surroundings will be conserved and where possible enhanced by ensuring that development proposals will not result in significant harm to biodiversity or geodiversity interests. This will be achieved by:

- Conserving and enhancing sites of international, European, and national importance. On these sites the Council will not permit any development proposal that has an adverse effect on the integrity of a European site (or wildlife site given the same protection as European sites under the NPPF) either alone or in combination with other plans or projects.
- Conserving and enhancing any Sites of Special Scientific Interest. On these sites the Council will not permit any development proposal which would directly or indirectly (either individually or in combination with other developments) have an adverse effect on a Site of Special Scientific Interest.
- Conserving and enhancing regionally and locally designated sites. On these sites the Council will not permit any development proposal which would directly or indirectly result in significant harm to geological and biodiversity conservation interests, unless it can be demonstrated that:
 - there is no appropriate alternative site available; and
 - all statutory and regulatory requirements relating to any such proposal have been satisfied; and
 - appropriate conservation and mitigation measures are provided, such mitigation measures should ensure as a minimum no net loss and wherever possible net gain for biodiversity;
 - or if it is demonstrated that this is not possible;
 - the need for, and benefit of, the development is demonstrated to clearly outweigh the need to safeguard the intrinsic nature conservation value of the site and compensatory measures are implemented

- Encouraging development to include measures to contribute positively to the overall biodiversity of the Plan Area.
- Working with partners to help meet the objectives and targets in the Peak District Biodiversity Action Plan or its successor.
- Working with partners to protect and enhance watercourses.
- Identifying local ecological networks and supporting their establishment and protection in accordance with Local Plan Policy EQ8, preferentially creating biodiversity sites where they have the potential to develop corridors between habitats (both terrestrial and freshwater).
- Working with partners in the public, private and voluntary sectors to develop and secure the implementation of projects to enhance the landscape and create or restore habitats of nature conservation value, and to secure the more effective management of land in the Plan Area and its surroundings.

3 Methodology and Scope

3.1 HRA Process Stages

Guidance on the Habitats Directive (European Commission, 2000). Managing NSN Sites: The Provisions of Article 6 of the ‘Habitats’ Directive 92/43/CEE sets out the step wise approach which should be followed to enable Competent Authorities to discharge their duties under the Habitats Directive and provides further clarity on the interpretation of Articles 6 (3) and 6 (4). The process used is usually summarised in four distinct stages of assessment:

- **Stage 1: Screening:** the process which identifies whether effects upon a NSN site of a plan or project are possible, either alone or in combination with other plans or projects; and considers whether these effects are likely to be significant.
- **Stage 2: Appropriate Assessment (AA):** the detailed consideration of the effect on the integrity of the NSN site of the plan or project, either alone or in combination with other plans or projects, with respect to the site’s conservation objectives and its structure and function.
- **Stage 3: Assessment of alternative solutions:** the process which examines alternative ways of achieving the objectives of the plan or project that avoid adverse effects on the integrity of the NSN site.
- **Stage 4: Assessment where no alternative solutions exist and where adverse effects remain:** an assessment of whether the development is necessary for IROPI and, if so, of the compensatory measures needed to maintain the overall coherence of the NSN network. 1.4.2.

3.2 Potential Zone of Influence

3.2.1 Background

The ‘Zone of Influence’ (Zoi) for a project is the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities. This is likely to extend beyond the project site, for example where there are ecological or hydrological links beyond the site boundaries. The potential Zoi will vary for different ecological features depending on their sensitivity to an environmental change (CIEEM, 2018). The following has been taken into account for the Zoi:

- European sites within the UK that could potentially be affected within 10km of the development site (or further afield where there is a direct hydrological connection or where qualifying species could move between the European sites within the UK and the development site (e.g., birds);
- The characteristics of these European sites within the UK;
- Their conservation objectives; and
- Other relevant plans and projects.

3.2.2 Application to Stage One - Screening Report

It is the purpose of the HRA Screening Stage to determine, on a precautionary basis, whether a plan or project has the potential to cause a likely significant effect on one or more European designated sites. If a likely significant effect is identified, an appropriate assessment is required to determine whether it can be concluded that the plan alone, or in combination with other plans and projects, will not result in an adverse effect on the integrity of one or more European sites.

The HRA screening stage has been characterised by the European Commission in the guidance documents “Assessment of plans and projects significantly affecting Natura 2000 sites: methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC” (the European Commission Guidance) as a four-step process. These steps are relevant within the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 as follows:

- Determining whether the project or plan is directly connected with or necessary to the management of the national site network site;
- Describing the project or plan and the description and characterisation of other projects or plans that in combination have the potential for having significant effects on the national site network site.
- Identifying the potential effects on the national site network site.
- Assessing the significance of any effects on the national site network site.

When each of these steps has been worked through there are two potential outcomes:

- One or more likely significant effects on designated features of national site network sites are identified and the project requires an appropriate assessment (Stage 2).
- No likely significant effects on designated features of national site network sites are identified as there is no pathway by which such effects could occur and therefore there is no requirement for an appropriate assessment. This is also known as ‘screening out’ the need for further assessment.

3.2.3 Application to Stage Two - Appropriate Assessment (AA)

If effects from the Screening Report are judged likely or uncertainty exists, an AA will be conducted. The approach to Stage Two of the HRA Report (if required), based off the information within the potential ZOI is summarised as follows:

- Complete additional scoping work including the collation of further information on sites as necessary to evaluate impact in light of conservation objectives.
- Develop mitigation measures (including timescale and mechanisms).

3.3 Method for Determining Likely Significant Effects

The HRA screening process uses the threshold of likely significant effects to determine whether effects on European sites should be the subject of further assessment. The Habitats Regulations do not define the term ‘likely significant effect.’ However, in the Waddenzee case (Case C-127/02) the European Court of Justice found that a likely significant effect exists if it cannot be excluded on the basis of objective information that the plan or project will have significant effects on the conservation objectives of the site concerned, whether alone or in combination with any other project. The Advocate General’s opinion of the Sweetman case (Case C-258/11) further clarifies the position by noting that for a conclusion of a likely significant effect to be made “there is no need to establish such an effect...it is merely necessary to determine that there may be such an effect”.

For the purposes of this report, a likely significant effect is defined as any identified effect that is capable of resulting in a change in the conservation status of one or more designated features of a European site after all aspects of the plan or project have been considered alone and in combination with other plans and projects.

A precautionary approach has been taken to the screening process (Stage 1). Only those designated features and European sites where it can be demonstrated that there is no likelihood of a significant effect occurring (based on the criteria and approach outlined above) have been screened out. This screening assessment does not consider any mitigation measures that are necessary to reduce or avoid likely significant effects on European sites. This follows the judgement of the Court of Justice of the European Union⁷ (CJEU) where it was concluded that the need for measures to avoid or reduce harmful effects presupposes that there is a likely significant effect, and consequently consideration at Stage 2 is required.

Where a potential effect has been identified but no likely significant effect is predicted the evidence and reason for reaching this conclusion is provided.

4 Ecological Baseline

4.1 Data Sources

The following documentation has been utilised in preparing the results section:

1. SAC/SPA Citation Documents (Natural England);
2. SAC/SPA Conservation Objectives Documents;
3. NATURA 2000 – Standard Data Form 2015, Joint Nature Conservation Committee.
4. High Peak Local Plan Revised Preferred Option – Habitats Regulations Assessment (March 2014).
5. Site Improvement Plans (SIP) – Natural England

4.2 European Sites within the UK

There are three European designated Sites located within a 10 km radius (Zol) of the site, which are described in greater detail within this section and in Tables' 1 and 2.

4.2.1 Peak District Dales Special Area of Conservation (SAC)

Peak District Dales is one of the most extensive surviving areas in England of CG2 Festuca ovina–Avenula pratensis grassland. Grasslands at this site range from hard-grazed short turf through to tall herb-rich vegetation, with transitions through to calcareous scrub and 9180 Tilio-Acerion forests– a diversity of structural types unparalleled in the UK. There is also a great physical diversity due to rock outcrops, cliffs, screes and a variety of slope gradients and aspects. In contrast to examples of Festuca–Avenula grassland on chalk to the south, these grasslands are less at risk from the threat of invasion by upright brome (*Bromopsis erecta*) and tor-grass (*Brachypodium pinnatum*), which are at the edge of their range here and have limited vigour. The relatively cold oceanic nature of the climate means that there is enrichment with northern floristic elements, such as limestone bedstraw (*Galium sternerii*) and globeflower (*Trollius europaeus*).

The River Dove represents white-clawed crayfish (*Austropotamobius pallipes*) in a high-quality, upland limestone river, in the north-east of the species' UK range.

Annex I habitats present as a qualifying feature, but not as a primary reason for selection of this site:

- European Dry heaths
- Calaminarian grassland of the *Violetalia calaminariae*
- Alkaline fens
- Calcareous and calcshist screes of the montane to alpine levels (*Thlaspietea rotundifolia*)
- Calcareous rocky slopes with chasmophytic vegetation.

Annex II species present as a qualifying feature, but not a primary reason for site selection

- Brook lamprey (*Lampetra planeri*)
- Bullhead (*Cottus gobio*)

4.2.2 South Pennine Moors SAC

The site is representative of upland dry heath at the southern end of the Pennine range, the habitat's most south-easterly upland location in the UK. Dry heath covers extensive areas, occupies the lower slopes of the moors on mineral soils or where peat is thin, and occurs in transitions to acid grassland, wet heath and 7130 blanket bogs. The upland heath of the South Pennines is strongly dominated by heather *Calluna vulgaris*. Its main NVC types are H9 *Calluna vulgaris* – *Deschampsia flexuosa* heath and H12 *Calluna vulgaris* – *Vaccinium myrtillus* heath. More rarely H8 *Calluna vulgaris* – *Ulex gallii* heath and H10 *Calluna vulgaris* – *Erica cinerea* heath are found. On the higher, more exposed ground H18 *Vaccinium myrtillus* – *Deschampsia flexuosa* heath becomes more prominent. In the cloughs, or valleys, which extend into the heather moorlands, a greater mix of dwarf shrubs can be found together with more lichens and mosses. The moors support a rich invertebrate fauna, especially moths, and important bird assemblages.

This site represents blanket bog in the south Pennines, the most south-easterly occurrence of the habitat in Europe. The bog vegetation communities are botanically poor. Hare's-tail cottongrass *Eriophorum vaginatum* is often overwhelmingly dominant and the usual bog-building Sphagnum mosses are scarce. Where the blanket peats are slightly drier, heather *Calluna vulgaris*, crowberry *Empetrum nigrum* and bilberry *Vaccinium myrtillus* become more prominent. The uncommon cloudberry *Rubus chamaemorus* is locally abundant in bog vegetation. Bog pools provide diversity and are often characterised by common cottongrass *E. angustifolium*. Substantial areas of the bog surface are eroding, and there are extensive areas of bare peat. In some areas erosion may be a natural process reflecting the great age (9000 years) of the south Pennine peats.

Around the fringes of the upland heath and bog of the south Pennines are blocks of old sessile oak woods, usually on slopes. These tend to be dryer than those further north and west, such that the bryophyte communities are less developed (although this lowered diversity may in some instances have been exaggerated by the effects of 19th century air pollution). Other components of the ground flora such as grasses, dwarf shrubs and ferns are common. Small areas of alder woodland along stream-sides add to the overall richness of the woods.

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site.

- Northern Atlantic wet heaths with *Erica tetralix*
- Transition mires and quaking bogs

Table 1 – Special Areas of Conservation (SAC) present within 10km of the site, their qualifying features, conservation objectives, pressures, and threats.

Site	Distance and direction from Site	Conservation Objectives	Pressures and threats (from relevant SIP)
Peak District Dales (REF: UK0019859)	1.8km south east	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the favourable Conservation Status of its Qualifying Features, by maintaining or restoring:</p> <ul style="list-style-type: none"> The extent and distribution of qualifying natural habitats and habitats of qualifying species The structure and function (including typical species) of qualifying natural habitats The structure and function of the habitats of qualifying species The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely The populations of qualifying species, and The distribution of qualifying species within the site. 	<ul style="list-style-type: none"> Inappropriate scrub control Fertiliser use Water pollution Inappropriate weirs, dams, and other structures Over grazing Undergrazing Inappropriate water levels Disease Invasive species Climate change Air pollution: impact of atmospheric nitrogen deposition Vehicles Forestry and Woodland management Direct impact from 3rd party Public access/disturbance
South Pennine Moors (REF: UK0030280)	3km west	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the favourable Conservation Status of its Qualifying Features, by maintaining or restoring:</p> <ul style="list-style-type: none"> The extent and distribution of qualifying natural habitats and habitats of qualifying species The structure and function (including typical species) of qualifying natural habitats The structure and function of the habitats of qualifying species The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely The populations of qualifying species, and The distribution of qualifying species within the site 	<ul style="list-style-type: none"> Hydrological changes Managed rotational burning Low breeding success/ poor recruitment Inappropriate management practices Public access / disturbance Air pollution: impact of atmospheric nitrogen deposition Wildfire/arson Vehicles Over grazing Forestry and woodland management Changes in species distribution Disease Undergrazing Invasive species Planning permission, general

4.2.3 Peak District Moors (South Pennine Moors Phase 1) Special Protection Area

The site is an extensive tract of moorland and moorland-fringe habitat. It includes most of the unenclosed moorland areas of the north, eastern and south-western Peak District, where it also extends into enclosed farmland of wet rushy pasture, hay meadows and small wetlands in the valley bottoms. The moorland habitats include extensive tracts of blanket bog and dry heath, which together with wet heath, acid grassland, small flushes, gritstone edges and boulder slopes, streams and moorland reservoirs, fringing semi-natural woodland and enclosed farmland, represents the full range of upland vegetation characteristic of the South Pennines. The site supports several important species assemblages, including higher plants, lower plants and insects, as well as breeding birds. Many physical features are of geological interest.

This site qualifies under Article 4.1 of the Directive (79/409/EEC) as it is regularly used for breeding by 1% or more of the GB population of a species listed in Annex I, comprising:

- Merlin (*Falco columbarius*) – 30-36 pairs (2.3-2.8% 1998 est.)
- Golden Plover (*Pluvialis apricaria*) – 435-445 pairs (1.9-2.0% 1998 est.)
- Short-eared owl (*Asio flammeus*) – 22-25 pairs (2.2-2.5% 1998 est.)

Table 2 – Special Protection Areas (SPA) present within 10km of the site, their qualifying features, conservation objectives, pressures, and threats.

Site	Distance and direction from Site	Conservation Objectives	Pressures and threats (from relevant SIP)
Peak District Moors (South Pennine Moors Phase 1) REF: UK9007021	3km west	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributed to achieving the aims of the Wild Birds Directive, by maintaining or restoring:</p> <ul style="list-style-type: none"> • The extent and distribution of the habitats of the qualifying features. • The structure and function of the habitats of the qualifying features. • The supporting processes on which the habitats of the qualifying features rely. • The population of each of the qualifying features, and • The distribution of the qualifying features within the site. 	<ul style="list-style-type: none"> • Hydrological changes • Managed rotational burning • Low breeding success/ poor recruitment • Inappropriate management practices • Public access / disturbance • Air pollution: impact of atmospheric nitrogen deposition • Wildfire/arson • Vehicles • Over grazing • Forestry and woodland management • Changes in species distribution • Disease • Undergrazing • Invasive species • Planning permission, general

The SIP provides more detail on the relevant pressures and threats facing the SACs and SPA; these are summarised below in Table 3.

Table 3: Pressures and Threats facing the identified European designated sites

Pressure/Threat	Effects
Inappropriate scrub control	Peak District Dales SAC: The issue of scrub encroachment is related to inappropriate stock on the dales and under grazing/uneven grazing pressure. Dales are marginal to the farm holding and the sheep and cattle (often dairy) are unable to move across steep and scrubby slopes to graze it evenly or adequately. This can result in areas of inadequate grazing of scrub regrowth and saplings. Ideal grazing to maintain grassland interest and restrict scrub encroachment is thus not always achievable and maintaining the balance between woodland, scrub and grassland (and other habitats) relies on direct management (scrub clearance).
Fertiliser Use	Peak District Dales SAC: The main threat from fertilizer use is from application to land adjacent to the SAC and subsequent runoff into the site, resulting in nutrient enrichment. Other inputs such as application of paper pulp as a soil improver are used. Although overseen by the Environment Agency, as exempt activities there is little control for the SAC when applied to adjacent land. It can potentially impact all features but especially grassland and river species.
Water Pollution	Peak District Dales SAC: Phosphate levels in the River Wye exceed the target set during the Review of Consents process as well as a more stringent revised CSM target, despite a restriction on Buxton sewage treatment works designed to resolve the issue (STW is operating well within the tighter limits). Agreement has been reached with EA over revised long term targets and interim goals which can be realistically achieved in the short to medium term, as well as actions to ensure compliance within agreed timescales. Although modelling suggests 70% of the phosphate comes from Buxton STW, as there are few surface water inputs it is difficult to assess the contribution from farm / diffuse sources via the limestone aquifer
Inappropriate weirs, dams, and other structures	Peak District Dales SAC: The impact of artificial structures is particularly relevant to the River Dove and to a lesser extent the Lathkill. Artificial structures such as weirs impede the natural flow regime and ability of the river to "self-cleanse", resulting in reduced natural habitat variability, potential silt accumulations, slow flows and reductions in suitable areas for fish spawning and reduced species diversity (invertebrates, fish, macrophytes etc). Increased siltation results in increased potential for retention of pollutants, impacts on gravel beds, reduction in spawning grounds for fish and impacts upon invertebrate diversity.
Overgrazing	<p>Peak District Dales SAC: Overgrazing directly impacts SAC vegetation and also has indirect impacts via nutrient enrichment. Where it occurs, it tends to be a serious issue and impacted habitats are difficult to restore due to the legacy of high nutrient input from increased stocking and supplementary feeding over a long period of time. An associated issue is weed control within these areas. Nutrient input and inappropriate grazing can also be due to stock feeding on land adjacent to, but grazed with, the dales (linked to inappropriate stock, see action 6C). Overgrazing is not exclusively caused by stock grazing with rabbit grazing also an issue on some sites.</p> <p>South Pennine Moors SAC/Peak District Moors SPA: Overgrazing has adversely affected blanket bog, wet heath, dry heath and oak woodland habitats. In some instances, this continues in others it is necessary to safeguard recovery when grazing is returned to the site. Areas of the site are suffering from overgrazing, affecting the habitats of the breeding birds and causing water run-off and erosion. Increased stocking levels are affecting the mosaic of dwarf-shrubs and are replacing them with grassland. Overgrazing has a likely long term impact leading to unfavourable condition for bog and heath communities.</p>

Undergrazing	<p>Peak District Dales SAC: Although associated with the issue of inappropriate scrub control, undergrazing is not confined to it. Many dales that are not under grazed still have a scrub control issue, and some dales which do not have a scrub issue are under grazed. This issue is strongly linked to inappropriate stock.</p> <p>South Pennine Moors SAC/Peak District Moors SPA: Areas of the site are suffering from undergrazing, affecting both the habitats of the breeding birds and the notified feature habitats; this is principally a by-product of stock removal for habitat restoration.</p>
Inappropriate water levels	<p>Peak District Dales SAC: There is a lack of flow on the Lathkill due to historic mining activities and artificial soughs diverting water flow out of Lathkill catchment. The River Lathkill is dry for several months each year, resulting in the need for fish rescue and impacts upon SAC species.</p>
Disease	<p>Peak District Dales SAC: Crayfish plague has all but wiped out the known native population of white clawed crayfish. It is possible that there may be isolated pockets unaffected by plague which could act as the starting points for any natural recolonisation, however attempts at reintroductions have so far failed.</p> <p>Chalara (ash dieback) disease poses a major threat to ash woodland in the dales in the longer term, with the potential to wipe out the majority of ash trees. It is predicted to impact severely within the next 20 years, based on European experience.</p> <p>South Pennine Moors SAC/Peak District Moors SPA: The fungus-like pathogen <i>Phytophthora</i> spp. is known to be killing various species within the SAC. Species known to have affected the site are <i>P. pseudosyringae</i>, <i>P. cactorum</i>, <i>P. syringae</i> and <i>P. ramorum</i>. Few control mechanisms exist for the disease so early detection and proper disposal of infected plant material are essential. Plant species known to be affected or that have been affected or may require future monitoring are: Hybrid Bilberry <i>Vaccinium x intermedium</i>, Bilberry <i>Vaccinium myrtillus</i>, Common alder <i>Alnus glutinosa</i>, Common ash <i>Fraxinus excelsior</i>, English oak <i>Quercus robur</i>, Sessile oak <i>Quercus petraea</i>, Moor birch <i>Betula pubescens</i>, and Rhododendrons.</p>
Invasive species	<p>Peak District Dales SAC: As far as it is known, native crayfish have been all but lost from the site due to plague carried by Signal crayfish. Signal crayfish are not in the vicinity of the Dove catchment, so there is some hope for refugia sites, although reports of white clawed crayfish are still subject to confirmation through site survey to be done during 2014. Signal crayfish are present in the River Wye downstream of Buxton and the population of white clawed crayfish has been lost from the Lathkill despite attempts at reintroduction. Signal crayfish also have the potential to threaten brook lamprey and bullhead via predation of eggs and fry.</p> <p>South Pennine Moors SAC/Peak District Moors SPA: Bracken and rhododendron need to be controlled on a wider scale across the site to avoid the suppression of the SAC heath, blanket bog and mire communities. This work will need to bring together various land owners, occupiers and organisations. Management can be difficult and expensive; plans need to be cost-effective and practical with a view to control rather than eradication. Given the decades elapsed to arrive at the current levels of coverage, slowing or reversing the process will be long term with consistency and persistence from all parties being key.</p>
Climate change	<p>Peak District Dales SAC: The location of the SAC is such that changes in species distribution through climate change are expected to be pronounced (many species are at the edge of their range). Additionally, dales habitats are fragmented and surrounded by agriculturally productive land which cannot usually act as a buffer or corridor for species, which makes populations more vulnerable.</p>
Air pollution: impact of atmospheric nitrogen deposition	<p>Peak District Dales SAC/ South Pennine Moors SAC/Peak District Moors SPA: Nitrogen deposition exceeds site relevant critical loads.</p>
Vehicles	<p>Peak District Dales SAC: A number of threats from vehicles exist, including issues with Byways open to all traffic (BOAT), the use of tracks and threats of illegal vehicle use. There is a push to open up new cycling routes which pass through SAC dales.</p> <p>South Pennine Moors SAC/Peak District Moors SPA: Damaging vehicle use is an issue across the site, damaging notified features and affecting bird nesting activity. This can be motorbikes, quad bikes, 4x4s and pedal cycles. Wet peat habitats are most sensitive.</p>

Forestry and woodland management	<p>Peak District Dales SAC: 1. Management of sycamore and other non-natives and fencing to exclude stock grazing were addressed at most locations through the WoodLIFE project, however some outstanding sites still require management. Additionally, HLS agreements are currently not achieving the follow up management required due to high annual management payments but low capital works payments. Felling sycamore, or fencing, on steep dale terrain is not cost effective. 2. The threat of Chalara overshadows all other woodland threats and will result in additional management, based on diversifying the woodland. Currently, a strategy to deal with Chalara is in its early stages.</p> <p>South Pennine Moors SAC/Peak District Moors SPA: H91Ao Western acidic oak woodland is a feature of the site, and the conservation and enhancement of this feature requires active management. Inappropriate tree planting may result in introduction of infected species. Planting can affect blanket bog or increase predation risks for breeding waders on adjacent moorland, for example inappropriate planting on in-bye land which is used by breeding birds for feeding.</p>
Direct impact from 3rd party	<p>Peak District Dales SAC: Localised incidents of fly tipping can impact SAC interest features.</p>
Feature location/ extent/ condition unknown	<p>Peak District Dales SAC: There is a need for an improved evidence base for certain interest features. Chasmophytic vegetation requires specialist survey and monitoring, as it is found in rock crevices and often requires surveyors with specialist climbing as well as lower plant identification skills. Furthermore, the National Vegetation Classification (NVC) classification for scree and chasmophytic vegetation was developed post-designation and re-survey is required in the light of this.</p>
Public access / disturbance	<p>Peak District Dales SAC: Localised inappropriate recreational use (scree running, rock climbing etc) can affect SAC interest features. There are occasional public access issues with litter and camp fires accusing fires. Landowners can be reluctant to shut stock on dales where dogs may be an issue, meaning appropriate grazing is difficult to achieve.</p> <p>South Pennine Moors SAC/Peak District Moors SPA: Disturbances/activities located in sensitive site areas or at sensitive times of the year (e.g., bird breeding season or during heavily waterlogged periods) can have a negative impact upon notified features. Particular activities which impact include rock climbing, walking (incl. dog walkers), legal activities (byway usage), hang-gliding and the flying of model aircrafts.</p>
Hydrological Changes	<p>South Pennine Moors SAC/Peak District Moors SPA: The hydrological integrity of the blanket bog habitat (H7140) has been adversely affected across the site by a range of external factors, principally historic air pollution and wild fires which in some areas has been added to by historical and continuing land use management practices. Leading to areas of bare and eroding peat, surface gullyng and sub-surface peat pipes, loss of peat forming species, lowered water tables and altered hydrology. Certain elements of current restoration work have a clear link to recovery of some or all of these listed factors and estimates for restoration costs assume this work is undertaken across the site, however for some aspects of the challenge (surface vegetation, macropores, erosion gullies and subsurface peat pipes) there is insufficient understanding of the issue, and this has led to trialling new restoration methods and monitoring the impacts. Consequently, the extent of restoration to deliver favourable condition cannot be fully quantified.</p>
Managed rotational burning	<p>South Pennine Moors SAC/Peak District Moors SPA: A significant number of landowners across the sites currently have burning plans, as part of their existing agreements, which are used for moorland management. There is strong evidence that managed rotational burning results in changes to plant species composition, peat properties, Dissolved Organic Carbon, peat chemistry, peat water table and peat flow-paths of blanket bog and upland wet heath habitats. Although managed burning is acceptable on upland dry heath, burn rotation length needs to be appropriate to avoid deterioration. Managed burning can have both positive and negative impacts on the habitat for SPA birds through changes to vegetation.</p>
Low breeding success / poor recruitment	<p>South Pennine Moors SAC/Peak District Moors SPA: Suitable habitat exists on site to support successful breeding by a larger number of pairs than are currently recorded, of in particular, peregrine, but also merlin and short eared owl. Analysis of the distribution reveals a strong correlation between actively kept moorland and the lower than expected numbers of raptors for which the site is classified.</p>

Inappropriate management practices	South Pennine Moors SAC/Peak District Moors SPA: The condition of blanket bog habitat in particular is under pressure from changes in: recreational use, land management (commercial grouse moor management, farming and restoration practices availability of agreement packages) and some illegal activity.
Wildfire / arson	South Pennine Moors SAC/Peak District Moors SPA: Wildfires are a periodic threat across the site and directly impact on upland habitats including SAC features; blanket bog, wet heath and dry heath. The ecosystem services delivered by these habitats are adversely affected through direct damage caused to the vegetation, peat and soils, which results in loss of valuable habitat quality and associated wildlife alongside carbon release to atmosphere and to watercourses. Peat exposed by wildfire is at increased risk to wind and water erosion, with water run-off from uplands potentially resulting in downstream flooding, sedimentation of water courses and discolouration of drinking water. Wildfire will vary year to year depending on the condition of the vegetation (drier etc.) and this will result in varying levels of impact (e.g., rapid grass fire in March has less impact than a summer fire on heather over peat). The cause of ignition is generally accepted to be of human origin with deliberate intent a pattern on some parts of the site and elsewhere careless behaviour near to footpaths and car parks appear to be the chief cause of ignition.
Changes in species distribution	South Pennine Moors SAC/Peak District Moors SPA: Changes in species distribution are occurring across the site, caused by varying factors such as air pollution, current land management, erosion and the effects of climate change. These changes are currently not fully understood and therefore cannot inform future management. The most significant changes are to bird populations leading to an obvious decline in breeding numbers or shifts to new breeding areas.
Planning permission general	South Pennine Moors SAC/Peak District Moors SPA: Local development frameworks, infrastructure programs and planning permissions need to be evaluated on a whole site basis, for example wind turbines and housing developments. The 'in combination' and cumulative effects of numerous applications are, potentially, fragmenting the site and slowing the chances of a joined up landscape scale delivery resilient site.

Given the location and type of development no likely significant effects on the protected sites are expected as a result of:

- Inappropriate scrub control
- Fertiliser Use
- Inappropriate weirs, dams, and other structures
- Overgrazing
- Undergrazing
- Inappropriate water levels
- Disease
- Invasive species
- Climate change
- Air pollution
- Vehicles
- Forestry and woodland management
- Direct impact from 3rd party
- Hydrological changes
- Managed rotational burning
- Low breeding success / poor recruitment
- Inappropriate management practices
- Wildfire/arson

5 Stage 1A – Potential Risks and Threats to Designated Sites

The following section outlines the potential risks that could be posed to the designated sites identified in Section 4.2 as consequences of construction or operational phase actions of the proposed development.

5.1 Changes in species distribution

Risks

Increased levels of disturbance to mobile qualifying species attributed to the designation of the qualifying species of the European designated sites present within the Zone of Influence of the site.

Impact Risk Assessment

The site was assessed for its suitability to provide roosting and foraging opportunities for the qualifying species of the European designated sites present within the Zone of Influence of the site, specifically the Peak District Moors SPA (as detailed in Section 4.2.3).

During the site survey undertaken in October 2022, none of the qualifying habitats of the Peak District Dales SAC or South Pennine Moors SAC were identified on site.

The site is adjacent to a main road connecting Buxton to Manchester (A6) on the urban fringe of Buxton. The grassland and hedgerow present on site will provide limited shelter to support over wintering bird species, with the current grazing regime present on site providing a significant level of disturbance that will deter over-wintering birds from using the site. The site does not have large areas of open grassland, neither does it contain clear lines of sight that would make this site visible and suitable to commuting birds.

Therefore, there **is no potential for a likely significant adverse effect on the qualifying features of the European sites as a result of this development.**

5.2 Increased Water pollution

Risks

A potential impact pathway exists through a net increase in level of water pollution entering ground water supplies / the Nun Brook which is present adjacent to the northern site boundary.

Impact Risk Assessment

The Nun Brook is located immediately adjacent to the northern site boundary and connects to the River Wye approximately 700m south of the site. The River Wye flows through both the Peak District Dales SAC and South Pennine Moors SAC.

The construction phase of this project could see an increase in dust during construction and vehicle movements. The use of machinery and vehicle movement can generate suspended solids in any site runoff, which can also include hydrocarbons, leading them to be discharged into the water environment. Inadequate hardstanding drainage can also increase the risk of surface water flooding within the site.

There is potential for a likely significant effect on the European sites as a result of increased water pollution levels as a result of this development.

5.3 Public access / Disturbance / Increased recreational pressure

Risks

A potential impact pathway exists through a net increase in human population as a result of the development which may result in increased recreational pressure on the European designated sites present within the zone of influence of the site, through increasing the frequency and duration of disturbance events on the sensitive habitats present at these sites.

Impact Risk Assessment

The population of Buxton is estimated to be approximately 22,400 (2020). Based on the size of the current development of 99 dwellings and applying the national average household size of 2.4, if we follow the precautionary principal and assume that 100% of the occupants are new to the area as opposed to relocating from within the surrounding area, then this equates to a population increase of 238 people. This translates to a potential increase in disturbance of 1.2%. Application of the precautionary principle may suggest that any increase in disturbance could potentially have a significant effect, particularly when habitat utilisation is already believed to be affected by current disturbance levels. A 1% threshold is frequently applied in other contexts to define significance thresholds, for example when determining air quality impacts on European designated sites for environmental permitting purposes, or in assessing significant population levels in ornithological assessment. Using these criteria, an increase of 1.2% would be considered significant and may lead to a further increase in disturbance on sensitive habitats within the European designated sites.

The location of the development is likely to be attractive to people who want to utilize the surrounding area for recreation, including dog walking, given its semi-rural location. With national household dog ownership at 24%, an anticipated increase in dog owning homes of 23 is expected.

Extensive guidance has been produced on the effects of dogs and designated sites for conservation (English Nature, 2005). This report showed that 25-50% of walkers in lowland areas are accompanied by dogs, with 50-90% of these dogs being off lead whilst on site. The report also found that a dog-walker has a larger sphere of influence with regard to wildlife than a walker without a dog, with groups of dogs exerting a stronger influence than a single dog. Effects of dogs is greatest on ground-nesting birds, with the presence of dogs being found to provoke a disturbance response at greater distances and for longer periods than other recreational activities (including people without dogs) during the breeding season. This response to dogs has an energy cost and can be significant in the winter.

There is potential for a likely significant effect on the European sites as a result of increased recreational pressure.

6 Stage 1B – Combined Effects

6.1 Assessment of In-Combination Effects

In addition to assessing the likely significant effect of the proposed development on European sites within the UK, as part of stage 1B of the HRA assessment it is also necessary to assess potential for the development to have a likely significant effect in combination with other plans and projects. This also addresses the identified pressure/threat in relation to planning permission (as detailed in Table 2).

There is a planning application in place for 147 new dwellings, including the provision of two vehicular access points, the construction of roads, footways, and a pedestrian link with Tongue Lane, drainage infrastructure, public open space, landscaping, and other associated works at Land at Granby Road (REF: HPK/2022/0352). This application is located approximately 1.3km south east of the site.

An HRA was not included within the documents submitted to support the planning application. The submitted ecological survey report did not identify the presence of any qualifying habitats or species of the identified European designated sites within the surrounding area. The site was assessed as containing common and widespread habitats with limited ecological value. The site does not offer suitable habitat to support over wintering bird species due to the presence of regular disturbance from dogwalkers and the proximity of the site to urban areas, including the presence of a railway line approximately 200m south of the site. The habitats present on site had a limited structure which will not provide suitable shelter for ground nesting birds or foraging habitat for birds of prey.

Applying the precautionary principle as within Section 5, it is likely that the increase in residents to the area, combined with the construction related impacts will result in likely significant effects

Therefore, it is likely that there will be additional impacts to the designated sites as a result of this development when considered in combination with other proposed developments.

7 Stage Two – Appropriate Assessment

The competent authority will be required to carry out an appropriate assessment to determine whether the development would adversely affect the integrity of the identified designated sites. The precautionary principle has been applied when considering the potential implications of the development.

7.1 Water Pollution

The site is located within agricultural land on the outskirts of Buxton, with Nun Brook present immediately adjacent to the northern site boundary, which is connected to the River Wye approximately 700m south of the site. Although the river itself is not a qualifying feature of the European designated sites within the ZoI of the site, the habitats that are qualifying features are dependent on a water source. Therefore, a risk to the water quality within the River Wye is present, and it is recommended that the following measures are implemented during the construction phase and adopted with a CEMP:

- During construction there will be heavy plant and machinery required on site and as a result it is appropriate to adopt best working practices and measures to protect the water environment, including those set out in Pollution Prevention Guidance (PPG1);
- In accordance with PPG1 any above ground on-site fuel and chemical storage will be bunded;
- An emergency spill response kit will be maintained during the construction works (GPP21);
- A vehicle management system / road marking will be put in place wherever possible to reduce the potential conflicts between vehicles and thereby reduce the risk of collision (GPP21);
- A speed limit will be used to reduce the likelihood and significance of any collisions;
- Drip trays will be placed under vehicles which could potentially leak fuel/oils;
- Stockpiling of soils/made ground will only occur in demarked areas which have drainage to intercept, control and manage runoff shed from stockpiles;
- The use and deployment of cut-off ditches and silt fences;
- Protective fences, exclusion barriers and warning signs will be used to minimise debris and dust from entering Nun Brook.
- Silt control devices to catch sediment/water run-off will be installed within the site where appropriate.
- Monthly checks of the silt mitigation devices will be conducted to check they are still working effectively.
- Road cleaning;
- Any water contaminated with silt or chemicals will not be discharged directly or indirectly to the water environment without prior treatment; and
- The use and placement of concrete will be carefully controlled so as not to cause a direct or indirect impact on the water environment.

The above measures will significantly reduce the likelihood of pollutants, including suspended solids, being discharged and would safeguard water quality.

7.1.1 Conclusion

It is therefore considered that no significant effects will occur to the identified designated sites due to reduced water quality and increased siltation from the proposed development, providing that the proposed mitigation measures are implemented.

7.2 Increased public access / disturbance / recreational pressure

7.2.1 Construction

It is not anticipated that the construction of this scheme will lead to an increase in public access to the European designated sites within close proximity to the proposed development.

7.2.2 Operation

The increase in population within Buxton due to the proposed development is likely to lead to a significant effect on the integrity of the European designated sites identified.

The proposed development will lead to an increase in population within Buxton of approximately 1.2%/238 people, assuming all residents are new to the area. It is also assumed that 23 new homes will also own a dog. To minimise the impacts of the increased number of people potentially accessing the European designated sites, the following mitigation is recommended:

- Provision of homeowner packs to every new resident and future resident of each dwelling within the site. These will inform the public about biodiversity interest features and how to protect them, including adhering to footpaths, and keeping dogs on leads.
- Developer contributions should be made for the erection of signage, information boards, and dog waste bins within the Peak District Dales SAC, South Pennine Moors SAC, and Peak District Moors (South Pennine Moors Phase 1) SPA and the ongoing maintenance of these. This shall be undertaken in liaison with Natural England and the Peak District National Park.

7.2.3 Conclusion

It is therefore considered that no significant effects will occur to the identified European designated sites due to increased public access / disturbance/ increased recreational pressure, providing that the proposed mitigation measures are implemented.

8 Conclusion

This report is to inform an HRA Appropriate Assessment, based on ecological information and project details provided, it indicates that the proposed development has no significant risk of having a negative effect on the qualifying features of Peak District Dales SAC, South Pennine Moors SAC, and Peak District Moors (South Pennine Moors Phase 1) SPA.

It was identified that without mitigation there was a risk of decreased water quality and increased siltation levels, and an increase in recreational pressure on the European designated sites as a result of the proposed development.

Section 7 of this report has shown that the described mitigation for these impacts are recognised industry standard practices and are therefore deliverable, recognised to be effective and are considered to reduce any effects on the integrity of the identified designated sites.

No other likely significant effects have been identified as a result of the proposals, either alone or in combination with other plans or projects.

9 References

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Sweetman: European Court C – 258/11 Sweetman 11th April 2013, reference for a preliminary ruling from the Supreme Court of Ireland

Tyldesley, D. and Chapman, C., (2013) The Habitats Regulations Assessment Handbook, 2013 edition UK: DTA Publications Limited.

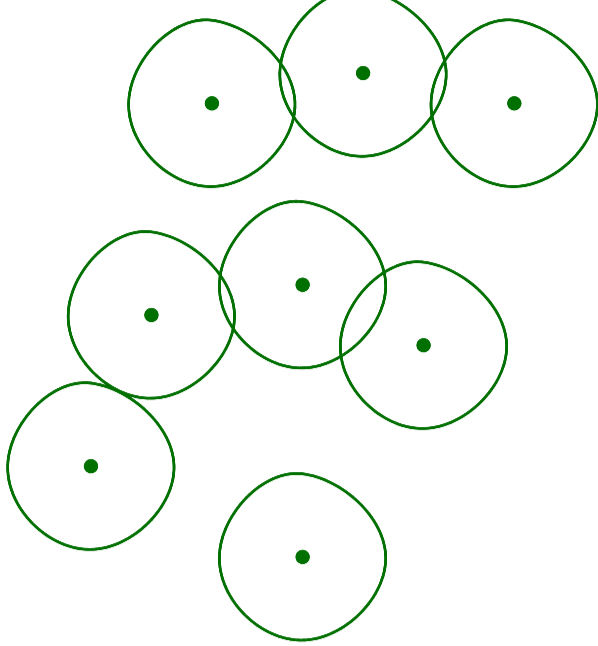
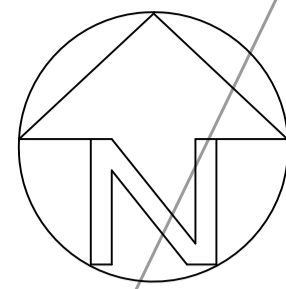
Waddenzee: European Courts C-127/02 Waddenzee 7th September 2004, reference for a preliminary ruling from the Raad van State.

Appendix 1 – Illustrative Masterplan

Do not scale this drawing (printed or electronic version).
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Notes:-

Drainage pond as a draft indicative layout and subject to a full basin design by engineers



AGRICULTURAL
LAND



KEY

Site Red Line Boundary

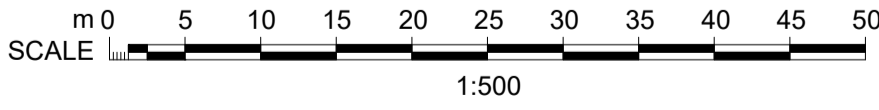
Soft Works

- Existing Tree**
To be retained.
Refer to arboricultural drawings.
- Existing Tree**
To be removed / pruned.
Refer to arboricultural drawings.
- Existing Woodland**
To be retained.
Refer to arboricultural drawings.
- Existing Hedge**
To be retained.
Refer to arboricultural drawings.
- Proposed Tree Planting**
Clear stem heavy standard tree.
- Proposed Hedge Planting**
To plot gardens.

- Proposed Groundcover Planting**
Ornamental planting mix. 96.3739 m²
- Proposed Ornamental Shrub & Herbaceous Planting**
Ornamental shrub and herbaceous perennials mixes. 526.2877 m²
- Proposed Semi-Native Shrub Planting**
Ornamental and native shrub mix. 244.2309 m²

- Proposed Native Shrub Planting**
Native shrub mix. 1518.7563 m²
- Proposed Woodland Understory Planting**
Native mix. 2793.7021 m²
- Proposed Woodland Mix Planting**
Native whips and feathers mix. 1686.1201 m²
- Proposed Turf Grass**
To front gardens. 1176.2858 m²
- Proposed Seeded Amenity Grass**
To public areas. 1369.2721 m²
- Proposed Seeded Species Rich Wildflower Meadow**
To public areas. 12054.9751 m²
- Proposed Wet Meadow**
To pond area. 1142.6080 m²
- Native Reeds Mix**
To pond area. 32.2571 m²
- Pond Water**
Approx 117.6260 m²

Rear gardens to be grass seeded
Slopes/ level differences and steps to engineer's details



P10	09/07/24	UPDATED LAYOUT	TH	SA
P09	01/07/24	UPDATED LAYOUT	TH	SA
P08	26/02/24	UPDATED LAYOUT	IG	SA
P07	14/02/24	UPDATED LAYOUT	RS	SA
P06	05/04/23	UPDATED LAYOUT - SUB STATION	RS	SA
P05	21/03/23	UPDATED POND LAYOUT AND RED LINE BOUNDARY	RS	SA
P04	31/01/23	HARD LANDSCAPE OMITTED	RS	SA
P03	25/01/23	UPDATED LAYOUT	RS	SA
REV.	DATE	DESCRIPTION	DRAWN	CHK'D

Client:	Project:	Drawn:	Checked:	Approved:	Date:
BARRATT HOMES	HOGSHAW FARM, BUXTON	RS	SA	ME	29/11/22
Issue:	Title:	Dwg No:	Scale @ A0:	Revision:	
PLANNING	GENERAL ARRANGEMENT PLAN	UG_1795_LAN_GA_DRW_01	1:500	P10	

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