Nottinghamshire and Nottingham

Waste Local Plan

Habitats Regulation Assessment Screening Report

June 2023

Nottinghamshire County Council

Nottingham City Council

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1. Introduction

1.1. Nottinghamshire County Council and Nottingham City Council is undertaking a Habitats Regulations Assessment (HRA) of its Joint Waste Local Plan (hereafter referred to as the 'Plan').

1.2. The Waste Local Plan is a statutory document that all Waste Planning Authorities must prepare. It sets out policies against which all development proposals involving recycling and waste processing are assessed and determined by the City and County Councils.

1.3. The overall aim of the Plan is to ensure that sufficient range of sites are provided to meet expected future demand for recycling and waste management in the most sustainable way by supporting greater levels of re-use and recycling of material, seeking to minimise landfill and to safeguard existing waste management sites from being unnecessarily lost or impacted by other development.

1.4. The need for Habitats Regulations Assessment is set out within Article 6 of the EC Habitats Directive 1992 and interpreted into British law by the Conservation of Habitats and Species Regulations 2017 (as amended). The ultimate aim of the Directive is to "maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest" (Habitats Directive, Article 2(2)). This aim relates to habitats and species rather than the European sites themselves, although the sites have a significant role in delivering favourable conservation status.

1.5. The Habitats Directive applies the precautionary principle to European sites. Plans and projects can only be permitted having ascertained that there will be no adverse effect on the integrity of the site(s) in question. Plans and projects with predicted adverse effects on European sites may still be permitted if there are no alternatives to them and there are Imperative Reasons of Overriding Public Interest (IROPI) as to why they should proceed. In such cases, compensation would be necessary to ensure the overall integrity of the site network.

1.6. To ascertain whether a sites integrity will be affected, a Habitats Regulations Assessment should be undertaken of the plan or project in question.

1.7. Over the years the phrase 'Habitats Regulations Assessment' has become common to describe the overall process set out in the Conservation of Habitats and Species Regulations 2017 (as amended) from screening through to IROPI. This has arisen to distinguish the process from the individual stage described in the law as an 'appropriate assessment'. Throughout this report the term Habitats Regulations Assessment is used for the overall process.

1.8. The objectives of the assessment are to:

- Identify any aspects of the Plan that would cause a likely significant effect on any Natura 2000 sites, otherwise known as European Sites, which include Special Areas of Conservation (SACs), candidate SACs (cSACs), Special Protection Areas (SPAs) and possible potential SPAs (ppSPAs) and as a matter of Government policy, Ramsar sites, both in isolation and in combination with other plans and projects; and
- Determine whether appropriate assessment (AA) would be required in order to identify potential adverse effects on the integrity of any European sites

1.9. Chapter 2 of this report summarises the methodology for the assessment. Chapter 3 identifies the possible pathways by which adverse effects on European sites could arise. Chapter 4 discusses the results of the test of likely significant effects and conclusions are detailed in chapter 5. Background Information on the European sites discussed in this report, including a catalogue of their interest features is provided in Appendix A. Appendix B presents a map of the European sites referenced in this report.

2. Methodology

2.1 Draft Government guidance makes it clear that when implementing HRA of land-use plans, the HRA should be undertaken at a level of detail that is appropriate and proportional to the level of detail provided within the plan itself:

> *'The comprehensiveness of the [appropriate] assessment work undertaken should be proportionate to the geographical scope of the option and the nature and extent of any effects identified. An AA need not be done in any more detail, or using more resources, than is useful for its purpose. It would be inappropriate and impracticable to assess the effects [of a strategic land use plan] in the degree of detail that would normally be required for the Environmental Impact Assessment (EIA) of a project.'* (CLG Planning for the Protection of European Sites, Consultation Paper 2006)

2.2 For a land use plan, the level of detail concerning the developments that will be delivered is usually insufficient to make a highly detailed assessment of the significance of effects as the specific type of development to be delivered in specific locations is not finalised until subsequent stages. Indeed, the Waste Local Plan for which this HRA has been prepared does not propose specific site allocations. Instead, it seeks to provide appropriate strategic policies for types of recycling and waste development, seeks to guide development to appropriate locations and provides development management policies under which applications will be assessed.

2.3 This HRA follows the stages of HRA according to current draft Government guidance. The stages are essentially iterative, being revisited as necessary in response to more detailed information, recommendation, and any relevant changes to the plan until no significant adverse effects remain:

- Scoping out the assessment - collecting information on relevant European sites, their conservation objectives and other plans or projects
- Task 1: Assessment of the likely significant effects ("screening") – identifying whether a plan is likely to have a significant effect on a European site.
- Task 2: Ascertaining the effect on site integrity - assessing the effects of the plan on the conservation objectives of any European sites screened during task 1
- Task 3: Mitigation measures and alternative solutions - where adverse affects are identified at task 2, the plan should be altered until adverse effects are cancelled out fully.

3. Scope of Assessment

3.1 The physical scope of the assessment (i.e. the range of European sites to be considered) is based on a combination of tracing impact pathways and using distances derived from various studies.

3.2 The European sites of relevance to this HRA are shown in Table 1. Full details of reasons for their designation, conservation objectives and key vulnerabilities are presented in Appendix A. The locations of these European sites in relation to Nottinghamshire County and Nottingham City are presented in Appendix B.

Table 1. European sites of relevance to HRA of the Plan Area

European site	Site summary	Proximity to Nottinghamshire County and Nottingham City
Birklands and Bilhaugh Special Area of Conservation (SAC)	270.5ha comprising old acidophilous oak woodland (the most northerly site selected for this habitat).	Within County
Hatfield Moor SAC/Thorne and Hatfield Moors Special Protection Area) Hatfield Moor SAC (overlaps Thorne and Hatfield Moors SPA)	Covers 1359.5ha comprising various habitats, designated primarily for its degraded raised bogs still capable of natural regeneration Thorne and Hatfield Moors SPA consists of two moors covering a combined 2449.2ha. The site is an extensive lowland raised mire system, of particular interest for nightjar (Caprimulgus europaeus).	Hatfield Moors is approximately 3km north of the Plan area. Thorne Moors is approximately 13 km north of the Plan area.

In addition, Nottinghamshire County contains the following possible potential Special Protection Area (ppSPA):

Table 2. Possible European sites of relevance to HRA of the Plan Area

Possible European site	Site Summary	Proximity to Nottinghamshire County and Nottingham City
Sherwood ppSPA	A portion of the Sherwood Forest supporting significant populations of bird species of European importance; specifically nightjar and woodlark (Lullula arborea)	Within County

3.3 Until the Sherwood Forest area is formally proposed by government as a ppSPA there is no legal obligation to undertake HRA of this site. However, if Sherwood ppSPA were to be formally proposed as a SPA, plans and projects would have to be subject by law to the provisions under the Conservation of Habitats and Species Regulations 2017(as amended) that apply to assessment of impacts on all European sites.

3.4 Natural England (NE) advises that in order to reduce future risks it is logical for Local Authorities to satisfy themselves that current planning applications contain 'sufficient objective information to ensure that all potential impacts on the breeding nightjar and woodlark populations have been adequately avoided or minimised'. Natural England therefore advises that local authorities take a 'risk-based approach' to forward planning and decision making, such that, development plans and proposals are accompanied by an 'additional and robust assessment of the likely impacts arising from the proposals on any breeding nightjar and woodlark in the Sherwood Forest area.'

3.5 It should be noted that the current possible boundary of the ppSPA may be subject to change if the site is designated. In accordance with Natural England's advice, an informal HRA screening opinion is provided in this report. Caution should be placed on the fact that Sherwood Forest is not an SPA (i.e. neither designated nor formally proposed for designation), such that the strict application of Regulation 105 is not required.

3.6 It is a requirement of the Conservation of Habitats and Species Regulations 2017 (as amended) that the impacts and effects of any plan being assessed are not considered in isolation but 'in combination' with other plans and projects that may also affect the European sites(s) in question.

3.7 In practice, in combination assessment is of greatest importance when the plan would otherwise be screened out because the individual contribution is inconsequential. The principal other plans and projects of relevance regarding in combination effects are:

- Amber Valley Borough Local Plan Preferred Spatial Strategy (2022)
- Anglian Water Draft Water Resources Management Plan (WRMP24) (2022)
- Ashfield Local Plan (2002); to be replaced by the Local Plan (Draft 2021)
- Barnsley, Doncaster & Rotherham Joint Waste Plan (2012)
- Bassetlaw Local Plan (submitted for examination 2022)
- Bolsover District Local Plan (adopted 2020)
- Broxtowe Local Plan Part 2 (adopted 2019
- Central Lincolnshire Local Plan (adopted 2023)
- Charnwood Local Plan (submitted for examination 2022)
- Doncaster Local Plan (adopted 2021)
- Erewash Core Strategy (submitted for examination 2022)
- Gedling Local Plan (part 2) (adopted 2018)
- Mansfield District Local Plan (adopted 2020)
- Melton Local Plan (adopted 2018)
- Newark and Sherwood Amended Core Strategy (adopted 2019)
- North Lincolnshire Local Plan (submitted for examination 2022)
- North West Leicestershire Local Plan (adopted 2021)
- Greater Nottingham Aligned Core Strategy (adopted 2014)
- Rotherham Core Strategy (adopted 2014) Site and Policies (adopted 2018)
- Rushcliffe Local Plan Part 1: Core Strategy (2014) and Local Plan Part 2: Land and Planning Policies (adopted 2019)
- Severn Trent Water Resource Management Plan (2019)
- South Kesteven Local Plan (adopted 2020).

4. Likely significant effects test (Screening)

4.1 The first stage of any HRA is a likely significant effects (LSE) test. This is essentially a high level assessment to decide whether the full subsequent stage known as appropriate assessment is required. The essential question is: *'Is the Plan, either alone or in combination with other relevant projects and plans, likely to result in a significant effect upon European sites?*'

4.2 The objective is to 'screen out' those plans and projects (or allocations/policies) that can, without any detailed appraisal, be said to be unlikely to result in significant adverse effects upon European sites, usually because there is no mechanism for an adverse interaction with European sites.

4.3 In evaluating significance, officers have relied on professional judgement as well as the results of previous stakeholder consultation regarding the Draft Waste Plan on the European sites considered within this assessment.

4.4 When carrying out this screening, it is important to determine the various ways in which land use plans can affect internationally designated sites. This means assessing the ways in which development can potentially impact on internationally designated sites, in some cases many kilometres distant. Given that this plan will be delivering waste development, the following impacts have been identified for the purposes of screening in this HRA:

- Direct land take;
- Disturbance; and
- Impact on Air and Water quality

Land take

4.5 European sites and their supporting ('functionally linked') habitat are vulnerable to direct loss of land to development. Loss of habitat is likely to have adverse impacts on populations of SPA bird species, which depend on sufficiently large areas of suitable foraging and nesting habitat. A reduction in the area of suitable habitat also increases the vulnerability of bird populations to other threats and pressures (e.g. fires, changes in habitat structure)

4.6 In terms of direct land take, the Joint Waste Plan is not allocating specific sites but instead including policies which guide development for waste management to the most appropriate locations including policies to safeguard and enhance biodiversity. None of the European sites, or

possible European sites, within the Plan Area will be directly affected by the Plan.

Disturbance

4.7 Waste processing activities can have significant disturbance impacts on wildlife. Disturbance can take many forms, including noise, visual (e.g. from vehicle movements) and vibration.

4.8 In terms of disturbance, it is re-iterated that the Plan is not allocating sites but instead including policies which guide development for waste management to the most appropriate locations including policies to safeguard and enhance biodiversity. None of the European sites, or possible European sites, within the Plan Area will be directly affected by disturbance from the Plan.

Impact on Air and Water Quality

4.9 Waste processing activities have the potential for air quality impacts on European sites, both by increasing levels of pollutants (e.g. through increased vehicle use) and through the spread of dust. Waste processing can also affect local water quality in terms of seepage of material into local water courses if not managed correctly.

4.10 However, none of the European sites, or possible European sites, within Nottinghamshire and Nottingham is dependent on a high-water table, or good water quality. They are essentially dry, well-drained habitats.

4.11 The Plan contains specific policies to address impacts on air and water quality and ensure that development is not permitted which would have adverse impacts.

Screening of policies in the Plan to determine if potential for likely significant effects on European sites

4.12 The Waste Local Plan does not include any site-specific allocations and therefore of itself it is not making any specific proposals for waste development which can be screened to determine if there is potential for likely significant effects.

4.13 The Plan includes the following policies, which have been screened to determine if there is potential for likely significant effects on European sites (the locations of which are shown in Appendix B). Table 3 provides a summary of each policy and the results of the screening which has been carried out by assessing the kinds of impact listed in paragraph 4.4. The

shading in green indicates that there is unlikely for potential likely significant effects on European sites.

Table 3. Screening of policies within the Joint Waste Local Plan.

WLP Policy	**Summary of Policy**	**Screening to determine if there is potential for likely significant effects on European sites**
SP1 Waste prevention and re-use	To ensure priority for waste prevention and re-use of materials	Unlikely for potential likely significant effects on European sites.
SP2 Future Waste Management Provision	To outline the strategic approach to new waste development	Unlikely for potential likely significant effects on European sites.
SP3 Broad Locations for New Waste Treatment facilities	To provide guidance on locations for new recycling and recovery facilities	Unlikely for potential likely significant effects on European sites.
SP4 Managing Residual Waste	To manage recovery of residual waste to land	Unlikely for potential likely significant effects on European sites.
SP5 Climate Change	To ensure proposals limit impact on climate change	Unlikely for potential likely significant effects on European sites.
SP6 Sustainable movement of waste	To promote sustainable movement of waste to /from waste management sites	Unlikely for potential likely significant effects on European sites.
SP7 Green Belt	To safeguard the Green Belt from inappropriate development	Unlikely for potential likely significant effects on European sites.
SP8 Safeguarding waste management sites	To safeguard existing waste capacity from unavoidable loss.	Unlikely for potential likely significant effects on European sites.
DM1 General Site Criteria	To outline a range of appropriate criteria for consideration when assessing development	Unlikely for potential likely significant effects on European sites.
DM2 Health, Wellbeing and Amenity	To guide consideration of impacts on health, wellbeing and	Unlikely for potential likely significant effects on European sites. This policy specifically references the

	amenity when assessing development	need to prevent proposals for waste facilities from having adverse impacts on air quality, including airborne emissions and dust
DM3 Design of Waste Management Facilities	To guide consideration of design when assessing the acceptability of development	Unlikely for potential likely significant effects on European sites.
DM4 Landscape Protection	To guide consideration of impact on landscape when assessing development	Unlikely for potential likely significant effects on European sites.
DM5 Protecting and enhancing Biodiversity and Geodiversity.	To guide consideration of impact on biodiversity and geodiversity when assessing development	Unlikely in itself for potential likely significant effects on European sites. The Plan is not allocating specific sites. This policy (which would apply to any waste development proposals in Nottinghamshire and Nottingham) specifically seeks to only support development which would *"not adversely affect the integrity of an European site (either alone or in combination with other plans or projects, including as a result of changes to air or water quality, hydrology, noise, light and dust), unless there are no alternative solutions, imperative reasons of overriding public interest and necessary compensatory measures can be secured in accordance with the requirements of the Conservation of Habitats and Species Regulations 2017, as amended."* In the case of impacts which cannot be avoided the policy states:

		In the case of European sites, mitigation must be secured which will ensure that there would be no adverse effect on the integrity of the site(s). Where mitigation is not possible and the applicant relies upon imperative reasons of overriding public interest, the Councils will need to be satisfied that any necessary compensatory measures can be secured.
DM6 Historic Environment	To guide consideration of impact on the historic environment when assessing development	Unlikely for potential likely significant effects on European sites.
DM7 Flood risk and water resources	To guide consideration of impact on flooding and water resources when assessing development	Unlikely for potential likely significant effects on European sites.
DM8 Public access.	To ensure public right of way network is not affected by development	Unlikely for potential likely significant effects on European sites.
DM9 Planning obligations.	To indicate that planning obligations will be sought where appropriate to help mitigate the impacts of development	Unlikely for potential likely significant effects on European sites.
DM10 Cumulative impacts of development.	To consider cumulative impacts of existing and proposed development when considering a development	Unlikely for potential likely significant effects on European sites.
DM11 Airfield safeguarding.	To prevent waste development from having unacceptable adverse impacts on aviation safety.	Unlikely for potential likely significant effects on European sites.

DM12 Highway safety and vehicle movements /routeing.	To ensure appropriate vehicle movements and routeing to and from development to minimise the impact of HGV traffic.	Unlikely for potential likely significant effects on European sites.

In combination effects

4.14 The local plans for the following districts overlap with the Sherwood ppSPA or associated plantations and areas of acid grassland: Mansfield, Newark & Sherwood, Ashfield, and Bassetlaw. They propose the delivery of housing and employment land over a period leading up to approximately 2038. Delivery of housing could lead to increased recreational pressure on the accessible parts of the Sherwood ppSPA. However, all submitted and adopted local plans in Mansfield, Newark and Bassetlaw have undertaken HRAs which consider impacts on the ppSPA from recreational pressure, and all conclude no adverse effect on integrity due to a combination of measures that all the authorities are introducing. Ashfield have prepared a Draft Plan but are proposing to re-issue the Plan with reduced levels of housing and will complete a HRA in due course.

4.15 The majority of these plans relate to local authority areas that are sufficiently distant to the European sites and possible European sites that there is no scope for in combination effects due to disturbance. The Doncaster Local Plan (adopted 2021) covers the area encompassing Hatfield Moor SAC and the Hatfield Moor unit of Thorne and Hatfield Moors SPA. Considering the distance from the Plan area and that there are no site allocations, there is no scope for in combination effects.

4.16 In combination effects due to disturbance are not therefore anticipated. Similarly, none of these plans propose development sufficiently close to any European sites or possible European sites of relevance to the Plan that in combination air quality impacts due to dust are a concern.

4.17 It is concluded that there is unlikely to be any significant effects on European sites as set out earlier from the policies contained in the Joint Waste Local Plan following the above screening exercise. Therefore, the process does not need to be followed to the next stage and ends here.

5. Conclusions

5.1 This report has been undertaken to assess the Nottinghamshire and Nottingham Waste Local Plan in accordance with the Habitats Regulations to determine its likely effect on habitats of European significance in and around Nottingham and Nottinghamshire.

5.2 The approach has focussed on a screening assessment to determine the need for appropriate assessment.

5.3 The Waste Local Plan is not proposing site specific allocations of land for waste related development but is including policies against which future applications will be judged. This includes policies to safeguard the impact of development on sites of biodiversity, and control the impacts on noise, dust and air quality.

5.4 The report includes a screening assessment of all policies and an assessment of the impacts of other plans in the area to assess “in combination” effects. The assessment concludes that the policies of the Plan and in combination with the impacts of other plans are unlikely to generate potential likely significant effects on European sites.

5.5 There is therefore no need to progress the HRA any further.

Appendix A- Background to European Sites

All background Information drawn from Natural England website

Birklands and Billaugh SAC

Introduction

Birklands and Billaugh SAC covers 270.5ha, predominantly comprising broad-leaved deciduous woodland (89%). It is the most northerly site selected for old acidophilous oak woods.

Conservation Objectives

With regard to the SAC and the habitats for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change:

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:

- The extent and distribution of qualifying natural habitats;
- The structure and function (including typical species) of qualifying natural habitats; and
- The supporting processes on which qualifying natural habitats rely.

Qualifying Features

The following features are reasons for designation as an SAC:

Annex I habitats that are a primary reason for selection of this site:

- Old acidophilous oak woods with *Quercus robur* on sandy plains for which this is one of only four known outstanding localities in the UK and is the most northerly site selected for old acidophilous oak woods. The site is notable for its rich invertebrate fauna, particularly spiders, and for a diverse fungal assemblage including *Grifoa suphurea* and *Fistulina hepatica*.

Condition Assessment

As of August 2013, 96.87%% of the site was in 'unfavourable recovering' condition. This condition is applied to areas of the SSSI/SAC which do not currently meet the criteria for favourable condition but are progressing towards that state and are expected to meet them in the future. The woodlands have been identified as benefiting from improved management, including improving and maintaining the structure and function of the woodland system and a continuity of dead-wood habitats. There are older trees and younger trees but none in middle age classes to replace the veteran/ancient trees as they die off. Targeting the composition and structure of trees present would make a big difference to the health of the identified features of interest. Pollution and climate change are also contributing factors to poor health and likely to

exacerbate stresses. These impacts may be more difficult to address directly, except through policy and indirectly through continued habitat management.

Environmental Vulnerabilities Relevant to the Plan

The threats and pressures likely to affect the SAC are listed below:

- Public access/disturbance: the location of the current visitor centre complex is preventing necessary restoration of the full extent of the oak woodland. SAC use as a public park can cause localise soil compaction, nutrient enrichment, direct loss of trees (vandalism, health and safety), introduction of non-native species (including diseases) and altered ecological succession.
- Changing land management: the previous lack of management has led to a very large age gap between the ancient trees and the next generation cohort. Without intervention this will result in localised extinction of invertebrate species and an alteration to vegetation structure.
- Physical modification: recent deep seam coal extraction immediately beneath the SAC has resulted in surface fissuring which could potentially impact ancient trees.
- Disease: woodland within the site is threatened by the spread of pathogens (often through movement of timber).
- Invasive species: the site is threatened by non-native invasive plants, notably Himalayan balsam (*Impatiens glandulifera*). Japanese knotweed (*Fallopia japonica*) appears to be under control following treatment. Rhododendron (*Rhododendron ponticum*) management is necessary to prevent the spread of the pathogen *Phytophthora*.
- Air pollution: nitrogen deposition in excess of habitat-specific critical loads risks detrimental effects on the functioning of habitats for which the SAC is designated (e.g. by encouraging the growth of more vigorous species at the expense of slower growing species of impoverished soils). According to Air Pollution Information System (APIS) data from 2013-201531, levels of nitrogen deposition exceed the habitat-specific critical loads for the old acidophilous oak woods with *Quercus robur* on sandy plains (average nitrogen deposition = 27.9kg N/ha/yr; critical load = 10-15kg N/ha/yr).

Hatfield Moor SAC and Thorne and Hatfield Moors SPA

Introduction

Hatfield Moors SAC covers 1359.5ha comprising varied habitats including bog and fen (12%), heath and scrub (9%) and broad-leaved deciduous woodland (6%). The site is of particular note for its bog and fen habitats which are a remnant of once-extensive peatlands within the Humberhead Levels. These are notable for invertebrate fauna including the highly localised mire pill beetle (*Curimopsis nigrita*).
Thorne and Hatfield Moors SPA consists of two moors covering a combined 2449.2ha. One of the moors, Hatfield Moor, is also included (to a greater extent) within Hatfield Moors SAC. With respect to bird populations of European importance, the Site supports a significant nightjar population.

Conservation Objectives

With regard to the SAC and the natural habitats and/or species for which the site has been designated (the'Qualifying Features' listed below), and subject to natural change:

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:

- The extent and distribution of qualifying natural habitats and the habitats of the qualifying features;
- The structure and function (including typical species) of qualifying natural habitats and the habitats of qualifying features;
- The supporting processes on which qualifying natural habitats and the habitats of qualifying features rely;
- The population of each of the qualifying features; and
- The distribution of the qualifying features within the site.

Qualifying Features

Annex I habitats that are a primary reason for selection of Hatfield Moor SAC:

- Degraded raised bogs still capable of natural regeneration.

Bird species for which Thorne and Hatfield Moors SPA is selected:

- Nightjar: 66 pairs representing at least 1.9% of the breeding population in Great Britain (5 count peak mean 1993, 1995-1998).

Condition Assessment

During its most recent assessment, 92.23% of the SAC (which includes the area of Hatfield Moor included within Thorne and Hatfield Moors SPA) was in 'unfavourable recovering' condition. This condition is applied to areas of the SSSI/SAC which do not currently meet the criteria for favourable condition but are progressing towards that state and are expected to meet them in the future. 6.50% of the site was in

'unfavourable – no change' condition. Areas of designated habitat continue to suffer from scrub encroachment, which is encouraged by drying of bog and mire habitats.

Environmental Vulnerabilities Relevant to the Plan

The threats and pressures likely to affect the SAC and SPA are listed below:

- Drainage: achieving stable water levels near to ground level and preventing further decline of raised mire habitat requires the improvement and reconfiguring of the artificial drainage system around the site.
- Inappropriate scrub control: in drier areas secondary scrub has developed in place of peatland, covering large areas of the moor. This increases water loss from this designated habitat. Large-scale scrub control is required.
- Atmospheric pollution: nitrogen deposition in excess of habitat-specific critical loads risks detrimental effects on the functioning of habitats for which the SAC is designated (e.g. by encouraging the growth of more vigorous species at the expense of slower growing species of impoverished soils). According to Air Pollution Information System (APIS) data from 2013-201538, levels of nitrogen deposition exceed the habitat-specific critical loads for the degraded raised bogs still capable of natural regeneration (average nitrogen deposition = 19.5kg N/ha/yr; critical load = 5-10kg N/ha/yr).
- Public access/disturbance: disturbance affects nightjar breeding success (e.g. through increased predator pressure).
- Planning permission: in the wider area (especially north and west of the site), windfarms have been erected or are proposed. The potential impacts of this on nightjar are poorly understood and require further investigation.
- Peat extraction: in few locations planning permissions remain in place relating to peat extraction, drainage and service area use.
- Invasive species: the site's peripheral drain contains New Zealand pygmyweed (*Crassula helmsii*). This can spread rapidly, outcompeting native plant species.

Sherwood Possible ppSPA

Introduction

A portion of the Sherwood Forest area is currently being considered as a possible potential Special Protection Area (referred to in this report as a 'ppSPA'), with regard to birds of European importance (nightjar and woodlark) that this area supports.

According to evidence submitted for the Rufford Energy Recovery Facility (ERF) Public Inquiry (February – September 2010), a draft ppSPA boundary was drawn and was based on combined Indicative Core Areas submitted by Natural England and Sherwood Important Bird Areas submitted by RSPB. The updated advice letter submitted by Natural England (March 2014), advises that it is the combined boundaries of these areas that form an informal ppSPA boundary. The Birklands and Bilhaugh SAC is included within this boundary.

Potential Qualifying Features and Conservation Objectives

Draft *Conservation Objectives* and *Qualifying Features of Interest* were submitted by Natural England as part of the ERF public inquiry, of which Natural England has advised that these are used to inform a 'risk-based approach'. These are summarised below:

> *Sherwood ppSPA probable interest features and conservation objectives*
>
> ***Conservation Objective*** *'To maintain the species features in favourable condition, which is defined in part in relation to their population attributes. On this site favourable condition requires the maintenance of the population of each species feature. Maintenance also implies restoration, if evidence from condition assessment suggests a reduction in size of population.'*
>
> ***Qualifying Features of Interest***
> *Nightjar and woodlark populations including breeding sites and occupied territories.*
> *Nightjar and woodlark habitats including lowland heathland, coniferous woodland with a mosaic of bare ground and low vegetation amongst young scrub, scattered trees or dense stands of young conifer trees.*

Based on 2004-2006 survey results, the Sherwood Area contains more than 1% of the UK's population of nightjar and woodlark. This constitutes the 'first step' (Stage 1) towards considering if the area qualifies as an SPA or potential SPA (pSPA)39. This information is currently being assessed along-side a UK-wide review programme led by Defra

The full SPA selection process has yet to be formally implemented and the formal UK Review of the existing suite of sites for nightjar and woodlark is pending. Accordingly, the Review Panel (JNCC) has not yet formed a view on whether a site within the Sherwood Forest region is one of the 'most suitable territories' for these species and therefore has not so far provided any advice to the Secretary of State on the selection of any SPA in the Sherwood Forest Area.

Potential Environmental Vulnerabilities

Currently, since the site is not officially proposed for designation, there are no formal conservation objectives or site boundaries available; therefore it is difficult to provide the same level of detail regarding site vulnerabilities, as has been given to other European sites discussed in this report.

In the absence of this information, a more informal approach has been taken.

Potential threats and pressures likely to affect the ppSPA are listed below:

- Public access/disturbance: ground-nesting nightjar and woodlark are vulnerable to disturbance from people and domestic pets.
- Construction-related disturbance: nightjar and woodlark are susceptible to disturbance by noise, traffic and artificial lighting which could occur during/following construction in close proximity to territories.
- Inappropriate habitat management: nightjar and woodlark have specific habitat requirements which require appropriate management of plantation habitat.
- Invasive plants: can change the vegetation structure required by SPA bird species.

Appendix B- Map of relevant European Sites for Waste Local Plan