Nottinghamshire Minerals
Plan HRA Screening Report

Appropriate Assessment

Nottinghamshire County Council

March 2020
Quality information

Prepared by
George Wilkinson
Ecologist (Grad CIEEM)
GradCIEEM

Checked by
Dr James Riley
Technical Director CEnv,
MCIEEM

Verified by
Dr Max Wade
Technical Director CECol,
FCIEEM

Approved by
Dr James Riley
Technical Director CEnv,
MCIEEM

Revision History

<table>
<thead>
<tr>
<th>Revision</th>
<th>Revision date</th>
<th>Details</th>
<th>Authorized</th>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>17/03/19</td>
<td>Draft for client review</td>
<td>JR</td>
<td>James Riley</td>
<td>Technical Director</td>
</tr>
<tr>
<td>01</td>
<td>06/04/20</td>
<td>Final</td>
<td>JR</td>
<td>James Riley</td>
<td>Technical Director</td>
</tr>
</tbody>
</table>

Distribution List

<table>
<thead>
<tr>
<th># Hard Copies</th>
<th>PDF Required</th>
<th>Association / Company Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Table of Contents

1. **Introduction** ...................................................................................................... 5
   In Combination Scope .............................................................................................. 7
2. **Appropriate Assessment** .................................................................................. 9
   Birklands and Bilhaugh SAC .................................................................................. 9
   Sherwood ppSPA and Thorne & Hatfield Moors SPA .............................................. 9
   Hatfield Moor SAC .................................................................................................. 9
3. **Consideration of other plans and projects** ...................................................... 11
4. **Conclusions** ................................................................................................... 12

Appendix A European Sites Background .................................................................. 13
   Birklands and Billaugh SAC .................................................................................. 13
   Hatfield Moor SAC and Thorne and Hatfield Moors SPA ...................................... 15
   Sherwood Possible pSPA ....................................................................................... 17
Appendix B Map of Site Allocations and Relevant European Sites ......................... 19
Appendix C Email from Natural England received 27/03/20 ..................................... 20
1. Introduction

1.1 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.

1.2 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.

1.3 In order to ascertain whether or not site integrity will be affected, a Habitats Regulations Assessment should be undertaken of the plan or project in question:

Box 1. The legislative basis for appropriate assessment

Habitats Directive 1992

Article 6 (3) states that:

“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.”

Conservation of Habitats and Species Regulations 2017 (as amended)

The Regulations state that:

“A competent authority, before deciding to … give any consent for a plan or project which is likely to have a significant effect on a European site … shall make an appropriate assessment of the implications for the site in view of that site’s conservation objectives… The authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site.”

1.4 Over the years the phrase ‘Habitats Regulations Assessment’ has come into wide currency 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 in order to distinguish the process from the individual stage described in the law as an ‘appropriate assessment’. Throughout this report we use the term Habitats Regulations Assessment for the overall process.

1.5 In 2018, the ‘People Over Wind’ European Court of Justice (ECJ) ruling1 determined that ‘mitigation’ (i.e. measures that are specifically introduced to avoid or reduce the harmful effects of a plan or project on European sites) should not be taken into account when forming a view on likely significant effects. Mitigation should instead only be considered at the appropriate assessment stage. Appropriate assessment is not a technical term; it simply means ‘an assessment that is appropriate’ for the plan or project in question. As such, the law purposely does not prescribe what it should consist of or how it should be presented; these are decisions to be made on a case by case basis by the competent authority.

1.6 In 2018, the Holohan ECJ ruling2 was also handed down. This determined that an HRA must catalogue (i.e. list/identify) all the features for which a European site is designated. It also determined that a European site must be considered within the context of its functional relationships in terms of a) whether any interest features of the European site may be located outside the site boundary and could be affected by the plan or project, and b) whether habitats and species for which the European site is not designated are designated.

---

1 People Over Wind and Sweetman v Coillte Teoranta (C-323/17).
2 Case C-461/17.
nonetheless fundamental to the ability of that site to achieve its conservation objectives and could be affected by the plan or project. This HRA report considers those issues.

1.7 AECOM was appointed by Nottinghamshire County Council to assist in undertaking Habitats Regulations Assessment (HRA) of its Minerals Local Plan (hereafter referred to as the ‘Plan’). The objectives of the assessment were 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 potential SPAs (pSPAs) 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.

1.8 The HRA was completed in Spring 2019 and concluded that the Minerals Local Plan would not result in any likely significant effects on any European sites or the Sherwood possible potential Special Protection Area, either alone or in combination with other plans or projects. No mitigation was necessary, or taken into account, in reaching this conclusion. Natural England were consulted on the HRA and responded on 02/04/19 agreeing that the Minerals Local Plan would result in no likely significant effect.

1.9 However, following submission of the Local Plan the Inspector appointed to undertake its Examination requested further analysis specifically regarding potential hydrological impacts, in the form of an appropriate assessment. This Addendum sets out that assessment.

1.10 Appropriate Assessment is not a technical term; it simply means ‘an assessment that is appropriate’ to support a conclusion regarding adverse effects on integrity. It is for the competent authority to determine whether an assessment is appropriate, although they are obliged to consult Natural England.

1.11 The European sites of relevance to this HRA are shown in Table 1. Full details of reasons for their designation (in accordance with the Holohan ruling), conservation objectives and key vulnerabilities are presented in Appendix A of the March 2019 HRA report. The locations of these European sites in relation to Nottinghamshire County are presented in Figure 1.

<table>
<thead>
<tr>
<th>European site</th>
<th>Site summary</th>
<th>Proximity to Nottinghamshire County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birklands and Bilhaugh</td>
<td>270.5ha comprising old acidophilous oak woodland (the most northerly site selected for this habitat).</td>
<td>Within County</td>
</tr>
<tr>
<td>SAC</td>
<td>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 (<em>Caprimulgus europaeus</em>).</td>
<td>Approximately 2.7km north of the county and 8.7km north of the closest minerals allocation (Bawtry Road West).</td>
</tr>
</tbody>
</table>

1.12 In addition, Nottinghamshire County contains the following possible pSPA (ppSPA) (Table 2).

<table>
<thead>
<tr>
<th>Possible European site</th>
<th>Site summary</th>
<th>Proximity to Nottinghamshire County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sherwood ppSPA</td>
<td>A portion of the Sherwood Forest supporting significant populations of bird species of European importance; specifically nightjar and woodlark (<em>Lullula arborea</em>).</td>
<td>Within County</td>
</tr>
</tbody>
</table>
1.13 While the Sherwood ppSPA has been advocated by local groups for designation as a European site for approximately a decade, the government has not yet taken it forward. Until the Sherwood Forest area is formally proposed by government as a pSPA there is no legal obligation to undertake any HRA of this site. However, if Sherwood ppSPA were to be formally proposed as a pSPA, 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. Natural England (NE) still advises that in order to reduce future risks should the site ever be proposed, 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’. In doing so, NE advises that this should be done ‘using appropriate measures and safeguards’, in order to ‘ensure that any future need to review outstanding permissions under the 2010 Regulations is met with a robust set of measures in place’ (letter from Natural England, 28 June 2010 updated July 2011, September 2012, and March 2014).

1.14 In addressing the above, Natural England 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.’ It should be noted that the current possible boundary of the ppSPA may be subject to change in the event that the site is designated.

1.15 In accordance with Natural England’s advice, as reinforced by the Secretary of State, an informal appropriate assessment is provided in this report.

In Combination Scope

1.16 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.

1.17 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 Draft Local Plan (2017);
- Anglian Water Revised Draft Water Resources Management Plan (2019);
- Ashfield Local Plan (2002); to be replaced by the Emerging Local Plan (withdrawn February 2018);
- Barnsley, Doncaster & Rotherham Joint Waste Plan (2012);
- Bassetlaw Draft Local Plan (2019);
- Bolsover District Local Plan (submitted 2018);
- Broxtowe Local Plan (2014);
- Central Lincolnshire Local Plan (2017);
- Charnwood Local Plan (2015);
- Doncaster Draft Local Plan (2018);
- Erewash Core Strategy (2014);
- Gedling Plan (2018);
- Mansfield District Local Plan Draft (2018);
- Melton Local Plan 2018;
- Newark and Sherwood Amended Core Strategy (2018) and Preferred Approach – ‘Sites and Settlements’ and ‘Town Centres and Retail’ (2017);
- North Lincolnshire Local Plan (2003); to be replaced by the Local Development Framework;
- North West Leicestershire Local Plan (2017);
- Nottingham City Aligned Core Strategy (2014) and Local Plan Part 2 (submitted 2018);
- Rotherham Core Strategy (2014) and Site and Policies (2018);
- Rushcliffe Local Plan Part 1: Core Strategy (2014) and Local Plan Part 2: Land and Planning Policies (currently under examination);
- Severn Trent Draft Water Resource Management Plan (2018); and
- South Kesteven Pre-submission Local Plan (2018).
2. Appropriate Assessment

2.1 It is understood that the Inspector’s request for appropriate assessment relates to exploration of the potential for hydrological effects on the European sites identified in Tables 1 and 2 from minerals activity.

Birklands and Bilhaugh SAC

2.2 As set out in paragraph 2.4 of the March 2019 HRA none of the European sites, or possible European sites, within Nottinghamshire are dependent on a high water-table, or good water quality. They are essentially dry, well-drained habitats.

2.3 Birklands and Bilhaugh SAC is designated for the habitat ‘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 Grifola sulphurea and Fistulina hepatica’. In other words, it is designated for its oak forest. Oak forest is a habitat that may have very localised poorly drained areas but is primarily a habitat of well-drained substrates. It is not associated with a high water-table (indeed, excessive water levels can be damaging) and therefore activities that may affect the water table (underlying aquifers) will not affect the interest features of this SAC. This is reflected in the fact that the Natural England Site Improvement Plan for this SAC does not identify abstraction or water levels as a threat or pressure to the achievement of the site’s conservation objectives.

2.4 Therefore, minerals development in Nottinghamshire presents no mechanism for an adverse effect on the integrity of the SAC and no special measures or mitigation are required in order to ensure an adverse effect on integrity does not arise.

Sherwood ppSPA and Thorne & Hatfield Moors SPA

2.5 As set out in paragraph 2.4 of the March 2019 HRA none of the European sites, or possible European sites, within Nottinghamshire are dependent on a high water-table, or good water quality. They are essentially dry, well-drained habitats.

2.6 Sherwood ppSPA is informally recommended for designation for its populations of nightjar and woodlark, while Thorne & Hatfield Moors SPA is formally designated for nightjar. These are both ground nesting species that will only nest in well-drained areas (primarily acid grassland, dry heathland and rotationally managed plantation early in its management cycle). A high water-table would therefore be inimical to the ability of the ppSPA or SPA to achieve its conservation objectives. Neither species forages particularly in wetlands or requires a high water-table in their foraging areas. This is reflected in the fact that the Natural England Site Improvement Plan for Thorne & Hatfield Moors SPA does not identify abstraction or water levels as a threat or pressure to the achievement of the site’s conservation objectives for nightjar.

2.7 Therefore, minerals development in Nottinghamshire presents no mechanism for an adverse effect on the integrity of the ppSPA or SPA and no special measures or mitigation are required in order to ensure an adverse effect on integrity does not arise.

Hatfield Moor SAC

2.8 Hatfield Moor SAC is designated for its degraded raised bogs still capable of natural regeneration. As such it is dependent on either a high water-table, fluvial input or poorly drained substrates (or all of these). This is reflected in the Site Improvement Plan for the SAC, which identifies ‘drainage’ as an issue for the ‘degraded raised bogs’ interest feature. It is also reflected in the Supplementary Advice for the conservation objectives of the SAC, which states that ‘Changes in source, depth, duration, frequency, magnitude and timing of water supply can have significant implications for the assemblage of characteristic plants and animals present’.

2.9 The SAC lies approximately 2.7km north of the Nottinghamshire county boundary and 8.7km north of the closest minerals allocation (Bawtry Road West). For the purposes of this appropriate assessment a desk-
based hydrogeological investigation has been undertaken of potential linkages between the closest minerals allocation (Bawtry Road West) and the SAC.

2.10 Bawtry Road West (near Austerfield) overlies the river terrace gravels, a superficial (shallow) aquifer. These deposits extend east and north east of Austerfield and Misson. Groundwater in superficial aquifers such as river terrace gravels will discharge to local drainage channels, which in the area around Bawtry Road West are part of the River Idle catchment, which drains east or north-east towards the River Trent and the Humber Estuary. The aquifer and channels associated with Bawtry Road West are similarly likely to drain in an east or south east direction toward the River Idle, rather than north towards Hatfield Moor.

2.11 Hatfield Moor is separated by Bawtry Road West by the River Torne (also draining to the Humber Estuary) and is underlain by poorly drained peat deposits and alluvium (a deposit of clay, silt, and sand), which in turn overlie river terrace gravels associated with the Torne. Groundwater in these deposits will be recharged locally, with upgradient (higher) areas to the west of the moor potentially providing inflows. Groundwater is not expected to flow north from Austerfield towards Hatfield Moor.

2.12 In the large area separating Bawtry Road West and the River Torne there are numerous low-level drains. Levels in these drains are controlled (pumped) by the internal drainage board (IDB) north into the River Torne to prevent flooding. Hatfield Moor is situated to the north of the River Torne and is associated with a separate series of low-level drains north of the river. Therefore, surface water level management by the IDB south of the River Torne will not affect water supply or levels at Hatfield Moor, north of the river.

2.13 Therefore, minerals development in Nottinghamshire presents no mechanism for an adverse effect on the integrity of the SAC as there is no hydrological connectivity between north Nottinghamshire and the SAC and thus no special measures or mitigation are required in order to ensure an adverse effect on integrity does not arise.
3. Consideration of other plans and projects

3.1 The law requires projects that can be concluded not to result in adverse effects on integrity alone to also consider potential for adverse effects on integrity in combination with other projects and plans. In this case the conclusion of no adverse effects on integrity from the Nottinghamshire Minerals Plan is drawn because either:

- the interest features of the European sites in question are not affected by changes to hydrology; or
- because there is no hydrological connectivity between the minerals sites allocated in the plan and those interest features dependent on hydrology.

3.2 As such, there is no mechanism for an adverse effect on integrity to arise even in combination with other projects and plans.
4. Conclusions

4.1 It can be concluded with a high degree of confidence and beyond reasonable scientific doubt that the Nottinghamshire Minerals Plan will not have an adverse effect on the integrity of any European site or Sherwood ppSPA, either alone or in combination with other plans and projects. Natural England have confirmed that they agree with this conclusion (Appendix C).
Appendix A European Sites
Background

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 sulphurea* 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

---

4 http://publications.naturalengland.org.uk/publication/5179475394297856 [Accessed 13/02/2019]
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 2013–2015, 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).

---

9 [http://www.apis.ac.uk/src/select-a-feature?site=UK0012740&SiteType=SAC&submit=Next][9] [accessed 13/02/19]
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\(^{10,11}\)

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\(^{12,13}\)

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\(^{14}\)

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.

---

\(^{10}\) [http://publications.naturalengland.org.uk/publication/4872212687355904](http://publications.naturalengland.org.uk/publication/4872212687355904) [Accessed 14/02/19]

\(^{11}\) [http://publications.naturalengland.org.uk/publication/6503407711344768](http://publications.naturalengland.org.uk/publication/6503407711344768) [Accessed 14/02/19]

\(^{12}\) [http://jncc.defra.gov.uk/ProtectedSites/SACselection/sac.asp?EUCode=UK0030166](http://jncc.defra.gov.uk/ProtectedSites/SACselection/sac.asp?EUCode=UK0030166) [Accessed 14/02/19]

\(^{13}\) [http://jncc.defra.gov.uk/page-1988-theme=default](http://jncc.defra.gov.uk/page-1988-theme=default) [Accessed 14/02/2019]

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 2013-2015, 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.

---

15 [http://publications.naturalengland.org.uk/publication/6489780632158208](http://publications.naturalengland.org.uk/publication/6489780632158208) [Accessed 14/02/19]

16 [http://www.apis.ac.uk/src/select-a-feature?s=UK0030166&SiteType=SAC&submit=Next](http://www.apis.ac.uk/src/select-a-feature?s=UK0030166&SiteType=SAC&submit=Next) [accessed 14/02/19]
Sherwood Possible pSPA

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 in Table 4.

Table 3. Sherwood ppSPA probable interest features and conservation objectives

<table>
<thead>
<tr>
<th>Conservation Objective</th>
<th>Qualifying Features of Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘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.’</td>
<td>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.</td>
</tr>
</tbody>
</table>

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)\(^{17}\). This information is currently being assessed along-side a UK-wide review programme led by Defra\(^{18}\).

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.

\(^{17}\) For more information, see the Joint Nature Conservation Committee’s website on SPA classification: [http://jncc.defra.gov.uk/page-1405](http://jncc.defra.gov.uk/page-1405)

\(^{18}\) The time schedule of this UK SPA Review has been changeable. There are many issues included in this review, including a more realistic alignment with the European Habitats Directive. This may have implications for how sites are selected and what complimentary areas are included. For more information, see the Joint Nature Conservation Committee’s website (Review of the UK SPA Network): [http://jncc.defra.gov.uk/page-162](http://jncc.defra.gov.uk/page-162)
• 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 Site Allocations and Relevant European Sites
NOTTINGHAMSHIRE MINERALS HRA

SITE ALLOCATIONS AND RELEVANT EUROPEAN SITES

LEGEND

- Longdale Plantation
- Site Allocation
- Nottinghamshire County Boundary
- Special Protection Area (SPA)
- Special Area of Conservation (SAC)
- Sherwood Possible Potential
- Special Protection Area (ppSPA)

NOTTINGHAMSHIRE COUNTY COUNCIL

AECOM

MidPoint

Recon Line, Basingstoke
Hampshire, RG21 1PP

Telephone: 01256 310200
Fax: 01256 310201

www.aecom.com

File Name: I:\5004 - Information Systems\60585251 - Nottinghamshire Minerals HRA\02_Maps\Figure 1 - Site Allocations and Relevant European Sites Portrait.mxd

THIS DOCUMENT HAS BEEN PREPARED PURSUANT TO AND SUBJECT TO THE TERMS OF AECOM'S APPOINTMENT BY ITS CLIENT. AECOM ACCEPTS NO LIABILITY FOR ANY USE OF THIS DOCUMENT OTHER THAN BY ITS ORIGINAL CLIENT OR FOLLOWING AECOM'S EXPRESS AGREEMENT TO SUCH USE, AND ONLY FOR THE PURPOSES FOR WHICH IT WAS PREPARED AND PROVIDED.
Appendix C Email from Natural England received 27/03/20

Dear James

Thank you for your email of 24 March regarding the HRA addendum to the Appropriate Assessment for the Nottinghamshire Minerals Local Plan.

Natural England has reviewed the document which has provided further analysis specifically regarding the potential hydrological impacts of the Minerals Local Plan proposals on relevant European Sites and the Sherwood ppSPA. We note that the addendum also includes an in-combination assessment.

Natural England can confirm that we agree with the HRA Addendum Report’s conclusions that, the Nottinghamshire Minerals Local Plan would not be likely to have a significant effect on any European Site or the Sherwood ppSPA either alone or in combination with other plans or projects.

If you wish to discuss this matter further, please do not hesitate to contact me.

Kind regards

Roslyn Deeming