Report for Habitats Regulations Assessment

South Kesteven Local Plan

South Kesteven District Council

Project number: 60700914

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Quality information

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1. Introduction

Background

1.1 AECOM was appointed by South Kesteven District Council to produce a report to inform the Council's Habitats Regulations Assessment (HRA) of the potential effects of the South Kesteven Local Plan on the National Site Network of Special Areas of Conservation, Special Protection Areas and Ramsar sites. For simplicity these sites are referred to as European sites throughout this report. The objectives of the assessment are to:

- Identify any aspects of the Local Plan that would cause an adverse effect on the integrity of European sites either alone or in combination with other plans and projects; and
- To advise on appropriate policy mechanisms for delivering mitigation where such effects were identified.

1.2 The HRA of the South Kesteven Local Plan is required to determine if there are any realistic linking pathways present between a European site and the Local Plan and where Likely Significant Effects cannot be screened out, an analysis to inform Appropriate Assessment is undertaken to determine if adverse effects on the integrity of the European sites will occur as a result of the Local Plan alone or in combination.

Legislative Context

1.1 The United Kingdom (UK) left the European Union (EU) on 31 January 2020 under the terms set out in the European Union (Withdrawal Agreement) Act 2020 ("the Withdrawal Act"). The Withdrawal Act retains the body of existing EU-derived law within our domestic law. The most recent amendments to the Habitats Regulations – the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 – make it clear that the need for HRA continues post-Brexit.

1.2 The HRA process applies the 'Precautionary Principle'[1] to European sites. Plans and projects can only be permitted having ascertained that there will be no adverse effect on the integrity of the European site(s) in question. Plans and projects with predicted adverse impacts on European sites may still be permitted if there are no alternatives to them and there are Imperative Reasons of Over-riding Public Interest (IROPI) as to why they should go ahead. In such cases, compensation would be necessary to ensure the overall integrity of the site network.

1.3 The need for Appropriate Assessment (AA, Plate 1) is set out in the Conservation of Habitats and Species Regulations 2017 (as amended).

[1] The Precautionary Principle, which is referenced in Article 191 of the Treaty on the Functioning of the European Union, has been defined by the United Nations Educational, Scientific and Cultural Organisation (UNESCO, 2005) as: *"When human activities may lead to morally unacceptable harm* [to the environment] *that is scientifically plausible but uncertain, actions shall be taken to avoid or diminish that harm. The judgement of plausibility should be grounded in scientific analysis".*

Conservation of Habitats and Species Regulations 2017 (as amended)

"A competent authority, before deciding to … give any consent, permission or other authorisation for a plan or project which… 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) … must make an appropriate assessment of the implications for that 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 …"

Plate 1: The Legislative basis for Appropriate Assessment

1.4 Therefore, it is important to note that this report has two purposes:

- To assist the Qualifying Body (South Kesteven District Council) in preparing their plan by recommending (where necessary) any adjustments required to protect European sites, thus making it more likely their plan will be deemed compliant with the Conservation of Habitats and Species Regulations 2017 (as amended); and
- On behalf of the Qualifying Body, to assist the Local Planning Authority (Lincolnshire Council) to discharge their duty under Regulation 105 (in their role as 'plan-making authority' within the meaning of that regulation) and Regulation 106 (in their role as 'competent authority') and reach the formal HRA decision.

1.5 As Competent Authority, the legal responsibility for ensuring that a decision of LSEs is made, an AA (where required) is undertaken, and Natural England are consulted, falls on the Local Planning Authority. However, they are entitled to request from the Qualifying Body the necessary information on which to base their judgment and that is the key purpose of this report.

1.6 Over the years, the term HRA has come into wide currency to describe the overall process set out in the Habitats Regulations, from LSEs screening through to identification of IROPI. This has been established to distinguish the overall process from the individual stage of AA. Throughout this report the term HRA is used for the overall process and the use of AA is restricted to the specific stage of that name.

1.7 In spring 2018 the 'Sweetman' European Court of Justice ruling[2] clarified that 'mitigation' (i.e., measures that are specifically introduced to avoid or reduce a harmful effect on a European site that would otherwise arise) should **not** be taken into account when forming a view on LSEs. Mitigation should instead only be considered at the AA stage. This HRA has been cognisant of that ruling.

Report Layout

1.8 **Chapter 2** of this report explains the methodology by which this HRA has been carried out, including the three essential tasks that form part of HRA. **Chapter 3** provides details of the relevant European sites, including Conservation Objectives and current pressures and threats. **Chapter 4** provides detailed background on the main impact pathways identified in relation to the WSGNP and the relevant European sites. **Chapter 5** undertakes the screening assessment of LSEs of the Plan policies and sites potentially proposed for allocation. The conclusions and recommendations arising from the HRA process are provided in **Chapter 6**.

[2] People Over Wind and Sweetman v Coillte Teoranta (C-323/17)

2. Methodology

Introduction

2.1 This section sets out the approach and methodology for undertaking the Habitats Regulations Assessment (HRA).

A Proportionate Assessment

2.2 Project-related HRA often requires bespoke survey work and novel data generation in order to accurately determine the significance of effects. In other words, to look beyond the risk of an effect to a justified prediction of the actual likely effect and to the development of avoidance or mitigation measures.

2.3 However, the draft MHCLG guidance[3] (described in greater detail later in this chapter) makes it clear that when implementing HRA of land-use plans, the Appropriate Assessment (AA) should be undertaken at a level of detail that is appropriate and proportional to the level of detail provided within the plan itself:

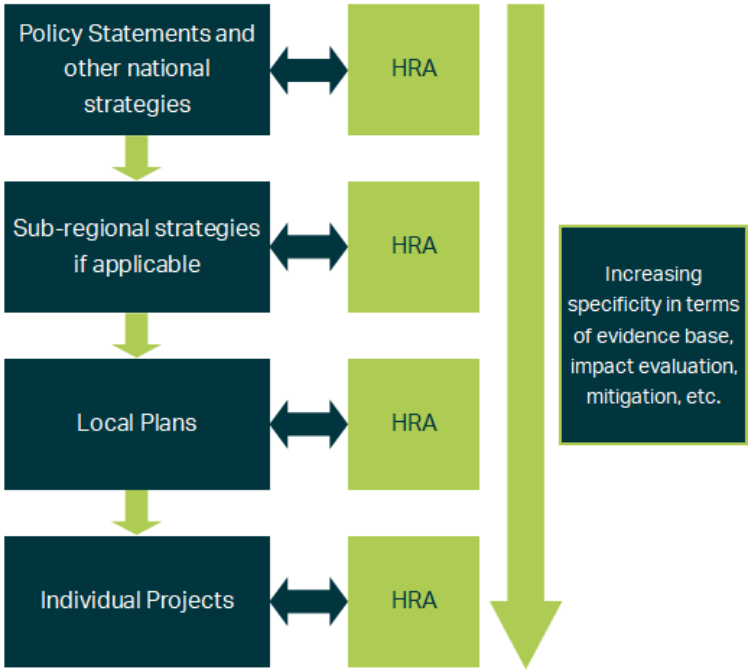
2.4 "The comprehensiveness of the [Appropriate] assessment work undertaken should be proportionate to the geographical scope of the option and the nature and extent of any effects identified. An AA need not be done in any more detail, or using more resources, than is useful for its purpose. It would 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."

2.5 More recently, the Court of Appeal[4] ruled that providing the Council (competent authority) was duly satisfied that proposed mitigation could be "*achieved in practice"* then this would suffice to meet the requirements of the Habitat Regulations. This ruling has since been applied to a planning permission (rather than a Plan document)[5]. In this case the High Court ruled that for "*a multistage process, so long as there is sufficient information at any particular stage to enable the authority to be satisfied that the proposed mitigation can be achieved in practice it is not necessary for all matters concerning mitigation to be fully resolved before a decision maker is able to conclude that a development will satisfy the requirements of reg 61 of the Habitats Regulations"*.

2.6 In other words, there is a tacit acceptance that AA can be tiered and that all impacts are not necessarily appropriate for consideration to the same degree of detail at all tiers as illustrated in **Plate 2**.

[3] MHCLG (2006) Planning for the Protection of European Sites, Consultation Paper
[4] No Adastral New Town Ltd (NANT) v Suffolk Coastal District Council Court of Appeal, 17th February 2015
[5] High Court case of R (Devon Wildlife Trust) v Teignbridge District Council, 28 July 2015

Plate 2: Tiering in HRA of Land Use Plans



2.7 At the same time, it is necessary to have confidence that sites allocated in a Local Plan have a reasonable prospect of being deliverable without fundamental Habitats Regulations Assessment issues.

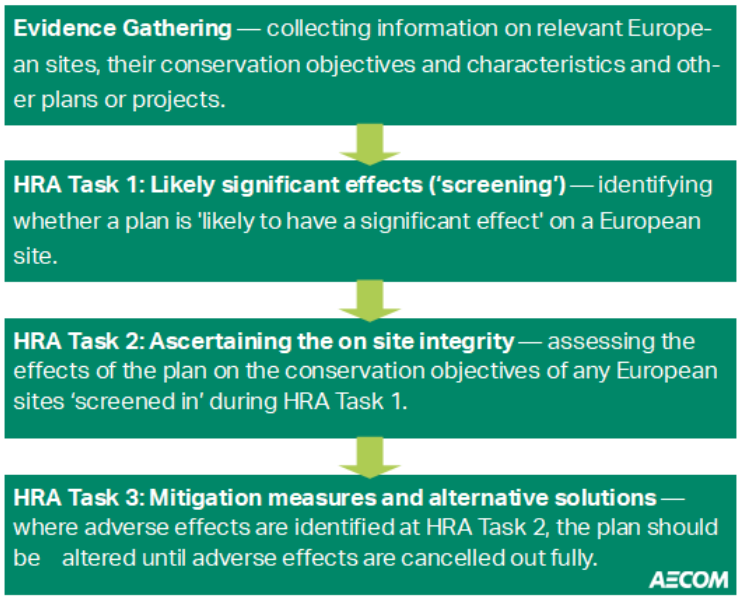
2.8 The most robust and defensible approach to the absence of fine grain detail at this level is to make use of the precautionary principle. In other words, the plan is never given the benefit of the doubt (within the limits of reasonableness); it must be assumed that a policy/measure is likely to have an impact leading to a significant adverse effect upon an internationally designated site unless it can be clearly established otherwise.

The Process of HRA

2.9 Central government have released general guidance on appropriate assessment[6]. **Plate 3** outlines the stages of HRA according to guidance. The stages are essentially iterative, being revisited as necessary in response to more detailed information, recommendations, and any relevant changes to the plan until no likely significant effects remain.

[6] https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site

Plate 3: Four-Stage Approach to Habitats Regulations Assessment



2.10 The following process has been adopted for carrying out the subsequent stages of the HRA.

Task One: Test of Likely Significant Effects

2.11 Following evidence gathering, the first stage of any Habitats Regulations Assessment is a LSEs screening - essentially a brief, high-level assessment to decide whether the full subsequent stage known as AA 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?*"

2.12 The objective is to 'screen out' those plans and projects that can, without any detailed appraisal, be concluded to be unlikely to result in significant adverse effects upon European sites, usually because there is no mechanism for an adverse interaction.

2.13 The LSEs screening is based on identification of the impact source, its pathway to receptors and an appraisal of the specific European site receptors. These are normally designated features but also include habitats and species fundamental for designated features to achieve favourable conservation status (notably functionally linked habitats outside the European site boundary).

2.14 In the Waddenzee case[7], the European Court of Justice ruled on the interpretation of Article 6(3) of the Habitats Directive, including that:

- An effect should be considered 'likely', "if it cannot be excluded, on the basis of objective information, that it will have a significant effect on the site" (para 44);
- An effect should be considered 'significant', "if it undermines the conservation objectives" (para 48); and
- Where a plan or project has an effect on a site "but is not likely to undermine its conservation objectives, it cannot be considered likely to have a significant effect on the site concerned" (para 47).

2.15 The LSEs screening consists of two parts: Firstly, it should determine whether there are any policies that could result in negative impact pathways and secondly it establishes whether there are any European sites that might be affected. It identifies European sites that are most likely to be impacted by the Plan and the impact pathways that are most likely to require consideration.

[7] Case C-127/02

2.16 It is important to note that LSEs screening must generally follow the precautionary principle as its main purpose is to determine whether the subsequent stage of AA (i.e., a more detailed investigation) is required.

The Geographic Scope

2.17 There is no standard criteria that dictates the ultimate physical scope of an HRA of a Plan in all circumstances. Therefore, in considering the physical scope of the assessment AECOM was guided primarily by the identified impact pathways rather than by arbitrary "zones", i.e. a source-pathway-receptor approach. Current guidance suggests that the following European sites be included in the scope of assessment:

- All sites within the District; and
- Other sites shown to be linked to development within South Kesteven through a known "pathway" (discussed below).

2.18 Briefly defined, impact pathways are routes by which a change in activity within the plan area can lead to an effect upon a European site. In terms of the second category of European site listed above, Department for Leveling Up, Housing and Communities (DLUHC) (formerly Ministry of Housing, Communities and Local Government (MHCLG)) guidance states that the AA should be "*proportionate to the geographical scope of the* [plan policy]" and that "*an AA need not be done in any more detail, or using more resources, than is useful for its purpose*" (MHCLG, 2006, p.6).

2.19 Full details of all European designated sites discussed in this document can be found in **Chapter 3** specifying their qualifying features, conservation objectives and pressures and threats to integrity taken from the Site Improvement Plan for each site, although it is noted that the Conservation Objectives and Supplementary Advice on Conservation Objectives take precedence over Site Improvement Plans as they are generally more recent. **Table 1** below lists all those European designated sites included in this HRA.

Table 1. Physical Scope of the HRA - European Sites of Interest

European Site	Distance from South Kesteven District
Nene Washes Ramsar	9.7 km south of District
Rutland Water Ramsar	5.6 km west of District
Grimsthorpe SAC	Within the District
Baston Fen SAC	Within the District
Barnack Hills & Holes	1.7 km south of District
Rutland Water SPA	5.6 km west of District
Nene Washes SPA	9.7 km south of District

Confirming Other Plans and Projects That May Act 'In Combination'

2.20 It is a requirement of the Regulations that the impacts and effects of any land use plan being assessed are not considered in isolation but in combination with other plans and projects that may also be affecting the European designated site(s) in question.

2.21 In considering the potential for combined regional housing development to impact on European sites the primary consideration is the impact of visitor numbers – i.e., recreational pressure and urbanisation.

2.22 When undertaking this part of the assessment it is essential to bear in mind the principal intention behind the legislation i.e., to ensure that those projects or plans (which in themselves have minor impacts) are not simply dismissed on that basis but are evaluated for any cumulative contribution they may make to an

overall significant effect. In practice, in combination assessment is therefore of greatest relevance when the plan would otherwise be screened out because its individual contribution is inconsequential. The overall approach is to exclude the risk of there being unassessed likely significant effects in accordance with the precautionary principle. This was first established in the seminal Waddenzee[8] case.

2.23 For the purposes of this HRA, we have determined that the key other documents with a potential for in-combination effects are:

- North Northamptonshire Joint Core Strategy[9]
- Rutland Local Plan[10]
- Melton Local Plan[11]
- Newark and Sherwood Local Development Framework[12]
- Central Lincolnshire Local Plan[13]
- South East Lincolnshire Local Plan[14]
- Peterborough Local Plan 2016 to 2036[15]
- Anglican Water – Drainage and Wastewater Management Plan Draft[16]
- Anglican Water – Water Resources Management Plan[17]

2.24 It should be noted that, while the broad potential impacts of these plans will be considered, this document does not carry out a full HRA of these Plans and projects. Instead, it draws upon existing HRAs that have been carried out on the Plans and projects.

3. Background to European Sites

Nene Washes SPA and Ramsar

Introduction

3.1 The Nene Washes SPA represents one of the country's few remaining areas of washland habitat which is essential to the survival nationally and internationally of populations of wildfowl and waders. The site is additionally notable for the diversity of plant and associated animal life within its network of dykes. In summer, the site is of importance for breeding waders, as well as spotted crake *Porzana porzana*, whilst in winter the site holds large numbers of waders and wildfowl. Throughout, the area supports a diverse assemblage of waterbirds including black tailed-godwit *Limosa limosa*, lapwing *Vanellus vanellus*, pochard *Aythya ferina*, teal *Anas crecca*, gadwall *Mareca strepera*, wigeon *Mareca penelope*, shoveler *Anas clypeata*, pintail *Anas acuta*, ruff *Calidris pugnax*, and Bewick's swan *Cygnus columbianus bewickii*.

[8] Waddenzee case (Case C-127/02, [2004] ECR-I 7405)
[9] North Northamptonshire Joint Core Strategy (http://www.nnjpu.org.uk/docs/Joint Core Strategy 2011-2031 High Res version for website.pdf) Accessed 17/02/2023
[10] Rutland Local Plan (https://www.rutland.gov.uk/planning-building-control/local-plan/adopted-local-plan) Accessed 17/02/2023
[11] Melton Local Plan (https://www.meltonplan.co.uk/adoptedplan) Accessed 17/02/2023
[12] Newark and Sherwood Local Development Plan (https://www.newark-sherwooddc.gov.uk/ldf/) Accessed 17/02/2023
[13] Central Lincolnshire Local Plan (https://www.n-kesteven.gov.uk/central-lincolnshire/adopted-local-plan-2017/) Accessed 17/02/2023
[14] South East Lincolnshire Local Plan (http://www.southeastlincslocalplan.org/adopted-plan/) Accessed 17/02/2023
[15] Peterborough Local Plan (https://cccandpcc.sharepoint.com/sites/PCCPlanningPolicyPublicData/Shared%20Documents/Forms/AllItems.aspx?id=%2Fsites%2FPCCPlanningPolicyPublicData%2FShared%20Documents%2FPlanning%20Policy%2FAdopted%20Local%20Plan%2FPeterborough%20Local%20Plan%2F1%2EPeterborough%20Local%20Plan%2024%20July%202019%2Epdf&parent=%2Fsites%2FPCCPlanningPolicyPublicData%2FShared%20Documents%2FPlanning%20Policy%2FAdopted%20Local%20Plan%2FPeterborough%20Local%20Plan&p=true&ga=1) Accessed 17/02/2023
[16] Anglican Water - Drainage and Watewater Management Plan (https://www.anglianwater.co.uk/about-us/our-strategies-and-plans/drainage-wastewater-management-plan/) Accessed 17/02/2023
[17] Anglican Water – Water Resources Management Plan (https://www.anglianwater.co.uk/about-us/our-strategies-and-plans/water-resources-management-plan/) Accessed 17/02/2023

Conservation Objectives[18]

3.2 With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change;

3.3 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

- 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.

Qualifying Features

3.4 With regards to the SPA the following are reasons for designation:

- *Cygnus columbianus bewickii*; Bewick's swan (Non-breeding);
- *Mareca penelope*; Eurasian wigeon (Non-breeding);
- *Mareca strepera*; gadwall (Breeding);
- *Mareca strepera*; gadwall (Non-breeding);
- *Anas crecca*; Eurasian teal (Non-breeding);
- *Anas acuta*; northern pintail (Non-breeding);
- *Anas querquedula*; garganey (Breeding);
- *Anas clypeata*; northern shoveler (Non-breeding);
- *Anas clypeata*; northern shoveler (Breeding); and,
- *Limosa limosa limosa*; black-tailed godwit (Breeding).

3.5 With regards to the Ramsar[19] the following are reasons for designation:

Criterion 2

3.6 The site supports an important assemblage of nationally rare breeding birds. In addition, a wide range of raptors occur through the year. The site also supports several nationally scarce plants, and two vulnerable and two rare British Red Data Book invertebrate species have been recorded

Criterion 6

3.7 Species or populations occurring at levels of international importance – peak counts in the winter:

- *Cygnus columbianus bewickii*; Bewick's swan – 694 individuals representing 2.3% of the population.

3.8 Species or populations identified subsequent to designation for possible consideration under Criterion 6 – peak counts in the spring/autumn:

- *Limosa limosa limosa*; black-tailed godwit – 482 individuals representing 1.3% of the population.

3.9 Species or populations identified subsequent to designation for possible consideration under Criterion 6 – peak counts in the winter:

- *Anas acuta*; northern pintail – 1,848 individuals representing 3% of the population.

[18] http://publications.naturalengland.org.uk/file/4592245898739712 [Accessed 02/02/2023]
[19] https://jncc.gov.uk/jncc-assets/RIS/UK11046.pdf [Accessed 02/02/2023]

Environmental Vulnerabilities

3.10 With regards to the 2014 Site Improvement Plan[20], the following are listed as environmental vulnerabilities;

- Hydrological changes.

3.11 The 2019 Conservation Objectives Supplementary Advice[21], provides more information on these vulnerabilities.

Rutland Water SPA and Ramsar

Introduction

3.12 Rutland Water SPA is a large public water supply reservoir constructed in 1975 and located within the unitary authority of Rutland in central England. The SPA is a wetland of international importance by regularly supporting over 20,000 non-breeding waterfowl annually. Notable components of this assemblage include internationally important numbers of non-breeding shoveler *anas clypeata* and gadwall *Mereca strepera*, as well as nationally important numbers of non-breeding coot *Fulica atra*, goldeneye *Bucephala clangula*, goosander *Mergus merganser*, great crested grebe *Podiceps cristatus*, mute swan *Cygnus olor*, teal *Anas crecca*, tufted duck *Aythya fuligula* and wigeon *Mareca penelope*.

Conservation Objectives[22]

3.13 With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change;

3.14 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

- 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.

Qualifying Features

3.15 With regards to the SPA, the following are reasons for designation:

- *Mareca strepera*; gadwall (Non-breeding);
- *Anas clypeata*; northern shoveler (Non-breeding); and,
- Waterbird assemblage

3.16 With regards to the Ramsar[23] the following are reasons for designation:

Criterion 5

3.17 Assemblage of international importance: species with peak counts in the winter:

- 19,274 individuals, waterfowl assemblage.

Criterion 6

3.18 Species/populations occurring at a level of international importance: Species with peak counts in the winter:

- *Mareca strepera*; gadwall – 1,014 individuals representing 1.6% of the population; and,

[20] http://publications.naturalengland.org.uk/file/6584562272436224 [Accessed 02/02/2023]
[21] http://publications.naturalengland.org.uk/file/6755277919748096 [Accessed 02/02/2023]
[22] http://publications.naturalengland.org.uk/file/6533830980927488 [Accessed 02/02/2023]
[23] https://jncc.gov.uk/jncc-assets/RIS/UK11046.pdf [Accessed 02/02/2023]

- *Anas clypeata*; northern shoveler – 619 individuals representing 1.5% of the population.

3.19 Species/populations identified subsequent to designation for possible future consideration under Criterion 6: species with peak counts in the spring/autumn:

- *Cygnus olor*; mute swan – 563 individuals representing 1.5% of the population.

Environmental Vulnerabilities

3.20 With regards to the 2014 Site Improvement Plan[24], the following are listed as environmental vulnerabilities;

- Water abstraction;
- Inappropriate water levels;
- Cumulative direct impact from unregulated 3rd party activities (private fireworks displays, hot air balloons, private aircraft flights);
- Invasive species;
- Water pollution;
- Planning permission: general (e.g. windfarms and other development proposed in the wider area affecting nocturnal migration and dispersal);
- Public access and disturbance; and,
- Fisheries: freshwater (changes in fish populations potential to shift ecological balance).

3.21 The 2018 Conservation Objectives Supplementary Advice[25], provides more information on these vulnerabilities.

Grimsthorpe SAC

Introduction

3.22 This 0.35 hectare site is situated amongst an area of ancient parkland in Lincolnshire. A deer park is known to have been present at Grimsthorpe in the sixteenth century, although the park is thought to date from the twelfth century. SAC interest is provided by several disused stone quarries which were mined by pickaxe which created a unique substrate supporting rich limestone flora and important orchid sites. Grimsthorpe is the most northerly outpost for early gentian *Gentianella anglica*, with 2–3 colonies totalling several hundred plants in old oolitic limestone quarries.

Conservation Objectives[26]

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

3.24 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 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 habitats of qualifying species rely
- The populations of qualifying species; and,
- The distribution of qualifying species within the site.

[24] http://publications.naturalengland.org.uk/file/4556196973379584 [Accessed 02/02/2023]
[25] http://publications.naturalengland.org.uk/file/6490629538578432 [Accessed 02/02/2023]
[26] http://publications.naturalengland.org.uk/file/5619022775451648 [Accessed 02/02/2023]

Qualifying Features

3.25 With regards to the SAC, the following are reasons for designation:

- Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*); dry grasslands and scrublands on chalk or limestone; and,
- *Gentianella angelica*; early gentian.

Environmental Vulnerabilities

3.26 With regards to the 2014 Site Improvement Plan[27], the following are listed as environmental vulnerabilities;

- Air pollution: risk of atmospheric nitrogen deposition.

3.27 The 2015 Conservation Objectives Supplementary Advice[28], provides more information on these vulnerabilities.

Baston Fen SAC

Introduction

3.28 Baston Fen SAC comprises long strips of permanent pasture which are subject to regular winter flooding, interspersed with a series of old flooded borrow-pits with associated swamp and fen plant communities. Amongst the variety of fish which have been recorded from the site is the spine loach *Cobitis taenia*, significant populations of which occur in the Counter Drain and, to a lesser extent, in the River Glen. This site represents a key stronghold for this species within the Welland catchment.

Conservation Objectives[29]

3.29 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;

3.30 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 the habitats of qualifying species;
- The structure and function of the habitats of qualifying species;
- The supporting processes on which the habitats of qualifying species rely;
- The populations of qualifying species; and,
- The distribution of qualifying species within the site.

Qualifying Features

3.31 With regards to the SAC, the following are reasons for designation:

- *Cobitis taenia*: spined loach

Environmental Vulnerabilities

3.32 With regards to the 2014 Site Improvement Plan[30], the following are listed as environmental vulnerabilities;

- Siltation; and,
- Changes in species distributions.

[27] http://publications.naturalengland.org.uk/file/6389772360613888 [Accessed 02/02/2023]
[28] http://publications.naturalengland.org.uk/file/6565695062016000 [Accessed 02/02/2023]
[29] http://publications.naturalengland.org.uk/file/6697696337592320 [Accessed 02/02/2023]
[30] http://publications.naturalengland.org.uk/file/4879376998989824 [Accessed 02/02/2023]

3.33 The 2015 Conservation Objectives Supplementary Advice[31], provides more information on these vulnerabilities.

Barnack Hills & Holes SAC

Introduction

3.34 Barnack Hills and Holes is an area of Jurassic Limestone grassland which has developed on the site of a disused mineral working/quarry. The grassland is of a type characteristic to eastern England and is now scarce in Britain as a result of reclamation for agriculture. The grassland is of a tor-grass *Brachypodium pinnatum*-upright brome *Bromus erectus* type and there is a rich and varied flora with a number of species which are nationally scarce. Of particular note is the abundance of pasque flower *Pulsatilla vulgaris*. Many other species typical of limestone grassland occur including a number of orchids, purple milk-vetch *Astragalus danicus* and the common rock-rose *Helianthemum nummularium*.

Conservation Objectives[32]

3.35 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;

3.36 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

3.37 With regards to the SAC, the following are reasons for designation:

- Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*) (important orchid sites); Dry grasslands and scrublands on chalk or limestone (important orchid sites).

Environmental Vulnerabilities

3.38 With regards to the 2014 Site Improvement Plan[33], the following are listed as environmental vulnerabilities;

- Changes in species distributions (poorly understood long term decline of *Aceras anthropophorum;* man orchid);
- Public access/disturbance; and,
- Air pollution: impact of atmospheric nitrogen deposition.

3.39 The 2019 Conservation Objectives Supplementary Advice[34], provides more information on these vulnerabilities.

[31] http://publications.naturalengland.org.uk/file/4967659125080064 [Accessed 02/02/2023]
[32] http://publications.naturalengland.org.uk/file/6222183932362752 [Accessed 02/02/2023]
[33] http://publications.naturalengland.org.uk/file/5414403413377024 [Accessed 02/02/2023]
[34] http://publications.naturalengland.org.uk/file/5718079120343040 [Accessed 02/02/2023]

4. Background to Impact Pathways

4.1 In carrying out an HRA it is important to avoid confining oneself to effectively arbitrary boundaries (such as Local Authority or parish boundaries), but to use an understanding of the various ways in which Land Use Plans can impact European sites to evaluate whether development is connected with European sites, in some cases many kilometres distant. Briefly defined, impact pathways are routes by which a change in activity associated with a development can lead to an effect upon a European site. As highlighted earlier, it is also important to bear in mind MHCLG guidance which states that the AA should be '*proportionate to the geographical scope of the [plan policy]*' and that '*an AA need not be done in any more detail, or using more resources, than is useful for its purpose*' (CLG, 2006, p.6[35]).

4.2 Based upon Natural England's Site Improvement Plans (SIPs) and professional judgement, the following impact pathways require consideration regarding development proposals within the WSGNP area and the identified European sites:

- Recreational pressure;
- Atmospheric pollution;
- Water quantity, level and flow; and
- Water quality.

Background to Recreational Pressure

4.3 There is growing concern over the cumulative impacts of recreation on key nature conservation sites in the UK, as most sites must fulfil Conservation Objectives while also providing recreational opportunity. Various studies have provided compelling links between increases in housing development and access levels[36], and resulting impacts in European sites[37] [38].

4.4 Recreational use of a site has the potential to:

- Cause disturbance to sensitive species such as ground-nesting birds and wintering wildfowl;
- Prevent appropriate management or exacerbate existing management difficulties;
- Cause damage through erosion, trampling and fragmentation; and
- Cause eutrophication due to dog fouling.

4.5 Different types of European sites (e.g., heathland, freshwater, chalk grassland) have a range of vulnerabilities and are sensitive to different types of recreational pressures. Studies across a range of species have shown that the effects from recreation can be complex.

Bird Disturbance

4.6 Disturbance effects can have negative impacts on qualifying birds in various ways, with reduced chick provisioning and increased nest predation due to adults being flushed from the nest and deterred from returning. A literature review on the effects of human disturbance on breeding birds found that 36 out of 40 studies reported reduced breeding success due to disturbance[39]. The main reasons given for the reduction in breeding success were nest abandonment and increased predation of eggs or young. Studies of other species have shown that birds nest at lower densities in disturbed areas, particularly when there is weekday

[35] Department for Communities and Local Government. 2006. *Planning for the Protection of European Sites: Appropriate Assessment*. http://www.communities.gov.uk/index.asp?id=1502244
[36] Weitowitz D.C., Panter C., Hoskin R. & Liley D. 2019. The effect of urban development on visitor numbers to nearby protected nature conservation sites. *Journal of Urban Ecology* **5**. https://doi.org/10.1093/jue/juz019
[37] Liley D, Clarke R.T., Mallord J.W., Bullock J.M. (2006a). The effect of urban development and human disturbance on the distribution and abundance of nightjars on the Thames Basin and Dorset Heaths. Natural England / Footprint Ecology.
[38] Liley D., Clarke R.T., Underhill-Day J., Tyldesley D.T. (2006b). Evidence to support the appropriate Assessment of development plans and projects in south-east Dorset. Footprint Ecology / Dorset County Council.
[39] Hockin D.M., Oundsted M., Gorman D., Hill V. & Barker M.A. (1992). Examination of the effects of disturbance on birds with reference to its importance in ecological assessments. *Journal of Environmental Management* **36**: 253-286.

as well as weekend pressure40. Recreational disturbance effects on ground-nesting birds are particularly severe, with many studies concluding that urban sites support lower densities of key species, such as stone curlew and nightjar[41] [42].

4.7 Furthermore, there are numerous parameters (e.g. seasonality, type of recreational activity) that may reduce or exacerbate the magnitude of bird disturbance. For example, disturbance in winter may be more impactful because food shortages make birds more vulnerable at this time of year. In contrast, this may be counterbalanced by fewer recreational users in the winter months and lower overall sensitivity of birds outside the breeding season. Evidence in the literature suggests that the magnitude of disturbance clearly differs between different types of recreational activities. For example, dog walking leads to a significantly higher reduction in bird diversity and abundance compared to hiking[43]. Scientific evidence also suggests that key disturbance parameters, such as areas of influence and flush distance, are significantly greater for dog walkers than hikers[44]. In addition, dogs, rather than people, tend to be the cause of many management difficulties, notably by worrying grazing animals. A literature review summarised data on the use of semi-natural habitat by dogs[45], indicating that the proportion of dog walkers using sensitive sites tends to be high (54%)

4.8 Direct evidence for bird disturbance has been collected in many field studies. For example, observations of bird disturbance were undertaken by Footprint Ecology in North Kent in 2010 / 2011. The study focused on recreational disturbance to wintering waterfowl on intertidal habitats along the North Kent shoreline, stretching between Gravesend and Whitstable, and encompassing three SPAs. From 1,400 events (records of visitors in the bird survey areas) occurring within 200m of the birds, 3,248 species-specific observations were noted, which included no response (74% of observations), major flight (13%), minor flight (5%), short evasive walks away from the stimulus (5%) and alertness (3%).

4.9 Dog walking accounted for 55% of all major flight observations, with a further 15% attributed to walkers without dogs. After controlling for distance, major flights were more likely to occur when activities took place on the intertidal zone (compared to water-based or onshore events), when dogs were present and a higher number of dogs were present in visitor groups. There were significant differences between species with curlew Numenius arquata the species with the highest probability of major flight and teal and black-tailed godwit Limosa limosa the lowest. Tide state was also significant with major flights more likely at high tide, after controlling for distance. There was a significant interaction between distance and tide, indicating that the way in which birds responded varied according to tide. Inter-species differences in responses to disturbance stimuli are also evident from other studies. For example, one study found that there was a significant negative correlation between the degree of urban development and the number of nightjar territories in Dorset heathland sites, but no such impacts were found for woodlark and Dartford warbler[46].

4.10 However, bird disturbance studies need to be treated with care. For instance, the magnitude of disturbance is not necessarily correlated with the impact of disturbance, i.e., the most easily disturbed species are not necessarily those that will suffer the greatest impacts. For example, it has been shown in some cases, that the most easily disturbed birds simply move to alternative feeding sites, while others remain (likely due to an absence of suitable alternative foraging areas) and thus suffer greater population-level impacts[47]. A recent literature review undertaken for the RSPB[48] also urges caution when extrapolating the results of disturbance studies because responses differ between species and may be impacted by local environmental conditions. This should be considered when predicting the potential impacts of future recreational pressure on European sites.

[40] Van der Zande A.N., Berkhuizen J.C., van Letesteijn H.C., ter Keurs W.J. & Poppelaars A.J. (1984). Impact of outdoor recreation on the density of a number of breeding bird species in woods adjacent to urban residential areas. *Biological Conservation* **30**: 1-39.
[41] Clarke R.T., Liley D., Sharp J.M. & Green R.E. (2013). Building development and roads: Implications for the distribution of stone curlews across the Brecks. *PLOS ONE*. https://doi:10.1371/journal.pone.0072984.
[42] Liley D. & Clarke R.T. (2003). The impact of urban development and human disturbance on the numbers of nightjar *Caprimulgus europaeus* on heathlands in Dorset, England. *Biological Conservation* **114**: 219-230.
[43] Banks P.B. & Bryant J.Y. (2007). Four-legged friend or foe? Dog walking displaces native birds from natural areas. *Biology Letters* **3**: 14pp.
[44] Miller S.G., Knight R.L. & Miller C.K. (2001). Wildlife responses to pedestrians and dogs. *Wildlife Society Bulletin* **29**: 124-132.
[45] Ibid.
[46] Liley D. & Clarke R.T. (2002). Urban development adjacent to heathland sites in Dorset: The effect on the density and settlement patterns of Annex I bird species. English Nature Research Reports, No 463. English Nature, Peterborough. 33pp.
[47] Gill et al. (2001). Why behavioural responses may not reflect the population consequences of human disturbance. *Biological Conservation* **97**: 265-268.
[48] Woodfield & Langston. (2004). Literature review on the impact on bird population of disturbance due to human access on foot. *RSPB Research Report* No. 9.

4.11 It should also be emphasised that recreational use is not necessarily a problem. Many European sites are also National Nature Reserves or nature reserves managed by Wildlife Trusts and the RSPB. At these sites, access is encouraged and resources are deployed to ensure that recreational use is managed appropriately. Bird abundances in many of these sites remain stable or, in some cases, are increasing despite high visitor numbers.

Trampling Damage

4.12 Most terrestrial habitats (including heathland, grassland and woodland) can be affected by trampling and other mechanical damage, which dislodges individual plants, leads to soil compaction and erosion. A general effect of trampling on vegetation is reduced species and structural diversity, since only dominant and tolerant plant species persist[49]. However, many parameters (e.g. vegetation type, recreational activity, weather and ground conditions) can have marked impacts on the degree of trampling damage. The following provides a brief overview of the impacts of trampling associated with different recreational activities in different habitats:

- A study on experimental trampling of different heathland types under varying weather conditions in Brittany (France) showed that dry heath was more resistant to trampling damage than wet heath[50]. Equally, both heathland habitats showed greater resilience to trampling under dry than wet conditions.
- Wilson & Seney)[51] examined the degree of track erosion caused by hikers, motorcyclists, horse riders and cyclists in 108 plots along tracks in the Gallatin National Forest, Montana. Although the results proved difficult to interpret, it was concluded that horses and hikers disturbed more sediment on wet tracks, and therefore caused more erosion, than motorcycles and bicycles.
- Cole et al[52] conducted experimental off-track trampling in 18 closed forest, dwarf scrub and meadow & grassland communities (each trampled between 0 – 500 times) over five mountain regions in the US. Vegetation cover was assessed two weeks and one year after trampling, and a negative correlation with trampling intensity was discovered. This relationship was weaker after one year than two weeks, indicating some vegetation recovery. Differences in plant morphology was found to explain more variation in response than soil and topographic factors. Low-growing, mat-forming grasses regained their cover best after two weeks and were considered most resistant to trampling, while tall forbs (non-woody vascular plants other than grasses, sedges, rushes and ferns) were considered least resistant. The cover of hemicryptophytes and geophytes (plants with buds below the soil surface) was heavily reduced after two weeks but had recovered well after one year and as such these were considered most resilient to trampling. Chamaephytes (plants with buds above the soil surface) were considered least tolerant to regular trampling disturbance.
- Cole [53] conducted a follow-up study (across four vegetation types) in which shoe type (trainers or walking boots) and trampling weight were varied. Although immediate damage was greater with walking boots, there was no significant difference after one year. Heavier tramplers caused a greater reduction in vegetation height than lighter tramplers, but there was no differential impact on vegetation cover.
- Cole & Spildie[54] experimentally compared the effects of off-track trampling by hikers and horse riders (at two intensities – 25 and 150 passes) in two woodland vegetation types (one with an erect forb understorey and one with a low shrub understorey). Generally, it was shown that higher trampling intensities caused greater levels of disturbance. Horse trampling resulted in a larger

[49] Santoro R. et.al. (2012). Effects of Trampling Limitation on Coastal Dune Plant Communities. Environmental Management DOI 10.1007/s00267-012-9809-6.
[50] Gallet S. & Roze F. (2002). Long-term effects of trampling on Atlantic heathland in Brittany (France): Influence of vegetation type, season and weather conditions. *Biological Conservation* **103**: 267-275.
[51] Wilson, J.P. & J.P. Seney. (1994). Erosional impact of hikers, horses, motorcycles and off-road bicycles on mountain trails in Montana. *Mountain Research and Development* **14**:77-88.
[52] Cole, D.N. (1995a). Experimental trampling of vegetation. I. Relationship between trampling intensity and vegetation response. *Journal of Applied Ecology* **32**: 203-214
Cole, D.N. (1995b). Experimental trampling of vegetation. II. Predictors of resistance and resilience. *Journal of Applied Ecology* **32**: 215-224
[53] Cole, D.N. (1995c). Recreational trampling experiments: effects of trampler weight and shoe type. Research Note INT-RN-425. U.S. Forest Service, Intermountain Research Station, Utah.
[54] Cole, D.N., Spildie, D.R. (1998). Hiker, horse and llama trampling effects on native vegetation in Montana, USA. *Journal of Environmental Management* **53**: 61-71

reduction in vegetation cover than hiking. While the forb-dominated vegetation suffered greater disturbance impacts, it recovered rapidly.

4.13 In heathland sites, trampling damage can affect the value of a site to wildlife. For example, heavy use of sandy tracks loosens and continuously disturbs sand particles, reducing the habitat's suitability for invertebrates[55]. Species that burrow into flat surfaces such as the centres of paths, are likely to be particularly vulnerable, as the loose sediment can no longer maintain their burrow. In some instances, nature conservation bodies and local authorities resort to hardening paths to prevent further erosion. However, this is concomitant with the loss of habitat used by wildlife, such as sand lizards and burrowing invertebrates.

Nutrient Enrichment

4.14 A major concern for nutrient-poor terrestrial habitats such as dune systems is nutrient enrichment associated with dog fouling, which has been addressed in various reviews (e.g. Taylor et al 2005[56]). It is estimated that dogs will defecate within 10 minutes of starting a walk and therefore most nutrient enrichment arising from dog faeces will occur within 400m of a site entrance. In contrast, dogs will urinate at frequent intervals during a walk, resulting in a spread-out distribution of urine. For example, in Burnham Beeches National Nature Reserve it is estimated that 30,000 litres of urine and 60 tonnes of dog faeces are deposited annually57. While there is little information on the chemical constituents of dog faeces, nitrogen is one of the main components[58]. Nutrient levels are the major determinant of plant community composition and the effect of dog defecation in sensitive habitats is comparable to a high-level application of fertiliser, potentially resulting in the shift to plant communities that are more typical of improved grasslands.

4.15 A recent study has published further compelling evidence on the relative impact of N and phosphorus (P) deposition arising from dogs. Using 487 direct-count censuses from four peri-urban forests and nature reserves, the modelling data suggested that canine fertilisation rates amount to 11 kg N and 5 kg P per hectare per year respectively59. These amounts are significant when compared to atmospheric nitrogen deposition rates and the offsetting achievable through traditional habitat management techniques (e.g. cutting and removal of hay). The nitrogen deposition by dogs is particularly significant given the nitrogen Critical Load of 5-10 kg N/ha/yr provided for European dry heath and Northern Atlantic wet heath on the Air Pollution Information System (APIS). This implies that the minimum CL of a site may be exceeded by N nitrogen deposition from dogs alone, before atmospheric sources are considered. Nutrient availability is the major determinant of plant community composition and the effect of dog defecation in sensitive habitats is comparable to a high-level application of fertiliser, potentially resulting in a shift towards plant communities that are more typical of improved grasslands.

Summary

4.16 Where increased recreational use is predicted to cause adverse impacts on a site, avoidance and mitigation should be considered. Avoidance of recreational impacts at European sites involves locating new residential development further away (where possible). Strategic plans, such as Local Plans provide the mechanism for this. Where avoidance of impacts is not possible, mitigation will usually involve a mix of access management, habitat management and provision of alternative recreational space.

Background to Atmospheric Pollution

4.17 The main pollutants of concern for European sites are oxides of nitrogen (NOx), ammonia (NH_3) and sulphur dioxide (SO_2) and are summarised in Table 2.

[55] Taylor K., Anderson P., Liley D. & Underhill-Day J.C. (2006). Promoting positive access management to sites of nature conservation value: A guide to good practice. English Nature / Countryside Agency, Peterborough and Cheltenham.
[56] Taylor K., Anderson P., Taylor R.P., Longden K. & Fisher P. (2005). Dogs, access and nature conservation. English Nature Research Report, Peterborough.
[57] Barnard A. (2003). Getting the facts – Dog walking and visitor number surveys at Burnham Beeches and their implications for the management process. *Countryside Recreation* **11**:16-19.
[58] Taylor K., Anderson P., Liley D. & Underhill-Day J.C. (2006). Promoting positive access management to sites of nature conservation value: A guide to good practice. English Nature / Countryside Agency, Peterborough and Cheltenham.
[59] De Frenne P., Cougnon M., Janssens G.P.J. & Vangansbeke P. (2022). Nutrient fertilization by dogs in peri-urban ecosystems. *Ecological Solutions and Evidence* **3**, https://doi.org/10.1002/2688-8319.12128

Table 2. Main sources and effects of air pollutants on habitats and species.

Pollutant	Source	Effects on habitats and species
Sulphur dioxide (SO_2)	The main sources of SO_2 are electricity generation, and industrial and domestic fuel combustion. However, total SO_2 emissions in the UK have decreased substantially since the 1980's. Another origin of sulphur dioxide is the shipping industry and high atmospheric concentrations of SO_2 have been documented in busy ports. In future years shipping is likely to become one of the most important contributors to SO_2 emissions in the UK.	Wet and dry deposition of SO_2 acidifies soils and freshwater and may alter the composition of plant and animal communities. The magnitude of effects depends on levels of deposition, the buffering capacity of soils and the sensitivity of impacted species. However, SO_2 background levels have fallen considerably since the 1970's and are now not regarded a threat to plant communities. For example, decreases in Sulphur dioxide concentrations have been linked to returning lichen species and improved tree health in London.
Acid deposition	Leads to acidification of soils and freshwater via atmospheric deposition of SO_2, NOx, ammonia and hydrochloric acid. Acid deposition from rain has declined by 85% in the last 20 years, which most of this contributed by lower sulphate levels. Although future trends in S emissions and subsequent deposition to terrestrial and aquatic ecosystems will continue to decline, increased N emissions may cancel out any gains produced by reduced S levels.	Gaseous precursors (e.g., SO_2) can cause direct damage to sensitive vegetation, such as lichen, upon deposition. Can affect habitats and species through both wet (acid rain) and dry deposition. The effects of acidification include lowering of soil pH, leaf chlorosis, reduced decomposition rates, and compromised reproduction in birds / plants. Not all sites are equally susceptible to acidification. This varies depending on soil type, bed rock geology, weathering rate and buffering capacity. For example, sites with an underlying geology of granite, gneiss and quartz rich rocks tend to be more susceptible.
Ammonia (NH_3)	Ammonia is a reactive, soluble alkaline gas that is released following decomposition and volatilisation of animal wastes and from some chemical processes and vehicle exhausts. It is a naturally occurring trace gas, but ammonia concentrations are directly related to the distribution of livestock. Ammonia reacts with acid pollutants such as the products of SO_2 and NO_X emissions to produce fine ammonium (NH_4+) - containing aerosol. Due to its significantly longer lifetime, NH_4+ may be transferred much longer distances (and can therefore be a significant trans-boundary issue). While ammonia deposition may be estimated from its atmospheric concentration, the deposition rates are strongly influenced by meteorology and ecosystem type	The negative effect of NH_4+ may occur via direct toxicity when uptake exceeds detoxification capacity and via N accumulation. Its main adverse effect is eutrophication, leading to species assemblages that are dominated by fast-growing and tall species. For example, a shift in dominance from heath species (lichens, mosses) to grasses is often seen. As emissions mostly occur at ground level in the rural environment and NH_3 is rapidly deposited, some of the most acute problems of NH_3 deposition are for small relict nature reserves located in intensive agricultural landscapes.

Pollutant	Source	Effects on habitats and species
Nitrogen oxides (NO_x)	Nitrogen oxides are mostly produced in combustion processes. Half of NO_X emissions in the UK derive from motor vehicles, one quarter from power stations and the rest from other industrial and domestic combustion processes.	Direct toxicity effects of gaseous nitrates are likely to be important in areas close to the source (e.g. roadside verges). A critical level of NOx for all vegetation types has been set to 30 ug/m^3. Deposition of nitrogen compounds (nitrates (NO_3), nitrogen dioxide (NO_2) and nitric acid (HNO_3)) contributes to the total nitrogen deposition and may lead to both soil and freshwater acidification. In addition, NOx contributes to the eutrophication of soils and water, altering the species composition of plant communities at the expense of sensitive species.
Nitrogen deposition	The pollutants that contribute to the total nitrogen deposition derive mainly from oxidized (e.g. NO_X) or reduced (e.g. NH_3) nitrogen emissions (described separately above). While oxidized nitrogen mainly originates from major conurbations or highways, reduced nitrogen mostly derives from farming practices. The N pollutants together are a large contributor to acidification (see above).	All plants require nitrogen compounds to grow, but too much overall N is regarded as the major driver of biodiversity change globally. Species-rich plant communities with high proportions of slow-growing perennial species and bryophytes are most at risk from N eutrophication. This is because many semi-natural plants cannot assimilate the surplus N as well as many graminoid (grass) species. N deposition can also increase the risk of damage from abiotic factors, e.g. drought and frost.
Ozone (O_3)	A secondary pollutant generated by photochemical reactions involving NOx, volatile organic compounds (VOCs) and sunlight. These precursors are mainly released by the combustion of fossil fuels (as discussed above). Increasing anthropogenic emissions of ozone precursors in the UK have led to an increased number of days when ozone levels rise above 40 ppb ('episodes' or 'smog'). Reducing ozone pollution is believed to require action at international level to reduce levels of the precursors that form ozone.	Concentrations of O_3 above 40 ppb can be toxic to both humans and wildlife and can affect buildings. High O_3 concentrations are widely documented to cause damage to vegetation, including visible leaf damage, reduction in floral biomass, reduction in crop yield (e.g. cereal grains, tomato, potato), reduction in the number of flowers, decrease in forest production and altered species composition in semi-natural plant communities.

Source: Information summarised from the Air Pollution Information System (http://www.apis.ac.uk/)

4.18 SO_2 emissions are overwhelmingly influenced by the output of power stations and industrial processes that require the combustion of coal and oil. As such, it is unlikely that material increases in SO2 emissions will be associated with the WSGNP. NH_3 emissions are dominated by agriculture, with some chemical processes also making notable contributions.

4.19 NH_3 can have a directly toxic effect upon vegetation, particularly at close distances to the source such as near road verges[60]. NOx can also be toxic at high concentrations (far above the annual average Critical Level) but generally only in the presence of elevated SO2 which is very rare in the UK.

4.20 NOx emissions, however, are dominated by the output of vehicle exhausts (more than half of all emissions). Within a 'typical' housing development, by far the largest contribution to NOx (92%) will be made by the

[60] http://www.apis.ac.uk/overview/pollutants/overview_NOx.htm.

associated road traffic. Other sources, although relevant, are of minor importance (8%) in comparison61. Emissions of NOx could therefore be reasonably expected to increase as a result of greater vehicle use due to the WSGNP. High levels of NOx and NH3 are likely to increase the total N deposition to soils, potentially leading to deleterious knock-on effects in resident ecosystems. Increases in nitrogen deposition from the atmosphere can, if sufficiently great, enhance soil fertility and lead to eutrophication. This often has adverse effects on community composition and the quality of semi-natural, nitrogen-limited terrestrial and aquatic habitats[62, 63.]

4.21 According to the World Health Organisation, the critical NOx concentration (critical threshold) for the protection of vegetation is 30 μgm^{-3}. In addition, ecological studies have determined 'Critical Loads' (CLs)64 of atmospheric N deposition (that is, NOx combined with ammonia NH3) for key habitats within European sites.

4.22 According to the Department of Transport's Transport Analysis Guidance, "Beyond 200m, the contribution of vehicle emissions from the roadside to local pollution levels *is not significant*"[65] (see Figure 1).

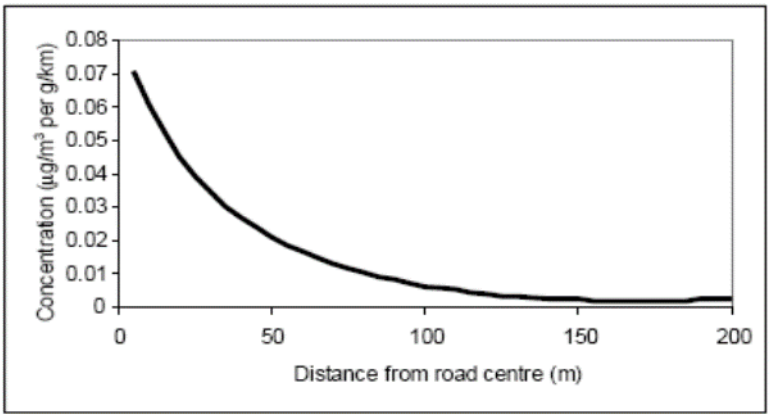


Figure 1: Traffic contribution to concentrations of pollutants at different distances from a road (Source: www.dft.gov.uk/ha/standards/dmrb/vol11/section3/ha20707.pdf)

Background to Water Quantity, Level and Flow

4.23 The water level, its flow rates and the mixing conditions are important determinants of the condition of European sites and their qualifying features. Hydrological processes are critical in influencing habitat characteristics in rivers, wetlands and for water-dependent plant species. Habitat parameters that may be impacted include water cycling, water depth, dissolved oxygen levels, salinity, current velocity and water temperature (noting that not all parameters will be relevant to all qualifying habitats / species). In turn these parameters determine the short- and long-term condition, viability and reproductive success of plant and animal species, as well as overall ecosystem composition.

4.24 The unique nature of wetlands combines shallow water and conditions that are ideal for the growth of organisms at the basal level of food webs, which feed many species of birds, mammals, fish and amphibians. Migrating and breeding wetland species are particularly reliant on these food sources, as they need to build up enough nutritional reserves to sustain their long migration routes or feed their hatched chicks.

4.25 Maintaining a steady water supply is of critical importance for many hydrologically dependent SPAs, SACs and Ramsars. For example, in many wetlands winter flooding is essential in sustaining a mosaic of foraging habitats for SPA / Ramsar wader and waterfowl species. However, species have varying requirements with regard to specific water levels. For example, some duck species (e.g. wigeon) have optimum water depth

[61] Proportions calculated based upon data presented in Dore CJ et al. 2005. UK Emissions of Air Pollutants 1970 – 2003. UK National Atmospheric Emissions Inventory. http://www.airquality.co.uk/archive/index.php
[62] Wolseley, P. A.; James, P. W.; Theobald, M. R.; Sutton, M. A. **2006.** Detecting changes in epiphytic lichen communities at sites affected by atmospheric ammonia from agricultural sources. Lichenologist 38: 161-176
[63] Dijk, N. **2011.** Dry deposition of ammonia gas drives species change faster than wet deposition of ammonium ions: evidence from a long-term field manipulation Global Change Biology 17: 3589-3607
[64] The critical load is the rate of deposition beyond which research indicates that adverse effects can reasonably be expected to occur
[65] www.webtag.org.uk/archive/feb04/pdf/feb04-333.pdf

requirements of under 0.3m for successful foraging. In contrast, Bewick's swan require deeper water to enable their natural roosting and loafing behaviours.

4.26 A constant supply of freshwater is fundamental in maintaining the ecological integrity of water-dependent European sites. While the natural fluctuation of water levels within narrow limits is desirable (and indeed often the reason why nature conservation interests are present in a site), excess or too little water supply might cause the water level to be outside of the required range of qualifying birds, invertebrates or plant species. There are two mechanisms through which urban development can negatively impact the water level in European sites:

- The supply of new housing with potable water may require increased abstraction of water from surface water and groundwater bodies. Depending on the level of water stress in a geographic region, this may reduce the water levels in European sites that lie in the same catchment as new abstractions.
- The proliferation of impermeable surfaces in urban areas increases the volume and speed of surface water runoff. As traditional drainage systems often cannot cope with the volume of stormwater, Combined Sewer Overflows (CSOs) are designed to discharge excess water directly into watercourses to protect human assets. Such pluvial flooding may result in downstream inundation of watercourses and flooding in wetland habitats.

4.27 It is noted that South Kesteven sits within an area of serious water stress (see Figure 2). This means that the water resources are being or are likely to be exploited to a degree which may result in pressure on the environment or water supplies both now and in the future. This result does not indicate how the individual water companies are preforming in the management of their water resources, or a level of risk to public water supply. This may imply that additional abstractions could have negative impacts on water-dependent European sites.

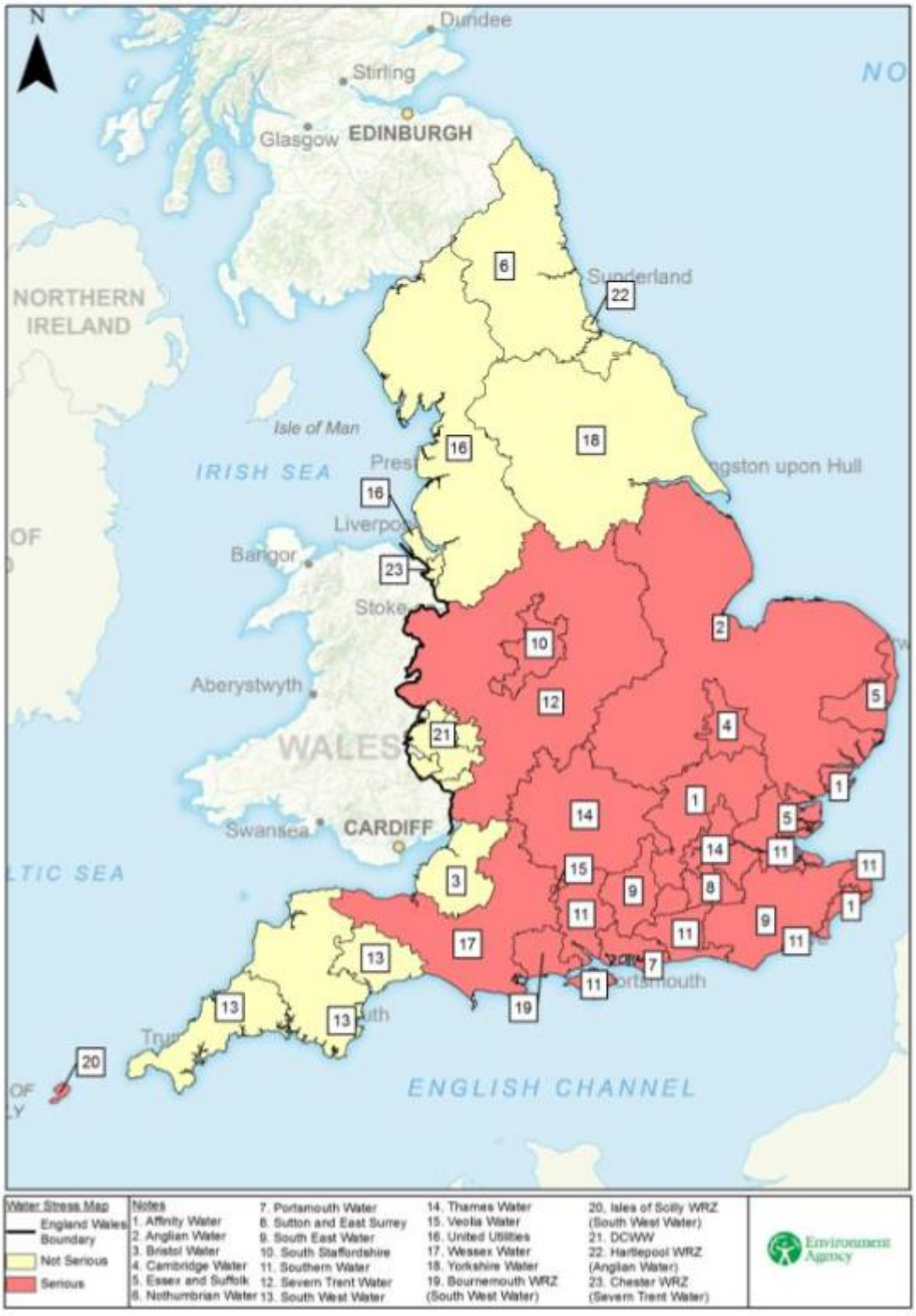


Figure 2: Areas of water stress in England and Wales[66]

Background to Water Quality

4.28 Increased amounts of housing or business development can lead to reduced water quality of rivers and estuarine environments. Sewage and industrial effluent discharges can contribute to increased nutrients and toxic contaminants in European sites leading to unfavourable conditions.

[66] Environment Agency, 2021. Water Stressed Areas – Final Classification 2021. Water_stressed_areas___final_classification_2021.odt (live.com) [Accessed 14/02/2023]

4.29 The quality of the water that feeds European sites is an important determinant of the nature of their habitats and the species they support. Poor water quality can have a range of environmental impacts:

- At high levels, toxic chemicals and metals can result in immediate death of aquatic life, and can have detrimental effects even at lower levels, including increased vulnerability to disease and changes in wildlife behaviour. Eutrophication, the enrichment of plant nutrients in water, increases plant growth and consequently results in oxygen depletion. Algal blooms, which commonly result from eutrophication, increase turbidity and decrease light penetration. The decomposition of organic wastes that often accompanies eutrophication deoxygenates water further, augmenting the oxygen depleting effects of eutrophication. In the marine environment, nitrogen is the limiting plant nutrient and so eutrophication is associated with discharges containing available nitrogen.
- Some pesticides, industrial chemicals, and components of sewage effluent are suspected to interfere with the functioning of the endocrine system, possibly having negative effects on the reproduction and development of aquatic life.
- For sewage treatment works close to capacity, further development may increase the risk of effluent escape into aquatic environments. In many urban areas, sewage treatment and surface water drainage systems are combined, and therefore a predicted increase in flood and storm events could increase pollution risk.

Summary of Impact Pathways to be Taken Forward

4.30 Having considered the impact pathways identified in this chapter, those listed in Table 3 will be taken to the next stage in the HRA process, the LSEs screening.

Table 3. Impact pathways and relevant European sites.

Impact pathway	European site (s) potentially affected
Recreational pressure	Rutland Water SPA and Ramsar Barnack Hills and Holes SAC
Air pollution	Grimsthorpe SAC Barnack Hills and Holes SAC
Water quantity, level and flow	Nene Washes SPA and Ramsar Rutland Water SPA and Ramsar Baston Fen SAC
Water quality	Rutland Water SPA and Ramsar

5. Test of Likely Significant Effects

Introduction

5.1 When seeking to identify relevant European sites, consideration has been given primarily to identified impact pathways and the source-pathway-receptor approach, rather than adopting purely a ‘zones’-based approach. The source-pathway-receptor approach is a standard tool in environmental assessment. For an effect to occur, all three elements of this mechanism must be in place, whereas the absence of one or more of the elements means there is no potential for an effect. Furthermore, even where an impact may occur, it may not result in significant effects (i.e., those which undermine the Conservation Objectives of a European site).

5.2 The likely zone of impact (also referred to as the likely Zone of Influence, ZoI) of a plan or project is the geographic extent over which significant ecological effects are likely to occur. The ZoI of a plan or project will vary depending on the specifics of a particular proposal and must be determined on a case-by-case basis with reference to a variety of criteria, including:

- the nature, size / scale and location of the plan;

- the connectivity between the plan and European sites, for example through hydrological connections or because of the natural movement of qualifying species;
- the sensitivity of ecological features under consideration; and,
- the potential for in-combination effects.

Approach to South Kesteven Local Plan Policy Screening

5.3 Policies were screened out of having LSEs on a European site where any of the following reasons applied:

- they are environmentally positive;
- they will not themselves lead to any development or other change;
- they make provision for change but could have no conceivable effect on a European site. This can be because there is no pathway between the policy and the qualifying features or a European site, or because any effect would be positive;
- they make provision for change but could have no significant effect on a European site (i.e., the effect would not undermine the conservation objectives of a European site); or,
- the effects of a policy on any particular European site cannot be ascertained because the policy is too general. For example, a policy may be screened out if, based on absence of detail in the policy, it is not possible to identify where, when, or how the policy may be implemented, where effects may occur, or which sites, if any, may be affected.

5.4 Any 'criteria-based' policy (i.e., those that simply list criteria with which development needs to comply) or other general policy statements that have no spatial element were also screened out. Likewise, policies that simply 'safeguard' an existing resource (e.g., existing green infrastructure or mineral resources) by preventing other incompatible development, were also screened out.

5.5 The appraisal therefore focussed on those policies with a definable spatial component. Having established which policies required scrutiny by virtue of being spatially defined, consideration was given as to whether LSEs could be dismissed due to a lack of connectivity to any European site for one of the following reasons:

- a potentially damaging activity may occur as a result of the policy but there is no pathway connecting it to a European site (due to distance, for example);
- there are no European sites vulnerable to any of the activities that the policy will deliver; or,
- the policy will not result in any damaging activities.

Recreational Pressure

Rutland Water SPA and Ramsar

5.6 Rutland Water SPA is a large public water supply reservoir which holds an internationally important assemblage of non-breeding waterfowl, over 20,000 individuals annually. The site is a significant and well used regional visitor attraction. The Site Improvement Plan for Rutland Water highlights that the site is vulnerable to recreational pressure and states "*The reservoir and surrounding area is a very important destination for undertaking recreational activities. These include a range of water sports, fishing, cycling, birdwatching and walking. Several large events are also held on the banks of the reservoir each year.*" Recreational pressure is listed as a threat rather than a pressure and relates to the uncertainties regarding the capacity of the site for additional recreational facilities and activities. This sensitivity to disturbance is also discussed in the Supplementary Advice on the Conservation Objectives. The SIP goes on to say an audit would need to be undertaken to "*Evaluate and manage potential impacts prior to any deterioration of the SPA interest features.*" No specific visitor surveys have been undertaken for Rutland Water SPA, although the site is managed for visitors by Anglian Water.

5.7 The closest point of the Rutland SPA and Ramsar is approximately 5.5km south-west of South Kesteven District. The now withdrawn Rutland Local Plan Reg 19 HRA (from January 2020) (link unavailable) previously stated a provision of 2,967 new dwellings, the majority of which were to be sited within 5km of

the SPA and Ramsar. The HRA stated that "*There is no reason to assume that established access management measures that are known to be available, achievable and effective will not be sufficient to manage the anticipated residential growth within Rutland (alone or in combination with growth regionally)"* and therefore increased growth within 5km of the SPA from Rutland County could be considered to not adversely affect the integrity of the SPA. Equally the Regulation 18 HRA for the Emerging Rutland Local Plan Issues and Options document[67], also states that the public access is not currently having an adverse effect on the site integrity and that "*the visitor numbers and patterns of behaviours are generally considered to be well-understood (due to the nature of the reservoir)*". The Rutland Local Plan 2021 – 2041 Habitats Regulations Assessment Preferred Options (Regulation 18) Consultation confirms this stating "*There is nothing in the site data to suggest local residential growth is a potentially significant threat*". The reservoir is closely managed and controlled which ensures that the recreational impacts arising from public access are minimised.

5.8 Overall, the previous HRA for Rutland Local Plan could dismiss recreational pressure issues from within the core catchment (5km) for approximately 3,000 new dwellings ~~and the current preferred options HRA for the emerging Local Plan, allocating 2,706 new dwellings does not highlight any concerns~~ and the current preferred options HRA for the emerging Local Plan, allocating 2,706 new dwellings including an allocation of 650 dwellings as part of a cross boundary development with Stamford North does not highlight any concerns. Given that South Kesteven District lies outside a typical core catchment for inland European sites of 5km at its closest point (further than Rutland District in which the SPA / Ramsar lies and for which no adverse effects were concluded), and the nearest allocated site located even further away, recreational pressure impacts of the South Kesteven Local Plan in relation to the Rutland Water SPA / Ramsar can be screened out, both alone and in-combination with other plans and projects.

Barnack Hills and Holes SAC

5.9 Barnack Hills and Holes is an area of Jurassic Limestone grassland which has developed on the site of a disused mineral working/quarry. The grassland is of a type, characteristic to eastern England and is now scarce in Britain as a result of reclamation for agriculture. South Kesteven is approximately 1.7 km north of the SAC, which is situated south-west of the small village of Barnack near Stamford. Therefore, it falls within a typical core recreational catchment for inland terrestrial sites of 5km and it is reasonable to assume that South Kesteven residents, particularly those in the southern part of the district, would use the SAC for recreational purposes.

5.10 Regarding recreational pressure the Site Improvement Plan states that "*High level of public use relative to size of the site is causing compaction and degradation of habitat, spread of negative indicator species and nitrogen loading due to high number of dogs using the site."* The site is managed by Natural England as part of a National Nature Reserve, which are specially managed as open recreation spaces. Since May 2019 there has been a Countryside and Rights of Way (CROW) Act 2000 Long Term Restriction of CROW Access on the site with regards to dogs and grazing livestock. When grazing livestock are present, dogs are excluded from that land parcel to minimise the potential for conflict. Sheep are present in only one of four land parcels at a time. The long-term restriction of dog access improves the effectiveness of grazing management (through reduced disturbance) and reduces nitrogen loading through dog faeces, benefitting the overall ecological condition of the SAC.

5.11 ~~The HRA of the Emerging Issues and Options Local Plan for Rutland mentions that the CROW restrictions around dogs are having a positive effect on the site.~~ The site is approximately 23ha in size and access to the site is facilitated by a single small (approx. 10 space) carpark and one or two small (2 car) laybys. Given the site's rural location and restricted access it can be assumed that the majority of visitors utilising the site are likely to arrive on foot from the surrounding village. Importantly, this would exclude a large portion of the emerging residential growth in South Kesteven, which lies beyond the typical walking distance of most visitors. The Peterborough Local Plan HRA[68] also screens out Barnack Hills and Holes SAC from likely significant effects, both alone and in combination with growth within South Kesteven, East Northamptonshire, and Huntingdon, all of which are located within 8km of the SAC. The HRA of the currently adopted South Kesteven Local Plan[69] also screened out the Barnack Hills and Holes SAC at the screening

[67] Wood Ltd, 2022. Habitat Regulation Assessment (HRA) Scoping Report.pdf (rutland.gov.uk) [Accessed 14/02/2023]
[68] Peterborough Council, 2018. Peterborough Local Plan Habitats Regulations Assessment PCC Planning Policy Public Data - CD11A Habitat Regulations Assessment July 2018 (supersedes January 2018 HRA Screening Report CD11).pdf - All Documents (sharepoint.com). [Accessed 14/02/2023]
[69] South Kesteven District Local Plan, 2019. South Kesteven Local Plan 2011 – 2036 – Habitats Regulations Assessment (April 2019) CHttpHandler.ashx (southkesteven.gov.uk). [Accessed 14/02/2023]

stage. The HRA stated that "*The management plan includes annual grazing by sheep, wardening and seasonal closure of the site. The JNCC reports these measures control visitor pressures*".

5.12 Given that there is a current management plan in place which is limits impacts from recreational pressure through grazing and exclusion of dogs, as well as all neighbouring authorities having screened out recreational pressure on the SAC in-combination in their Local Plan HRAs, it is concluded that the South Kesteven Local Plan will not result in likely significant effects on the Barnack Hills and Holes SAC regarding recreational pressure.

Air Quality

Grimsthorpe SAC

5.13 The SAC is regarded to be vulnerable to an increase in nitrogen deposition. The Site Improvement Plan states that "*nitrogen deposition exceeds the site relevant critical load for ecosystem protection"* however, it also goes on to state that "*the sensitive features are currently considered to be in favourable condition on the site*". The main mechanism, through which residential and employment growth in South Kesteven District could lead to an increase in nitrogen deposition is via an increase in commuter journeys along major traffic routes (typically 'A' roads) within 200m of air quality-sensitive habitats. Grimsthorpe SAC is located approximately 5km west of Bourne and 18km south-east of Grantham, in a very rural area surrounded by parkland and arable fields. However, the closest major road, the A151 between Grimsthorpe and Bourne, lies approximately 2.5km from the site itself. The only roads within 200m are very small rural roads, which are not considered to be commuter routes and unlikely to experience significantly increased traffic volume due to the South Kesteven Local Plan. Therefore, the South Kesteven Local Plan will not result in likely significant effects on the Grimsthrorpe SAC regarding atmospheric pollution.

Barnack Hills and Holes SAC

5.14 The semi-natural dry grassland and scrubland facies on calcareous substrates in the Barnack Hills and Holes SAC are sensitive to an increase in nitrogen deposition. The Site Improvement Plan states that "*nitrogen deposition exceeds the site relevant critical load for ecosystem protection"*, however, it also goes on to state that "*the sensitive features are currently considered to be in favourable condition on the site*." The Barnack Hills and Holes SAC is located 4.4km south-east of Stamford, in a rural area surrounded on the north and east side by the village of Barnack, with the west and south side being arable land and woodland respectively. The closest major road, the A1 (Great North Road), lies approximately 2.2km west of the site at its closest. The only roads within 200m are very small rural roads that are not considered to be commuter routes and unlikely to experience a significant increase in traffic volume due to residential and employment growth allocated in the South Kesteven Local Plan. Therefore, the South Kesteven Local Plan will not result in likely significant effects on the Barnack Hills and Holes SAC regarding atmospheric pollution.

Water Quantity, Level and Flow

Nene Washes SPA and Ramsar

5.15 The Nene Washes SPA and Ramsar is approximately 9.7 km south-east at its closest point from the District boundary. Only a very small section of the SPA and Ramsar is within 10 km of the Local Plan area. The Site Improvement Plan highlights that the site is vulnerable to hydrological changes and states that "*Flooding on the Nene Washes can lead to difficulties in managing wet grassland habitats and may result in low numbers of target bird species successfully breeding*". The Local Plan area is outside of the SPA and Ramsar hydrological catchment.

5.16 The residential and employment development that is allocated within the Local Plan will increase the demand for potable water. If the delivery of potable water to these new development, would result in increased water abstraction from within the Nene Washes catchment, this may have ecological knock-on effects within the SPA and Ramsar. The potable water in South Kesteven District is supplied by Anglican Water. As detailed in Anglican Water's sraft Water Resources Management Plan (WRMP) 2024, the South Kesteven Area is covered by the following Water Resource Zones (WRZs), areas defined by shared water distribution/treatment infrastructure, water resources and experiencing a shared level of risk of supply issues:

- Linconshire East WRZ
- Lincinshire Central WRZ
- Linconshire Bourne WRZ

5.17 Water within these WRZs is primarily abstracted from groundwater sources, in addition to surface water abstractions from River Trent and Louth Canal. However, the company's supply network is complex and there are a number of strategic inter-zonal transfers. Therefore, specific hydrological relationships cannot necessarily be made and it is difficult to identify a particular 'source' for water supply to a specific area. Consequently, specific hydrological impacts of WRMP supply-side options on European sites due to forecast growth are not easily identified or quantified.

5.18 This WRMP establishes the supply-demand balances for the above listed WRZs, taking a range of factors into account, including future growth forecasts and climate change projections. This identifies water supply issues in Lincolnshire East WRZ (up to -15Ml/d), Lincolnshire Bourne (up to -15Ml/d) and Lincolnshire Central (over 90Ml/d) in the period to 2050. The deficits are to be met through a combination of demand management and supply-side options. For example, the WRMP demand management option portfolio includes a range of interventions, such as leakage reductions, smart metering, and household and non-household water efficiency measures. The implementation of these measures will lead to an aspirational water saving of 134.1Ml/d by 2050.

5.19 Several supply-side options are also included in the WRMP 2024, most notably the Lincolnshire and Fens Reservoirs. These are both raw water storage reservoirs that impound surplus water from the environment when available, storing until required by households or businesses. Both reservoirs would extract freshwater from a range of waterbodies; Lincolnshire Reservoir from River Trent, R. Witham and South Forty Foot Drain and Fens Reservoir from Middle Level, R. Nene (Stanground), R. Great Ouse (Earith), Counter Drain (Nene) and Ouse Washes (R. Delph). The WRMP HRA also assessed likely significant effects and potential adverse effects of supply-side options on European sites. It highlighted that, in combination with the Water Level Management Plan (WLMP), this development grants the ability to regulate the level of abstraction to avoid environmental impacts while enabling abstraction to assist in the control of flooding, which in turn improves the ability to manage the site and limit the impacts of flooding on wintering birds. The WRMP HRA concludes that adverse effects will be avoided or fully mitigated.

5.20 In conclusion, considering the above, likely significant effects of the South Kesteven Local Plan on the Nene Washes SPA / Ramsar regarding water quantity, level and flow can be excluded, both alone and in-combination. This impact pathway is screened out from Appropriate Assessment.

Rutland Water SPA and Ramsar

5.21 Rutland Water SPA and Ramsar is a large public water supply reservoir which supports an internationally important assemblage of non-breeding waterfowl of over 20,000 individuals annually. Rutland Water is primarily fed via abstractions from the River Nene and the River Welland. At its closest point, the Rutland SPA and Ramsar lies approximately 5.5km south-west of South Kesteven District.

5.22 The residential and employment development that is allocated within the Local Plan will increase the demand for potable water. If the delivery of potable water to new development, a legal obligation for water companies, would result in a significant drawdown of water levels in the reservoir, this may have ecological knock-on effects within the SPA and Ramsar. The potable water in South Kesteven District is supplied by Anglian Water. As detailed in Anglian Water's draft Water Resources Management Plan (WRMP) 2024, the South Kesteven area is covered by the following Water Resource Zones (WRZs), areas defined by shared water distribution / treatment infrastructure, water resources and experiencing a shared level of risk of supply issues:

- Linconshire East WRZ;
- Linconshire Central WRZ; and
- Lincolnshire Bourne WRZ.

5.23 Water within these WRZs is primarily abstracted from groundwater sources, in addition to surface water abstractions from River Trent and Louth Canal. However, the company's supply network is complex and there are a number of strategic inter-zonal transfers. Therefore, specific hydrological relationships cannot necessarily be made and it is difficult to identify a particular 'source' for water supply to a specific area.

Consequently, specific hydrological impacts of WRMP supply-side options on European sites due to forecast growth are not easily identified or quantified.

5.24 This WRMP establishes the supply-demand balances for the above listed WRZs, taking a range of factors into account, including future growth forecasts and climate change projections. This identifies water supply issues in Lincolnshire East WRZ (up to -15Ml/d), Lincolnshire Bourne (up to -15Ml/d) and Lincolnshire Central (over 90Ml/d) in the period to 2050. The deficits are to be met through a combination of demand management and supply-side options. For example, the WRMP demand management option portfolio includes a range of interventions, such as leakage reductions, smart metering, and household and non-household water efficiency measures. The implementation of these measures will lead to an aspirational water saving of 134.1Ml/d by 2050.

5.25 Several supply-side options are also included in the WRMP 2024, most notably the Lincolnshire and Fens Reservoirs. These are both raw water storage reservoirs that impound surplus water from the environment when available, storing until required by households or businesses. Both reservoirs would extract freshwater from a range of waterbodies; Lincolnshire Reservoir from River Trent, R. Witham and South Forty Foot Drain and Fens Reservoir from Middle Level, R. Nene (Stanground), R. Great Ouse (Earith), Counter Drain (Nene) and Ouse Washes (R. Delph). However, none of these sources are hydrologically connected to the Rutland Water SPA / Ramsar. The WRMP HRA also assessed likely significant effects and potential adverse effects of supply-side options on European sites. However, it did not identify the Rutland Water SPA / Ramsar as a designated site that will be impacted by the WRMP.

5.26 In conclusion, considering the above, likely significant effects of the South Kesteven Local Plan on the Rutland Water SPA / Ramsar regarding water quantity, level and flow can be excluded, both alone and in-combination. This impact pathway is screened out from Appropriate Assessment.

Baston Fen SAC

5.27 Baston Fen SAC comprises long strips of permanent pasture which are subject to regular winter flooding, interspersed with a series of old flooded borrow-pits with associated swamp and fen plant communities. The SAC is designated for spined loach, one of the UK's smallest freshwater fish that is restricted to five east-flowing river systems. Optimal habitat for this species is standing or slow-flowing water in SAC pasture and the Counter Drain, which depends on annual water supply from the R. Glen. Therefore, excessive potable water abstraction from the R. Glen and Counter Drain could impede the flow regime required by spined loach; in this case near-stagnant water that is periodically replenished from riverine sources.

5.28 As highlighted in the previous section, South Kesteven falls within Anglian Water's Lincolnshire East, Lincolnshire Central and Lincolnshire Bourne WRZs. The Lincolnshire and Fens Reservoirs are the only two supply-side options with the potential to result in a drawdown of local freshwater resources. An assessment of the potential hydrological impacts of both supply options was undertaken in the WRMP HRA. This identified the Lincolnshire Reservoir to have a potential hydrological connection with the Baston Fen SAC with the water transfer route crossing the R. Glen to the north-east of the Habitats Site. However, the HRA highlighted that refinement of the option design will ensure that the route falls outside the SSSI Impact Risk Zone for the SAC, ensuring that no adverse effects on the integrity of the site would occur.

5.29 In conclusion, given that the potential hydrological risk to the SAC has been previously appraised and will be addressed through careful design, it is concluded that there will be no likely significant effects regarding water quantity, level and flow at the Local Plan level. This impact pathway is screened out from Appropriate Assessment.

Water Quality

Rutland Water SPA and Ramsar

5.30 Rutland Water's water primarily is abstracted from the River Nene upstream of Peterborough and from the River Welland upstream of Stamford. The natural catchment of the reservoir is small, consisting of water from the River Gwash and the Egleton Brook. Natural England's Site Improvement Plan highlights that 'the inflows into Rutland Water currently receive regulated discharges of treated sewage as well as unregulated treated sewage discharges from septic tanks. Further nutrient inputs come from diffuse sources (such as agriculture) which maintain the reservoir in a highly eutrophic state…' Therefore, an increase in development

due to the South Kesteven Local Plan has the potential to exacerbate regularly occurring algal blooms with potential knock-on effects on the foraging conditions experienced by designated waterfowl.

5.31 A Water Cycle Study (WCS) for South Kesteven District was undertaken by AECOM in 2011 and updated in 2016. The updated study assessed allocated and committed housing numbers to 2040, which broadly aligns with the timescales of the emerging South Kesteven Local Plan. The WCS incorporates a wastewater treatment works capacity assessment, which determines whether there is sufficient capacity within existing Wastewater Treatment Works (WwTWs) to accommodate the additional wastewater (infrastructure capacity) and waterbodies receiving the treated flow can cope with the additional flow without affecting water quality (environmental capacity). All WwTWs in South Kesteven District are operated by Anglian Water and discharge to surface watercourses. Each of the WwTWs is issued discharge permits by the Environment Agency that set limits on the flow volume and quality of treated effluent to protect the ecological integrity of watercourses. Importantly, these permits consider treated sewage effluent discharge from all WwTWs discharging to a specific waterbody, thereby encompassing a built-in in-combination scope.

5.32 Of the 15 WwTWs serving South Kesteven District, two WwTWs (Little Bytham, Marston) were identified as not having sufficient headroom to accommodate the projected growth to 2040. All other WwTWs would remain within their discharge consents, even when considering the in-combination growth across the region. A review of surface waterbody connections on the Environment Agency Catchment Data Explorer indicates that neither Little Bytham and Marston WwTWs are in hydrological connectivity with the Rutland Water SPA / Ramsar. For example, Little Bytham WwTW discharges to the West Glen tributary, which drains to the south-east away from Rutland Water.

5.33 Surface run-off from impermeable surfaces can also have notable water quality impacts on waterbodies, such as via uncontrolled overflowing septic tanks and through sedimentation. However, surface run-off is most likely to impact Habitats Sites within close proximity to development (typically a maximum of 1km). South Kesteven District and the Rutland Water SPA / Ramsar are 5.5km apart at their nearest point. Therefore, impacts from surface run-off on water quality are excluded from further assessment.

5.34 Overall, given that there are no WwTWs in hydrological continuity with the SPA / Ramsar that would exceed their headroom due to the projected growth and impacts of surface run-off can be excluded, the South Kesteven Local Plan will not result in likely significant effects on the Rutland Water SPA / Ramsar regarding water quality.

In combination effects

5.35 The HRA identified a range of plans with which growth in South Kesteven could have 'in combination' effects, as these also deliver housing and employment growth within the catchments of surrounding European sites. These were: North Northamptonshire Joint Core Strategy, Rutland Local Plan, Melton Local Plan, Newark and Sherwood Local Development Framework, Central Lincolnshire Local Plan, South East Lincolnshire Local Plan and Peterborough Local Plan 2016 to 2036.

5.36 The assessment throughout this document has inherently taken account of potential in combination effects. This has been done through considering recreational catchments around relevant European sites, by discussing the HRAs in other surrounding local authorities, and by discussing strategic water resource planning and water cycle studies. These cover areas much greater than South Kesteven, and deal with population growth to or beyond the end of the Local Plan period. It has been determined that there will be no effects on any European sites from South Kesteven Local Plan in combination with other plans or projects.

6. Conclusions

6.1 This HRA assessed the potential implications of the emerging South Kesteven Local Plan on European sites. The European sites that have been considered in this HRA are:

- Nene Washes SPA and Ramsar
- Rutland Water SPA and Ramsar
- Grimsthorpe SAC

- Baston Fen SAC
- Barnack Hills and Holes SAC

6.2 The background sections on the European sites and impact pathways identified that the following issues required assessment:

- Recreational pressure;
- Air quality;
- Water quantity, level and flow; and
- Water quality;

Recreational Pressure

6.3 The Test of Likely Significant Effects assessed whether the local plan leads to likely significant effects on either Rutland Water SPA and Ramsar, or, Barnack Hills and Holes SAC.

6.4 Rutland Water is managed by Anglian Water and is approximately 5.6 km west of South Kesteven District. HRAs completed for the Rutland Local Plan have indicated that growth within 5km is unlikely to have any adverse effect. Given that South Kesteven is located entirely outside of the core catchment area (5km), recreational pressure was screened out for Rutland Water SPA and Ramsar both alone and in-combination with other plans and projects.

6.5 Barnack Hills and Holes is managed by Natural England. Access to the site for dogs is limited. The current adopted South Kesteven Local Plan HRA also screened out Barnack Hills and Holes SAC at the screening stage. Given the management plan suitably controls recreational pressure this local plan can also be screened out as not causing a likely significant effect on Barnack Hills and Holes SAC.

Air Quality

6.6 The Test of Likely Significant Effects assessed whether the local plan leads to likely significant effects on either Grimsthorpe SAC, or, Barnack Hills and Holes SAC.

6.7 These sites are vulnerable to increased deposition of nitrogen. With regards to air pollution in terms of growth within the Local Plan this is looked at through increased vehicular usage on main roads within 200 m of the sensitive habitats of the sites. Grimsthorpe SAC is is located in a very rural area surrounded by parkland and arable fields with the closest major road being approximately 2.5 km from the site itself. Therefore, the South Kesteven Local Plan can be screened out from a likely significant effect with regards to air quality on Grimsthrorpe SAC. Barnack Hills and Holes SAC is in a very rural area although surrounded on the north and east side by the village of Barnack, the west and south side are arable and woodland respectively. The closest major road is approximately 2.2 km west of the site at its closestTherefore, the South Kesteven Local Plan can be screened out from a likely significant effect with regards to air quality on Barnack Hills and Holes SAC.

Water Quality

6.8 The Test of Likely Significant Effects assessed whether the local plan leads to likely significant effects on Rutland Water SAC and Ramsar.

6.9 Rutland Water's water primarily is abstracted from the River Nene upstream of Peterborough and from the River Welland upstream of Stamford. The natural catchment of the reservoir is small. The main inflows into Rutland Water have treated sewage added to them, via regulated discharges, and unregulated discharges from septic tanks.

6.10 A 2011 water cycle study found no adverse effects on Rutland Water SPA due to water quality, even under the worst case scenario. Surface run-off can have notable impacts on waterbodies, both in terms of quantity and of quality. Surface run-off only affects sites within close proximity to impermeable surfaces. South Kesteven and Rutland Water SPA & Ramsar are 5.6km apart at their nearest point. Due to this, impacts from surface run off can safely be excluded from further analysis.

6.11 Given the impacts of surface run-off can be excluded, and the fact that the 2011 Water Cycle study found no adverse effects, the Local Plan can be screened out of causing a likely significant effect with regards to Water Quality on the Rutland Water SPA and Ramsar site.

Water quantity, level and flow

6.12 The Test of Likely Significant Effects assessed whether the local plan leads to likely significant effects on Nene Washes SPA and Ramsar, Rutland Water SAC and Ramsar and Baston Fen SAC.

6.13 The Local Plan area falls outside of The Nene Washes SPA and Ramsar hydrological catchment. Because of this growth within the District would not cause changes in the hydrological profiles on site. Therefore, the Local Plan was screened out of causing a likely significant effect on the Nene Washes SPA and Ramsar.

6.14 Rutland Water SPA and Ramsar's water is primarily abstracted from the River Nene upstream of Peterborough and from the River Welland upstream of Stamford. The natural catchment of the reservoir is small. The current Water Resources Management Plan identified potential water deficiencies that are to be met through leakage reductions and water transfers into the WRZs using existing infrastructure. The HRA of the Water Resource Management Plan concluded that it would have no adverse effects Rutland Water SPA/Ramsar. Therefore, the Local Plan was screened out of causing a likely significant effect with regards on the Rutland Water SPA and Ramsar site.

6.15 Baston Fen SAC comprises long strips of permanent pasture which are subject to regular winter flooding, interspersed with a series of old flooded borrow-pits with associated swamp and fen plant communities. The current Water Resources Management Plan identified potential water deficiencies that are to be met through leakage reductions and water transfers into the WRZs using existing infrastructure. The HRA of the Water Resource Management Plan concluded that it would have no adverse effects Rutland Water SPA/Ramsar. Therefore, the Local Plan can be screened out of causing a likely significant effect with regards to hydrological changes on the Baston Fen SAC site.

Appendix A Policy and Allocations Screening Tables

Table 4. Policy And Allocations Screening Table for the South Kesteven Local Plan

Policy Name	Policy Description	Screening Outcome
SD1: The Principles of Sustainable Development in South Kesteven	This policy sets out the criteria for development proposals in relation to mitigating against the impacts of climate change and contributing towards creating a strong, stable and more diverse economy. Such as through minimising the use of resources (energy and water efficiency) and effects of climate change, avoiding developing land with risk of flooding, encouraging use of sustainable construction materials and enhancing the districts natural environment.	No likely significant effects. This policy is a development management policy, it sets out criteria based management principles which development must adhere to for approval. There are no linking impact pathways and this policy can be screened out.
RE1: Renewable Energy Generation	This policy sets out criteria by which developments relating to renewable energy must adhere to for support.	No likely significant effects. This policy is a development management policy, it sets out criteria based management principles which development must adhere to for approval. Therefore, there are no linking impact pathways and this policy can be screened out.. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects for that development.
SP1: Spatial Strategy	This policy sets out that the Local Plan will deliver sustainable growth across the District throughout the Plan Period 2021 – 2041. The minimum local plan requirement for housing is **14,020** dwellings. The overall strategy of the Plan is to deliver sustainable growth, including new housing and job creation, in order to facilitate growth in the local economy and support local residents. The focus for the majority of growth is in and around the four market towns, with Grantham being a particular focal point. Larger Villages will provide a supporting role in meeting the development needs of the District.	No likely significant effects. While this policy sets out that a total of 14,020 dwellings will be delivered over the Local Plan period, likely significant effects on European sites can be excluded on the basis of evidence presented in Chapter 5. There are no linking impact pathways and Policy SP1 can be screened out from Appropriate Assessment.
SP2: Settlement Hierarchy	This policy sets out the hierarchy of urban and countryside development into sub-regional centres, market towns, large villages and small villages and discusses where development will be focused around these categories.	No likely significant effects. Policy SP2 sets out the hierarchy of towns and villages within the District and highlights where development will be focused. While the policy encompasses a geographic element for the distribution of growth, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and Policy SP2 can be screened out from Appropriate Assessment.

Policy Name	Policy Description	Screening Outcome
SP3: Residential Development within Settlements	This policy sets out the criteria for residential development proposals within settlements, such as not extending the pattern of development beyond the existing built form.	No likely significant effects. This policy is a development management policy. It sets out criteria-based management principles which development must adhere to for approval. Therefore, there are no linking impact pathways and this policy can be screened out. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case-by-case basis, in order to determine if there are likely significant effects for that development.
SP4: New Residential Development on the Edge of Settlements	This sets out the criteria for residential development proposals on the edge of settlements, such as documenting clear evidence of substantial support from the local community.	No likely significant effects. This policy is a development management policy, it sets out criteria-based management principles which development must adhere to for approval. Therefore, there are no linking impact pathways and this policy can be screened out. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case-by-case basis, in order to determine if there are likely significant effects for that development.
New Policy 1: Rural Exception Schemes	This policy sets out criteria for the delivery of housing schemes which meet demonstrable local need for affordable housing in rural sites.	No likely significant effects. This policy is a development management policy, it sets out criteria-based management principles which development must adhere to for approval. Therefore, there are no linking impact pathways and this policy can be screened out. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case-by-case basis, in order to determine if there are likely significant effects for that development.
SP5: Development Outside of Settlements	This policy sets out criteria for development proposals outside of settlements, such as agriculture, forestry and equine development, and rural diversification projects.	No likely significant effects. This policy is a development management policy, it sets out criteria-based management principles which development must adhere to for approval. Therefore, there are no linking impact pathways and this policy can be screened out. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case-by-case basis, in order to determine if there are likely significant effects for that development.

Policy Name	Policy Description	Screening Outcome
New Policy 2: Best and Most Versatile Agricultural Land	This policy establishes that development proposals should protect the best and most versatile agricultural land, thereby safeguarding opportunities for food production and the continuance of the agricultural economy. It also sets out the limited conditions under which such land could be developed.	No likely significant effects. This policy is a development management policy that protects the best and most versatile agricultural land from development. However, the general safeguarding of such land has no negative implications for European sites. The policy does not allocate a quantum or location of growth. Therefore, there are no linking impact pathways and this policy can be screened out.
H1: Housing Allocations	This policy sets out the sites that are proposed for residential development over the plan period: **Towns** <u>Grantham</u> - SKPR-278 – Spitalgate Heath – Garden Village – 1,350 dwellings by 2041 (total capacity 3,700) - SKPR-279 – Rectory Farm (Phase 2) – 1,150 dwellings - SKPR-280 – Rectory Farm (Phase 3) – 404 dwellings - SKPR-65 – Prince William of Gloucester Barracks – 1,745 dwellings by 2041 (total capacity 4,000) - SKPR-117 – Land to the East of Sheepwash Lane – 72 dwellings - SKPR-268 – Land at Train Station – 268 dwellings - SKPR-57 – Land off Belton Lane – 628 dwellings - SKPR-62 – The Grantham Church High School Playing Fields, Queensway – 76 dwellings <u>Stamford</u> - SKPR-281 – Stamford North – 1,300 dwellings - SKPR-282 – Stamford East – 162 dwellings - SKPR-266 – Stamford Gateway (Exeter Fields) – 180 dwellings <u>The Deepings</u> - SKPR-144 – Towngate West – 73 dwellings - SKPR-26 – Land off Linchfield Road – 680 dwellings - SKPR-144 – Land to the West of Millfield Road – 200 dwellings - SKPR-26 – Priory Farm Land, Deeping St James – 18 dwellings <u>Bourne</u> - SKPR-53 – Land at Mill Drove – 285 dwellings - SKPR-83 – Land North of Mill Drove – 172 dwellings **Larger Villages** <u>Ancaster</u> - SKPR-271 – Wilsford Lane (South) – 35 dwellings - SKPR-58 – Land to the East of Ermine Street – 26 dwellings - SKPR-283 – Land off St Martins Way – 65 dwellings <u>Barkston</u>	No likely significant effects. This policy lists all the allocations which are to be delivered within the Plan period. While some allocations fall within the potential Zones of Influence of relevant European sites, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and Policy H1 can be screened out from Appropriate Assessment.

Policy Name	Policy Description	Screening Outcome
	- SKPR-242 – Land East of Honington – 54 dwellings Barrowby - SKPR-272 – Low Road – 270 dwellings Baston - SKPR-109 – Land Fronting Deeping Road – 86 dwellings Billingborough - Former Aveland School, and Land to West of Pointon Road – 140 dwellings Colsterworth - SKPR-120 – Land at the East of Stamford Road – 70 dwellings Corby Glen - SKPR-247 – Land North of Bourne Road – 144 dwellings Great Gonerby - SKPR-241 – Land Off Church Lane – 86 dwellings Harlaxton - SKPR-74 – The Land West of The Drift – 24 dwellings Langtoft - Land North of Dickens Close, Stowe Road – 55 dwellings Long Bennington - SKPR-273 – Main Road (South) – 55 dwellings Morton - SKPR-274 – Folkingham Road – 71 dwellings - SKPR-135 – Land to the South of Edenham Road – 48 dwellings South Witham - SKPR-275 – Thistleton Lane and Mill Lane – 34 dwellings - SKPR-192 and SKPR-276 – Land North of High Street – 138 dwellings Thurlby - SKPR-277 – Part of Elm Farm Yard – 50 dwellings - SKPR-56 – Land at Obthorpe Lane – 86 dwellings -	
H2: Affordable Housing Contributions	This policy sets out the requirements for affordable housing provision of 26-55% on each development comprising 10 or more dwellings or an area of 0.5ha or greater. The policy also sets out the requirements of affordable housing provision in terms of mix of provision type (e.g. social rent/intermediate market housing), as well as integration into market rate housing, style, design, and size/type based on local needs and incomes.	No likely significant effects. This policy is a development management policy, it sets out criteria-based management principles which development must adhere to for approval. Therefore, there are no linking impact pathways and this policy can be screened out. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other

Policy Name	Policy Description	Screening Outcome
		policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case-by-case basis, in order to determine if there are likely significant effects for that development.
H4: Meeting All Housing Needs	This policy sets out that all major developments should provide appropriate types and sizes of dwellings to meet the needs of current and future households in the District, such as those of older and most vulnerable residents.	No likely significant effects. This policy is a development management policy, it sets out criteria-based management principles which development must adhere to for approval. Therefore, there are no linking impact pathways and this policy can be screened out. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case-by-case basis, in order to determine if there are likely significant effects for that development.
H3: Self and Custom Build Housing	This policy sets out the requirements for self and custom build housing on each development comprising 400 or more dwellings. At least 2% of all plots will be required to provide for self and custom build housing.	No likely significant effects. This policy is a development management policy, it sets out criteria-based management principles which development must adhere to for approval. Therefore, there are no linking impact pathways and this policy can be screened out. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case-by-case basis, in order to determine if there are likely significant effects for that development.
H5: Gypsy and Travellers	This policy sets out the general requirements for gypsy and traveller pitches. In addition to development management principles in the policy text itself, the supporting information identifies the need for 31 residential pitches within the Plan period as set out below: - 2021 – 2027 – 17 pitches - 2027 – 2032 – 6 pitches - 2032 – 2037 – 6 pitches - 2037 – 2041 – 5 pitches	No likely significant effects. This policy sets out the development management criteria for gypsy and traveller pitches to be delivered within the Plan period. Furthermore, a quantum of 31 pitches is identified in the supporting text of the policy. However, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and Policy H5 can be screened out from Appropriate Assessment.
H6: Travelling Showpeople	This policy sets out the general requirements for travelling showpeople plots. In addition to development management principles within the policy text itself, the supporting information identifies the need for 4 pots within the plan period as set out below: - 2021 – 2027 – 1 plot - 2027 – 2032 – 1 plot - 2032 – 2037 – 1 plot - 2037 – 2041 – 1 plot	No likely significant effects. This policy sets out the development management criteria for travelling showpeople plots to be delivered within the Plan period. Furthermore, a quantum of four plots is identified in the supporting text of the policy. However, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact

Policy Name	Policy Description	Screening Outcome
		pathways and Policy H6 can be screened out from Appropriate Assessment.
SP6: Protecting Community Services and Facilities	This policy sets out that the loss of community facilities will be resisted unless certain criteria are met, such as the existence of alternative facilities or such services are no longer viable.	No likely significant effects. This policy is a development management policy, it sets out criteria-based management principles which development must adhere to for approval. Therefore, there are no linking impact pathways and this policy can be screened out.
New Policy 3: New Community Services and Facilities	This policy supports the delivery of new community services and facilities. It also stipulates several criteria that should be met where feasible.	No likely significant effects. This policy is a development management policy, it sets out criteria-based management principles which development must adhere to for approval. Therefore, there are no linking impact pathways and this policy can be screened out. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case-by-case basis, in order to determine if there are likely significant effects for that development.
E1: SKPR 286 (GR-SE1) – Grantham Southern Gateway Strategy Employment Opportunity (118.19 hectares)	The site consists of 118.19ha of employment land. The policy sets out that proposals will be encouraged that help to create an attractive and vibrant gateway to the sub-regional centre of Grantham and that assist in delivering a step-change in the quality and quantity of employment opportunities provided in the town and District	No likely significant effects. This policy allocates the Grantham Southern Gateway Strategy Employment Opportunity for 118.19ha of employment land. However, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and Policy E1 can be screened out from Appropriate Assessment.
E2: Employment Sites	This policy identifies employment sites for new B1, B2, and or B8 uses as well as the redevelopment of these uses. The policy also sets out some management criteria. - ST-SE1* - Exeter Fields, Empingham Road – 9.8 ha - ST-E1 – Land East of Ryhall Road – 3.9 ha - BO-SE1 – Land South of Spalding Road – 8 ha - BO-E1* Adjacent to A151 Raymond Mays Way – 1.2 ha - BO-E2 – Land North of Bourne Eau and East of Car Dyke, Bourne – 3 ha - DEP-SE1 – Extensions to Northfields Industrial Estate – 14 ha - DEP-E1 – Towngate East – 4.2 ha - RBP-E1 – Roseland Business Park – 9.01 ha	No likely significant effects. This policy lists all the employment allocations which are to be delivered within the Plan period. However, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and Policy E2 can be screened out from Appropriate Assessment.
E4: Protection of Existing Employment Sites	This policy sets out that locally important employment sites will be protected to ensure continued provision. A list of protected sites is provided within the Local Plan document. Additionally, the policy provides criteria for where new and redevelopment of B1, B2 and B8 uses.	No likely significant effects. This policy is a development management policy, it sets out criteria based management principles which development must adhere to for approval. Additionally, it protects employment sites for continued provision. Therefore, there are no linking impact pathways and this policy can be screened out.

Policy Name	Policy Description	Screening Outcome
		Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects for that development.
E5: Expansion of Existing Business	This policy sets out that expansion of existing business would be supported where certain criteria are met by the development.	No likely significant effects. This policy is a development management policy, it sets out criteria based management principles which development must adhere to for approval. Therefore, there are no linking impact pathways and this policy can be screened out. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects for that development.
E6: Loss of Employment Land and Buildings to Non-Employment Uses	This policy sets out where loss of employment land may be acceptable based on the development meeting certain criteria.	No likely significant effects. This policy is a development management policy, it sets out criteria based management principles which development must adhere to for approval. Therefore, there are no linking impact pathways and this policy can be screened out. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects for that development.
E7: Rural Economy	This policy sets out where certain small business schemes may be supported provided they adhere to certain criteria based on supporting or regenerating the rural economy.	No likely significant effects. This policy is a development management policy, it sets out criteria based management principles which development must adhere to for approval. Therefore, there are no linking impact pathways and this policy can be screened out. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects for that development.
E8: Other Employment Proposals	This policy sets out where other employment proposals in locations not covered by the other employment policies may be supported based on a list of criteria the development must adhere to.	No likely significant effects. This policy is a development management policy, it sets out criteria based management principles which development must adhere to for approval. Therefore, there are no linking impact pathways and this policy can be screened out.

Policy Name	Policy Description	Screening Outcome
		Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects for that development.
E9: Tourism and Visitor Economy	This policy sets out where development for the local visitor economy including tourist accommodation may be supported based on criteria the development must adhere to.	No likely significant effects. The policy does not allocate a specific site or quantum of tourist accommodation. This policy is merely a development management policy, it sets out criteria based management principles which development must adhere to for approval and therefore does not provide a linking impact pathway to European sites. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects for that development.
EN1: Landscape Character	This policy sets out that developments must be appropriate to the character and significant natural, historical and cultural attributes and features of the landscape within which it is situated, and contribute to its conservation, enhancement and restoration.	No likely significant effects. This policy is a development management policy to ensure the preservation of the landscape character across the District. The policy does not allocate a quantum of development does not allocate sites for development. Therefore, the policy does not present linking impact pathways and this policy can be screened out. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects.
EN2: Protecting Biodiversity and Geodiversity	This policy sets out that developments must facilitate the conservation, enhancement and promotion of the districts biodiversity and geological interest of the natural environment. With relevance to the Habitats Regulations Assessment of the Local Plan the policy also states: "*Development proposals that are likely to result in a significant adverse effect, either alone or in combination, on any internationally designated site, must satisfy the requirements of the Habitats Regulations. Development requiring Appropriate Assessment will only be allowed where it can be determined, taking into account mitigation, that the proposal would not result in significant adverse effects on the site's integrity.*"	No likely significant effects. This policy is a development management policy to ensure the protection and enhancement of biodiversity, geological and natural assets, and designated sites. The policy ensures the protection of European sites through the statement in *italics* in the description box. This policy is a positive policy and promotes a robust protective policy framework for European sites.
New Policy 4: Biodiversity Opportunity and Delivering Measurable Net Gains	This policy sets out the requirement of measurable biodiversity net gain which all qualifying developments (as defined by the Environment Act 2021, Schedule 7A, Part 2, Paragraph 17) must adhere to be supported.	No likely significant effects. This policy is a development management policy to ensure the measurable delivery of biodiversity net gains on all qualifying development. The policy does not allocate a quantum of development does not allocate sites for development. Therefore, the policy

Policy Name	Policy Description	Screening Outcome
		does not present linking impact pathways and this policy can be screened out. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects.
EN3: Green Infrastructure	This policy sets out the need for developments to maintain and improve green infrastructure by enhancing, creating and managing green space within and around developments that are well connected to each other and the wider countryside. Green infrastructure should be integrated into scheme design. Proposals that harm the green infrastructure network will not be permitted unless the need and benefits of development outweigh the impacts.	No likely significant effects. This policy is a development management policy to ensure the protection, enhancement and creation of a well connected green infrastructure throughout the District. Therefore, the policy does not present linking impact pathways and this policy can be screened out. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects.
EN4: Pollution Control	This policy sets out that developments should seek to minimise pollution and where possible contribute to the protection and improvement of the quality of air, land and water. Development should improve air, land and water quality and promote environmental benefits. Development that would result in significant environmental pollution or harm to amenity, health well-being or safety will not be permitted. Development will only be permitted if adverse effects can be mitigated. Development that prevents the good status of a water body or groundwater will not be permitted. Remediation for contaminated land will be required for development proposals in affected areas.	No likely significant effects. This policy is a development management policy to ensure minimisation of pollution and the protection and improvement of the quality of air, land and water. Therefore, the policy does not present linking impact pathways and this policy can be screened out. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects.
EN5: Water Environment and Flood Risk Management	This policy sets out criteria for which development must adhere to, to be supported, with regards to placement of development around flood risk areas and ensuring surface water is managed effectively, as well as ensuring the development can demonstrate that wate is available to serve the development and adequate foul water treatment and disposal already exists or can be provided in time to serve the development.	No likely significant effects. This policy is a development management policy to ensure the reduction of flood risk to developments as well as to ensure appropriate water and sewage provision is provided. Therefore, the policy does not present linking impact pathways and this policy can be screened out. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects.
EN6: The Historic Environment	This policies set out that development should seek to protect and enhance heritage assets and their settings. This includes, Conservation areas, Listed buildings, Scheduled monuments and other site of archaeological interest.	No likely significant effects. This policy is a development management policy to ensure the protection and enhancement of heritage assets including archaeological sites. Therefore, the policy

Policy Name	Policy Description	Screening Outcome
		does not present linking impact pathways and this policy can be screened out. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects.
EN7: Protecting and Enhancing Grantham Canal	This policy sets out that the Grantham Canal alignment will be safeguarded with a few to long term re-establishment of the canal as a navigable waterway. The policy also sets out development management criteria to ensure this.	No likely significant effects. This policy is a development management policy to ensure the protection and enhancement of Grantham Canal. Therefore, the policy does not present linking impact pathways and this policy can be screened out. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects.
DM1: Promoting Good Quality Design	This policy sets out that development should ensure high quality design is achieved to ensure support. The policy sets out criteria based on: - Local context, identity and character; - Built form, streets, spaces and movements; - Green and blue infrastructure and nature; - Mixed and integrated uses; - Amenity and easy to use homes and buildings; and, - Sustainable, healthy, resource efficient and built to last.	No likely significant effects. This policy is a development management policy, it sets out criteria based management principles which development must adhere to for approval. Therefore, there are no linking impact pathways and this policy can be screened out.. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects for that development.
New Policy 5 – Householder Development	This policy supports the alteration and extension of buildings provided the proposal: • respects the design, materials and detailing of the host dwelling, • respects the character of the surrounding area • does not adversely impact neighbouring users • retains an appropriate amount of amenity space • does not impact existing access and parking causing detrimental impact on highway safety; • Annexes should not be capable of being occupied as a separate independent dwelling.	No likely significant effects. This policy is a development management policy, it sets out criteria based management principles which development must adhere to for approval. Therefore, there are no linking impact pathways and this policy can be screened out.. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects for that development.
SB1: Sustainable Building	This policy sets out that development should ensure sustainable and climate resilience building processes and materials are used during construction and for operation of the development The policy sets out criteria based on: - Energy consumption; - Water resources; and,	No likely significant effects. This policy is a development management policy, it sets out criteria based management principles which development must adhere to for approval. Therefore, there are no linking

Policy Name	Policy Description	Screening Outcome
	- Contributing to low-carbon travel.	impact pathways and this policy can be screened out.. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects for that development.
OS1: Open Space	This policy sets out provision and accessibility standards for various types of open space. The policy also sets out the need to protect and enhance existing open space as well as proving new open space as part of developments, where accessibility standards are not presently met.	No likely significant effects. This policy is a development management policy, it sets out criteria based management principles which development must adhere to for approval. Therefore, there are no linking impact pathways and this policy can be screened out.. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects for that development.
GR1: Protecting and Enhancing the Setting of Belton House and Park	This policy sets out that Belton House and its Historic Park and Gardens should be protected and enhanced within its setting by developments. Proposals must demonstrate what impacts are present, if any, and how show that any adverse impacts have been avoided or mitigated.	No likely significant effects. This policy is a development management policy, to protect a heritage assed within the District. Development must adhere to this policy for approval. Therefore, there are no linking impact pathways and this policy can be screened out.. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects for that development.
GR2: Sustainable Transport in Grantham	This policy sets out that developments should make appropriate contributions to necessary transport improvements within Grantham either directly (provision of infrastructure or contribution of land) or indirectly (through developer contributions).	No likely significant effects. This policy is a development management policy, to ensure the adequate provision of transport infrastructure is provided by appropriate developments. Developments must adhere to this policy for approval. Therefore, there are no linking impact pathways and this policy can be screened out.. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects for that development.
SKPR-278 (GR3-H1): Spitalgate Heath – Garden Village (Mixed Use Allocation)	The policy sets out that: - The overall capacity for the site is 3,700 - 1,450 dwellings are anticipated to be delivered during the Plan period.	No likely significant effects. The policy allocates 1,450 dwellings to this site in Grantham. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5.

Policy Name	Policy Description	Screening Outcome
	- Development will include 110,000 m^2 of employment space - Additional treatment capacity is required at wastewater treatment works and new discharge permits are required for water quality targets. This should be incorporated early on in the development of scheme specifics, as part of a scheme wide delivery strategy which demonstrates that capacity is available or could be made available to serve the development subject to phasing. The rest of the policy is development management criteria.	Therefore, there are no linking impact pathways and site allocation GR3-H1 can be screened out from Appropriate Assessment.
SKPR-279 (GR3-H2): Rectory Farm (Phase 2)	The policy sets out that: - 1,150 dwellings are anticipated to be delivered during the Plan period. - Additional treatment capacity is required at wastewater treatment works and new discharge permits are required for water quality targets. This should be incorporated early on in the development of scheme specifics as part of a scheme wide delivery strategy which demonstrates that capacity is available or could be made available to serve the development subject to phasing. The rest of the policy is development management criteria.	No likely significant effects. The policy allocates 1,150 dwellings to this site in Grantham. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation GR3-H2 can be screened out from Appropriate Assessment.
SKPR-280 (GR3-H3): Rectory Farm (Phase 3)	The policy sets out that: - 404 dwellings are anticipated to be delivered during the Plan period. - Additional treatment capacity is required at wastewater treatment works and new discharge permits are required for water quality targets. This should be incorporated early on in the development of scheme specifics as part of a scheme wide delivery strategy which demonstrates that capacity is available or could be made available to serve the development subject to phasing. The rest of the policy is development management criteria.	No likely significant effects. The policy allocates 404 dwellings to this site in Grantham. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation GR3-H3 can be screened out from Appropriate Assessment.
SKPR-65 (GR3-H4): Prince William of Gloucester Barracks (Mixed Use Allocation)	The policy sets out that: - The overall capacity of the site is 3,500 to 4,000 dwellings - 1,920 dwellings are anticipated to be delivered during the Plan period. - There is 8 ha of new employment land proposed. - Masterplans must show evidence of the most appropriate means of managing wastewater and surface water that meets the requirements of the Water Framework Directive and secures improvements in water quality and surface water management	No likely significant effects. The policy allocates 1,920 dwellings to this site in Grantham. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation GR3-H4 can be screened out from Appropriate Assessment.

Policy Name	Policy Description	Screening Outcome
SKPR-117 – Land to the East of Sheepwash Lane	The policy sets out that: - 72 dwellings are anticipated to be delivered on the site during the Plan period. The rest of the policy is development management criteria.	No likely significant effects. The policy allocates 72 dwellings to this site in Grantham. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation SKPR-117 can be screened out from Appropriate Assessment.
SKPR-268 – Land at Train Station – Mixed Use Allocation	The policy sets out that: - 268 dwellings are anticipated to be delivered on the site during the Plan period. - Provision is made for a 648m^2 hotel, 828m^2 of Small Medium Enterprise, a 400 space multi-storey car park, and 2480m^2 of light industrial space. The rest of the policy is development management criteria.	No likely significant effects. The policy allocates 268 dwellings to this site in Grantham. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation SKPR-268 can be screened out from Appropriate Assessment.
SKPR-57 – Land off Belton Lane	The policy sets out that: - 628 dwellings are anticipated to be delivered on the site during the Plan period. The rest of the policy is development management criteria.	No likely significant effects. The policy allocates 628 dwellings to this site in Grantham. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation SKPR-57 can be screened out from Appropriate Assessment.
SKPR-62 – The Grantham Church High School Playing Fields, Queensway	The policy sets out that: - 76 dwellings are anticipated to be delivered on the site during the Plan period. The rest of the policy is development management criteria.	No likely significant effects. The policy allocates 76 dwellings to this site in Grantham. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation SKPR-62 can be screened out from Appropriate Assessment.
GR4: Grantham Town Centre	This policy sets out development management criteria for development proposals within Grantham Town Centre.	No likely significant effects. This policy is a development management policy, it sets out criteria based management principles which development must adhere to for approval. Therefore, there are no linking impact pathways and this policy can be screened out. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects for that development.
SKPR-281 (STM1-H1): Stamford North	The policy sets out that: - 1,300 dwellings are anticipated to be delivered within the Plan period.	No likely significant effects. The policy allocates 1,300 dwellings to this site in Stamford. While this will lead to an

Policy Name	Policy Description	Screening Outcome
	The rest of the policy is development management criteria.	increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation STM1-H1 can be screened out from Appropriate Assessment.
SKPR-282 (STM1-H2): Stamford East	The policy sets out that: - 162 dwellings are anticipated to be delivered within the Plan period. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 162 dwellings to this site in Stamford. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation STM1-H2 can be screened out from Appropriate Assessment.
SKPR-266 – Stamford Gateway (Exeter Fields)	The policy sets out that: - 180 dwellings are anticipated to be delivered within the Plan period. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 266 dwellings to this site in Stamford. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation SKPR-266 can be screened out from Appropriate Assessment.
STM2: Stamford Town Centre	This policy sets out development management criteria for development proposals within Stamford Town Centre.	No likely significant effects. This policy is a development management policy, it sets out criteria based management principles which development must adhere to for approval. Therefore, there are no linking impact pathways and this policy can be screened out. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects for that development.
SKPR-53: Land at Mill Drove	The policy sets out that: - 285 dwellings are anticipated to be delivered within the Plan period. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 285 dwellings to this site in Bourne. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation SKPR-53 can be screened out from Appropriate Assessment.

Policy Name	Policy Description	Screening Outcome
SKPR-83: Land North of Mill Drove	The policy sets out that: - 172 dwellings are anticipated to be delivered within the Plan period. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 172 dwellings to this site in Bourne. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation SKPR-83 can be screened out from Appropriate Assessment.
BRN2: Bourne Town Centre	This policy sets out development management criteria for development proposals within BourneTown Centre.	No likely significant effects. This policy is a development management policy, it sets out criteria based management principles which development must adhere to for approval. Therefore, there are no linking impact pathways and this policy can be screened out. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects for that development.
SKPR-36 (DEP1-H1): Towngate West	The policy sets out that: - 73 dwellings are anticipated to be delivered within the Plan period. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 73 dwellings to this site in Market Deeping. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation DEP1-H1 can be screened out from Appropriate Assessment.
SKPR-37 (DEP1-H2): Linchfield Road	The policy sets out that: - 680 dwellings are anticipated to be delivered within the Plan period. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 680 dwellings to this site in Market Deeping. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation DEP1-H2 can be screened out from Appropriate Assessment.
SKPR-144 Land to the West of Millfield Road	The policy sets out that: - 200 dwellings are anticipated to be delivered within the Plan period. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 285 dwellings to this site in Market Deeping. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5.

Policy Name	Policy Description	Screening Outcome
		Therefore, there are no linking impact pathways and site allocation SKPR-144 can be screened out from Appropriate Assessment.
SKPR-26 – Priory Farm Land, Deeping St James	The policy sets out that: - 18 dwellings are anticipated to be delivered within the Plan period. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 172 dwellings to this site in Deeping St James. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation SKPR-26 can be screened out from Appropriate Assessment.
DEP2: Market Deeping Town Centre	This policy sets out development management criteria for development proposals within Market Deeping Town Centre.	No likely significant effects. This policy is a development management policy, it sets out criteria based management principles which development must adhere to for approval. Therefore, there are no linking impact pathways and this policy can be screened out. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects for that development.
SKPR-271 (LV-H2): Wilsford Lane	The policy sets out that: - 35 dwellings are anticipated to be delivered within the Plan period. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 35 dwellings to this site in Ancaster. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation LV-H2 can be screened out from Appropriate Assessment.
SKPR-58 Land to the East of Ermine Street	The policy sets out that: - 26 dwellings are anticipated to be delivered within the Plan period. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 26 dwellings to this site in Ancaster. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation SKPR-58 can be screened out from Appropriate Assessment.
SKPR-283 – Land off St Martins Way	The policy sets out that: - 65 dwellings are anticipated to be delivered within the Plan period. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 65 dwellings to this site in Ancaster. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5.

Policy Name	Policy Description	Screening Outcome
		Therefore, there are no linking impact pathways and site allocation SKPR-283 can be screened out from Appropriate Assessment.
SKPR-242 Land East of Honington Road	The policy sets out that: - 54 dwellings are anticipated to be delivered within the Plan period. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 54 dwellings to this site in Barkston. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation SKPR-242 can be screened out from Appropriate Assessment.
SKPR-272 (LV-H3): Low Road	The policy sets out that: - 270 dwellings are anticipated to be delivered within the Plan period. - Additional treatment capacity is required at wastewater treatment works and new discharge permits are required for water quality targets. This should be incorporated early on in the development of scheme specifics as part of a scheme wide delivery strategy which demonstrates that capacity is available or could be made available to serve the development subject to phasing. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 270 dwellings to this site in Barrowby. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation LV-H3 can be screened out from Appropriate Assessment.
SKPR-109 Land Fronting Deeping Road	The policy sets out that: - 86 dwellings are anticipated to be delivered within the Plan period. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 86 dwellings to this site in Baston. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation SKPR-109 can be screened out from Appropriate Assessment.
SKPR-61 and SKPR-103 – Former Aveland School, and Land to the West of Pointon Road	The policy sets out that: - 140 dwellings are anticipated to be delivered within the Plan period. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 140 dwellings to this site in Billingborough. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocations SKPR-61 and SKPR-103 can be screened out from Appropriate Assessment.
SKPR-120 Land at the East of Stamford Road	The policy sets out that: - 70 dwellings are anticipated to be delivered within the Plan period. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 70 dwellings to this site in Colsterworth. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5.

Policy Name	Policy Description	Screening Outcome
		Therefore, there are no linking impact pathways and site allocation SKPR-120 can be screened out from Appropriate Assessment.
SKPR-247 – Land North of Bourne Road	The policy sets out that: - 144 dwellings are anticipated to be delivered within the Plan period. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 144 dwellings to this site in Corby Glen. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation SKPR-247 can be screened out from Appropriate Assessment.
SKPR-241 – Land Off Church Lane	The policy sets out that: - 86 dwellings are anticipated to be delivered within the Plan period. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 86 dwellings to this site in Great Gonersby. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation SKPR-241 can be screened out from Appropriate Assessment.
SKPR-74 – The Land West of The Drift	The policy sets out that: - 24 dwellings are anticipated to be delivered within the Plan period. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 24 dwellings to this site in Harlaxton. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation SKPR-74 can be screened out from Appropriate Assessment.
SKPR-71 – Land North of Dickens Close, Stowe Road	The policy sets out that: - 55 dwellings are anticipated to be delivered within the Plan period. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 55 dwellings to this site in Corby Glen. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation SKPR-71 can be screened out from Appropriate Assessment.
SKPR-273 (LV-H7): Main Road (South)	The policy sets out that: - 55 dwellings are anticipated to be delivered within the Plan period. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 55 dwellings to this site in Long Bennington. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5.

Policy Name	Policy Description	Screening Outcome
		Therefore, there are no linking impact pathways and site allocation LV-H7 can be screened out from Appropriate Assessment.
SKPR-274 (LV-H9): Folkingham Road	The policy sets out that: - 71 dwellings are anticipated to be delivered within the Plan period. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 71 dwellings to this site in Morton. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation SKPR-274 can be screened out from Appropriate Assessment.
SKPR-135: Land to the South of Edenham Road	The policy sets out that: - 48 dwellings are anticipated to be delivered within the Plan period. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 48 dwellings to this site in Morton. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation SKPR-135 can be screened out from Appropriate Assessment.
SKPR-275 (LV-H10): Thistleton Lane and Mill Lane	The policy sets out that: - 34 dwellings are anticipated to be delivered within the Plan period. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 34 dwellings to this site in South Witham. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation SKPR-275 can be screened out from Appropriate Assessment.
SKPR-192 and SKPR-276 (LV-H11):: Land North of High Street	The policy sets out that: - 31 dwellings are anticipated to be delivered within the Plan period. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 31 dwellings to this site in South Witham. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation LV-H11 can be screened out from Appropriate Assessment.
SKPR-277 (LV-H12): Part of Elm Farm Yard	The policy sets out that: - 50 dwellings are anticipated to be delivered within the Plan period. The rest of the policy is development management criteria	No likely significant effects. The policy allocates 50 dwellings to this site in Thurlby. While this will lead to an increase in the local population, likely significant effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation LV-H12 can be screened out from Appropriate Assessment.
SKPR-56: Land at Obthorpe Lane	The policy sets out that: - 86 dwellings are anticipated to be delivered within the Plan period.	No likely significant effects. The policy allocates 86 dwellings to this site in Thurlby. While this will lead to an increase in the local population, likely significant

Policy Name	Policy Description	Screening Outcome
	The rest of the policy is development management criteria	effects can be excluded on the basis of evidence presented in Chapter 5. Therefore, there are no linking impact pathways and site allocation SKPR-56 can be screened out from Appropriate Assessment
ID1: Infrastructure for Growth	This policy sets out the development management criteria related to ensuring timely delivery and appropriate phasing of infrastructure on, around and associated with any development proposal.	No likely significant effects. This policy is a development management policy, it sets out criteria based management principles which development must adhere to for approval. Therefore, there are no linking impact pathways and this policy can be screened out. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects for that development.
ID2: Transport and Strategic Transport Infrastructure	This policy sets out the development management criteria related to ensuring that developments are ensuring the provision of a safe efficient and sustainable transport network.	No likely significant effects. This policy is a development management policy, it sets out criteria based management principles which development must adhere to for approval. Therefore, there are no linking impact pathways and this policy can be screened out. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects for that development.
ID3: Broadband and Communications Infrastructure	This policy sets out the development management criteria related to ensuring development are providing enhancement to information communications networks such as superfast broadband.	No likely significant effects. This policy is a development management policy, it sets out criteria based management principles which development must adhere to for approval. Therefore, there are no linking impact pathways and this policy can be screened out. Although this policy can be screened out, any development coming forward through this policy must still adhere to the other policies within the Local Plan and the Habitats Regulations and be subject to an assessment on a case by case basis, in order to determine if there are likely significant effects for that development.

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