Information to support HRA of the Northampton Local Plan (Part 2)

Prepared by LUC
September 2017
**Project Title:** HRA of Northampton Local Plan (Part 2)

**Client:** Northampton Borough Council

<table>
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<th>Version</th>
<th>Date</th>
<th>Version Details</th>
<th>Prepared by</th>
<th>Checked by</th>
<th>Approved by</th>
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<tr>
<td>1.0</td>
<td>28/4/17</td>
<td>Internal draft shared with NBC to illustrate methodology</td>
<td>Alex Martin, Jon Pearson</td>
<td>Jon Pearson</td>
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<tr>
<td>2.0</td>
<td>22/6/17</td>
<td>Draft for NBC, in advance of receiving additional site options</td>
<td>Alex Martin, Jon Pearson</td>
<td>Jon Pearson</td>
<td>Jeremy Owen</td>
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<tr>
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<td>Alex Martin, Jon Pearson</td>
<td>Jon Pearson</td>
<td>Jeremy Owen</td>
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<tr>
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<td>21/7/2017</td>
<td>Final</td>
<td>Alex Martin, Jon Pearson</td>
<td>Jon Pearson</td>
<td>Jeremy Owen</td>
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<tr>
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<td>Final amended in response to additional and deleted sites</td>
<td>Alex Martin, Jon Pearson</td>
<td>Jon Pearson</td>
<td>Jeremy Owen</td>
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1 Introduction

1.1 Northampton Borough Council is in the process of preparing its Local Plan (Part 2). The Local Plan (Part 2) is still being developed but as an interim step, the Council is releasing a consultation document on the reasonable alternative development site options being considered for allocation within it. At this stage of the plan-making process, the emerging Local Plan (Part 2) document does not identify which of the site options are preferred for allocation by the Council nor does it include any site-specific or development management type policies. As the consultation document is not a full draft Local Plan it does not, of itself, require Habitats Regulations Assessment (HRA) but LUC has been appointed by the Council to review the potential implications of the site allocation options in relation to the requirements of the Habitats Regulations. As such, this report is limited to providing information designed to help the Council in drafting a Local Plan (Part 2) that avoids likely significant effects on European sites but does not include all of the information normally provided in an HRA report, nor does it reach a firm conclusion on whether the site options consultation document would be likely to have a significant effect on European sites.

Background to the preparation of the Local Plan (Part 2)

1.2 The West Northamptonshire Core Strategy (Local Plan Part 1) was adopted in December 2014 and covers the administrative areas of Daventry District, Northampton Borough and South Northamptonshire District. It sets out the long term vision and objectives for the whole of the West Northamptonshire Area for the plan period up until 2029. This Joint Core Strategy forms part of the Development Plan for Northampton Borough.

1.3 Northampton Borough Council is currently in the process of preparing the Local Plan (Part 2). The new Plan will set out the Borough’s vision and objectives, allocate non-strategic sites for housing, employment, retail, leisure and other forms of development and set out development management policies up to 2029. As well as identifying where new development will go, it will also set out policies to protect and preserve open space, green infrastructure, historic heritage and environmental assets. The Local Plan (Part 2) will replace the saved policies from the Northampton Local Plan adopted in 1997 and the Central Area Action Plan.

The requirement to undertake Habitats Regulations Assessments of development plans

1.4 The requirement to undertake HRA of development plans was confirmed by the amendments to the Habitats Regulations published for England and Wales in July 2007 and updated in 2010\(^1\) and again in 2012\(^2\). Therefore when preparing the Local Plan (Part 2), Northampton Borough Council is required by law to carry out an HRA, although consultants can undertake the HRA on its behalf. The requirement for authorities to comply with the Habitats Regulations when preparing a Local Plan is explained in the National Planning Practice Guidance (NPPG).

1.5 HRA refers to the assessment of the potential effects of a development plan on one or more ‘European sites’, including Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

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\(^1\) The Conservation (Natural Habitats, &c.) (Amendment) Regulations 2007. HMSO Statutory Instrument 2007 No. 1843. From 1 April 2010, these were consolidated and replaced by the Conservation of Habitats and Species Regulations 2010 (SI No. 2010/490). Note that no substantive changes to existing policies or procedures were made in the new version.

1.6 SACs are designated under the Habitats Directive and target particular habitats (Annex 1) and/or species (Annex II) identified as being of European importance.


1.8 Candidate SACs (cSACs), Potential SPAs (pSPAs), Sites of Community Importance (SCIs) and Ramsar sites should also be included in the assessment.

1.9 SCIs are sites that have been adopted by the European Commission but not yet formally designated by the UK Government. Ramsar sites support internationally important wetland habitats and are listed under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention, 1971).

1.10 For ease of reference during HRA, these designations can be collectively referred to as European sites despite Ramsar designations being at the international level.

1.11 The overall purpose of the HRA is to conclude whether or not a proposal or policy, or whole development plan, would adversely affect the integrity of the European site in question, either alone or in combination with other plans or projects. This is judged in terms of the implications of the plan for a site’s ‘qualifying features’ (i.e. those Annex I habitats, Annex II species, and Annex I bird populations for which it has been designated). Significantly, HRA is based on the precautionary principle meaning that where uncertainty remains, an adverse impact should be assumed.

### Stages of Habitats Regulations Assessment

1.12 Table 1.1 summarises the stages involved in carrying out a full HRA, based on various guidance documents\(^5\)\(^6\)\(^7\).

**Table 1.1: Stages in HRA**

<table>
<thead>
<tr>
<th>Stage</th>
<th>Task</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stage 1: Screening</strong></td>
<td>Description of the plan.</td>
<td>Where effects are unlikely, prepare a ‘finding of no significant effect report’.</td>
</tr>
<tr>
<td>(the ‘Significance Test’)</td>
<td>Identification of potential effects on European sites.</td>
<td>Where effects judged likely, or lack of information to prove otherwise, proceed to Stage 2.</td>
</tr>
<tr>
<td></td>
<td>Assessing the effects on European sites (taking into account potential mitigation provided by other policies in the plan).</td>
<td></td>
</tr>
<tr>
<td><strong>Stage 2: Appropriate Assessment</strong></td>
<td>Gather information (plan and European sites).</td>
<td>Appropriate Assessment report describing the plan, European site baseline conditions, the adverse effects of the plan on the European site, how these effects will be avoided through, firstly, avoidance, and secondly, mitigation including the mechanisms and timescale for</td>
</tr>
<tr>
<td>(the ‘Integrity Test’)</td>
<td>Impact prediction.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Evaluation of impacts in view of conservation objectives.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Where impacts considered to affect qualifying features, identify alternative options.</td>
<td></td>
</tr>
</tbody>
</table>

\(^3\) Candidate SACs are sites that have been submitted to the European Commission, but not yet formally adopted.

\(^4\) Potential SPAs are sites that have been approved by Government and are currently in the process of being classified as SPAs.


### Stage 2: Assessment where no alternatives exist and adverse impacts remain taking into account mitigation

<table>
<thead>
<tr>
<th>Stage</th>
<th>Task</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 3: Assessment where no alternatives exist and adverse impacts remain taking into account mitigation</td>
<td>Identify and demonstrate 'imperative reasons of overriding public interest' (IROPI).</td>
<td>This stage should be avoided if at all possible. The test of IROPI and the requirements for compensation are extremely onerous.</td>
</tr>
<tr>
<td></td>
<td>Demonstrate no alternatives exist.</td>
<td></td>
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<tr>
<td></td>
<td>Identify potential compensatory measures.</td>
<td></td>
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</table>

1.13 In assessing the effects of the Local Plan (Part 2) in accordance with Regulation 102 of the Conservation of Habitats and Species Regulations 2010, there are potentially two tests to be applied by the competent authority: a 'Significance Test', followed if necessary by an Appropriate Assessment which will inform the 'Integrity Test'. The relevant sequence of questions is as follows:

- **Step 1:** Under Reg. 102(1)(b), consider whether the plan is directly connected with or necessary to the management of the European site. If not, proceed to Step 2.

- **Step 2:** Under Reg. 102(1) (a) consider whether the plan is likely to have a significant effect on the European site, either alone or in combination with other plans or projects (the 'Significance Test'). *[These two steps are undertaken as part of Stage 1: Screening shown in Table 1.1.]* If so, proceed to Step 3.

- **Step 3:** Under Reg. 102(1), make an Appropriate Assessment of the implications for the European site in view of its current conservation objectives (the 'Integrity Test'). In so doing, it is mandatory under Reg. 102(2) to consult Natural England, and optional under Reg. 102(3) to take the opinion of the general public. *[This step is undertaken during Stage 2: Appropriate Assessment shown in Table 1.1.]*

- **Step 4:** In accordance with Reg. 102(4), but subject to Reg. 103, give effect to the land use plan only after having ascertained that the plan will not adversely affect the integrity of the European site.

1.14 It is normally anticipated that an emphasis on Stages 1 and 2 of this process will, through a series of iterations, help ensure that potential adverse effects are identified and eliminated through the inclusion of mitigation measures designed to avoid, reduce or abate effects. The need to consider alternatives could imply more onerous changes to a plan document. It is generally understood that so called 'imperative reasons of overriding public interest' (IROPI) are likely to be justified only very occasionally and would involve engagement with both the Government and European Commission.

1.15 The HRA should be undertaken by the 'competent authority', in this case Northampton Borough Council, and LUC has been commissioned to do this on the Council’s behalf. The HRA also requires close working with Natural England as the statutory nature conservation body in order to obtain the necessary information and agree the process, outcomes and any mitigation proposals. The Environment Agency, while not a statutory consultee for the HRA, is also in a strong position to provide advice and information throughout the process as it is required to undertake HRA in relation to its issue and review of environmental permits.

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1.16 This chapter has described the background to the production of the Northampton Local Plan (Part 2) and the requirement to undertake HRA. The remainder of this report is structured into the following sections:

- Chapter two summarises relevant findings from the separate HRA of the West Northamptonshire Joint Core Strategy;
- Chapter three describes the European sites in and around Northampton Borough and the reasons for selecting those considered by the HRA of the Local Plan (Part 2);
- Chapter four identifies the issues and effects most likely to be of relevance to HRA of the Local Plan (Part 2), focussing on the development site options being considered for allocation, and reviews the mitigation that may be available;
- Chapter five sets out a summary of the findings of this report and proposed next steps.
2 Review of the HRA of West Northamptonshire Joint Core Strategy

2.1 In 2007 an HRA screening report was prepared for the West Northamptonshire Joint Core Strategy.

2.2 A number of European sites with the potential to be affected by policies within the Joint Core Strategy were identified in the screening report, as follows:

- Rutland Water SPA and Ramsar site;
- Upper Nene Valley Gravel Pits SPA and Ramsar site;
- Portholme SAC;
- Oxford Meadows SAC;
- Ensor’s Pool SAC.

2.3 The HRA screening identified likely significant effects for Rutland Water SPA and Ramsar site and for the Upper Nene Valley Gravel Pits SPA and Ramsar site. For the other European sites, no likely significant effects were identified due to their distance from the plan area and the fact that their conservation interest depends primarily on management at site level or on factors which would not be affected by the Joint Core Strategy’s proposals.

2.4 Although Rutland Water SPA and Ramsar site is located 41 km from the northern Northampton Borough boundary at its closest point likely significant effects were identified in relation to water supply and water levels. Conversely, parts of the Upper Nene Valley Gravel Pits SPA and Ramsar site fall within or close to Northampton Borough, and the HRA screening found that likely significant effects in relation to loss of supporting habitat, water supply and water levels, water quality, and disturbance could not be ruled out.

2.5 These sites were therefore investigated further through Appropriate Assessment which took place between 2009 and 2013, as it was continually updated alongside the emerging Joint Core Strategy. The final HRA addendum, submitted in 2013, for the Proposed Main Modifications Joint Core Strategy was able to conclude that the policies and proposals within the West Northamptonshire Joint Core Strategy would not result in likely significant effects on Rutland Water SPA and Ramsar site or on the Upper Nene Valley Gravel Pits SPA and Ramsar site due to mitigation policies contained within the Joint Core Strategy and other regulatory mechanisms such as those operated by the Environment Agency.
3 European sites in and around Northampton Borough

3.1 An initial investigation has been undertaken to identify European sites in and around the Northampton Local Plan boundary that may be affected by site allocations in the Local Plan (Part 2). This involved the use of Geographical Information Systems (GIS) data to map the locations and boundaries of European sites using publically available data from Natural England. All European sites lying partially or wholly within 15 km of the Local Plan boundary were included to reflect the fact that policies in the Local Plan may affect European sites which are located outside of the administrative boundary of the Plan. This 15 km distance has been agreed with Natural England elsewhere and is considered a precautionary method of identifying most European sites that could potentially be affected by development. In addition, a check was made to identify any more distant more distant European sites which could nevertheless be significantly affected by development within Northampton Borough due to functional linkages with the plan area.

3.2 Only one European site is located within 15 km of the Northampton Local Plan boundary, the Upper Nene Valley Gravel Pits SPA and Ramsar site. This site is included below in Table 3.1 and mapped in Figure 3.1.

3.3 In line with the approach described above, although not within the 15 km buffer zone, Rutland Water SPA and Ramsar site, located 41 km from the edge of the Local Plan boundary, is also included in this screening assessment. This is because the reservoir is a primary source of urban water supply for Northamptonshire and was also identified in the HRA of the West Northamptonshire Joint Core Strategy as being subject to likely significant effects.

Table 3.1: European sites considered in the HRA of the Local Plan (Part 2)

<table>
<thead>
<tr>
<th>Special Protection Areas</th>
<th>Ramsar sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Nene Valley Gravel Pits</td>
<td>Upper Nene Valley Gravel Pits</td>
</tr>
<tr>
<td>Rutland Water</td>
<td>Rutland Water</td>
</tr>
</tbody>
</table>

3.4 The attributes of the sites listed in Table 3.1 have been described in Table 3.2 by reference to Standard Data Forms for the SPAs, Ramsar Information Sheets\(^9\) for the Ramsar sites, and Natural England’s Site Improvement Plans\(^10\). This enabled the qualifying features which determine site integrity to be identified, along with the sensitivities of these.

3.5 Natural England’s conservation objectives\(^11\) for the SPAs were also reviewed. These are generic in nature, requiring maintenance and restoration, as appropriate, of site integrity by maintaining or restoring habitats of qualifying features, the supporting processes on which they rely, and populations of qualifying species. They have not, therefore, been reproduced for each European site.

3.6 This information will allow an analysis of how the potential impacts of the site allocations in the Local Plan (Part 2) may affect the integrity of each site.

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\(^9\) Obtained from the Joint Nature conservation Committee website (www.jncc.gov.uk)
\(^10\) Obtained from the Natural England website (www.naturalengland.org.uk)
\(^11\) Obtained from Natural England website http://publications.naturalengland.org.uk/category/6490068894089216
Figure 3.1: Location of European Sites

- Northampton Borough Council
- Special Protection Area
- Ramsar

Source: Northampton BC, Natural England

Northampton Local Plan Part 2 HRA

Map Scale @ A3: 1:220,000
### Table 3.2: Attributes of European sites scoped into the HRA

<table>
<thead>
<tr>
<th>Site name</th>
<th>Area (ha)</th>
<th>Location</th>
<th>Qualifying features</th>
<th>Key vulnerabilities and environmental conditions to support site integrity (Natural England SIPs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Nene Valley Gravel Pits SPA</td>
<td>1,357 ha</td>
<td>South east Northampton, spanning the Local Plan boundary plus additional component to east of the borough</td>
<td>Wintering populations of the following bird species:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Anas clypeata</em> (Shoveler)</td>
<td><em>Natura 2000 Standard Data Form</em></td>
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<td></td>
<td></td>
<td></td>
<td><em>Anas Penelope</em> (Wigeon)</td>
<td>- Fishing and harvesting aquatic resources</td>
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<td></td>
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<td></td>
<td><em>Anas platyrhynchos</em> (Mallard)</td>
<td>- Other urbanisation, industrial and similar activities</td>
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<td></td>
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<td></td>
<td><em>Anas strepera</em> (Gadwall)</td>
<td>- Modification of cultivation practices</td>
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<td></td>
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<td></td>
<td><em>Aythya farina</em> (Pochard)</td>
<td>- Outdoor sports and leisure activities, recreational activities</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Aythya fuligula</em> (Tufted duck)</td>
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<td></td>
<td></td>
<td></td>
<td><em>Botaurus stellaris</em> (Bittern)</td>
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<td></td>
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<td></td>
<td><em>Fulica atra</em> (Coot)</td>
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<td></td>
<td></td>
<td></td>
<td><em>Phalacrocorax carbo</em> (Cormorant)</td>
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<td></td>
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<td></td>
<td><em>Pluvialis apricaria</em> (Golden Plover)</td>
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<td></td>
<td></td>
<td></td>
<td><em>Podiceps cristatus</em> (Great Crested Grebe)</td>
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<td></td>
<td></td>
<td></td>
<td><em>Vanellus vanellus</em> (Lapwing)</td>
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<td></td>
<td></td>
<td></td>
<td>Waterfowl assemblage</td>
<td></td>
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<td></td>
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<td></td>
<td>(N.B. The compartment of the SPA within and directly adjacent to the plan area, known as Clifford Hill Gravel Pits or Northamptonshire Washlands, is used by a significant proportion of the site’s Golden Plover, Lapwing and Wigeon populations.) 12</td>
<td></td>
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</tbody>
</table>

12 West Northamptonshire Joint Core Strategy, para. 10.26

N.B. The compartment of the SPA within and directly adjacent to the plan area, known as Clifford Hill Gravel Pits or Northamptonshire Washlands, is used by a significant proportion of the site’s Golden Plover, Lapwing and Wigeon populations.

- Public access / disturbance – Disturbance from recreation (particularly walkers and dog owners) affects wintering birds by reducing the time available for feeding, and increasing energy expenditure when avoiding those sources of disturbance.
- Planning permission general – There continues to be an increase in built and recreational development within and around the SPA leading to loss and fragmentation of habitat, and increased disturbance. Seven local planning authorities are involved with decision making; policies can be inconsistent across the authorities or provide insufficient protection.
- Fisheries, freshwater – An increasing number of lakes are being utilised as freshwater fisheries; overstocking of certain fish species and issuing of licences to control fish-eating birds can be a problem.
- Change in land management – Continued habitat management is required to ensure the balance of short grassland, reedbed, fen and open water is maintained.
<table>
<thead>
<tr>
<th>Site name</th>
<th>Area (ha)</th>
<th>Location</th>
<th>Qualifying features</th>
<th>Key vulnerabilities and environmental conditions to support site integrity (Natural England SIPs)</th>
</tr>
</thead>
</table>
| Upper Nene Valley Gravel Pits   | Boundary  | As for SPA                              | The sites regularly supports 20,000 or more waterbirds  
The site regularly supports 1% of the individuals in the populations of the following species:  
*Cygnus olor* (Mute Swan)  
*Anas strepera* (Gadwall)  
Noteworthy Fauna include those listed above for SPA  | Information Sheet on Ramsar Wetlands  
- Unspecified development: urban use – activities connected with ongoing urban development cause significant disturbance to wintering birds if unmanaged.  
- Vegetation succession – Lack of grazing is leading to rank grassland, scrub / woodland. Whilst this is desirable in certain areas, widespread vegetation succession will result in a decrease in the availability of suitable habitat for key species.  
- Introduction / invasion of non-native plant species – *Hydrocotyle ranunculoides* and *Crassula helmsii* present in small areas of the site.  
- Recreation / tourism disturbance – access by people and dogs both on and off public rights of way is a significant course of disturbance in some areas. The site is also subject to a variety of recreational activities including fishing and water sports. Demand for access and formal / informal recreational activities within the Nene Valley are increasing; development of facilities / opportunities is often in an uncoordinated manner. |
| Ramsar site                     | and hence area are the same as for the SPA |                                         |                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                             |
| Rutland Water SPA               | 1,555 ha  | North of Northampton, 41 km from the edge of the Local Plan boundary | Wintering populations of the following bird species:  
*Anas clypeata* (Shoveler)  
*Anas crecca* (Teal)  
*Anas Penelope* (Wigeon)  
*Anas strepera* (Gadwall)  
*Aythya fuligula* (Tufted Duck)  
*Bucephala clangula* (Goldeneye)  
*Cygnus olor* (Mute Swan)  | Natura 2000 Standard Data Form  
- Human induced changes in hydraulic conditions  
- Pollution to groundwater  
- Other human intrusions and disturbances  
- Invasive non-native species  
Natural England Site Improvement Plan  
**Threats**  
- Water abstraction – Increased water abstraction is proposed that will radically alter water levels in the reservoir which may result in a proportion of waterbirds utilising areas provided as compensation but which are currently outside |
<table>
<thead>
<tr>
<th>Site name</th>
<th>Area (ha)</th>
<th>Location</th>
<th>Qualifying features</th>
<th>Key vulnerabilities and environmental conditions to support site integrity (Natural England SIPs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fulica atra (Coot)</td>
<td>the SPA.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mergus merganser (Goosander)</td>
<td>- Inappropriate water levels – Water levels of the reserve are managed primarily for public water supply and water storage and not specifically for non-breeding water birds. This can influence the number of specific species of non-breeding water birds using the site at certain times of the year. At the moment, this is not causing any long-term deterioration of the site. However, when the proposed new increased abstraction regime is implemented, appropriate management of the water levels in the compensation and mitigation water bodies will be required to offset the impacts of the abstraction.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Podiceps cristatus (Great Crested Grebe)</td>
<td>- Direct impact from 3rd party – Cumulative impacts from unregulated third party activities like private firework displays in properties adjacent to the SPA, hot air balloon flights, and private aircraft flights is unknown. Investigation is needed to better understand the frequency of these disturbances and the cumulative impacts of these activities upon the waterbirds using Rutland Water.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Waterfowl assemblage</td>
<td>- Invasive species – Rutland Water has been colonised by several non-native species and not all are having a positive impact on the SPA interest features.</td>
</tr>
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<td>- Water pollution – 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 which maintain the reservoir in a highly eutrophic state and has led in the past to regular algal blooms.</td>
</tr>
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<td></td>
<td>- Planning permission general – In the wider area surrounding the SPA, wind farm and other development is being proposed and is taking place. However, the impact upon the waterfowl behaviour during nocturnal migration and dispersal to and from the reservoir, and their interaction with the environment in the surrounding countryside is poorly understood.</td>
</tr>
<tr>
<td>Name</td>
<td>Area (ha)</td>
<td>Location</td>
<td>Qualifying features</td>
<td>Key vulnerabilities and environmental conditions to support site integrity (Natural England SIPs)</td>
</tr>
<tr>
<td>-----------------------------</td>
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<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Rutland Water Ramsar site  | As for SPA| As for SPA| Assemblages of international importance, supporting 20,000 or more waterbirds  
Species / populations occurring at levels of international importance, supporting 1% of the individuals in a population of one species of waterbird  
Qualifying species / populations:  
Anas strepera strepera (Gadwall)  
Anas clypeata (Northern Shoveler) | - Public access / disturbance – 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. Future recreational proposals will need to avoid likely significant effects on the SPA.  
- Fisheries: Rutland Water is currently managed as a put and take trout fishery. Trout have a controlling impact on coarse fish populations and future changes in coarse fish populations could create a shift in the ecological balance of the water body.  
No vulnerabilities listed |
4 Potential likely significant effects of the Local Plan (Part 2)

4.1 This section considers the potential likely significant effects of the proposed site allocations in the Local Plan (Part 2) upon the European sites scoped into the HRA and the mitigation that is currently in place. The site allocation options being considered for the Local Plan (Part 1) are illustrated in Figure 4.1. It then considers whether additional mitigation may be required in order to ensure no likely significant effects. At this early stage of plan development, no formal conclusions have been drawn as to whether the Local Plan (Part 2) is likely to have a significant effect on European sites, although the potential for certain site options to have such effects is discussed to help inform future stages of plan making.

4.2 Based on an initial review of the site allocations being considered for the Local Plan (Part 2), the qualifying features and vulnerabilities of the two scoped in European sites, and the findings of the HRA for the West Northamptonshire Joint Core Strategy, it is considered that the Local Plan (Part 2) has the potential to have the following types of significant effect on European sites:

- physical habitat loss or damage;
- loss of supporting habitat;
- fragmentation;
- disturbance;
- pet predation;
- water supply and water level management; and
- water quality.

4.3 Different terms for and groupings of potential effect types are possible; those listed above have been chosen for consistency with earlier HRA work on the West Northamptonshire Joint Core Strategy. The potential for each of these types of effect to be significant has been considered below.

**Interpretation of ‘likely significant effect’**

4.4 Relevant case law helps to determine when an effect should be considered as a ‘likely significant effect’ when carrying out HRA of a land use plan.

4.5 In the Waddenzee case\(^\text{13}\), the European Court of Justice ruled on the interpretation of Article 6(3) of the Habitats Directive (translated into Reg. 102 in the Habitats Regulations), 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 47).

- 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).

4.6 A more recent opinion delivered to the court of justice of the European Union\(^\text{14}\) commented that:

> "The requirement that an effect in question be ‘significant’ exists in order to lay down a de minimis threshold. Plans or projects that have no appreciable effect on the site are thereby

\(^\text{13}\) ECJ Case C-127/02 "Waddenzee" Jan 2004.

\(^\text{14}\) Advocate General’s Opinion to CJEU in Case C-258/11 Sweetman and others v An Bord Pleanala 22nd Nov 2012.
excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill.”

4.7 This opinion (the ‘Sweetman’ case) therefore allows for the authorisation of plans and projects whose possible effects, alone or in combination, can be considered ‘trivial’ or de minimis; referring to such cases as those “that have no appreciable effect on the site”. In practice, such effects can be screened out as having no likely significant effect; they would be ‘insignificant’.

4.8 This report has not reached a formal conclusion on whether the site options consultation document will have likely significant effects on a European site because the consultation document is not a draft of the full Local Plan (Part 2), lacking as it does any site-specific or other policies. Instead the report is restricted to providing decision makers with relevant information which should help such effects to be avoided or adequately migrated in drafting the Local Plan (Part 2). Once a full draft of the Local Plan (Part 2) becomes available, this will be subject to formal HRA.

In-combination effects

4.9 Regulation 102 of the Amended Habitats Regulations 2010 requires an appropriate assessment where “a land use plan is likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and is not directly connected with or necessary to the management of the site”. Therefore, where likely significant effects are identified from the proposed site allocations for the Northampton Local Plan it will be necessary to consider whether there may also be significant effects in combination with other plans or projects.

4.10 This report has not considered in-combination effects in detail but when the HRA of the full Local Plan (Part 2) is completed, in-combination effects will be addressed.

Mitigation

4.11 Some of the potential effects that may be identified during HRA of the site allocations and the Local Plan (Part 2) may be mitigated by other policies in the Plan itself, for example any policies that encourage sustainable transport may help to mitigate potential road traffic pollution and other policies with the specific purpose of protecting and enhancing the environment. Since policies in the Local Plan (Part 2) are not known, consideration of mitigation in this report is focussed on that available from policies in the West Northamptonshire Joint Core Strategy, from measures documented in the Local Plan evidence base, and from regulatory mechanisms outside of the planning system such as those operated by the Environment Agency.

4.12 Such potential mitigation is discussed at the end of each of the thematic sections below.
Figure 4.1: Site Allocation Options

- Northampton Borough Council
- Other Local Authority
- Large residential site
- Small residential site
- Commercial site

Map Scale @ A3: 1:45,000

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Physical habitat loss or damage

4.13 Physical habitat loss or damage at a European site can occur when a new development physically encroaches on the boundary of that European site.

Rutland Water SPA and Ramsar site

4.14 Rutland Water SPA and Ramsar site is not located within the boundary of the Northampton Local Plan, and therefore it will not be subject to any physical habitat loss or damage from any Northampton site allocations, and so does not need to be considered further.

Upper Nene Valley Gravel Pits SPA and Ramsar site

4.15 The southern end of the Upper Nene Valley Gravel Pits SPA and Ramsar site falls partly within the Northampton Borough boundary and therefore potential habitat loss or damage has been considered for the Local Plan (Part 2) site options.

4.16 The site allocations options for the Local Plan (Part 2) have been reviewed and no site allocations are located such that there will be any physical habitat loss or damage from within the borders of this European site. Likely significant effects can therefore be ruled out.

Available mitigation

4.17 There will be no physical habitat loss or damage to European sites as a result of the proposed site allocation options in the Local Plan (Part 2) and therefore no mitigation is likely to be necessary.

4.18 Nevertheless, mitigation is available in the West Northamptonshire Joint Core Strategy in the form of Policy BN4, which is described in more detail in the following sections.

Loss of supporting habitat

4.19 Habitat loss could also affect the integrity of a European site if it occurs in an area that supports a qualifying species population of a European site, for example loss of an area used for offsite breeding, foraging or roosting by a site’s qualifying bird species. Therefore, consideration has been given as to whether the scoped in European sites have mobile species amongst their qualifying features that are known to rely on habitat outside of the European site boundary.

4.20 The qualifying features for both the Upper Nene Valley Gravel Pits SPA and Ramsar site and Rutland Water SPA and Ramsar site include various bird species and assemblages; mobile species that could be affected by loss of supporting habitat. Therefore the potential for likely significant effects upon both European sites has been considered below.

Rutland Water SPA and Ramsar site

4.21 Habitat loss or damage outside of the European site boundary has been considered for Rutland Water due to the presence of mobile species at the European site. However, it is concluded that, due to the distance (41 km) of the SPA and Ramsar site from the boundary of the Northampton Borough, the proposed site allocations will not have a significant effect on habitat that supports the bird populations of this site.

Upper Nene Valley Gravel Pits SPA and Ramsar site

4.22 The compartment of the SPA and Ramsar site within and directly adjacent to the plan area, known as Clifford Hill Gravel Pits or Northamptonshire Washlands, is used by a significant proportion of the European site’s qualifying Golden Plover and Lapwing Wigeon populations. Previous HRA
work has identified that Golden Plover and Lapwing feed and roost on arable fields surrounding the Upper Nene Valley Gravel Pits SPA and Ramsar site\textsuperscript{16}.

4.23 As part of the HRA for the Pre Submission West Northamptonshire Joint Core Strategy\textsuperscript{17}, and Post Submission Main Modifications, and in order to further understand the effect of the loss of supporting habitat as a result of policy N6 (Northampton South of Brackmills Sustainable Urban Extension (SUE)) of the West Northamptonshire Joint Core Strategy, the Council commissioned survey work\textsuperscript{18} in consultation with Natural England. The findings of this additional work provided the basis for further discussion between the West Northamptonshire Joint Planning Unit and Natural England to identify areas that could potentially be developed and whether the adverse effects on qualifying bird species could be avoided and/or mitigated. One outcome of this work was a map, produced to show the quality of supporting habitat for Golden Plover and Lapwing to the south east of Northampton. The supporting habitat identified in this map has been digitised by LUC and overlain on the development sites identified in the site options consultation document, as shown in Figure 4.2.

4.24 The study concluded that some of the land identified for development by the West Northamptonshire Joint Core Strategy could provide optimal or sub-optimal supporting habitat for Golden Plover or Lapwing. As a result, the mitigation contained in Joint Core Strategy policy BN4 was developed, as described later in this section.

4.25 Four site allocation options (LAA1098 The Green Great Houghton, LAA1024 Great Houghton Independent School Site, LAA1011 Land South of Brackmills Industrial Estate and LAA0204 The farm, The Green) identified in the emerging Local Plan (Part 2) have the potential to result in loss of optimal supporting habitat for Golden Plover and Lapwing.

4.26 LAA0204 The Farm, The Green is located to the south west of the European site and a small part of the southern corner of the site overlaps an area of optimal supporting habitat. It is possible, however, that this small part of the site will not actually overlap the supporting habitat but is the result of inaccurate digitisation of the site boundary. This is because the area of optimal supporting habitat that the site overlaps is part of the area already allocated in the West Northamptonshire Joint Core Strategy as the Northampton South of Brackmills SUE.

4.27 The HRA addendum report to reflect post-submission main modifications to the West Northamptonshire Joint Core Strategy ruled out significant effects as a result of the Northampton South of Brackmills SUE on the basis that protection was provided by policy BN4 and that the effects would be better addressed at the development management stage, in line with representations made by Natural England and the requirements of policy BN4. In the case of this SUE, more detailed survey work had already been carried out for the parcels of land on which the SUE is proposed as a result of an application for outline planning permission to develop an SUE at the location. The survey, which was conducted after consultation with Natural England, concluded that "the proposed development would have no significant impact on habitats used by foraging Golden Plovers in the winter period and would not affect the conservation status or numbers of wintering Golden Plover present on the Upper Nene Valley Gravel Pits SPA / Ramsar Site."\textsuperscript{19}

4.28 The remaining three sites (LAA1098, LAA1024 and LAA1011) all have the potential to result in the loss of areas of optimal supporting habitat. Therefore, it is recommended that the potential for these effects is discussed with Natural England and, if necessary, further investigations carried out on the habitat suitability of these sites. If appropriate, it may be necessary to include additional mitigation in the allocation policies or to avoid allocation of these sites.

**Available mitigation**

4.29 As stated above, protection of the integrity of Upper Nene Valley Gravel Pits SPA and Ramsar site is afforded by policy BN4 of the West Northamptonshire Joint Core Strategy. This policy states:

"New development will need to demonstrate through the development management process that there will be no significant adverse effects upon the integrity of the Special Protection Area and..."
Ramsar site and the species for which the land is designated including the loss of supporting habitat ... either as a direct result of the development alone or in combination.”

4.30 The policy also provides protection in relation to other types of potential effect, as described in the relevant sections of this HRA document.

4.31 Policies BN2 ‘Biodiversity’ and BN8 ‘The River Nene Strategic River Corridor’, of the Joint Core Strategy will provide support in addition to BN4 in the mitigation of any adverse effects on the European site. More detail regarding these policies can be found in the section addressing disturbance.

4.32 It is considered that Policy BN4 of the West Northamptonshire Joint Core Strategy currently affords adequate protection against the loss of supporting habitat as the potential for adverse effects on the integrity Upper Nene Valley Gravel Pits SPA and Ramsar site will be assessed at the development management stage.

4.33 However, as one of the purposes of Local Plan (Part 2) is to allocate non-strategic sites for development, in doing so it is important that it does not allocate sites that could give rise to issues regarding implementation with respect to Policy BN4. Only one site allocated in the Local Plan (Part 2) overlaps a small area of supporting habitat. Even if this site has been mapped accurately the area of overlap has already been allocated for development in the Joint Core Strategy which has been subject to HRA with a finding of no significant effect. Therefore, it is considered that the above policy is likely to continue to provide adequate mitigation and further protection will not be required in the Local Plan (Part 2).
Figure 4.2: Site Options in Relation to Supporting Habitat for Golden Plover and Lapwing Populations of Upper Nene Valley Gravel Pits SPA and Ramsar Site

Habitat suitability for Golden Plover or Lapwing

- Optimal
- Sub-optimal
- Unsuitable

Source: Northampton BC, West Northamptonshire Joint Planning Unit
Fragmentation

4.34 Development can split up physically or functionally continuous tracts of habitat into smaller, remnant patches with adverse effects on their functionality and the integrity of the species populations they support.

Rutland Water SPA and Ramsar site

4.35 As the Rutland Water SPA and Ramsar site is not located within the Northampton Borough and Local Plan boundary, it will not be affected by fragmentation as a result of any of the proposed site allocations.

Upper Nene Valley SPA and Ramsar site

4.36 During the drafting and adoption of the West Northamptonshire Joint Core Strategy, concerns were raised in the HRA that development of a Northampton South East SUE and a new travel connection to the south east of Northampton could result in fragmentation of the habitat used by the European site’s qualifying bird populations. These options were therefore not included in the Pre Submission Draft Joint Core Strategy, and as a result no adverse effect on the integrity of the European site as a result of fragmentation was identified at that time. None of the site options in the Local Plan (Part 2) are located in an area around the SPA and Ramsar site that is likely to result in any significant fragmentation of the habitat used by the qualifying bird populations of the Upper Nene Valley Gravel Pits.

Available mitigation

4.37 Mitigation against the effects of fragmentation upon the Upper Nene Valley Gravel pits is unlikely to be required as it is unlikely that the proposed site allocations will have any adverse fragmentation effects. Nevertheless, as previously described, Policy BN4 of the Joint Core Strategy requires that all new development demonstrate no significant effects upon the integrity of the Upper Nene Valley Gravel Pits SPA and Ramsar site. Additionally, Policy S10 requires development to "promote the creation of Green Infrastructure Networks, enhance biodiversity and reduce the fragmentation of habitat”.

Disturbance

4.38 Disturbance of a European site can take a number of forms. Most commonly these include non-physical disturbance such as noise, vibration and light effects, and physical disturbance for example tourism and recreational pressure, they can also include traffic and transport effects, and development proximity and character.

4.39 Noise, vibration and light effects, for example from construction or new developments, can affect bird and other sensitive species.

4.40 Recreational activities and human presence can also have an adverse impact on the integrity of a European site as a result of physical disturbance, e.g. through erosion and trampling of habitat or disturbance of fauna. Where the Local Plan (Part 2) site options would be likely to increase the number of people living close to sensitive European sites, the potential for recreational disturbance was assessed. Consideration was given to factors such as the characteristics and current recreational use of European sites and their accessibility from potential development sites. The nature of development proposed was also taken into account, for example employment sites are considered unlikely to result in a significant increase in recreation pressure as employees will be at work within the development site for the majority of the time.

Rutland Water SPA and Ramsar site

4.41 It is judged that there is no potential for the Local Plan (Part 2) to give rise to significant noise, vibration or light disturbance effects due to the distance between the plan area and the European
Similarly, it is considered that Rutland Water SPA and Ramsar site is too far from the Plan area for development within the Borough to significantly affect recreational levels at the site.

**Upper Nene Valley Gravel Pits SPA and Ramsar site**

4.42 As noted above, noise, vibration and light effects, for example from construction or new developments, can affect bird and other sensitive species. Sensitivities identified in the citations for this European site include “other urbanisation, industrial and similar activities” (SPA Standard Data Form) and “unspecified development: urban use – activities connected with ongoing urban development cause significant disturbance to wintering birds if unmanaged” (Information Sheet on Ramsar Wetlands).

4.43 It is assumed that the effects of noise, vibration and light on this European site only have the potential to be significant if the source of disturbance is within 2 km of its boundary. This is consistent with the SPA’s consultation zone for all proposals likely to generate significant noise and for large commercial/industrial development, as set out in the emerging Upper Nene Valley Gravel Pits Supplementary Planning Document (SPD) that the Council intends to adopt in September 2017.20 Eleven sites fall within 2 km of the Upper Nene Valley Gravel Pits and therefore have the potential to result in significant noise, vibration and light effects, depending on the particular use for which the site is allocated. These sites are illustrated in Figure 4.3 and are listed in Table 4.1.

**Table 4.1: Site options within 2 km of Upper Nene Valley Gravel Pits SPA and Ramsar site**

<table>
<thead>
<tr>
<th>Site option</th>
<th>Proposed use</th>
<th>Shortest distance to Upper Nene Valley SPA/Ramsar site</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAA0181 Ransome Road / Nunn Mills Road</td>
<td>Residential</td>
<td>1,730 m</td>
</tr>
<tr>
<td>LAA0326 Orchard Hill</td>
<td>Residential + commercial</td>
<td>1,170 m</td>
</tr>
<tr>
<td>LAA0337 Pearce &amp; Co</td>
<td>Residential</td>
<td>1,910 m</td>
</tr>
<tr>
<td>LAA0496 57 Artisan Road</td>
<td>Residential</td>
<td>1,950 m</td>
</tr>
<tr>
<td>LAA0615 Crow Lane North</td>
<td>Commercial</td>
<td>1,290 m</td>
</tr>
<tr>
<td>LAA0915 118-122 Wellingborough Road</td>
<td>Residential + commercial</td>
<td>1,910 m</td>
</tr>
<tr>
<td>LAA1055 Land on the corner of Norman Road and Wellingborough Road</td>
<td>Residential</td>
<td>1,780 m</td>
</tr>
<tr>
<td>LAA1107 Land off Rushmere Road</td>
<td>Residential</td>
<td>150 m</td>
</tr>
<tr>
<td>LAA1024 Great Houghton Independent School site</td>
<td>Residential</td>
<td>460 m</td>
</tr>
<tr>
<td>LAA1011 Land south of Brackmills Industrial Estate</td>
<td>Commercial</td>
<td>420 m</td>
</tr>
</tbody>
</table>

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20 Upper Nene Valley Gravel Pits Supplementary Planning Document, drafted August 2015 by Northampton BC and other Local Planning Authorities covering the SPA; scheduled for adoption September 2017.
### Site option vs Proposed use vs Shortest distance to Upper Nene Valley SPA/Ramsar site

<table>
<thead>
<tr>
<th>Site option</th>
<th>Proposed use</th>
<th>Shortest distance to Upper Nene Valley SPA/Ramsar site</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAA1098 The Green, Great Houghton</td>
<td>Residential</td>
<td>1,260 m</td>
</tr>
</tbody>
</table>

4.44 Seven of the above sites are solely residential. In general, residential development is judged unlikely to result in significant noise, vibration or light disturbance effects on the qualifying bird interest of this European site. However for LAA1107, which is only 150 m from the European site boundary, it is recommended that the potential for these effects is discussed with Natural England and if necessary, appropriate mitigation required in the allocation policy. Potential mitigation measures might include construction timed to avoid the over-wintering period or planting to screen the development from the European site.

4.45 Considering the four sites being considered for commercial use:

- **LAA0326 Orchard Hill** has planning permission for housing and also change of use from office to D1 use to include place of worship, day nursery, conference room, bookshop, internet café and office. These uses are unlikely to be a significant source of disturbance.

- **LAA0615 Crow Lane North** is allocated for business or leisure use in line with saved policy D4 of the Northampton Local Plan 1997. Although this site is partially screened from Upper Nene Valley Gravel Pits SPA and Ramsar site by existing development along the south side of Crow Lane, should it be allocated for a business use that could be a major source of noise, vibration or light pollution it is recommended that the potential for disturbance is discussed with Natural England and, if necessary, appropriate mitigation set out in the allocation policy.

- **LAA0915 188–122 Wellingborough Road** currently has planning permission for residential use - the conversion of existing first floor offices to four residential flats and the erection of eight flats following demolition of the existing industrial unit to the rear. The site is also being considered in for commercial use and although it is not yet clear what this will be, it is assumed that it will be compatible with the amenity of the residential units being allocated on the same site and is therefore unlikely to be a significant source of disturbance.

- **LAA1011 Land south of Brackmills Industrial Estate** currently has planning consent for the demolition of a farmhouse, associated buildings and a residential property, and the construction of two warehouse and distribution units with ancillary officer accommodation. The south and northwest boundaries of the site are bordered by existing industrial use with the latter partially screening the site from Upper Nene Valley Gravel Pits SPA and Ramsar site. However, the northern boundary of the site faces Upper Nene Valley Gravel Pits and is undeveloped and it is therefore considered that commercial development of this site could result in noise, vibration and light pollution effects. It is therefore recommended that the potential for disturbance is discussed with Natural England and, if necessary appropriate mitigation set out in the development policy.

4.46 Mitigation in regards to noise, vibration and light effects is provided in the West Northamptonshire Joint Core Strategy. In order to protect and enhance biodiversity, Policy BN2 of the West Northamptonshire Joint Core Strategy states:

"Development that has the potential to harm sites of ecological importance will be subject to an ecological assessment and required to demonstrate:

- The methods used to conserve biodiversity in its design and construction and operation
- How habitat conservation, enhancement and creation can be achieved through linking habitats
- How designated sites, protected species and priority habitats will be safeguarded

Development management decisions will reflect the hierarchy of biodiversity and geodiversity designations attaching appropriate weight to the status of the site which would be affected. In cases where it can be shown that there is no reasonable alternative to development that is likely to prejudice the integrity of an existing wildlife site or protected habitat, appropriate mitigation measures including compensation will be
expected in proportion to the asset that will be lost. Where mitigation or compensation cannot be agreed with the relevant authority development will not be permitted.”

4.47 Policy BN8 of the Joint Core Strategy can support Policy BN2 in the mitigation of disturbance effects. Though it does not directly reference the Upper Nene Valley Gravel Pits SPA / Ramsar the policy does state that:

"The natural and cultural environment of the Nene Corridor through the plan area, including the tributaries, will be enhanced and protected in recognition of its important contribution to the area’s green infrastructure network, landscape, townscape, regeneration, recreation and historic environment. Proposals for new development and habitat enhancement should demonstrate an understanding of the importance of the River Nene for biodiversity within and beyond the plan area."

4.48 While some mitigation is provided in the Joint Core Strategy, there is the potential for at least two of the sites, namely LAA1107 and LAA0615, to result in likely significant effects on the European site as a result of noise, vibration and light. Therefore, it is recommended that the potential for disturbance and, if necessary, possible ways of mitigating this are discussed with Natural England. If likely significant effects cannot be ruled out prior to mitigation, the Council may wish to re-consider allocating these sites, or if it wishes to go ahead and allocate, it will need to identify appropriate mitigation and ensure that there is sufficient certainty that the mitigation will be effective.

Bird sight lines

4.49 Wintering populations of Golden Plover and Lapwing are two of the qualifying features of the SPA. Maintenance of unobstructed lines of sight is known to be important to these species for predator detection while feeding, resting and roosting\(^2\) and nearby development can reduce sight lines and therefore the habitat’s suitability for these species\(^2\). The HRA of the West Northamptonshire Joint Core Strategy informed the development of Joint Core Strategy policy BN4 which specifies a zone around the SPA and Ramsar site of 250 m as significant in relation to bird sightlines.

4.50 It is assumed that, prior to mitigation, the potential for likely significant effects exists for development sites within 250 m of the SPA and Ramsar site if the development is either:

- higher than buildings that are directly adjacent, as this could interfere with flight lines, or
- it advances the line of development of the existing urban edge towards the European site, as this will have no directly adjacent buildings (potential to interfere with flight lines) and could also provide increased cover for predators and increase the risk of predation to roosting and feeding birds on the ground.

4.51 In relation to the site allocation options being considered for the Local Plan (Part 2), the European site is within 250 m of one residential site, LAA1107 Land off Rushmere Road, as illustrated in Figure 4.3. Therefore, it is possible that this site could adversely affect the qualifying Golden Plover and Lapwing populations through the loss of sight lines. In relation to potential in-combination effects, none of the SUEs set out in the West Northamptonshire Joint Core Strategy is located within 250 m of the European site.

4.52 Mitigation against disturbance to sightlines is available in the Joint Core Strategy mainly from policy BN4, but also from policies BN2 and BN8 that are set out in detail in the ‘non-physical disturbance’ section above.

4.53 Policy BN4 was amended to include text regarding bird sightlines as a result of research undertaken as part of the HRA for the Joint Core Strategy. Policy BN4 now specifies that:

"new development within a 250m zone of the SPA must undertake an assessment to demonstrate that it will not have a significant adverse effect on birds within the Clifford Hill basin or, if directly adjacent to existing buildings should reflect the surrounding building heights".

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\(^2\) West Northamptonshire Joint Planning Unit, 2015, West Northamptonshire Joint Core Strategy Local Plan (Part 1) Adopted

\(^2\) Environ, 2010, Survey work to support the Appropriate Assessment for the West Northamptonshire Joint Core Strategy, Report of elements 3 and 4.
Additionally the emerging Upper Nene Valley Gravel Pits SPD states that "vantage point surveys may be required for proposals to erect tall structures next to the SPA that could interfere with birds flight paths or sight lines". 

In the case of site LAA1107 (Land off Rushmere Road), the site is located on greenfield land and is not surrounded or enclosed by other buildings such that development would advance the urban edge towards the SPA. Although the A45 and the River Nene that separate this site option from the European site should provide an effective barrier to terrestrial predators, it is considered that this site still has the potential to result in likely significant effects upon the Upper Nene Valley Gravel Pits due to interference with flight lines. If this site is allocated in the Local Plan (Part 2) it is recommended that the potential for adverse effects on bird sight lines/flight lines is discussed with Natural England and, if necessary, possible ways of mitigating these. If likely significant effects cannot be ruled out prior to mitigation, the Council may wish to re-consider allocating these sites, or if it wishes to go ahead and allocate, it will need to identify appropriate mitigation and ensure that there is sufficient certainty that the mitigation will be effective.

Recreational disturbance

The Standard Data Form for the SPA identifies negative impacts from outdoor sports and leisure activities or recreational activities, and the Ramsar Information Sheet states that access by people and dogs both on and off public rights of way is a significant cause of disturbance in some areas and that the site is also subject to a variety of recreational activities including fishing and water sports. The Site Improvement Plan confirms the existence of a potential threat of recreational disturbance (particularly from walkers and dog owners) to wintering birds by reducing the time available for feeding, and increasing energy expenditure when avoiding those sources of disturbance. Research shows that disturbance from human recreational activities in wetlands can cause problems for wildfowl. Detailed local studies of the effects of visitor behaviour on bird behaviour and numbers have shown that people and dogs can disturb the SPA’s birds as they feed and roost.

A 2014 visitor access study for the SPA found that visitor rates correlated with proximity to residential areas and that they declined rapidly with distance such that a relatively small proportion of people visit from distances beyond 3 km of the surveyed access points. Other findings of relevance to the potential for recreational disturbance and mitigation of such effects included that approximately half of visitors were dog walking, almost all (98%) were on a short visit from home, most (77%) arrived by car, and most were frequent visitors (60% visited at least once per week).

The visitor access study findings are reported in the emerging Upper Nene Valley Gravel Pits SPD, which states that "recreational disturbance is the most significant threat to the Upper Nene Valley Gravel Pits SPA". The SPD further notes that demand for access and recreational activities in the Nene Valley is increasing along with disturbance to the birds for which the SPA is designated. It goes on to state that since disturbance effects are cumulative, any net increase in the number of residential units near the SPA has the potential, in the absence of mitigation, to increase the significance of the effect by increasing the number of visits to the European site.

In line with the findings of the visitor access study above and the 3 km consultation zone defined by the SPD for all applications involving a net gain in residential units, it is judged that in the absence of mitigation, all residential development within 3 km of Upper Nene Valley Gravel Pits SPA and Ramsar site would be likely to contribute to an in-combination recreational disturbance effect on the European site. This effect would act in-combination with any unmitigated recreation pressure from other residential development within 3 km of the European site, in particular, the Northampton South of Brackmills SUE allocated by the West Northamptonshire Joint Core Strategy. Of the site options being considered for allocation in the Local Plan (Part 2), 49 are

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23 Northamptonshire County Council, 2015, Upper Nene Valley Gravel Pits Special Protection Area Supplementary Planning Document.
25 Brashaw RS. 2010. Survey work to support the Appropriate Assessment for the West Northamptonshire Joint Core Strategy, Element 2: Field surveys (recreational, disturbance and bird behaviour). Report to the West Northamptonshire Joint Planning Unit.
within 3 km of the Upper Nene Valley Gravel Pits SPA and Ramsar site; 44 of these are residential sites.

4.60 The residential sites located within 3 km of the Upper Nene Valley Gravel Pits SPA and Ramsar site are listed in Table 4.2 and are illustrated in Figure 4.3:

### Table 4.2: Residential site options within 3 km of Upper Nene Valley Gravel Pits SPA and Ramsar site

<table>
<thead>
<tr>
<th>LAA Code</th>
<th>Residential Site Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAA1127</td>
<td>Connaught House, 32 Connaught Street</td>
</tr>
<tr>
<td>LAA0181</td>
<td>Ransome Road / Nun Mills Road</td>
</tr>
<tr>
<td>LAA0188</td>
<td>Ecton Brook Middle School</td>
</tr>
<tr>
<td>LAA0204</td>
<td>The Farm, The Green</td>
</tr>
<tr>
<td>LAA0326r</td>
<td>Orchard Hill</td>
</tr>
<tr>
<td>LAA0335r</td>
<td>Chronicle and Echo North</td>
</tr>
<tr>
<td>LAA0336</td>
<td>Chronicle and Echo South</td>
</tr>
<tr>
<td>LAA0337</td>
<td>Pearce &amp; Co</td>
</tr>
<tr>
<td>LAA0496</td>
<td>57 Artizan Road</td>
</tr>
<tr>
<td>LAA0498</td>
<td>56 Arnold House</td>
</tr>
<tr>
<td>LAA0508</td>
<td>Fishponds Road</td>
</tr>
<tr>
<td>LAA1134</td>
<td>St Johns Railway Embankment</td>
</tr>
<tr>
<td>LAA0189</td>
<td>St Mary’s Middle School Grange Road</td>
</tr>
<tr>
<td>LAA0685</td>
<td>12 Pennycress Place Ecton Brook Road</td>
</tr>
<tr>
<td>LAA1132</td>
<td>7 Spencer Parade</td>
</tr>
<tr>
<td>LAA0730r</td>
<td>20-22 St Giles St (upper and rear)</td>
</tr>
<tr>
<td>LAA1113</td>
<td>Greyfriars</td>
</tr>
<tr>
<td>LAA1098</td>
<td>The Green Great Houghton</td>
</tr>
<tr>
<td>LAA1024</td>
<td>Great Houghton Independent School site</td>
</tr>
<tr>
<td>LAA1124</td>
<td>41-43 Derngate</td>
</tr>
<tr>
<td>LAA1128</td>
<td>14-15 York Road</td>
</tr>
<tr>
<td>LAA0624</td>
<td>Southbridge / Nunn Mills</td>
</tr>
</tbody>
</table>

4.61 The mitigation available to avoid the potential for likely significant recreational disturbance effects from these residential sites, in-combination with any unmitigated residual effects from other residential development within 3 km of Upper Nene Valley SPA and Ramsar site is discussed below.

4.62 Mitigation for the effects of the Northampton South of Brackmills SUE is afforded by policies in the Joint Core Strategy, including policy BN4 which is described in more detail below, and also policy N6, the policy allocation for the SUE. This policy states that “the development will make provision
In terms of mitigation for the site options for the Local Plan (Part 2), policy BN4 of the West Northamptonshire Joint Core Strategy states:

“New development will need to demonstrate that the impact of any increased recreational activity (indirect or direct) on the Special Protection Area and Ramsar site will not have a detrimental impact. Any development that will lead to an increase in recreational activity on the Special Protection Area will be required to include necessary mitigation including development of and implementation of habitat and access management plans.”

Further recommendations were made in the Pre-submission Joint Core Strategy HRA regarding the encouragement of dialogue between Northampton Borough Council, Natural England, developers, the SPA owners, Wildlife Trust and Environment Agency in order to utilise developer contributions to better manage the site and establish suitable site and access management plans and to minimise disturbance to protected species. This has been included in the supporting text of the Joint Core Strategy for Policy BN4.

Policy BN8 of the Joint Core Strategy can support Policy BN4 in the mitigation of disturbance and recreation effects. Policy BN8 is described in more detail in the section regarding ‘non-physical disturbance’.

The Upper Nene Valley Gravel Pits SPA Supplementary Planning Document was prepared by Northamptonshire in 2015 to help Local Planning Authorities, developers and others ensure that development has no significant effect on the SPA / Ramsar site. The document sets out the risk to the site from increasing recreational disturbance stating that:

“A 2012/13 study of visitor and access patterns across the SPA showed very clearly that visit rates to the SPA tend to increase with proximity to residential areas. Most visits are made by people who live within 3km of the SPA who visit very frequently or for relatively short periods of time.”

The document also sets out measures which may be used to mitigate against the potential adverse effect of recreation pressure from such development which include the management of recreational activities, access and visitor management, education and communication, enforcement and habitat management. The full list can be found in Appendix 3 of the document. Mitigation will be considered on a case by case basis for any plan or project and should be an integral part of, and developed alongside, the plan or project. Delivery of these measures cannot yet be relied upon since the Council has not yet adopted the SPD, although it intends to do so in September 2017.

The proposed site allocations within 3 km of the Upper Nene Valley Gravel Pits SPA and Ramsar site have the potential, in-combination, to result in likely significant recreational disturbance effects on the Upper Nene Valley Gravel Pits. Policy BN4 along with support from policy BN8 and the Supplementary Planning Document should ensure that as individual proposals come forward on allocated or windfall sites the potential recreational effects of each are adequately mitigated such that likely significant effects can be ruled out. Nevertheless, for sites to be allocated they will need to demonstrate that there will be no significant effects, and it is therefore recommended that the Council gives consideration to how the Local Plan (Part 2) could be used to promote a strategic approach to the long term management of recreational and other disturbance pressures on Upper Nene Valley Gravel Pits SPA and Ramsar site. Such a strategy, if developed in consultation with Natural England, should provide reassurance that the site allocations of the Local Plan (Part 2) can be delivered without significant recreation effects on Upper Nene Valley Gravel Pits SPA and Ramsar site. This approach would also help to deliver on the aspiration set out in para. 10.28 of the Joint Core Strategy, would reduce the burden placed on individual proposals to assess such effects and plan mitigation on a case by case basis, and could draw on the suggested mitigation strategy aims and measures set out in the 2014 visitor access study27 and repeated in the Appendix 3 of the emerging SPD for Upper Nene Valley Gravel Pits SPA.

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Figure 4.3: Site Options in Relation to 250m, 2km and 3km Disturbance Zones around Upper Nene Valley Gravel Pits (SPA, Ramsar) Site allocation option

Disturbance zones
- 0.25 km
- 2 km
- 3 km
Pet predation

4.69 Pet predation, notably hunting by domestic cats from nearby residential developments, can be a concern where site allocations are proposed close to a European site, particularly where the qualifying species is bird or mammal. Evidence shows that pet cats can roam up to 1.5 km at night. 28 29

4.70 As well as pets, research has shown that habitats close to urban areas can have higher densities of mammalian predators such as foxes30 and that there is an increase in the numbers of crows and magpies on sites with greater human activity. 31

Rutland Water SPA and Ramsar site

4.71 Rutland Water is located 41 km outside of the Northampton Local Plan boundary and therefore will not be subject to any potential pet predation from site allocations within the Northampton Local Plan border.

Upper Nene Valley Gravel Pits SPA and Ramsar

4.72 The Standard Data form for this SPA site highlights the effects of ‘other urbanisation’ as a main threat and pressure that is impacting the site. The Information Sheet for the Ramsar site also highlights ‘Unspecified development: urban use’ as having an adverse effect on the site stating that “activities connected with ongoing urban development cause significant disturbance to wintering birds if unmanaged”.

4.73 Although pet predation is not specifically mentioned, it is assumed on a precautionary basis that pet predation could result in likely significant effects when residential site allocations are located within 1.5 km of a European site.

4.74 Six of the potential site allocations within the Local Plan (Part 2) are located within 1.5 km of the Upper Nene Valley Gravel Pits SPA and Ramsar site. Four of these are residential sites and could have the potential to result in significant effects arising from pet predation. The sites are shown in Figure 4.4 and are listed below:

- LAA1107 Land off Rushmere Road
- LAA0326 Orchard Hill
- LAA1024 Great Houghton Independent School Sites
- LAA1098 The Green, Great Houghton

4.75 However, when physical barriers are taken into account it is considered that the potential effects of sites LAA1107 and LAA0326 will be significantly reduced due to the barriers formed by the A45 (a wide dual carriageway road) and the River Nene. It is concluded therefore that these sites will not result in significant effects on the Upper Nene Valley SPA and Ramsar site as a result of pet predation.

4.76 There do not appear to be any significant physical barriers which separate the Upper Nene Valley Gravel Pits from sites LAA1024 and LAA1098. It is therefore recommended that if the Council intends to allocate these sites, the potential for pet predation from these is discussed with Natural England.

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30 Taylor, E. Predation risk in woodland Lullula arborea habitat: the influence of recreational disturbance, predator abundance, nest site characteristics and temporal factors. s.l. : School of Biological Sciences, UEA, 2002.
Available mitigation

4.77 Mitigation of pet predation effects from residential sites can be difficult to achieve, therefore, if concerns remain after further discussion with Natural England, it may be necessary to avoid allocation of the relevant sites.
Figure 4.4: Site options in relation to 1.5km zone pet predation zone around Upper Nene Valley Gravel Pits SPA and Ramsar site

Map Scale @ A3: 1:45,000

Source: Northampton BC, Natural England
Water supply and water level management

4.78 An increase in demand for water abstraction resulting from the growth proposed in the Northampton Local Plan (Part 2) could result in changes to water levels or flows at hydrologically connected European sites. Depending on the qualifying features and particular vulnerabilities of the European sites, there could be likely significant effects on site integrity.

**Rutland Water SPA and Ramsar site**

4.79 The potential exists for effects on Rutland Water as it is a primary source of urban water supply for Northamptonshire and therefore the population increases within the Borough associated with development within Northampton are likely to affect water levels at the site. Human induced changes in hydrology are listed as a key vulnerability for this European site.

**Upper Nene Valley Gravel Pits SPA and Ramsar site**

4.80 The potential exists for likely significant effects because the River Nene, which supplies water to the Upper Nene Valley Gravel Pits, is also an important source of water to fill both Pitsford and Rutland Water reservoirs for public water supply. Significant strategic abstraction occurs at Duston Mill, upstream of the Upper Nene Valley Gravel Pits, in addition to other abstraction points. As previously described, Rutland Water is the primary water source for Northampton and therefore an increasing demand for water could have a knock-on effect on the River Nene and subsequently the Upper Nene Valley Gravel Pits.

**Evidence on likelihood of effects on either Rutland Water or Upper Nene Valley European designations**

4.81 The West Northamptonshire Emerging Water Cycle Strategy was published in 2011, alongside the West Northamptonshire Joint Core Strategy. It concluded that:

"water resource availability should not be considered a constraint to the Core Strategy Implementation, subject to the implementation of the Code for Sustainable Homes Standards through Building Regulations or through Local Policy. It also concluded that 'Anglian water services strategic infrastructure and resource strategic planning within the Ruthamford Water Resource Zone will support the proposed growth within the study area until 2035'."

4.82 The HRA of the Joint Core Strategy concluded that, based on the conclusions of the Water Cycle Strategy and the mitigation contained within the Joint Core Strategy, there will be no adverse effects on either Rutland Water or the Upper Nene Valley Gravel Pits in relation to water supply and water levels.

4.83 In theory, since the Joint Core Strategy sets the total amount of housing and other development to be delivered in Northampton Borough and the other West Northampton Local Planning Authorities via their Local Plans (Part 2), and since the HRA of the Joint core Strategy rules out likely significant effects in regarding to water supply, effects should also be able to be ruled out for each of the Local Plans (Part 2). However, the Water Cycle Study was published in 2011 and is therefore potentially out of date; notable changes since its publication include the fact that the Code for Sustainable Homes has been withdrawn (discussed below in the 'Available mitigation' section) and that the Anglian Water supply area has been classified by the Environment Agency as an area of 'serious water stress', both currently and under future climate change and abstraction demand scenarios. To address uncertainty resulting from changes since the Water Cycle Study

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32 Anglian Water, 2015, Water Resources Management Plan
33 2011, West Northamptonshire water cycle study: Pre-submission Joint Core Strategy final detailed WCs report.
35 HRA of West Northamptonshire Joint Core Strategy 2011, as amended by 2012 addendum for Proposed Changes and 2013 addendum for Main Modifications
36 Environment Agency and Natural Resources Wales, 2013, Water stressed areas – final classification.
was published, West Northamptonshire Joint Planning Unit has agreed with the Environment Agency and Anglian Water that:

"...a full review of this study is not needed for the Part 2 Local Plans. Anglian Water have agreed that they will do a RAG assessment of any sites which are proposed to be allocated in the Part 2 Local Plans to determine whether further water cycle work is necessary to support these sites."

4.84 More recent evidence is also available from Anglian Water’s 2015 ‘Water Resources Management Plan’ (WRMP), which sets out a 25 year plan to maintain the water supply demand balance in the supply region and measures to minimise the environmental impact of abstractions. The WRMP concludes that no baseline abstraction deficits are forecast in the Ruthampton North Resource Zone—where Rutland Water and the Northampton Borough are located, no significant sustainability reduction sensitivities have been identified and there are no confirmed or likely sustainability requirements. There will be no supply/demand issues for this resource zone in throughout the forecast period (2012-2040).

4.85 A HRA was undertaken for the WRMP and an appropriate assessment was undertaken for the Ruthamford North RZ Transfer in relation to Rutland Water. A conclusion of no significant effect was reached. It also concluded no significant effect on the Upper Nene Valley Gravel Pits SPA, subject to appropriate mitigation, including:

- the avoidance of habitat fragmentation through the timing of construction works outside of the winter period so as not to disturb or displace Golden Plover; and
- restrictions on construction timing and implementation of measures to protect water quality.\(^{37,38}\)

**Available mitigation**

4.86 Mitigation is available in the form of policies within the West Northamptonshire Joint Core Strategy. Policy S10 requires that all development:

- maximise water efficiency and promote sustainable drainage;
- protect, conserve and enhance the natural and built environment and heritage assets and their settings;
- promote the creation of green infrastructure networks, enhance biodiversity and reduce the fragmentation of habitats; and
- minimise pollution from noise, air and run off.

4.87 Policy BN4 of the Joint Core Strategy sets out protection for the Upper Nene Valley Gravel Pits SPA / Ramsar, specifically including that there should be no significant adverse effects on the integrity of the SPA / Ramsar site and the species for which the land is designated due to water runoff, water abstraction or discharges from the foul drainage system.

4.88 Policy S11 of the Joint Core Strategy supports the maximisation of water efficiency set out in S10 above, stating that “All new residential developments are required to achieve a minimum of level 4 standard in the Code for Sustainable Homes”. This limits the water consumption of a home, for level 4 to <90 l/p/day. Policy BN7A of the Joint Core Strategy states that, in relation to water supply “New development proposals will ensure that adequate and appropriate water supply and wastewater infrastructure is available to meet the additional requirements placed upon it and to ensure that water quality is protected and as far as is practicable, improved.” The policy then goes on reiterate the need for homes to achieve level 4 within the Code for Sustainable Homes outlined in Policy S11 (and to safeguard against any adverse effects on water quality - assessed separately in the below section).

4.89 A March 2015 Ministerial Statement\(^{39}\) on the outcome of the Housing Standards Review\(^{40}\) indicated that Local Planning Authorities should no longer require compliance with specific levels

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\(^{37}\) Anglian Water, 2015, Water Resources Management Plan  
\(^{38}\) Mott MacDonald, 2013, Anglian Water 2015 Water Resource Management Plan Strategic Environmental Assessment  
of the Code for Sustainable Homes. However the statement enables standards of energy and water efficiency to be applied which are above building regulations provided that they are consistent with the Government’s proposed approach to zero carbon homes. In response, the West Northamptonshire Joint Planning Unit issued a Briefing Note providing advice on how the partner Local Planning Authorities in West Northamptonshire should consider the Ministerial Statement in applying policies S11, BN7A and other Joint Core Strategy policies. In relation to water efficiency it recommended that the following standard be required from new residential development: “the potential consumption of wholesome water by persons occupying a new dwelling must not exceed 110 litres per person per day”. This equates to the optional requirement specified in the Building Regulations Part G2. Anglian Water has recommended that the Part 2 Local Plan includes the optional higher water efficiency standard (110 litres per person per day) for the avoidance of doubt about the water efficiency standard to be achieved.

4.90 As described in the ‘Disturbance’ section above, Policy BN8 provides protection of the River Nene corridor, including biodiversity and the natural environment.

4.91 Within the WRMP, Anglian Water state that they work closely with the Environment Agency and Natural England to ensure that their abstractions do not have a detrimental impact on the environment, and that many of their abstraction licences include conditions requiring them to monitor environmental impact which are reported on annually and if any deterioration is identified then they remain committed to addressing the issue. Furthermore Anglian Water is subject to the Environment Agency’s licensing regime which regulates the amount of water that can be abstracted in order to protect the environment. These controls are set out in The Nene Catchment Abstraction Management Strategy and they add another level of protection regarding the amount of water taken from the environment.

4.92 Having reviewed the evidence above and the mitigation available from Core Strategy policy and from the Environment Agency’s abstraction licensing regime it is considered unlikely that any further mitigation measures will be required, subject to the Local Plan including the water efficiency standard of 110 litres per person per day recommended by Anglian Water. However, to ensure an up to date evidence base and a precautionary approach, likely significant effects will not be ruled out until the RAG assessment of preferred sites to be carried out by Anglian Water and any consequent selective update of the Water Cycle Study confirm that there are no water supply and water level management issues exist that cannot be effectively mitigated.

Water quality

4.93 An increase in demand for wastewater treatment resulting from the growth proposed in the Northampton Local Plan could result in a decrease in water quality as a result of increased amounts of treated sewage being discharged to hydrologically linked water courses or increased amounts of contaminated water running off roads and other urban surfaces. Depending on the qualifying features and particular vulnerabilities of the European sites, there could be a likely significant effect on site integrity.

Rutland Water SPA and Ramsar site

4.94 Due to the distance between the plan area and Rutland Water SPA and Ramsar site and the absence of hydrological connections with wastewater discharge points from the Borough’s Wastewater Treatment Works (WwTWs), it is highly unlikely that surface run-off, foul sewage or other potential water pollution from increased development in Northampton will affect this European site.

Upper Nene Valley Gravel Pits SPA and Ramsar

4.95 Population growth in Northampton has the capacity to have an adverse effect on the water quality of this site relating to both increased amounts of treated sewage entering the River Nene or the
expansion of the built up area resulting in increased amounts of polluted water running off roads and other urban surfaces.

Wastewater discharges

4.96 Wastewater from Northampton is discharged into the River Nene at Great Billing WwTW which serves Northampton. It is located just to the east of Northampton next to the River Nene, between two sections of the SPA and Ramsar site, the flood storage reservoir near Northampton and Grendon lakes downstream. It discharges into the Nene at this point meaning areas of the SPA and Ramsar site that are downstream could be adversely affected by increases in discharge.

4.97 The West Northamptonshire Water Cycle Study stated that:

“the current WFD status has been assessed for the waterbody that the WwTW that serves Northampton discharges into. The River Nene is currently failing to meet good ecological status, because the waterbody does not achieve good physiochemical status”

4.98 The study reported that Great Billing WwTW had infrastructure capacity for development forecast in the AMP5 period (2010-2015) provided that planned capital maintenance improvements planned and funded in AMP5 were delivered. However, it was stated that in the longer term a new consent will be required and additional infrastructure will be needed to be funded and delivered through Anglian Water’s business planning process, although no constraints to providing this infrastructure were identified. The study also concluded that the existing water quality consent will need to be tightened and monitored to ensure no deterioration but that this is achievable within the limits of conventional technology and should not be a constraint to development in Northampton.

4.99 As noted in the ‘Water supply and water level management’ section above, the Environment Agency and Anglian Water have agreed that a full review of the Water Cycle Study is not needed but that Anglian Water will do a RAG assessment of any sites which are proposed to be allocated in the Part 2 Local Plans to determine whether further water cycle work is necessary to support these sites.

Contaminated run-off

4.100 It is considered that the Local Plan (Part 2) could have an adverse effect on the Upper Nene Valley Gravel Pits SPA and Ramsar site due to an increase in polluted surface water run-off relating to an increase in hard standing area from growth in Northampton (in-combination with the West Northamptonshire Joint Core Strategy SUEs). Potential mitigation has been considered below.

Available mitigation

4.101 There are a number of policies in the West Northamptonshire Joint Core Strategy that will mitigate the potential for development in Northampton Borough to have adverse impacts on the Upper Nene Valley Gravel Pits SPA / Ramsar as a result of deterioration in water quality.

4.102 Policy BN9 sets out plans for pollution control. It states that “Proposals for new development which are likely to cause pollution or likely to result in exposure to sources of pollution or risks to safety will need to demonstrate that they provide opportunities to minimise and where possible reduce pollution issue that are a barrier to achieving sustainable development and healthy communities.” In regards to water quality this is through “Protecting and improving surface and groundwater water quality”.

4.103 Policy BN7a is described in the section above (water supply), but expands on this to include the requirement for adequate wastewater treatment capacity to address environmental constraints, as well as the use of sustainable drainage systems, where practicable, to improve water quality, reduce flood risk and provide environmental and adaptation benefits.

4.104 Policy BN4, as described in previous sections, sets out the need for new developments to demonstrate, through the development management process, that there will be no significant adverse effects on the integrity of the Upper Nene Valley SPA / Ramsar site due to (among others things) “water runoff, water abstraction or discharges from the foul drainage system”.

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42 Halcrow, 2011, West Northamptonshire Water Cycle Study for the Pre-Submission Joint Core Strategy, Detailed WCS Final Report
4.105 Policy BN8 relates solely to the River Nene Corridor and the protection of its natural and cultural environment. Proposals for new development must demonstrate an understanding of the importance of the River Nene for biodiversity within and beyond the plan area.

4.106 Policy S10, Sustainable Development Principles (described in more detail in the section above) sets out a requirement to maximise water efficiency and sustainable drainage and minimise pollution from run-off.

4.107 Further protection and mitigation is provided by policies and procedures set out by Anglian Water and the Environment Agency. Water treatment and recycling in Northampton is carried out by Anglian Water and the quality of the water that is discharged to water courses must pass strict standards set by law and enforced by the Environment Agency. The Environment Agency measures the performance of all the water companies in England annually and the Environment Agency’s 2016 Environmental Performance Assessment Report found that in 2015 Anglican Water achieved 99% compliance with their discharge licences and permits (all water companies have licences and permits which control the level of impact they are allowed to have on the environment). Furthermore, the Environment Agency licence and control all discharges and abstractions and have responsibilities to ensure ‘no deterioration’ of water quality under the Water Framework Directive, which adds an extra layer of protection.

4.108 Having reviewed the evidence above and the mitigation available from Core Strategy policy and from the Environment Agency’s discharge licensing regime it is considered unlikely that any further mitigation measures will be required. However, to ensure an up to date evidence base and a precautionary approach, likely significant effects will not be ruled out until the RAG assessment of preferred sites to be carried out by Anglian Water and any consequent selective update of the Water Cycle Study confirm that there are no water quality issues exist that cannot be effectively mitigated.
5 Summary of findings and next steps

5.1 This document has been prepared in order to assist Northampton Borough Council in their preparation of a Local Plan (Part 2) that avoids likely significant effects on European sites. It does not constitute a statutory HRA screening report and in particular it does not include all the required information for such a report or conclude whether the site allocations set out in the consultation document will have a likely significant effect on the European sites. Instead it has provided information on: the HRA work already done for the West Northamptonshire Joint Core Strategy; European sites most likely to be affected and their particular vulnerabilities; the types of effect most likely to be of concern and any spatial dimensions to these that should be considered when selecting site allocations; and a review of the mitigation available for the types of effect identified.

Summary

5.2 HRA of the West Northamptonshire Joint Core Strategy was undertaken between 2007 and 2013. The Appropriate Assessment of the Pre-submission Joint Core Strategy and subsequent addendums for proposed changes and main modifications concluded that the West Northamptonshire Joint Core Strategy will not have adverse effects on the integrity of the European sites identified in the assessment, which was mainly a result of mitigation provided by policies set out in the Joint Core Strategy.

5.3 Two European sites have been identified as being potentially at risk of likely significant effects from the site allocation options of the Northampton Local Plan (Part 2). These are:

5.4 The Upper Nene Valley Gravel Pits SPA and Ramsar site, which is located to the east of the Local Plan area, the southernmost part being just within the Local Plan area; and

5.5 Rutland Water SPA and Ramsar site which is located approximately 41 km to the north of the Local Plan area.

5.6 Rutland Water has been included due to the potential impacts of water abstraction while the Upper Nene Valley Gravel Pits is considered at risk of a wider range of effects due to its proximity to the Local Plan area, recreation pressure being of greatest concern. Both of these sites are designated as European sites because of the presence of qualifying bird species.

5.7 Issues that may arise as a result of the proposed site allocations or that are most likely to be of relevance to the HRA of the Local Plan (Part 2) once prepared, have then been considered in relation to the above described European sites. These are also the effects that were identified in the latter stages of the West Northamptonshire Joint Core Strategy HRA and comprise physical habitat loss or damage, loss of supporting habitat, fragmentation, disturbance, water supply and water levels management, water quality, and pet predation.

5.8 It has been concluded that none of the site options would result in physical habitat loss or damage as none are within the borders of a European site.

5.9 Loss of supporting habitat was considered for both European sites due to the qualifying species of the sites being birds, which are mobile and therefore could use habitat which is close by, but not included within, the borders of the European site. For Rutland Water, it was concluded that the distance between the Local Plan area and the European site means that loss of supporting habitat as a result of the site allocations is unlikely. For the Upper Nene Valley Gravel Pits, however, supporting habitat for its qualifying Golden Plover and Lapwing populations was identified in the south east of the borough and adjoining areas. One site option slightly overlaps an area of optimal supporting habitat, an area that is also already allocated as an SUE in the Joint Core Strategy. Survey evidence presented in the HRA of the West Northamptonshire Joint Core Strategy indicates that allocation of this site by the Local Plan (Part 2) would not result in a likely
significant effect due to loss of supporting habitat. However, three other site options are located on optimal supporting habitat and therefore the potential for significant effects should be discussed with Natural England and if necessary, further investigations carried out on the habitat suitability of these sites. If appropriate, it may be necessary to include additional mitigation in the allocation policies or to avoid allocation of these sites.

5.10 It is concluded that none of the development site options are located where they would be likely to result in significant habitat fragmentation effects on either of the scoped in European sites.

5.11 Disturbance effects were considered in regard to:
- noise, vibration and light disturbance;
- disturbance to bird sightlines; and
- recreational disturbance.

5.12 In relation to potential disturbance from noise, vibration or light, a distance of 2 km was deemed to be the maximum over which these would have an effect on the qualifying bird features of a European site. Eleven site allocation options are located within 2 km, it is considered that Seven will not have the potential to significantly affect light or noise pollution at the SPA / Ramsar Site but three, which are proposed for commercial use and which are not screened or located in existing areas of development, may result in significant effects and further policy protection in the Local Plan (Part 2) may be necessary should these sites be allocated. If there is insufficient certainty that this mitigation will be effective the Council should re-consider allocating these sites.

5.13 Maintenance of unobstructed sight lines and flight lines within 250 m of the Upper Nene Valley Gravel Pits SPA and Ramsar site is important for the European site’s Golden Plover and Lapwing populations. One site option is located within 250 m of the European site and it is unclear whether mitigation provided by Joint Core Strategy Policy BN4 could be effectively implemented at this site; further investigation and potentially additional policy protection may therefore be required if this site is allocated in the Local Plan (Part 2). As above, if it is not certain that mitigation will be effective the allocation of this site could be re-considered.

5.14 In relation to recreational disturbance, the Upper Nene Valley Gravel Pits SPA and Ramsar site is already under threat. Prior to consideration of mitigation, any Local Plan (part 2) residential allocation within 3 km of the European site would be likely to contribute to recreational disturbance in combination with other such allocations in Northampton Borough and in neighbouring districts within this distance of the SPA and Ramsar site. Of the residential site allocations proposed, 44 are within 3 km of the European site. The Northamptonshire Joint Core Strategy includes policies that will mitigate disturbance effects and a supplementary planning document has been produced which sets out recreational risks to Upper Nene Valley Gravel Pits SPA and Ramsar site and how these may be mitigated for individual development proposals. Nevertheless, for sites to be allocated they will need to demonstrate that there will be no significant effects, and it is therefore recommended that the Council gives consideration to how the Local Plan (Part 2) could be used to promote a strategic approach to the long term management of recreational and other disturbance pressures on Upper Nene Valley Gravel Pits SPA and Ramsar site. Such a strategy, if developed in consultation with Natural England, should provide reassurance that the site allocations of the Local Plan (Part 2) can be delivered without significant recreation effects on Upper Nene Valley Gravel Pits SPA and Ramsar site.

5.15 Having considered the locations of the site allocations in relation to the Upper Nene Valley Gravel Pits SPA and Ramsar site it is concluded that significant effects on the site as a result of pet predation are possible from two residential site options. It is therefore recommended that the potential for pet predation is discussed with Natural England. Mitigation against pet predation is likely to be difficult to achieve, therefore, if concerns remain after further consideration of this issue in discussion with Natural England, it may be necessary to avoid allocation of the relevant sites.

5.16 Effects on water levels have been identified as a potential issue at both Rutland Water and the Upper Nene Valley Gravel pits. This is due to expected population increase in Northampton and the resulting increase in water demand and abstraction. The West Northamptonshire Water Cycle Strategy and more recent Anglian Water WRMP concluded that there will be no issue with water supply and demand in the region going forward, and Policies S10, S11, BN4, BN7A and BN8 of the
Joint Core Strategy provide mitigation against any adverse impacts of water abstraction. In light of this evidence and mitigation provided by Joint Core Strategy Policies and the Environment Agency’s environmental permitting regime it appears unlikely that further mitigation will be required within the Local Plan (Part 2). However, to ensure an up to date evidence base and a precautionary approach, likely significant effects will not be ruled out until the RAG assessment of preferred sites to be carried out by Anglian Water and any consequent selective update of the Water Cycle Study confirm that there are no water quality issues exist that cannot be effectively mitigated.

5.17 The distance and lack of hydrological pathways between any of the site allocation options and Rutland Water SPA and Ramsar site mean that it is unlikely to be affected by any run-off, foul sewage or other potential water pollution originating from within the Northampton Local Plan boundary. In terms of the Upper Nene Valley Gravel Pits SPA and Ramsar site, it is considered that an increase in sewage, foul water, or an increase in run off from new built up areas could have an adverse effect on the site. However, policy protection within the West Northamptonshire Joint Core Strategy is high and furthermore there are strict environmental controls operated by the Environment Agency regarding the quality of water that can be discharged to the environment. It is considered unlikely that further policy protection will be required in the Local Plan (Part 2) but as concluded above in relation to water supply, it will not be possible to rule out likely significant effects until Anglian Water’s RAG assessment of sites and any consequent selective update of the Water Cycle Study have been completed.

Next steps

5.18 The Northampton Local Plan (Part 2) Site Options will be published for Regulation 18 consultation alongside this initial HRA document. Once the Council has drafted the Proposed Submission version of the Local Plan (Part 2), it will be subject to a full HRA that builds on the initial HRA and responds to representations received on the initial HRA at Regulation 18 stage.

LUC

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