Augean SOUTH LTD

HABITAT REGULATIONS ASSESSMENT

FOR THE DEVELOPMENT CONSENT ORDER APPLICATION FOR THE ALTERATION AND CONSTRUCTION OF HAZARDOUS WASTE AND LOW LEVEL RADIOACTIVE WASTE FACILITIES AT THE EAST NORTHANTS RESOURCE MANAGEMENT FACILITY, STAMFORD ROAD, NORTHAMPTONSHIRE

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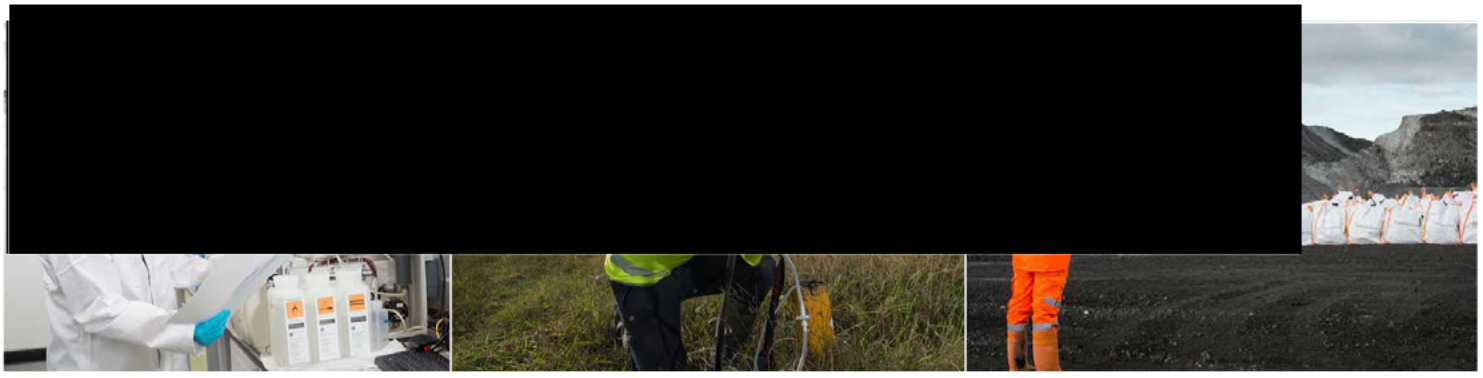

Potential Effects

Please use this section to briefly describe the potential effects considered in the assessment. This table can be used to help you rationalise a long list of specific effects into a reduced number of categories (where applicable) for ease of presentation in the matrices. For example, displacement from noise, displacement from visual disturbance, displacement from lighting may all have been considered within the applicant's Habitat Regulations Assessment (HRA). These could all be rationalised into a single category of 'displacement', for example.

Potential effects upon the European site(s)* which are considered within the submitted HRA report **(PINS Document Reference 5.5)** are provided in the table below.

Effects considered within the screening matrices

Designation	Effects described in submission information	Presented in screening matrices as
BARNACK HILLS AND HOLES SPECIAL AREA OF CONSERVATION UK0030031	• Deposition of nutrient Nitrogen • Deposition of dust	• Air quality • Dust
RUTLAND WATER SPECIAL PROTECTION AREA UK9008051	• Habitat loss or changes	• Habitat
	• Changes to supporting features	• Supporting features
	• Changes to population or distribution	• Population
RUTLAND WATER RAMSAR SITE	The extent, distribution, structure and function of the habitats	Habitat loss or changes to structure or distribution
	Processes supporting the features on which the population rely	Changes to features supporting the waterfowl populations
	Changes to numbers or population of the features	Changes to numbers or population of features

* As defined in Advice Note 10.

STAGE 1: SCREENING MATRICES

The European sites included within the screening assessment are:

BARNACK HILLS AND HOLES SPECIAL AREA OF CONSERVATION; RUTLAND WATER SPECIAL PROTECTION AREA; RUTLAND WATER RAMSAR SITE

Evidence for, or against, likely significant effects on the European site(s) and its qualifying feature(s) is detailed within the footnotes to the screening matrices below.

Matrix Key:

✓ = Likely significant effect **cannot** be excluded
✗ = Likely significant effect **can** be excluded

C = construction
O = operation
D = decommissioning

HRA Screening Matrix BARNACK HILLS AND HOLES SPECIAL AREA OF CONSERVATION

Name of European site and designation: Barnack Hills and Holes Special Area of Conservation									
EU Code: UK0030031									
Distance to NSIP: 7.5km									
European site features	**Likely effects of NSIP**								
Effect	*Deposition of nutrient Nitrogen*			*Deposition of dust*			*In combination effects*		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
H6210. Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia)* (important orchid sites); Dry grasslands and scrublands on chalk or limestone (important orchid sites)	**x**[a]	**x**[a]		**x**[b]	**x**[b]		**x**	**x**	**x**

a) Air quality could be affected during the operation of the site. The emissions from the existing ENRMF have no discernible impact on local air quality. The volumes of gaseous emissions from the site are declining and will continue to decline as part of the proposed development as a limit will continue to be imposed on the organic content of the wastes. The proposed development will not result in a NOx emission that could result in an impact on the National Network sites being assessed.

b) Dust has the potential to arise during the construction and operational phases through cell excavation and engineering, soil stripping and restoration, mineral extraction operations, materials handling, on site transportation, waste processing, stockpiles and exposed surfaces together with off-site transportation. Due to the distance of the National Sites from the proposed development no dust as a result of the operations at the proposed development will reach the National Network Sites being assessed. Once the site operations have been completed and the site has been restored for nature conservation, there will be no potential for dust emissions.

There is no decommissioning stage as such; once landfill operations and restoration to nature conservation are complete, the site will move into aftercare, habitat monitoring and management.

Name of European site and designation: Rutland Water Special Protection Area												
EU Code: UK9008051												
Closest Distance to NSIP: 8.8km												
European site features	**Likely effects of NSIP**											
Effect	*Habitat loss or changes to structure or distribution*			*Changes to features supporting the waterfowl populations*			*Changes to numbers or population of features*			*In combination effects*		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
A051 *Anas strepera*, Gadwall (Non-breeding)	**x**[a]	**x**[a]		**x**[b]	**x**[b]		**x**[c]	**x**[c]		**x**	**x**	**x**
A056 *Anas clypeata,* Northern shoveler (Non-breeding)	**x**[a]	**x**[a]		**x**[b]	**x**[b]		**x**[c]	**x**[c]		**x**	**x**	**x**
Assemblage of wintering waterfowl	**x**[a]	**x**[a]		**x**[b]	**x**[b]		**x**[c]	**x**[c]		**x**	**x**	**x**

Evidence supporting conclusions:

a. As explained further in the accompanying text, due to the distance between the two locations, as there is no natural hydraulic connectivity between the proposed development and Rutland Water, there is no way in which operations on the Site could affect the habitats used by the qualifying features on this SPA.

b. As explained further in the accompanying text, due to the distance between the two locations, as there is no natural hydraulic connectivity between the proposed development and Rutland Water, there is no way in which operations on this Site could affect the supporting features for the species using this SPA.

c. As explained further in the accompanying text, due to the distance between the two locations, as there is no natural hydraulic connectivity between the proposed development and Rutland Water, there is no way in which operations on this Site could affect the numbers or distribution of the qualifying species on this SPA.

There is no decommissioning stage as such; once landfill operations and restoration to nature conservation are complete, the site will move into aftercare, habitat monitoring and management.

Name of European site and designation: Rutland Water Ramsar Site												
UK Code: UK11062												
Closest Distance to NSIP: 8.8km												
European site features	**Likely effects of NSIP**											
Effect	*Habitat loss or changes to structure or distribution*			*Changes to features supporting the waterfowl populations*			*Changes to numbers or population of features*			*In combination effects*		
Stage of Development	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*	*C*	*O*	*D*
Assemblage of wintering waterfowl	**x**[a]	**x**[a]		**x**[b]	**X**[b]		**x**[c]	**X**[c]		**x**	**x**	**x**
Qualifying population of Gadwall , *Anas strepera strepera* in spring/autumn	**x**[a]	**x**[a]		**X**[b]	**X**[b]		**X**[c]	**X**[c]		**x**	**x**	**x**
Qualifying population of Assemblage of wintering waterfowl	**x**[a]	**x**[a]		**X**[b]	**X**[b]		**X**[c]	**X**[c]		**x**	**x**	**x**

Evidence supporting conclusions:

a. As explained further in the accompanying text, due to the distance between the two locations, as there is no natural hydraulic connectivity between the proposed development and Rutland Water, there is no way in which operations on this Site could affect the habitats used by the qualifying features on the Ramsar site.

b. As explained further in the accompanying text, due to the distance between the two locations, as there is no natural hydraulic connectivity between the proposed development and Rutland Water, there is no way in which operations on the site could affect the supporting features for the species using the Ramsar site.

c. As explained further in the accompanying text, due to the distance between the two locations, as there is no natural hydraulic connectivity between the proposed development and Rutland Water, there is no way in which operations on the site could affect the numbers or distribution of the qualifying species on the Ramsar site.

There is no decommissioning stage as such; once landfill operations and restoration to nature conservation are complete, the site will move into aftercare, habitat monitoring and management.

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NO SIGNIFICANT EFFECTS REPORT AND SCREENING STAGE OF A HABITAT REGULATIONS ASSESSMENT FOR THE PROPOSED WESTERN EXTENSION TO EAST NORTHANTS RESOURCE MANAGEMENT FACILITY, KINGS CLIFFE, NORTHAMPTONSHIRE

FINAL

SEPTEMBER 2021

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1 INTRODUCTION

The Conservation of Habitats and Species Regulations, 2017

1.1 Regulation 63 of these Regulations states that:

(1) A competent authority, before deciding to undertake, or give any consent, permission, or other authorisation for, a plan or project which—

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

(b) is not directly connected with or necessary to the management of that site,

must make an appropriate assessment of the implications for that site in view of that site's conservation objectives

(2) A person applying for any such consent, permission or other authorisation must provide such information as the competent authority may reasonably require for the purposes of the assessment or to enable them to determine whether an appropriate assessment is required.

(3) The competent authority must for the purposes of the assessment consult the appropriate nature conservation body and have regard to any representations made by that body within such reasonable time as the authority specify.

1.2 In paragraph 1.1.13 of the Scoping Opinion (August 2020), the Inspectorate notes the potential need to carry out an assessment under The Conservation of Habitats and Species Regulations, 2017 as amended (the Habitat Regulations). Advice Note 10 Habitat Regulations Assessment[1] (HRA) states that the relevant Secretary of State is the competent authority for the purposes of the Habitats Regulations in relation to applications for Nationally Significant Infrastructure Projects (NSIPs). This Advice Note also sets out the multi-stage

[1]The Planning Inspectorate, 2017. Advice Note 10 Habitat Regulations Assessment.

process that helps determine Likely Significant Effects (LSE) and (where appropriate) assess adverse effects on the integrity of a European site.

1.3 The proposed development is not connected with or necessary to the management of any site on the National Sites Network and Natural England, who are the appropriate nature conservation body, have stated that on the evidence provided to them previously, they are not able to determine without further information whether or not the proposed development is or is not likely to have a significant effect on any such National Site. This document therefore provides the HRA Stage-1 screening information necessary to allow this consideration and decision to be made.

Information required.

1.4 Undertaking this process requires the following steps:

- Provide a detailed description of the proposed development, including processes, timings and methods of work.
- Identify all sites in the National Sites Network close enough and having specific pathways to be affected by activities on the application Site.
- Consider the conservation objectives of these national sites.
- Identify the potential impacts of the proposal on each national site.
- Determine whether there is likely to be a significant effect on any of the national sites.

2 DESCRIPTION OF THE PROPOSED DEVELOPMENT

2.1 The details of the proposed scheme are set out in the pre-application documents (The Scoping Report, July 2020 and the Preliminary Environmental Information Report, October 2020) and are presented in full detail in the application documents. A summary of the scheme, as it may be relevant to the ecology of the Site and its surroundings, is given below.

- The construction of new landfill void for the disposal of the same range of hazardous wastes and low-level radioactive waste (LLW) disposed of at the Site currently with a capacity of greater than 100,000 tonnes per annum (tpa) of hazardous waste supported by the existing Site infrastructure. The

new landfill will comprise a number of phases and provide an additional landfill void of approximately 2.5 million cubic metres.

- The continuation of filling of the existing ENRMF landfill with hazardous waste and LLW and the amendment of the consented restoration profile to tie the existing landfill into the proposed extension landform. The amendment to the restoration profile will result in the creation of a new void at the existing Site.
- The winning and working of minerals in order to create the landfill void and provide extracted materials for use on Site as well as the exportation of clay and overburden for use in engineering, restoration and general fill at other sites.
- The stockpiling of clay, overburden and soils for use in the construction of the engineered containment system at the Site and restoration of the Site.
- The direct input of waste into the existing and new landfill will continue at a rate of up to 150,000tpa.
- An increase to the hazardous waste throughput of the existing waste treatment and recovery facility to 250,000tpa, which comprises an increase of 50,000tpa compared with the rate consented in the original Order.
- A combined total waste importation rate limit to the Site including that to the waste treatment and recovery facility and to the landfill of 300,000tpa, which is an increase of 50,000tpa compared with the currently consented total input rate.
- The LLW, which will continue to be disposed of at the ENRMF, will be limited to that which is at the lower end of the activity range and typically will have a level of radioactivity of up to 200Bq/g.
- The diversion of an overhead electricity cable that crosses the proposed Western Extension to an alternative route within the application area.
- The operational hours of the Site will not change from those already permitted.
- Restoration to generally domed restoration landforms in the extension area and amendment to the approved restoration profile of the existing ENRMF to create a coherent restored landform over the whole application Site.

- Restoration of the Site to nature conservation interest using the soils available at the Site as well as suitable imported materials.
- Completion of the landfilling and restoration operations by December 2046.
- Retention of infrastructure until 2046 and the retention of long-term management infrastructure beyond this date.
- The Site will be subject to a twenty-year aftercare and maintenance period following the completion of restoration.

3 SELECTION OF POTENTIALLY AFFECTED NATIONAL SITES

3.1 The government MAGIC website[2] was used to identify all national sites within 10km of the application Site. This search identified Barnack Hills and Holes Special Area of Conservation (SAC), which is approximately 7.5km to the northeast and Rutland Water Special Protection Area (SPA) and Ramsar site, which is approximately 8.8km to the northwest of the Site at their closest points. The sites are both also Sites of Special Scientific Interest (SSSI).

3.2 A further search revealed that the next nearest SPA/Ramsar site (which might require functionally-linked land[3] at a greater distance than 10km) is the Nene Valley Gravel Pits SPA and Ramsar site, which lies some 19km southeast of the application boundary as its closest point. It is considered reasonably unlikely that waterfowl from this SPA/Ramsar site would use the application Site, which currently comprises two narrow arable fields between mature woodlands as functionally-linked land.

3.3 There are no national sites, including these, for which MAGIC shows SSSI planning risk links to include the application Site. The scope of the assessment was therefore set to include all National Sites within a 10km radius of the application Site and therefore covers just Barnack Hills and Holes SAC and

[2]https://magic.defra.gov.uk/

[3]CHAPMAN, C. & TYLDESLEY, D., 2016. Functional linkage: How areas that are functionally linked to European sites have been considered when they may be affected by plans and projects - a review of authoritative decisions. Natural England Commissioned Reports, Number 207.

Rutland Water SPA/Ramsar site. This decision was agreed with Natural England.

3.4 The locations of these sites are shown on Figure 1, together with the area of search.

4 THE QUALIFYING FEATURES AND CONSERVATION OBJECTIVES OF THE SELECTED NATIONAL SITES

4.1 BARNACK HILLS AND HOLES SAC

4.1.1 The conservation objectives relate to the qualifying features (i.e., the habitats, species and/or assemblages) for which this site is designated as a SAC. The standard data form for this site (UK0030031) is given in Appendix 1.

4.1.2 The qualifying features for this site are described as H6210 semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (important orchid sites), dry grasslands and scrublands on chalk or limestone (important orchid sites*). '*' denotes particular priorities for conservation at a European scale subject to special provisions in the Habitats Regulations. These priority natural habitats and species are denoted by an asterisk (*) in Annex I and II of the Habitats Directive.

4.1.3 The Conservation Objectives for this SAC[4] and the natural habitats for which it has been designated (the 'qualifying features' listed above) and subject to natural change, are to ensure that the integrity of the site is maintained or restored as appropriate and that the site contributes to achieving the Favourable Conservation Status of its qualifying features by maintaining or restoring:

- The extent and distribution of qualifying natural habitats.
- The structure and function (including typical species) of qualifying natural habitats.

[4]Natural England 2019. European Site Conservation Objectives: supplementary advice on conserving and restoring site features Barnack Hills and Holes Special Area of Conservation (SAC) Site code: UK0030031

- The supporting processes on which the qualifying natural habitats rely.

Air quality.

4.1.4 The H2610 habitat is sensitive to nitrogen deposition, with a requirement to restore as necessary the concentrations and deposition of air pollutants to at or below the site-relevant critical load given for this feature. This load is given by the Air Pollution Information System (APIS)[5] as 15-20kg N/ha/yr for the sub-Atlantic semi-dry calcareous grassland.

4.2 RUTLAND WATER SPA

4.2.1 The standard data form for this site (UK9008051) is given in Appendix 2. The qualifying features for this site are given as A051 *Anas strepera*, Gadwall (Non-breeding), A056 *Anas clypeata,* Northern shoveler (Non-breeding) and the waterbird assemblage. This lists 10 waterbird species, including the two individually named above.

4.2.2 The Conservation Objectives for this SPA[6] and the species/assemblage for which it has been designated (the 'qualifying features' listed above) and subject to natural change, are to ensure that the integrity of the site is maintained or restored as appropriate and that the site contributes to achieving the aims of the Wild Birds Directive by maintaining or restoring:

- The extent and distribution of the habitats of the qualifying features.
- The structure and function of the habitats of the qualifying features.
- The supporting processes on which the habitats of the qualifying features rely.
- The population of each of the qualifying features.
- The distribution of the qualifying features within the site.

[5]www.apis.ac.uk

[6]Natural England 2018. European Site Conservation Objectives: supplementary advice on conserving and restoring site features Rutland Water Special Protection Area (SPA) Site code: UK9008051

4.3 RUTLAND WATER RAMSAR SITE

4.3.1 The information sheet for Ramsar wetlands (RIS)[7] is given in Appendix 3. The Ramsar criteria satisfied by Rutland Water for designation under the Ramsar Convention are numbers 5 and 6, as follows:

- Criterion 5: Assemblages of international importance (species with peak counts in winter, 1,927[4] waterfowl (5-year peak mean 1998/99-2002/2003)).
- Criterion 6: Qualifying species/populations (species with peak counts in spring/autumn).
- (As identified at designation): Gadwall *Anas strepera*, NW Europe, Northern shoveler *Anas clypeata,* NW & C Europe.
- (As identified subsequent to designation, for possible future consideration under this criterion) Mute swan *Cygnus olor*, Britain.

4.3.2 Further information on this Ramsar site is given in the RIS.

5 POTENTIAL IMPACTS OF THE PROPOSAL

5.1 As stated in paragraph 3.3 above, none of the SSSI planning risk zones shown on MAGIC for Barnack Hills & Holes and Rutland Water includes the application Site. The ENRMF is the subject of three Environmental Permits (EP). There is an EP for the hazardous waste landfilling operations, an EP for the waste treatment and recovery facility and an EP for the LLW disposal activities. Any extension to the waste management operations at the Site will continue to be the subject of EPs. It will be necessary to apply to vary the EP in respect of the existing hazardous waste and LLW landfill site to include the proposed Western Extension. The EP for the treatment facility will be varied in order to increase the waste throughput rate and to include any changes to the processing activities. The standard protective measures included within the EP ensure that people and the environment are properly protected.

[7]JNCC, 2008. Information sheet on Ramsar Wetlands, Rutland Water UK11062.

5.2 Environmental monitoring during the operational and aftercare phases while the Site is managed will be carried out to confirm that the levels of contaminants and radiation in a range of media relevant to potential exposure pathways such as landfill gas, air emissions, leachate, surface water, groundwater and dust will not exceed the environmental thresholds and radiation dose criteria that are set for the Site within the EPs. Samples are taken to an agreed programme specified in the EP and follow protocols approved by the Environment Agency, with the resulting monitoring data reported to it. The Environment Agency currently undertakes its own independent sampling programme for radioactivity. The monitoring regime provides assurance that the Site is performing as expected and that the design, construction and operating standards of the Site are effective in eliminating or controlling any exposure risks.

5.3 The landfill will continue to be the subject of an EP under management control and the subject of financial provision until the Environment Agency is satisfied that the Site no longer represents a potentially significant risk of harm to human health or pollution of the environment. This period will almost certainly be considerably longer than 60 years.

5.4 With regard to functionally-linked land, the question does not arise for Barnack Hills and Holes SAC, which has no birds listed as qualifying features. The qualifying features for Rutland Water are all waterfowl and the proposed Western Extension is currently under arable management and has no water bodies or suitable plant communities for waterfowl. The existing ENRMF is under active management, with some cells restored and others being filled. It is therefore subject to disturbance and has no suitable plant communities for waterfowl. Most of Rutland Water is also more than 10km distant from the proposal Site. In addition, wintering bird surveys, including dawn and dusk watches, of the application Site through 2018/19 and regular surveys of the active site since 2014, have recorded no use by any waterfowl.

5.5 As stated in paragraph 3.2, the next nearest SPA/Ramsar site is the Upper Nene Valley Gravel Pits. This SPA/Ramsar site is used by waders but as for Rutland Water, its distance, the nature of the habitats on both the application and currently active sites and the total lack of any wader or waterfowl records

using the Site indicates that it does not provide functionally-linked land for the Nene Valley Gravel Pits national site.

5.6 The only potential pathways for likely significant effects on Barnack Hills and Holes SAC are as a result of dust and emissions of NOx to air (which may relate to deposition of nitrogen) and of emissions to water, which could affect water quality. Emissions to air include both the gas flare on Site and the traffic associated with the proposed development. Noise and light will not affect the qualifying species at Rutland Water as this site is too far distant for the qualifying features to be aware of these.

6 DATA COLLECTED TO INFORM THE FINDINGS

6.1 ECOLOGICAL INVESTIGATIONS

6.1.1 Surveys undertaken between 2018 and 2021 included those for plant communities and species, invertebrates, amphibians, reptiles, breeding and wintering birds and mammals, particularly bats, badgers and dormice.

6.2 OTHER INVESTIGATIONS

6.2.1 Various assessments have been undertaken with respect to the proposed development to support either the EP variation application or form part of the Environmental Impact Assessment. These include:

6.2.2 Hydrogeological and hydrological risk assessment - Assesses the risks associated with the proposed development on groundwater and surface water. There is no natural hydraulic connectivity between the proposed development and Rutland Water and therefore even without the control measures proposed in the EP the potential for a hydrogeological or hydrological impact on Rutland Water is negligible. The HRA concludes that the proposed development and restoration of the Site will have no likely significant effect on groundwater quality or flow beneath the Site or at receptors down hydraulic gradient of the Site. Monitoring for the existing landfill site shows that the engineered containment measures are effective and that groundwater quality adjacent to the Site is not affected by the landfill activities. The surface water and groundwater quality

will continue to be monitored in accordance with schemes agreed with the Environment Agency through the EPs.

6.2.3 Dust assessment - This assessment assesses the potential for impacts associated with dust arising from the proposed development. The proposed development has the potential to generate dust through cell excavation and engineering, soil stripping and restoration, mineral extraction operations, materials handling, on site transportation, waste processing, stockpiles and exposed surfaces, together with off-site transportation. The dust emissions from the Site are monitored under the EPs. The thresholds in the EP are protective of human health and the environment. Dust in the air is monitored at the boundary of the Site as deposited dust and as PM_{10}. Large dust particles are deposited fairly rapidly and within a few hundred metres of the point of arising at most whereas smaller particles, including PM_{10}, have the potential to travel greater distances from the point of arising. Monitoring data for the Site boundary over the last five years shows the only exceedances of the 200mg/m^2 deposited dust potential nuisance threshold was as a result of agricultural activities on neighbouring fields and not as a result of waste management activities. No PM_{10} concentrations have been recorded at the boundary of the Site above 10mg/m^3. No air quality threshold is set for PM_{10} for the protection of ecosystems however, the concentrations of any PM_{10} particulates recorded in the air at the boundary of the Site are well below 40mg/m^3, which is the annual mean air quality target concentration. Due to the distance of the national sites from the proposed development even without the control measures proposed as an intrinsic part of the Environmental Permits, no dust as a result of the operations at the proposed development will reach the national network sites being assessed.

6.2.4 Air quality - The emissions from the Site are controlled under the EP. The Site is not permitted to accept waste with a total organic carbon content (TOC) greater than 6% therefore, there is minimal potential for the deposited waste to generate landfill gas or other vapours. The limit on TOC in hazardous waste was imposed in the UK in 2004 so there are two phases at the Site where waste with higher concentrations of organic carbon were deposited (areas of Phases 1 and 2). The gas generated in these phases is collected and combusted in a

flare stack, which is controlled through the EP. Gas emissions from all other phases of the landfill are monitored regularly but volumes are so low there is insufficient to warrant connection to the active gas collection system. All new phases of the landfill in the proposed extension will be subject to the restriction on TOC content and therefore, substantial volumes of gas are highly unlikely to be generated. The quantity of gas generated in Phases 1 and 2 already is declining and this decline will continue.

6.2.5 The monitoring in external gas monitoring boreholes and of emissions at the surface of the landfill site includes methane, hydrogen sulphide, oxides of nitrogen, carbon dioxide, carbon monoxide and volatile organic compounds based on schemes prepared in accordance with the EP. The concentrations of the parameters that are monitored are compared with emission or compliance limits and assessment limits, which are specified by the Environment Agency and are protective of human health and the environment. The emissions from the site have no discernible impact on local air quality. The proposed development will not result in an NO_x emission that could impact on the national network sites being assessed. Air quality data for the site area from the UK Air Quality Archive show the air quality at the site location for $PM_{2.5}$, PM_{10}, NO_2 and NO_x is better than the national air quality objective annual mean concentrations. It is considered likely that the proposed development will continue to have a negligible impact on air quality in the locality and therefore, a negligible impact on air quality at the national network sites being assessed even without the control measures proposed as an intrinsic part of the Environmental Permits.

6.2.6 Traffic impact assessment on air quality - The potential impacts on air quality associated with the increase in traffic as a result of the proposed development have been assessed. As a result of the proposed development, it is anticipated that there will be an increase of 36 HGV movements per day. Under the IAQM/EPUK guidance 'Land-Use Planning & Development Control: Planning For Air Quality', a traffic air quality assessment is necessary only if there is a change of HGV flows of more than 100 Annual Average Daily Traffic. As the change in HGV movements is well below this threshold, it is considered likely that there will be no significant impact on air quality as a result of the traffic associated with the proposed development.

7 IN-COMBINATION EFFECTS

7.1 The local authorities (Northamptonshire County Council and East Northants District Council, which have now been replaced by North Northamptonshire Council) were consulted with respect to projects to be included in the cumulative impact assessments. Northamptonshire County Council confirmed that the developments that should be included are Collyweston Quarry, Wakerley Quarry, Cooks Hole Quarry and Thornhaugh Quarry. East Northants District Council did not identify any relevant additional developments. The operations at the sites identified above are relatively close to the proposed development and all are operating in combination with the existing site currently. It is considered likely that due to the consistency of the proposed operations, compared with the current consented activities and the distance of all these nearby activities from the national sites, there will not be any in-combination LSE on the habitats or species at the national sites.

7.2 It should be noted that Rutland Water SPA and Ramsar site and Barnack Hills and Holes SAC were screened out of further assessment in the HRA for the North Northamptonshire Core Strategy[8] and the East Northamptonshire Local Plan Habitats Regulations Assessment[9]. The only site considered in the Northamptonshire County Council HRA is Nene Valley SPA[10].

8 POTENTIAL FOR OTHER CONSENTS REQUIRED

8.1 As stated in Section 5, it will be necessary for the existing EPs for the Site to be extended to cover the proposed development. The controls implemented through the EPs will continue to be in place during the operation of the proposed

[8]North Northamptonshire Joint Planning and Delivery Unit (2015) North Northamptonshire Joint Core Strategy Habitats Regulations Assessment http://www.nnjpdu.org.uk/site/assets/files/1204/appendix_2_screened_out_european_site_details.pdf

[9]AECOM (2020) East Northamptonshire Local Plan Habitats Regulations Assessment https://www.east-northamptonshire.gov.uk/downloads/file/12094/habitat_regulations_assessment_report

[10]Northamptonshire County Council (2007) Habitats Regulations Assessment Screening Report

development and beyond. Notwithstanding this, for the purposes of the assessment of the impacts of the proposed development on the selected National Network Sites it is concluded that there will be no significant effects as a result of limitations on sources of contaminants, distance to the receptors and/or the presence of pathways even without the presence of the controls imposed by the proposed Environmental Permits.

9 CONCLUSIONS

9.1 Having regard to all the above investigations and results, it is concluded that there will be no significant effects on either of the national sites selected as potentially affected.

9.2 The draft Habitats Regulations screening assessment has been reviewed by Natural England (Appendix 4) and in their letter dated 20 July 2021, they have stated that:

'Natural England… agrees with the conclusion of no likely significant effects to Rutland Water Special Protected Area (SPA) and Ramsar site, Barnack Hills and Holes Special Area of Conservation (SAC) and Upper Nene Valley Gravel Pits SPA and Ramsar site'.

REFERENCES

www.apis.ac.uk

Chapman, C. & Tyldesley, D. 2016. Functional linkage: How areas that are functionally linked to European sites have been considered when they may be affected by plans and projects - a review of authoritative decisions. Natural England Commissioned Reports, Number207

JNCC, 2008. Information sheet on Ramsar Wetlands, Rutland Water UK11062

https://magic.defra.gov.uk/

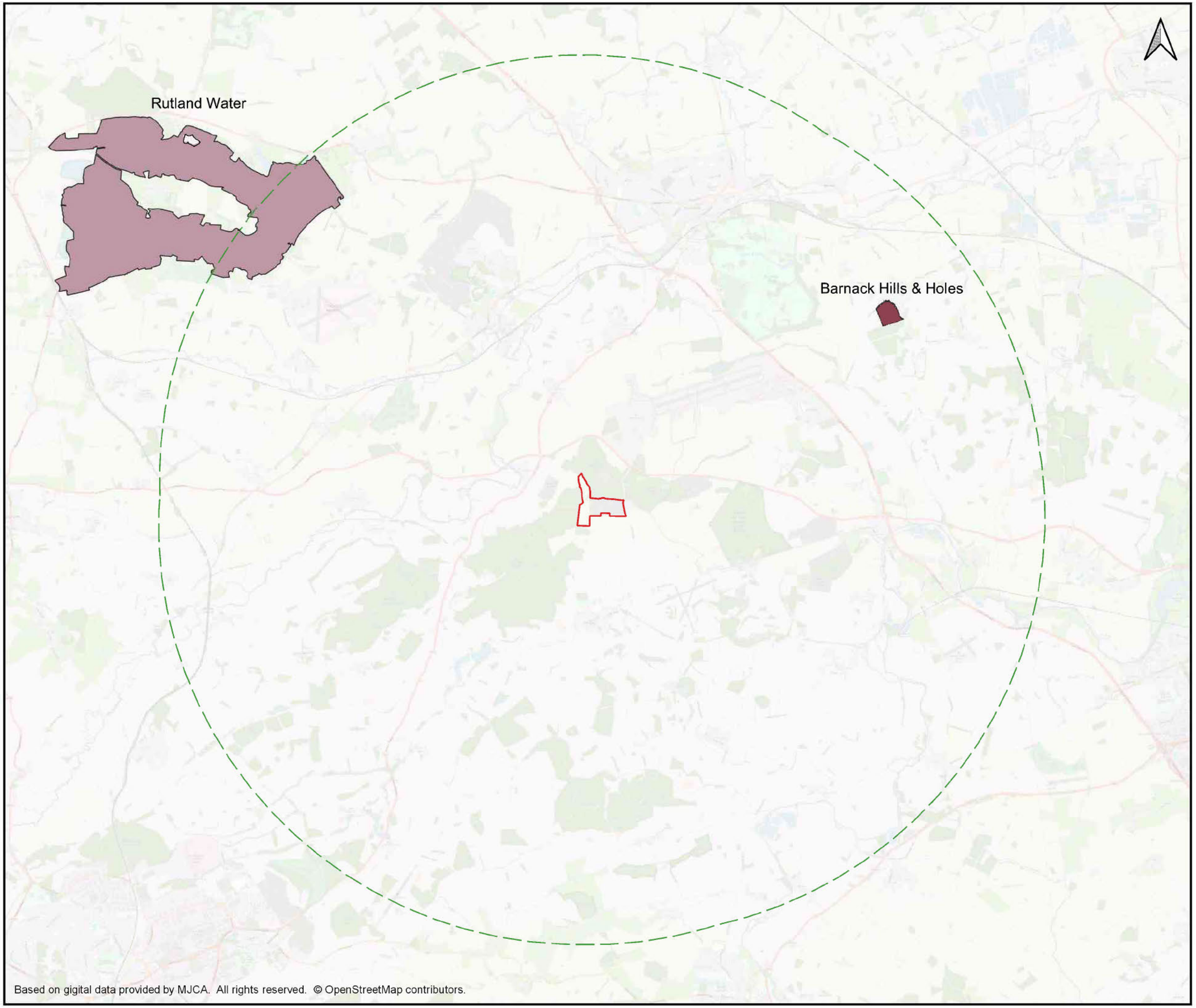
Natural England 2018. European Site Conservation Objectives: supplementary advice on conserving and restoring site features Rutland Water Special Protection Area (SPA) Site code: UK9008051

English Nature 2019. European Site Conservation Objectives: supplementary advice on conserving and restoring site features Barnack Hills and Holes Special Area of Conservation (SAC) Site code: UK0030031

The Planning Inspectorate, 2017. Advice Note 10 Habitat Regulations Assessment

KEY

- Special Areas of Conservation England
- Special Protection Areas England
- 10km radius



SITE NAME:
ENRMF Western Extension.

DRAWING TITLE:
Location of National Sites.

Figure 1
Dwg no.: MJCA118-L049-031 Date: Jun 2021

(Ecological Services) Limited

APPENDIX 1

STANDARD DATA FORM FOR BARNACK HILLS AND HOLES SAC

NATURA 2000 – STANDARD DATA FORM

Special Areas of Conservation under the EC Habitats Directive (includes candidate SACs, Sites of Community Importance and designated SACs).

Each Natura 2000 site in the United Kingdom has its own Standard Data Form containing site-specific information. The data form for this site has been generated from the Natura 2000 Database submitted to the European Commission on the following date:

22/12/2015

The information provided here, follows the officially agreed site information format for Natura 2000 sites, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

The Standard Data Forms are generated automatically for all of the UK's Natura 2000 sites using the European Environment Agency's Natura 2000 software. The structure and format of these forms is exactly as produced by the EEA's Natura 2000 software (except for the addition of this coversheet and the end notes). The content matches exactly the data submitted to the European Commission.

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

Further technical documentation may be found here
http://bd.eionet.europa.eu/activities/Natura_2000/reference_portal

As part of the December 2015 submission, several sections of the UK's previously published Standard Data Forms have been updated. For details of the approach taken by the UK in this submission please refer to the following document:
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

More general information on Special Areas of Conservation (SACs) in the United Kingdom is available from the SAC home page on the JNCC website. This webpage also provides links to Standard Data Forms for all SACs in the UK.

Date form generated by the Joint Nature Conservation Committee
25 January 2016.

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE	**UK0030031**
SITENAME	**Barnack Hills and Holes**

TABLE OF CONTENTS

1. SITE IDENTIFICATION

Back to top

1.1 Type	1.2 Site code
B	UK0030031

1.3 Site name

Barnack Hills and Holes

1.4 First Compilation date	1.5 Update date
1998-03	2015-12

1.6 Respondent:

Name/Organisation: Joint Nature Conservation Committee

Address: Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY

Email:

Date site proposed as SCI:	1998-03
Date site confirmed as SCI:	2004-12
Date site designated as SAC:	2005-04
National legal reference of SAC designation:	Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010 (http://www.legislation.gov.uk/uksi/2010/490/contents/made).

2. SITE LOCATION

Back to top

2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
-0.411388889	52.62777778

2.2 Area [ha]:

23.54

2.3 Marine area [%]

0.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH1	East Anglia

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

Back to top

3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A|B|C|D	A|B|C		
						Representativity	Relative Surface	Conservation	Global
6210	X		13.41		G	A	C	A	A

- **PF:** for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
- **NP:** in case that a habitat type no longer exists in the site enter: x (optional)
- **Cover:** decimal values can be entered
- **Caves:** for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N08	15.0

N09	79.5
N16	5.5
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: limestone,basic 2 Terrestrial: Geomorphology and landscape: lowland

4.2 Quality and importance

Semi-natural dry grasslands and scrubland facies: on calcareous substrates (Festuco-Brometalia) for which this is considered to be one of the best areas in the United Kingdom. which is considered to be the priority sub-type: ?important orchid sites?.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	H04		B
H	M02		B
H	G01		I

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	A02		I
H	A04		I
H	D05		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

http://publications naturalengland org uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324

5. SITE PROTECTION STATUS (optional)

Back to top

5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK01	100.0	UK04	100.0		

6. SITE MANAGEMENT

Back to top

6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	

Email:

6.2 Management Plan(s):

An actual management plan does exist:

X	Yes	Name: Barnack Hills and Holes: The Barnack Hills and Holes National Nature Reserve (NNR) Management Plan provides management infomation related to this site. This is available from Natural England. Link:
	No, but in preparation	
	No	

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE NATURA 2000 STANDARD DATA FORMS

The codes in the table below are also explained in the official European Union guidelines for the Standard Data Form. The relevant page is shown in the table below.

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	Designated Special Protection Area	53
B	SAC (includes candidates Special Areas of Conservation, Sites of Community Importance and designated SAC)	53
C	SAC area the same as SPA. Note in the UK Natura 2000 submission this is only used for Gibraltar	53

3.1 Habitat representativity

CODE	DESCRIPTION	PAGE NO
A	Excellent	57
B	Good	57
C	Significant	57
D	Non-significant presence	57

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha□ rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	15%-100%	58
B	2%-15%	58
C	< 2%	58

3.1 Conservation status habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global grade habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	15%-100%	62
B	2%-15%	62
C	< 2%	62
D	Non-significant population	62

3.2 Conservation status species (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' Or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Assemblages types

CODE	DESCRIPTION	PAGE NO
WATR	Non breeding waterfowl assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code
BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK02	Marine Nature Reserve	67
UK04	Site of Special Scientific Interest (UK)	67

APPENDIX 2

STANDARD DATA FORM FOR RUTLAND WATER SPA

NATURA 2000 – STANDARD DATA FORM

Special Protection Areas under the EC Birds Directive.

Each Natura 2000 site in the United Kingdom has its own Standard Data Form containing site-specific information. The data form for this site has been generated from the Natura 2000 Database submitted to the European Commission on the following date:

22/12/2015

The information provided here, follows the officially agreed site information format for Natura 2000 sites, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

The Standard Data Forms are generated automatically for all of the UK's Natura 2000 sites using the European Environment Agency's Natura 2000 software. The structure and format of these forms is exactly as produced by the EEA's Natura 2000 software (except for the addition of this coversheet and the end notes). The content matches exactly the data submitted to the European Commission.

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http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

More general information on Special Protection Areas (SPAs) in the United Kingdom is available from the SPA home page on the JNCC website. This webpage also provides links to Standard Data Forms for all SPAs in the UK.

Date form generated by the Joint Nature Conservation Committee
25 January 2016.

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE	**UK9008051**
SITENAME	**Rutland Water**

TABLE OF CONTENTS

1. SITE IDENTIFICATION

Back to top

1.1 Type	1.2 Site code
A	UK9008051

1.3 Site name

Rutland Water

1.4 First Compilation date	1.5 Update date
1991-10	2015-12

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	1991-10
National legal reference of SPA designation	Regulations 12A and 13-15 of the Conservation Habitats and Species Regulations 2010, (http://www.legislation.gov.uk/uksi/2010/490/contents/made) as amended by The Conservation of Habitats and Species (Amendment) Regulations 2011 (http://www.legislation.gov.uk/uksi/2011/625/contents/made).

2. SITE LOCATION

Back to top

2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
-0.665	52.64777778

2.2 Area [ha]:

1555.24

2.3 Marine area [%]

0.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKF2	Leicestershire, Rutland and Northamptonshire

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

Back to top

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A056	Anas clypeata			w	526	526	i		G	B		C	
B	A052	Anas crecca			w	1420	1420	i		G	C		C	
B	A050	Anas penelope			w	4236	4236	i		G	C		C	
B	A051	Anas strepera			w	1156	1156	i		G	B		C	
B	A061	Aythya fuligula			w	2289	2289	i		G	B		C	
B	A067	Bucephala clangula			w	399	399	i		G	B		C	
B	A036	Cygnus olor			w	285	285	i		G	C		C	
B	A125	Fulica atra			w	3962	3962	i		G	B		C	
B	A070	Mergus merganser			w	48	48	i		G	C		C	
B	A005	Podiceps cristatus			w	762	762	i		G	B		C	

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

3.3 Other important species of flora and fauna (optional)

Species					Population in the site				Motivation					
Group	CODE	Scientific Name	S	NP	Size		Unit	Cat.	Species Annex		Other categories			
					Min	Max		C|R|V|P	IV	V	A	B	C	D
B	WATR	Waterfowl assemblage			25037	25037	i						X	

- **Group:** A = Amphibians, B = Birds, F = Fish, Fu = Fungi, I = Invertebrates, L = Lichens, M = Mammals, P = Plants, R = Reptiles
- **CODE:** for Birds, Annex IV and V species the code as provided in the reference portal should be used in addition to the scientific name
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Unit:** i = individuals, p = pairs or other units according to the standard list of population units and codes in accordance with Article 12 and 17 reporting, (see reference portal)
- **Cat.:** Abundance categories: C = common, R = rare, V = very rare, P = present
- **Motivation categories: IV, V:** Annex Species (Habitats Directive), **A:** National Red List data; **B:** Endemics; **C:** International Conventions; **D:** other reasons

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N06	80.0
N19	10.0
N07	0.1
N09	9.9
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: neutral,clay,nutrient-rich,sedimentary,mud 2 Terrestrial: Geomorphology and landscape: lowland,valley

4.2 Quality and importance

ARTICLE 4.2 QUALIFICATION (79/409/EEC) Over winter the area regularly supports: Anas clypeata (North-western/Central Europe) 1.3% of the population 5 year peak mean 1991/92-1995/96 Anas crecca (North-western Europe) 1% of the population in Great Britain 5 year peak mean 1991/92-1995/96 Anas penelope (Western Siberia/North-western/North-eastern Europe) 1.5% of the population in Great Britain 5 year peak mean 1991/92-1995/96 Anas strepera (North-western Europe) 3.9% of the population 5 year peak mean 1991/92-1995/96 Aythya fuligula (North-western Europe) 3.8% of the population in Great Britain 5 year peak mean 1991/92-1995/96 Bucephala clangula (North-western/Central Europe) 2.3% of the population in Great Britain 5 year peak mean 1991/92-1995/96 Cygnus olor (Britain) 1.1% of the population in Great Britain 5 year peak mean 1991/92-1995/96 Fulica atra (North-western Europe - wintering) 3.5% of the population in Great Britain 5 year peak mean 1991/92-1995/96 Mergus merganser (North-western/Central Europe) 0.5% of the population in Great Britain 5 year peak mean 1991/92-1995/96 Podiceps cristatus (North-western Europe - wintering) 7.8% of the population in Great Britain 5 year peak mean 1991/92-1995/96 ARTICLE 4.2 QUALIFICATION (79/409/EEC): AN INTERNATIONALLY IMPORTANT ASSEMBLAGE OF BIRDS Over winter the area regularly supports: 25037 waterfowl (5 year peak mean 1991/92-1995/96) Including: Podiceps cristatus , Anas penelope , Anas strepera , Anas crecca , Anas clypeata , Aythya fuligula , Bucephala clangula , Mergus merganser , Fulica atra

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	J02		B
H	H02		B
H	G05		I
H	I01		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	A02		I
H	A03		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

http://publications.naturalengland.org.uk/category/6490068894089216

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0				

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

☐	Yes
☐	No, but in preparation
☒	No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE NATURA 2000 STANDARD DATA FORMS

The codes in the table below are also explained in the official European Union guidelines for the Standard Data Form. The relevant page is shown in the table below.

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	Designated Special Protection Area	53
B	SAC (includes candidates Special Areas of Conservation, Sites of Community Importance and designated SAC)	53
C	SAC area the same as SPA. Note in the UK Natura 2000 submission this is only used for Gibraltar	53

3.1 Habitat representativity

CODE	DESCRIPTION	PAGE NO
A	Excellent	57
B	Good	57
C	Significant	57
D	Non-significant presence	57

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha□ rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	15%-100%	58
B	2%-15%	58
C	< 2%	58

3.1 Conservation status habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global grade habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	15%-100%	62
B	2%-15%	62
C	< 2%	62
D	Non-significant population	62

3.2 Conservation status species (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' Or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Assemblages types

CODE	DESCRIPTION	PAGE NO
WATR	Non breeding waterfowl assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code
BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK02	Marine Nature Reserve	67
UK04	Site of Special Scientific Interest (UK)	67

APPENDIX 3

INFORMATION SHEET FOR RUTLAND WATER RAMSAR WETLAND

Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX. 22 of the 9th Conference of the Contracting Parties (2005).

Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.

2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.

3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

1. Name and address of the compiler of this form:

FOR OFFICE USE ONLY.

DD MM YY

Designation date | Site Reference Number

Joint Nature Conservation Committee
Monkstone House
City Road
Peterborough
Cambridgeshire PE1 1JY
UK
Telephone/Fax: +44 (0)1733 – 562 626 / +44 (0)1733 – 555 948
Email: RIS@JNCC.gov.uk

2. Date this sheet was completed/updated:

Designated: 04 October 1991

3. Country:

UK (England)

4. Name of the Ramsar site:

Rutland Water

5. Designation of new Ramsar site or update of existing site:

This RIS is for: Updated information on an existing Ramsar site

6. For RIS updates only, changes to the site since its designation or earlier update:

a) Site boundary and area:

** Important note: If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

7. Map of site included:

Refer to Annex III of the *Explanatory Notes and Guidelines*, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:

i) **hard copy** (required for inclusion of site in the Ramsar List): *yes* ✓ -or- *no* □;
ii**) an electronic format** (e.g. a JPEG or ArcView image) Yes
iii) **a GIS file providing geo-referenced site boundary vectors and attribute tables** *yes* ✓ -or- *no* □;

b) Describe briefly the type of boundary delineation applied:

e.g. the boundary is the same as an existing protected area (nature reserve, national park etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

The site boundary is the same as, or falls within, an existing protected area.

For precise boundary details, please refer to paper map provided at designation

8. Geographical coordinates (latitude/longitude):

52 38 52 N 00 39 54 W

9. General location:

Include in which part of the country and which large administrative region(s), and the location of the nearest large town.

Nearest town/city: Peterborough

Rutland Water lies 30 km east of Leicester.

Administrative region: Leicestershire; Rutland

10. Elevation (average and/or max. & min.) (metres): 11. Area (hectares): 1360.34

Min. 80
Max. 85
Mean 83

12. General overview of the site:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

Rutland Water is a large eutrophic man-made pump storage reservoir created by the damming of the Gwash Valley in 1975. The reservoir is in a lowland setting receiving the majority of its water from the Nene (90%) and Welland (10%). In general the reservoir is drawn down in the summer and filled during the autumn and winter months when river levels are high.

The lagoons are one of the most important areas for wintering and breeding wildfowl. The reservoir regularly supports internationally important numbers of gadwall and shoveler and nationally important numbers of eight other species of wildfowl.

13. Ramsar Criteria:

Circle or underline each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11).

5, 6

14. Justification for the application of each Criterion listed in 13 above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

Ramsar criterion 5

Assemblages of international importance:

Species with peak counts in winter:
19274 waterfowl (5 year peak mean 1998/99-2002/2003)

Ramsar criterion 6 – species/populations occurring at levels of international importance.

Qualifying Species/populations (as identified at designation):

Species with peak counts in spring/autumn:

Gadwall , *Anas strepera strepera*, NW Europe	1014 individuals, representing an average of 1.6% of the population (5 year peak mean 1998/9-2002/3)
Northern shoveler , *Anas clypeata*, NW & C Europe	619 individuals, representing an average of 1.5% of the population (5 year peak mean 1998/9-2002/3)

Species/populations identified subsequent to designation for possible future consideration under criterion 6.

Species with peak counts in spring/autumn:

Mute swan , *Cygnus olor*, Britain	563 individuals, representing an average of 1.5% of the population (5 year peak mean 1998/9-2002/3)

Contemporary data and information on waterbird trends at this site and their regional (sub-national) and national contexts can be found in the Wetland Bird Survey report, which is updated annually. See www.bto.org/survey/webs/webs-alerts-index.htm.
Details of bird species occuring at levels of National importance are given in Section 22

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15. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) biogeographic region:
Atlantic

b) biogeographic regionalisation scheme (include reference citation):
Council Directive 92/43/EEC

---

16. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

Soil & geology	neutral, clay, sedimentary
Geomorphology and landscape	lowland, valley
Nutrient status	eutrophic
pH	circumneutral
Salinity	fresh
Soil	mainly organic
Water permanence	usually permanent

Summary of main climatic features	Annual averages (Sutton Bonnington, 1971–2000) (www.metoffice.com/climate/uk/averages/19712000/sites/sutton_bonnington.html) Max. daily temp.: 13.5° C Min. daily temp.: 5.8° C Days of air frost: 47.9 Rainfall: 606.2 mm Hrs. sunshine: 1388.0

General description of the Physical Features:

Rutland Water is a man-made pump storage reservoir and is the largest reservoir in the UK. In general the reservoir is drawn down in the summer and filled during the autumn and winter months when river levels are high. The main habitats are open water and a mosaic of lagoons, reedswamp, marsh, old meadows, scrub and woodland.

17. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, general land use, and climate (including climate type).

Rutland Water is a man-made pump storage reservoir and is the largest reservoir in the UK. In general the reservoir is drawn down in the summer and filled during the autumn and winter months when river levels are high.

18. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

Water supply

19. Wetland types:

Human-made wetland, Inland wetland

Code	Name	% Area
6	Reservoirs / barrages / dams	91.9
Other	Other	8.1

20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

The main habitat is the open water of the main body of the reservoir. This is deep water with some macrophyte growth down to 3 metres (average depth 14 m, maximum depth 34 m).

The western end of the reservoir contains three bunded areas with their own water supply. These are managed by manipulating the water level to produce seasonal inundation and conditions for breeding wildfowl. They include several small artificial islands and a 2 ha reedbed. The rest of the site is made up of adjacent woodland and grazed grasslands that are used by wintering wigeon and swans and provide a buffer from activities adjacent to the site.

Ecosystem services

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in **12**. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

None reported

22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in **12**. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Birds

Species currently occurring at levels of national importance:

Species with peak counts in spring/autumn:

Little grebe , *Tachybaptus ruficollis ruficollis*, Europe to E Urals, NW Africa	84 individuals, representing an average of 1% of the GB population (5 year peak mean 1998/9-2002/3)
Great crested grebe , *Podiceps cristatus cristatus*, NW Europe	755 individuals, representing an average of 4.7% of the GB population (5 year peak mean 1998/9-2002/3)
Great cormorant , *Phalacrocorax carbo carbo*, NW Europe	431 individuals, representing an average of 1.8% of the GB population (5 year peak mean 1998/9-2002/3)
Tufted duck , *Aythya fuligula*, NW Europe	4788 individuals, representing an average of 5.3% of the GB population (5 year peak mean 1998/9-2002/3)
Common coot , *Fulica atra atra*, NW Europe	3573 individuals, representing an average of 2% of the GB population (5 year peak mean 1998/9-2002/3)
Ruff , *Philomachus pugnax*, Europe/W Africa	48 individuals, representing an average of 6.8% of the GB population (5 year peak mean 1998/9-2002/3)
Spotted redshank , *Tringa erythropus*, Europe/W Africa	2 individuals, representing an average of 1.4% of the GB population (5 year peak mean 1998/9-2002/3)
Common greenshank , *Tringa nebularia*, Europe/W Africa	13 individuals, representing an average of 2.1% of the GB population (5 year peak mean 1998/9-2002/3)
Lesser black-backed gull , *Larus fuscus graellsii*,	1480 individuals, representing an average of 2.4% of the GB population (5 year peak mean 1998/9-2002/3)

Species with peak counts in winter:

Common goldeneye , *Bucephala clangula clangula*, NW & C Europe	390 individuals, representing an average of 1.5% of the GB population (5 year peak mean 1998/9-2002/3)
Smew , *Mergellus albellus*, NW & C Europe	11 individuals, representing an average of 2.9% of the GB population (5 year peak mean 1998/9-2002/3)
Water rail , *Rallus aquaticus*, Europe	9 individuals, representing an average of 2% of the GB population (5 year peak mean 1998/9-2002/3)

Species Information

None reported

23. Social and cultural values:

Describe if the site has any general social and/or cultural values e.g. fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values.

Environmental education/ interpretation
Livestock grazing
Non-consumptive recreation
Scientific research
Sport fishing
Tourism

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning? No

If Yes, describe this importance under one or more of the following categories:

i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:

ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:

iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:

iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

24. Land tenure/ownership:

Ownership category	On-site	Off-site
Non-governmental organisation (NGO)	+	+
Private	+	+
Public/communal	+	+
Other		+

25. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	+
Tourism	+	+
Recreation	+	+
Current scientific research	+	
Commercial forestry		+
Cutting of vegetation (small-scale/subsistence)	+	
Fishing: recreational/sport	+	
Permanent arable agriculture		+
Rough or shifting grazing	+	+
Hay meadows		+
Sewage treatment/disposal		+

Transport route		+
Domestic water supply	+	
Urban development		+

26. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

Explanation of reporting category:

1. *Those factors that are still operating, but it is unclear if they are under control, as there is a lag in showing the management or regulatory regime to be successful.*
2. *Those factors that are not currently being managed, or where the regulatory regime appears to have been ineffective so far.*

NA = Not Applicable because no factors have been reported.

Adverse Factor Category	Reporting Category	Description of the problem (Newly reported Factors only)	On-Site	Off-Site	Major Impact?
No factors reported	NA				

For category 2 factors only. What measures have been taken / are planned / regulatory processes invoked, to mitigate the effect of these factors?
Is the site subject to adverse ecological change? NO

27. Conservation measures taken:

List national category and legal status of protected areas, including boundary relationships with the Ramsar site; management practices; whether an officially approved management plan exists and whether it is being implemented.

Conservation measure	On-site	Off-site
Site/ Area of Special Scientific Interest (SSSI/ASSI)	+	+
Special Protection Area (SPA)	+	
Land owned by a non-governmental organisation for nature conservation	+	
Site management statement/plan implemented	+	
Other	+	

b) Describe any other current management practices:

The management of Ramsar sites in the UK is determined by either a formal management plan or through other management planning processes, and is overseen by the relevant statutory conservation agency. Details of the precise management practises are given in these documents.

28. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

No information available

29. Current scientific research and facilities:

e.g. details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

Contemporary.

Numbers of migratory and wintering wildfowl and waders are monitored annually as part of the national Wetland Birds Survey (WeBS) organised by the British Trust for Ornithology, Wildfowl & Wetlands Trust, the Royal Society for the Protection of Birds and the Joint Nature Conservation Committee.

Constant effort bird ringing site.

Annual report on breeding birds including work on the important Trees Sparrow population.

Work on the ecology of Inland cormorant populations and their impact on commercial fisheries (sponsored by MAFF and EA) carried out by Wildfowl and Wetlands Trust.

Osprey reintroduction programme for England is being carried out.

Environment.

Work being undertaken by English Nature, Environment Agency and Anglian Water services on the phosphate problems at the reservoir.

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

e.g. visitor centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

The site has three wardens and a dedicated education officer who works specifically with school groups. The Anglian Birdwatching Centre is used for training events in conservation management techniques, wildlife appreciation and related topics. A full range of courses and guided walks are provided and the visitor centre is staffed seven days a week while. A second centre is open daily in the summer and at weekends in the winter. Most of the reserve has full disabled access. Both of the visitor centres have a wide range of interpretation facilities including CCTV used for videoing the osprey work and watching birds nesting in nest boxes.

31. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

Activities, Facilities provided and Seasonality.

Land based Recreation:

Walking and cycling mainly in the summer but increasing in the winter. Bird watching within the reserve although this has little impact because of the way it is managed.

Visitor facilities such as visitor centres, car parks, Tropical house and others attract visitors to the land adjacent to the reservoir.

Water based recreation:

Fishing (April to November) both from the bank and from boat. Sailing (all year, but not as frequent in the winter), windsurfing (all year), canoeing (all year mainly summer).

32. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept. of Agriculture/Dept. of Environment, etc.

Head, Natura 2000 and Ramsar Team, Department for Environment, Food and Rural Affairs, European Wildlife Division, Zone 1/07, Temple Quay House, 2 The Square, Temple Quay, Bristol, BS1 6EB

33. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Site Designations Manager, English Nature, Sites and Surveillance Team, Northminster House, Northminster Road, Peterborough, PE1 1UA, UK

34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see **15** above), list full reference citation for the scheme.

Site-relevant references

**** (1996) *Water, birds and recreation. Rutland Water, a case study: integrating conservation and recreation.* British Ornithologists' Union/ Wildfowl and Wetlands Trust conference

**** *Rutland Water annual bird reports*. ****

Andrews, J (1992) *Birds of Anglian Water reservoirs*. Anglian Water, Huntingdon

Anglian Water (n.d. [~1998]) *The return of the osprey. The story of reintroducing a much missed bird of prey.* Anglian Water Services, Environmental Affairs Team, [Huntingdon]

Appleton, TP (1992) Rutland Water Nature Reserve: concept, design and management. In: Harper, D ****

Appleton, TP (2003) Rutland Water Nature Reserve Management Plan revision. Leicestershire and Rutland Wildlife Trust, Leicester

Appleton, TP, Bolt, SRL & Dixon, H (1996) Return of the osprey *Pandion haliaetus*: translocation of osprey chicks to Rutland Water, Leicestershire, England. In: *Reintroduction of wild species. Proceedings of the 27th Eurosite European Workshop*. Eurosite

Appleton, TP, Bolt, SRL & Dixon, H (1997) Translocation of osprey chicks to Rutland Water. *The Raptor*, **24**, 12-15

Ford, A (1992) Perimeter forestry and landscape works at Rutland Water *Hydrobiologia*, **88**(1/2), 211-224

Stroud, DA, Chambers, D, Cook, S, Buxton, N, Fraser, B, Clement, P, Lewis, P, McLean, I, Baker, H & Whitehead, S (eds.) (2001) *The UK SPA network: its scope and content*. Joint Nature Conservation Committee, Peterborough (3 vols.) www.jncc.gov.uk/UKSPA/default htm

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Please return to: **Ramsar Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland**
Telephone**: +41 22 999 0170** • Fax: **+41 22 999 0169** • email: **ramsar@ramsar.org**

APPENDIX 4

NATURAL ENGLAND LETTER ACCEPTING THE CONCLUSIONS

Date: 20 July 2021
Our ref: UDS 6658/Consultation 360181
Your ref:

PINS ref: WS010005

Customer Services
Hornbeam House
Crewe Business Park
Electra Way
Crewe
Cheshire
CW1 6GJ

0300 060 3900

BY EMAIL ONLY

[redacted]

Dear [redacted]

Discretionary Advice Service (Charged Advice)
Augean Plc.
Development proposal and location: Proposed East Northants Resource Management Facility Western Extension (the Proposed Development), Kings Cliffe, Northamptonshire**.**

Thank you for your consultation on the above dated 08 July 2021.

This advice is being provided as part of Natural England's Discretionary Advice Service. Augean plc has asked Natural England to provide advice on:

- Draft Habitat Regulations Assessment (HRA) Documents Version 2

This advice is provided in accordance with the Undefined DAS Agreement dated 6th April 2020, Undefined Das Agreement 15154.

The following advice is based upon the information within:

- 031 – Fig1.jpg
- No Significant Effect Report and Screening Stage of Habitat Regulations Assessment for East Northants Resource Management Facility and Western Extension Draft V3 (MJCA)alg.pdf
- Rutland Water UK9008051.pdf
- Rutland Water Ramsar Site UK11062.pdf
- Barnack Hills and Holes SAC UK0030031.pdf

Natural England welcomes the redrafting of the HRA that was presented for review within DAS consultation 353436, dated 2nd June 2021.

Natural England has reviewed the document titled *"No Significant Effect Report and Screening Stage of Habitat Regulations Assessment for East Northants Resource Management Facility and Western Extension"* and agrees with the conclusion of no likely significant effects to Rutland Water Special Protected Area, (SPA) and Ramsar site, Barnack Hills and Holes Special Area of Conservation (SAC) and Upper Nene Valley Gravel Pits SPA and Ramsar site.

The Planning Inspectorate's National Infrastructure Directorate (NID), is the Examining Authority and is responsible for testing and assessing all evidence and information presented. Natural England reserve the right to make our own comments to National Infrastructure Director.

For clarification of any points in this letter, please contact Joanna Gamble on 02082 258153.

This letter concludes Natural England's Advice for Undefined DAS consultation 360181 dated 20th July 2021as part of Undefined DAS contract 6658 within the Quotation and Agreement dated 6th April 2020.

☒ The advice provided in this letter has been through Natural England's Quality Assurance process

The advice provided within the Discretionary Advice Service is the professional advice of the Natural England adviser named below. It is the best advice that can be given based on the information provided so far. Its quality and detail is dependent upon the quality and depth of the information which has been provided. It does not constitute a statutory response or decision, which will be made by Natural England acting corporately in its role as statutory consultee to the competent authority after an application has been submitted. The advice given is therefore not binding in any way and is provided without prejudice to the consideration of any statutory consultation response or decision which may be made by Natural England in due course. The final judgement on any proposals by Natural England is reserved until an application is made and will be made on the information then available, including any modifications to the proposal made after receipt of discretionary advice. All pre-application advice is subject to review and revision in the light of changes in relevant considerations, including changes in relation to the facts, scientific knowledge/evidence, policy, guidance or law. Natural England will not accept any liability for the accuracy, adequacy or completeness of, nor will any express or implied warranty be given for, the advice. This exclusion does not extend to any fraudulent misrepresentation made by or on behalf of Natural England.

Yours Sincerely

[redacted]
West Anglia Team

Cc [redacted]@naturalengland.org.uk