Department for
Business, Energy
& Industrial Strategy

Wheelabrator Kemsley (K3 Generating Station) and Wheelabrator Kemsley North (WKN) Waste to Energy Facility

Regulation 63 of the Conservation of Habitats and Species Regulations 2017

February 2021

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1 Introduction

Background

1.1 This is a record of the Habitats Regulations Assessment ("HRA") that the Secretary of State for Business, Energy and Industrial Strategy has undertaken under the Conservation of Habitats and Species Regulations 2017[1] ("the Habitats Regulations") in respect of the Development Consent Order ("DCO") for Wheelabrator Kemsley (K3 Generating Station) and Wheelabrator Kemsley North (WKN) Waste to Energy facility and its associated infrastructure (the "Project"). For the purposes of these Regulations the Secretary of State is the competent authority.

1.2 The Applicant, Wheelabrator Technologies Inc., is applying to increase the generating capacity of the constructed waste-to-energy facility Wheelabrator Kemsley Generating Station (K3) to 75 megawatts ("MW"). As part of the upgrade, the permissible waste throughput will be increased to 657,000 tonnes per annum. The application includes construction of a new waste-to-energy facility on land adjacent to K3, Wheelabrator Kemsley North (WKN), with a generating capacity of 42MW and capable of processing 390,000 tonnes of waste per annum. The electricity produced by WKN would be exported to the national grid. The grid connection would be via the existing substation located within the DS Smith paper mill site to the immediate west of the Project Site. The Project will comprise an upgrade to K3 and the construction of WKN. The Project application is described in more detail in Section 2.

1.3 Planning permission for K3 was granted in March 2012 under the Town and Country Planning Act 1990. The facility has been constructed and was commissioned with effect from 16 July 2020. As consented the facility currently has a generating output of 49.9MW and a permissible waste throughput of 550,000 tonnes. The upgrade to K3 will not comprise any change to the external layout or design.

1.4 The Project constitutes a nationally significant infrastructure project ("NSIP") as defined by section 14(1)(a) of the Planning Act 2008 as it is for an onshore generating station in England of over 50MW.

1.5 The Project was accepted by the Planning Inspectorate ("PINS") for examination on 8 October 2019 and a single appointed person was appointed as the Examining Authority ("ExA") for the application. The examination of the Project application began on 19 February 2020 and was completed on 19 August 2020. The ExA submitted its report of the examination, including its recommendation ("the ExA's Report"), to the Secretary of State on 19 November 2020.

Habitats Regulations Assessment

1.6 The Habitats Regulations aim to ensure the long-term conservation of certain species and habitats by protecting them from possible adverse effects of plans and projects. The Regulations cover England and Wales including their inshore waters up to 12 nautical miles ("nm").

1.7 The Habitats Regulations provide for the designation of sites for the protection of habitats and species of international importance. These sites are called Special Areas of Conservation ("SACs"). The Regulations also provide for the classification of sites for the protection of rare and vulnerable birds and for regularly occurring migratory species within the UK and internationally. These sites are called Special Protection Areas ("SPAs"). SACs and SPAs together form part of the UK's national site network.

[1] The Conservation of Habitats and Species Regulations 2017. SI 2017/1012.

1.8 The Convention on Wetlands of International Importance 1972 ("the Ramsar Convention") provides for the listing of wetlands of international importance. These sites are called Ramsar sites. Government policy is to afford Ramsar sites in the United Kingdom the same protection as sites within the national site network (collectively referred to in this HRA as "protected sites").

1.9 Regulation 63 of the Habitats Regulations provides that "….*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, [the competent authority] must make an appropriate assessment of the implications of the plan or project for that site in view of that site's conservation objectives*". It also provides that "*In the light of the conclusions of the assessment, and subject to regulation 64 [IROPI], the competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site or the European offshore marine site (as the case may be).*"

1.10 This application is not directly connected with, or necessary to, the management of a protected site. The Habitats Regulations require the Secretary of State to consider whether the project is likely to have a significant effect ("LSE") on any such site, alone or in-combination with other plans and projects. Where the potential for LSE cannot be excluded, an appropriate assessment ("AA") of the implications of the project for that site in view of its conservation objectives must be completed. In light of that, the Secretary of State must determine whether or not the project will have an adverse effect on the integrity ("AEoI") of the site(s). In this document, the first stage assessment as to whether there is LSE at a site and, where required, the second stage assessment ("the AA") to determine whether there is an AEoI of the site, are collectively referred to as the Habitats Regulations Assessment ("HRA"). The HRA refers only to sites within UK jurisdiction.

1.11 The Secretary of State's conclusions on habitats and wild bird issues contained in this report have been informed by evidence from the application and examination which are available on the Planning Inspectorate's National Infrastructure Project web pages[2]. Key information from these documents is summarised and referenced in this report[3]. In particular the:

- ExA Report [ExA]
- ExA Report on the Implications for European Sites ("RIES") [PD-018]
- Applicant's HRA Report [APP-044]
- Applicant's Environmental Statement ("ES") [APP-053 – APP69]
- Natural England's ("NE") Relevant Representation ("RR") [RR-006]
- NE's Written Representation ("WR") [REP1-015]
- Applicant's Statement of Common Ground ("SoCG") with NE ("NE SoCG") [March – REP1-004] and [June 2020 – REP5-008]
- Applicant's SoCG with the Marine Management Organisation ("MMO") ("MMO SoCG") [February 2020 – REP1-014]

[2] https://infrastructure.planninginspectorate.gov.uk/projects/south-east/wheelabrator-kemsley-generating-station-k3-and-wheelabrator-kemsley-north-wkn-waste-to-energy-facility/

[3] Individual document references to the Examination Library in this Report are enclosed in square brackets '[…]'. For this reason, this Report does not contain extensive summaries of all documents and representations, although the Secretary of State has given full regard to them and has considered all important and relevant matters arising from them.

2 Project description

Project Infrastructure

2.1 The Project comprises an upgrade to K3 waste-to-energy facility to increase generating capacity up to 75MW, and construction of WKN waste-to-energy facility with a generating capacity of up to 42MW. The Project is split into various ancillary works including the construction or alteration of private existing haul roads, creation of a temporary compound, and construction and operation of a new surface water outfall as detailed in the ES: Site Description and Proposed Development together with the Planning Statement, Works Plans and the submission version of the draft DCO ("dDCO"). The main plant items are as follows:

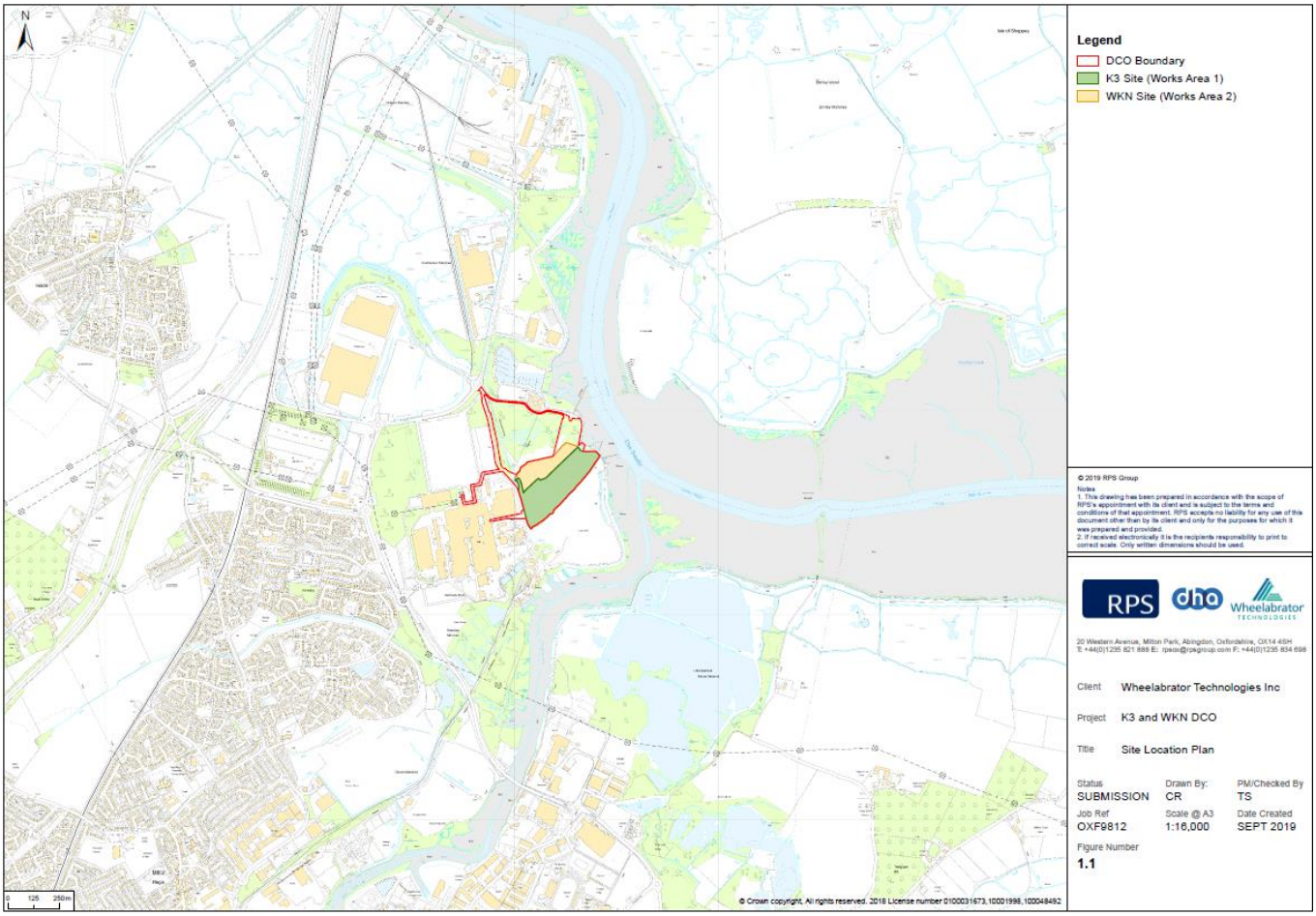
- Work No 1 – Construction and operation of an onshore generating station with a generating capacity of up to 75MW and permissible waste throughput of 657,000tpa (the K3 Proposed Development);
    - o 1A - Installation of grid connection for Work No 1;
    - o 1B- Installation of steam connection for Work No 1;
    - o 1C- Alteration of existing private access road to construct, use and maintain Work No 1;
    - o 1D- Creation of a temporary construction compound and laydown area for the construction of Work No 1;
    - o 1E- Construction and operation of a surface water outfall for Work No 1;
- Work No 2- Construction and operation of a waste-to-energy facility capable of processing 390,000 tonnes of waste per annum, with a generating capacity of up to 42MW (the WKN Proposed Development);
- Work No 3- Installation of a grid connection for Work No 2;
- Work No 4- Alteration of existing private access road to construct, use and maintain Work No 2;
- Work No 5- Temporary construction or alteration of existing private haul road for the construction of Work No 2;
- Work No 6- Creation of a temporary construction compound and laydown area for the construction of Work No 2; and
- Work No 7- Construction and operation of a new surface water outfall for Work No 2.

Project Location

2.2 The Project location and DCO boundary are shown in Figure 1. The Project is located near Kemsley in Kent adjacent to the Swale Estuary, with the Isle of Sheppy beyond, and is located within an existing industrial area (Figure 1).

2.3 The Project is located immediately to the east of the Kemsley Paper Mill and 0.8 kilometres ("km") east of Kemsley. To the south of the Project is a capped former landfill site which lies adjacent to the confluence between Milton Creek and the Swale Estuary. An area of reedbed known as Kemsley Marshes lies to the north, beyond which lies the Kemsley Paper Mill anaerobic digester treatment works and to the north east a jetty operated by Knauf for the import of gypsum by barge. Access to the Project is obtained from Barge Way to the north via an existing access road which forms the eastern boundary of the Kemsley Paper Mill and is shared with the mill operator DS Smith Ltd.

Figure 1: Project Location Plan

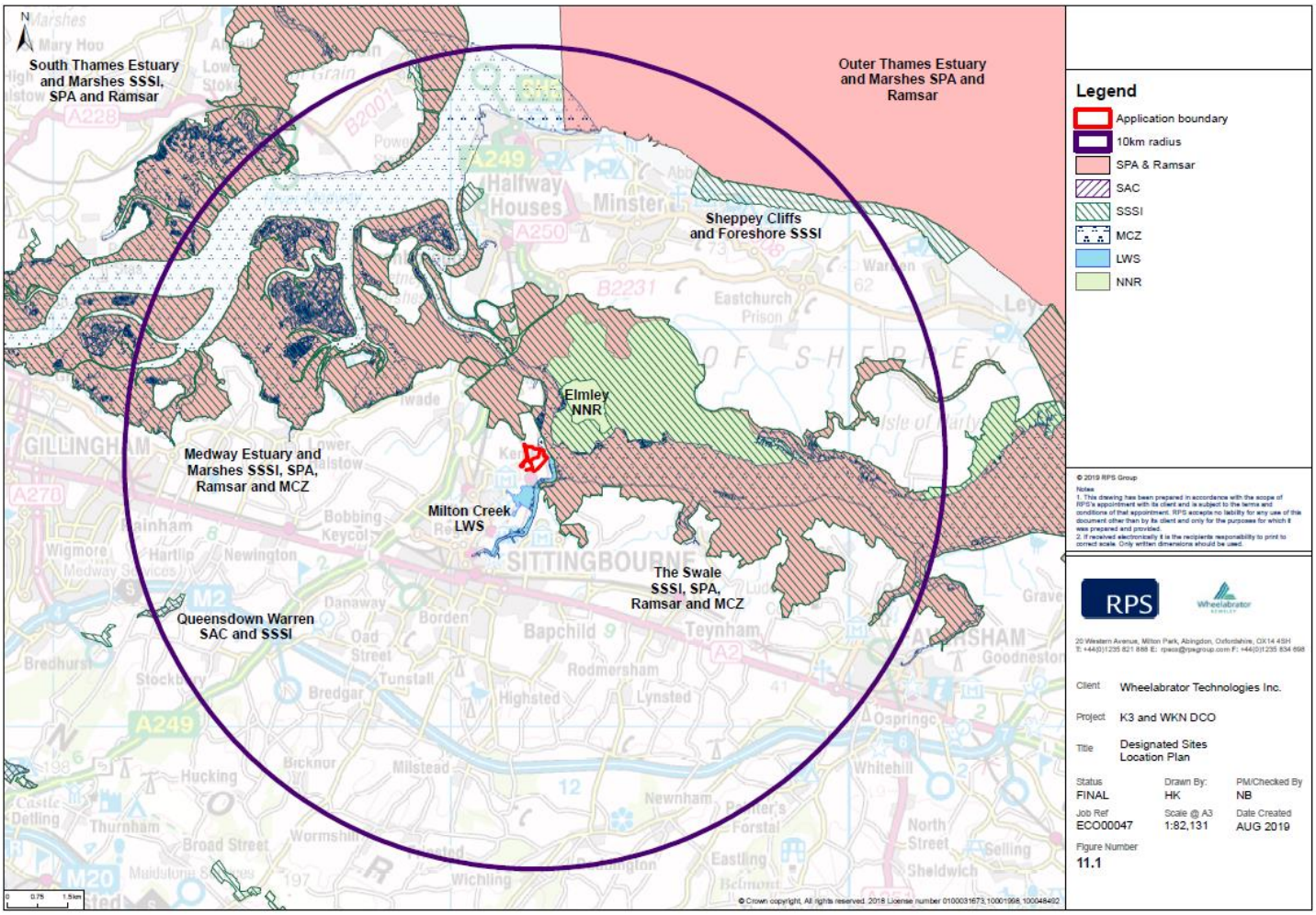


Designated Sites

2.4 The proposed Order Limits of the Project do not overlap with any protected site. The nearest designated sites are the Swale SPA, Ramsar site and Site of Special Scientific Interest ("SSSI") which are approximately 100m east of the development boundary at its closest point. The designated sites, sensitive areas and receptors in proximity to the Project are shown in

2.5 Figure 2.

Figure 2: Designated sites, sensitive sites and receptors within a 10km radius of the DCO boundary



3 RIES and Statutory Consultation

3.1 Under regulation 63(3) of the Habitats Regulations the competent authority must, for the purposes of an AA, consult the appropriate nature conservation body and have regard to any representation made by that body within such reasonable time as the authority specifies. NE is the Statutory Nature Conservation Body ("SNCB") for England and for English waters within the 12nm limit.

3.2 Where there are LSEs upon protected sites a RIES is provided by the ExA, with support from the Planning Inspectorate's Environmental Services Team. It is based on matrices provided by the Applicant and relevant information provided by Interested Parties ("IPs"). The RIES is designed to document the information received during the examination up until that point and presents the ExA's understanding of the main facts regarding the HRA to be carried out by the Secretary of State.

3.3 The RIES documented the information received during the examination (up until 15 July 2020) and was published on the PINS planning portal website. Consultation on the RIES was undertaken between 15 July and 5 August 2020. The RIES was issued to ensure that IPs, including NE, were consulted formally on habitat regulations matters, as required under regulation 63(3) of the Habitats Regulations. The consultation raised no new relevant or important issues or concerns. NE stated that the RIES reflected an accurate representation of their advice throughout the examination and the MMO stated that they agreed with NE's conclusion.

3.4 The Secretary of State is content to accept the ExA's recommendation that the RIES, and consultation on it, represents an appropriate body of information to enable the Secretary of State to fulfil his duties in respect of protected sites.

4 Likely Significant Effects Test

4.1 Under regulation 63 of the Habitats Regulations the, Secretary of State must consider whether a development will have an LSE on a protected site, either alone or in combination with other plans or projects. Where significant effects are likely and are not directly connected with or necessary to the management of that site, an AA is required of the implications of the plan or project for that site in view of its conservation objectives. The purpose of this section of the HRA is to identify any LSEs on protected sites that may result from the Project and to record the Secretary of State's conclusions on the need for an AA.

Protected Sites

4.2 The Applicant's DCO application concluded that there is the potential for LSEs from the Project on eight protected sites. Therefore, an HRA Report was provided with the application entitled 'Wheelabrator Kemsley Generating Station (K3) and Wheelabrator Kemsley North (WKN) Waste to Energy Facility DCO: Habitats Regulations Assessment Report', together with screening and integrity metrices.

4.3 The Applicant's HRA Report identified the following eight protected sites (and features) for inclusion within the assessment, as shown in Table 1.

Table 1: Sites Screened into the HRA Report by Applicant

Designated Site	Qualifying Feature/s
The Swale SPA	Dark-bellied Brent Goose *Branta bernicla*
	Dunlin *Calidris alpina*
	Overwintering assemblage of birds of international importance
	Diverse assemblage of breeding birds
The Swale Ramsar site	Nationally rare and scarce plant species
	British Red Data Book invertebrates
	Dark-bellied Brent Goose
	Grey Plover *Pluvialis squatarola*
	Redshank *Tringa totanus*
	Overwintering assemblage of birds of international importance
Medway Estuary and Marshes SPA	Avocet *Recurvirostra avosetta* (breeding and overwintering)
	Dark-bellied Brent Goose
	Dunlin
	Grey Plover
	Knot *Calidris canutus*
	Little Tern *Sternula albifrons*
	Pintail *Anas acuta*
	Redshank
	Ringed Plover *Charadrius hiaticula*
	Shelduck *Tadorna tadorna*
	Diverse assemblage of wintering bird species
	Diverse assemblage of breeding migratory waterfowl
Medway Estuary and Marshes Ramsar site	Nationally scarce plant species
	British Red Data Book invertebrates
	Redshank
	Dark-bellied Brent Goose
	Dunlin
	Grey Plover
	Pintail

	Knot
	Ringed Plover
	Shelduck
	Diverse assemblage of wintering bird species
Thames Estuary and Marshes SPA	Avocet
	Black-tailed Godwit *Limosa limosa*
	Dunlin
	Grey Plover
	Hen Harrier *Circus cyaneus*
	Knot
	Redshank
	Ringed Plover
	Bird assemblage of International Importance
Thames Estuary and Marshes Ramsar site	Nationally rare and scarce plant species
	British Red Data Book invertebrates
	Black-tailed Godwit
	Dunlin
	Knot
	Bird assemblage of International Importance
Queendown Warren SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (important orchid sites)
Outer Thames Estuary SPA	Common Tern *Sterna hirundo*
	Little Tern
	Red-throated Diver *Gavia stellata*

4.4 The study area for the assessment of effects on protected sites is not identified in the Applicant's HRA Report. This was clarified in the Applicant's response to ExQ1.5.3 as being located 10km from the application site boundary. The Applicant stated that the eight protected sites considered were selected on the basis of the nature of the Project and the findings of the technical chapters of the ES.

4.5 Neither NE or any other IP identified additional protected sites or features that could be affected by the Project and confirmed that the correct sites and features had been considered in the HRA Report. The Secretary of State is therefore satisfied that all the relevant qualifying features have been identified for consideration.

Impact pathways

4.6 The Applicant considered that at this stage the prediction of the nature of effects arising from decommissioning is not possible. The range of activities related to decommissioning could include those that would be similar to activities undertaken during construction and would therefore be subject to any necessary mitigation measures. On this basis, the effects which may arise from such activities are considered to be analogous to those arising in construction.

4.7 The construction effects of K3 were assessed as part of the 2010 ES, 2010 HRA Report and consented conditions. This included an Ecological Mitigation and Management Plan ("EMMP") and Construction Method Statement to protect adjacent habitats. Given that the practical effect of K3 comprises only an uplift in power generation and an increase in the throughput of waste, impacts related to construction of the site have been screened out of this assessment. This is agreed in the SoCG between the Applicant and NE.

4.8 Impact pathways in relation to air quality and disturbance were assessed for K3 in the Applicant's HRA Report. The Applicant concluded that the operation and decommissioning of K3 would have no LSEs on any of the eight protected sites or their qualifying features. No IPs disputed the Applicant's conclusion and the ExA was satisfied that the screening conclusions were appropriate.

4.9 The Applicant's HRA Report provides information as to the potential impact pathways from the Project to the qualifying features of the protected sites. The issues arising from the Project are categorised as:

- **Changes to air quality:** Potential pathway for air quality impacts during construction and decommissioning, causing a smothering of habitats by dust, to impact qualifying features of The Swale SPA and Ramsar site.
- **Noise and visual disturbance:** Potential pathway for noise emission and visual disturbance during construction and operation to impact qualifying features of The Swale SPA and Ramsar site.
- **Changes to water quality:** Potential pathway for direct impacts to water quality during construction and operation to impact qualifying features of The Swale SPA and Ramsar site.

4.10 The Applicant's HRA Report explained that the following impacts were screened out of further assessment:

- Direct loss of habitats at the protected sites during construction, operation and decommissioning;
- Changes in management regimes at the protected sites during construction, operation and decommissioning;
- Loss of future space for managed realignment at the European sites during construction, operation and decommissioning;
- Urbanisation of the protected sites during construction, operation and decommissioning;
- Air quality impacts arising from dust during construction on Medway Estuary and Marshes SPA and Ramsar site, Thames Estuary and Marshes SPA and Ramsar site, Queendown Warren SAC, and Outer Thames Estuary SPA;
- Air quality impacts during construction, operation and decommissioning arising from all other pathways at the protected sites;
- Water quality impacts during construction, operation and decommissioning on Medway Estuary and Marshes SPA and Ramsar site, Thames Estuary and Marshes SPA and Ramsar site, Queendown Warren SAC, and Outer Thames Estuary SPA;
- Hydrological changes during construction, operation and decommissioning at the protected sites;
- Disturbance during construction, operation and decommissioning on Medway Estuary and Marshes SPA and Ramsar site, Thames Estuary and Marshes SPA and Ramsar site, Queendown Warren SAC, and Outer Thames Estuary SPA; and
- Introduction or spread of non-native invasive species to the protected sites.

4.11 NE in its RR confirmed that the Applicant had identified the correct potential impact pathways. NE agreed that the main issues had been raised by the Applicant and concluded all other issues could be ruled out as not having an LSE on any protected sites. The final SoCG between the Applicant and NE confirmed that all matters related to the HRA were agreed.

4.12 The IPs did not dispute the Applicant's conclusion of no LSE on the screened out protected sites and their qualifying features. The ExA expressed they were satisfied that the screening conclusions were appropriate.

1) Changes to air quality

4.13 The Applicant's submitted report on The Air Quality Assessment of Impacts on Ecological Receptors, Chapter 5 of the ES, and the HRA Report consider the air quality impacts of the Project

alone, and the cumulative effect of the stack emissions and traffic generated by the Project, plus other emission-producing developments in the area.

4.14 Potential impacts arising from dust generation during the construction and decommissioning of WKN were identified in the HRA Report, these are discussed further in the AA. Based on the current Environment Agency guidelines and the Institute of Air Quality Management Position Statement, the Applicant's HRA Report concluded that for all operational pollutants assessed either the Predicted Environmental Concentration (PEC) did not exceed the Environmental Quality Standard (EQS) or the Process Contribution (PC) was ≤1% of the EQS for all interest features and supporting habitats of designated sites in the study area. The Applicant therefore considered air quality impacts arising from operation of either K3 or WKN could be screened out of further assessment.

4.15 The Swale Local Plan was added to the cumulative assessment of operational air quality impacts upon request by NE in their RR. In its SoCG with the Applicant, NE acknowledged that the only road within 200m of the Swale SPA and Ramsar site which could also carry traffic associated with the Swale Local Plan would be the A249 (SoCG paragraph 2.3.6). In this location however, the habitats present within 200m of the road comprise intertidal mudflats and cattle-grazed marsh, neither of which are sensitive to changes in air quality. No other road that could carry traffic associated with the Local Plan lies within 200m of a designated site. Adverse effects resulting from traffic generated air quality impacts in combination with the Swale Local Plan, were therefore ruled out.

4.16 NE requested clarity in their RR on the date of the last Air Pollution Information System ("APIS") update and whether the plans or projects considered in the in-combination assessment had become operational before or after this date. Paragraph 2.3.9 of the SoCG clarifies the dates of the projects considered in-combination. NE agreed that all relevant plans or projects had been correctly captured by the air quality assessment. The SoCG between NE and the Applicant also agreed that it is more appropriate to use the critical load for saltmarsh when assessing operational air quality impacts on breeding habitat for terns, even though it is agreed that terns breed on shingle rather than saltmarsh. This is because APIS only gives a critical load for low-nutrient, stable vegetated shingle, which is very different in character to the shingle terns use within the Medway.

2) Noise and Visual Disturbance

4.17 The Applicant's HRA stated that the Project has the potential for noise and visual disturbance during construction and operation, impacting bird interest features of The Swale SPA and Ramsar site due to the close proximity of the sites. The Applicant concluded that likely significant impacts due to this impact pathway cannot be excluded without further assessment and/or application of mitigation.

4.18 NE agreed in its RR that "*the species identified at paragraph 6.149 of the HRA Report [APP-044] are susceptible to noise disturbance during construction, such that there could be a likely significant effect on these components of The Swale*".

4.19 NE also expressed in its RR that the lighting associated with the construction and operation phases of the development could have an LSE on The Swale SPA and Ramsar site.

3) Changes to water quality

4.20 The Applicant concluded that LSEs on water quality impacting the Swale SPA and Ramsar site cannot be excluded during construction and operation of WKN due to the proximity of the site boundary to the development site.

4.21 The HRA Report detailed that a Marine Licence had been granted by the MMO covering the WKN outfall and discharge of uncontaminated water in the Swale.

4.22 NE acknowledged in its RR that the same methodology as set out in the approved Marine Licence for the outfall which serves K3 will be followed for construction of the second outfall serving WKN. NE asked for clarification as to whether there will be any additional impacts on protected sites, in terms of water quality, which were not considered in the Marine Licence. The Applicant confirmed (SoCG paragraphs 2.3.20 – 2.3.27) that the Marine Licence (MLA/2017/00316) and variation (L/2017/00482/2) have been granted by the MMO and all impacts from the Project had been considered on designated nature conservation sites. NE agreed in its WR that there are no further impacts that have not been assessed in relation to water quality and water resources.

4.23 The MMO, in its response to ExQ2, encouraged a review of the potential environmental impacts of the Project using water transport. The MMO commented that the Applicant must include an assessment of the potential impacts on adjacent designated sites and that this should be included in the HRA Report. The Applicant stated that it would not be appropriate or possible at this stage to provide a review of the potential impacts of using water transport without knowing the quantity of waste being transported using water, the source of that waste, method of transportation, and any associated infrastructure required. In its response to ExQ3, the MMO acknowledged the Applicant's response, and referred back to their position, but did not comment further in relation to the HRA Report specifically.

4.24 The MMO also raised concerns about the potential impacts of discharge of water from the outfall on mussel beds and/or saltmarsh. They considered that it could lead to changes in salinity and turbidity, which could have significant effects. They requested elaboration from the Applicant as to why there would be no significant effects resulting from the discharge. The Applicant submitted an updated version of the HRA Report to address this. The Applicant commented that the original application for a Marine Licence was accompanied by a full ES. They stated the assessment scope was determined in consultation with the MMO, it was concluded that there would be no LSEs on any interest features/supporting habitat of any of the designated sites within the Swale, and this was accepted by the MMO in the granting of the Marine Licence. The Applicant stated that the scope of the Environmental Appraisal which accompanied the request to vary the original Marine Licence to allow for the construction of a second outfall to serve WKN, was also determined in discussion with the MMO. They stated that the MMO agreed that the assessment should focus on impacts related to the construction of the second outfall only, with no further assessment necessary of other activities on the basis that all had been assessed in the original application, including the issue of changes to salinity. The Applicant considered that this was subsequently confirmed by the granting of the Marine Licence by the MMO in May 2019.

LSE: alone assessment

4.25 The Secretary of State has considered the potential impacts of the Project on all relevant interest features of the eight protected sites identified to determine whether there is potential for a LSE from the Project alone in the context of the Habitats Regulations. The Secretary of State's assessment of LSE is recorded in Table 2.

4.26 The Secretary of State agrees with the recommendations of the ExA, and the views of the Applicant and NE, and concludes that LSEs cannot be excluded at two protected sites due to the impacts on qualifying features of:

- Changes to air quality;
- Noise and visual disturbance; and
- Changes to water quality.

Table 2: Protected sites and features for which LSEs cannot be excluded alone

Note that construction below refers to WKN only. Construction effects of the K3 Proposed Development were addressed in the 2010 ES with a conclusion of no likely significant effect/no adverse effect on integrity.

C = construction; O = operations and maintenance; D = decommissioning

Designated Site	Qualifying feature/s	Changes to air quality	Noise and visual disturbance	Changes to water quality
The Swale SPA	Dark-bellied Brent Goose	CD	CO	CO
	Dunlin	CD	CO	CO
	Overwintering assemblage of international importance	CD	CO	CO
	Diverse assemblage of breeding birds	CD	CO	CO
The Swale Ramsar site	Nationally rare and scarce plant species	CD	CO	CO
	British Red Data Book invertebrates	CD	CO	CO
	Dark-bellied Brent Goose	CD	CO	CO
	Grey Plover	CD	CO	CO
	Redshank	CD	CO	CO
	Overwintering assemblage of international importance	CD	CO	CO
Medway Estuary and Marshes SPA	Avocet (breeding and overwintering)			
	Dark-bellied Brent Goose			
	Dunlin			
	Grey Plover			
	Knot			
	Little Tern			
	Pintail			
	Redshank			
	Ringed Plover			
	Shelduck			
	Diverse assemblage of wintering species			
	Diverse assemblage of breeding migratory waterfowl			
Medway Estuary and Marshes Ramsar site	Nationally scarce plant species			
	British Red Data Book invertebrates			
	Common Redshank			
	Dark-bellied Brent Goose			
	Dunlin			

	Grey Plover			
	Pintail			
	Red Knot			
	Ringed Plover			
	Shelduck			
	Diverse assemblage of wintering species			
Thames Estuary and Marshes SPA	Avocet			
	Black-tailed Godwit			
	Dunlin			
	Grey Plover			
	Hen Harrier			
	Knot			
	Redshank			
	Ringed Plover			
	Assemblage of International Importance			
Thames Estuary and Marshes Ramsar site	Nationally rare and scarce plant species			
	British Red Data Book invertebrates			
	Black-tailed Godwit			
	Dunlin			
	Red Knot			
	Assemblage of International Importance			
Queendown Warren SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (important orchid sites)			
Outer Thames Estuary SPA	Common Tern			
	Little Tern			
	Red-throated Diver			

LSE: in-combination assessment

4.27 The Applicant's HRA Report identified thirteen plans and projects as being relevant to the LSE in-combination assessment. The Applicant concluded that there is no potential for the Project to have LSEs in-combination with these plans or projects on the features of the protected sites. The thirteen plans and projects relevant to the in-combination assessment are listed as following:

- 16/507687/COUNTY - application for the construction and operation of an Incinerator Bottom Ash (IBA) Recycling Facility on land adjacent to the Kemsley Sustainable Energy Plant, Kemsley Paper Mill, Ridham Avenue, Sittingbourne. Permitted February 2017;
- 16/501484/COUNTY - construction and operation of a gypsum recycling building with plant and machinery to recycle plasterboard; and the re-configuration of the existing lorry park at Ridham Dock Road, Sittingbourne. Permitted April 2016;
- SW/11/1291 - anaerobic digester and associated ground profiling and landscaping on land north of the DS Smith Paper Mill, Kemsley, Sittingbourne. Permitted July 2012;
- 16/506935/COUNTY - steam pipeline connecting the Ridham Dock Biomass Facility to the DS Smith Paper Mill. Permitted October 2016;
- 14/501181/COUNTY KCC - combined heat and power (CHP) plant at Ridham B, Ridham Dock, Sittingbourne. Permitted July 2014;
- SW/15/500348 – Construction of advanced thermal conversion and energy facility at Kemsley Fields Business Park. Permitted July 2015;
- 17/505073/FULL - erection of a tile factory including service yard, storage yard and car parking area. Permitted May 2018;
- SW/14/0224 – application for a solar farm. Permitted August 2015;

- SW/13/1495 - Variation of condition 9 of SW/11/548 (use of building 15B to install and operate a materials recycling facility (MRF) and a refuse derived fuel (RDF) facility) to allow an increase of HGV movements from 58 to 98 for a temporary period of 12 months. Permitted December 2013;
- EN010090 (18/501923/ADJ) - application for a DCO consent to decommission the existing K1 CHP on the site and build, commission and operate a new CHP plant (K4). Consented July 2019;
- 14/500327/OUT - creation of up to 8,000 m2 of new Class B1 and B2 floor space along with an extension of the Milton Creek Country Park 495m to the south of the Proposed Developments. Permitted July 2016;
- 18/500393/FULL - erection of a natural gas fuelled reserve power plant with a maximum export capacity of up to 12MW. Permitted November 2018; and
- SW/12/1211 – construction of materials recycling facilities and waste transfer station.

LSE conclusion

4.28 The Secretary of State has considered the potential effects of the Project on all relevant sites and features to determine whether there is potential for LSE from the Project either alone or in combination with other relevant plans and projects.

4.29 The Secretary of State considers that sufficient information has been provided to inform a robust assessment in line with his duties under the Habitats Regulations. He is satisfied to rely on the information provided by the Applicant, the advice of NE and other IPs, and the recommendations of the ExA and the RIES to inform his view. He considers that the evidence behind these judgements has been fully tested as part of the examination process.

4.30 The Secretary of State notes NE's agreement that the correct qualifying features have been identified and that no other protected sites are relevant. The Secretary of State is satisfied that all the relevant protected sites and relevant qualifying features have been considered.

4.31 Having given due consideration to the information and analysis presented to him, the Secretary of State agrees with the recommendations of the ExA and concludes that LSEs cannot be excluded for the Swale SPA and Ramsar site for those features listed in Table 2. These sites and features are now taken forward to the AA stage to consider whether the effects of the Project alone would result in an adverse effect on the integrity of these sites.

5 Appropriate Assessment

Methodology

5.1 The requirement to undertake an AA is triggered when a competent authority, in this case the Secretary of State, determines that a plan or project is likely to have a significant effect on a protected site either alone or in combination with other plans or projects. Guidance issued by DEFRA states that the purpose of an AA is to assess the implications of the plan or project in respect of the site's conservation objectives, either individually or in combination with other plans and projects, and that the conclusions should enable the competent authority to ascertain whether the plan or project will adversely affect the integrity of the site concerned. The focus is therefore specifically on the species and/or habitats for which the protected site is designated.[4]

5.2 The purpose of this AA is to assess the implications of the Project in respect of the conservation objectives of the three protected sites where LSEs have been identified to ascertain whether the Project will adversely affect the integrity of those sites. It aims to use the best scientific evidence available to identify all aspects of the Project which can, either individually or in combination with other plans or projects, affect those conservation objectives.

5.3 If the competent authority cannot ascertain the absence of an AEoI without reasonable scientific doubt, then under the Habitats Regulations, alternative solutions should be sought. In the absence of an acceptable alternative, the project can proceed only if there are imperative reasons of overriding public interest ("IROPI") and suitable environmental compensation measures are secured.

Conservation Objectives

5.4 DEFRA Guidance indicates that disturbance to a species or deterioration of a protected site must be considered in relation to the integrity of that site and its conservation objectives.[5] It states that "*the integrity of a site is the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was designated*".

5.5 Conservation objectives outline the desired state for a protected site, in terms of the interest features for which it has been designated. If these interest features are being managed in a way which maintains their nature conservation value, they are assessed as being in a 'favourable condition'. An adverse effect on integrity is likely to be one which prevents the site from making the same contribution to favourable conservation status for the relevant feature as it did at the time of its designation. There are no set thresholds at which impacts on site integrity are considered to be adverse. This is a matter for interpretation on a site-by-site basis, depending on the designated feature and nature, scale, and significance of the impact. Conservation objectives have been used by the Secretary of State to consider whether the Project has the potential for having an AEoI, either alone or in-combination.

5.6 The Secretary of State considers there to be a LSE at the Swale SPA and Ramsar site, requiring an AA to be undertaken to assess the implications of the Project and determine whether there is potential for AEoI at these sites.

[4] https://www.gov.uk/guidance/appropriate-assessment#what-must-an-appropriate-assessment-contain
[5] Ibid., paragraph 003

Appropriate Assessment: The Swale SPA and Ramsar

5.7 The Swale SPA covers an area of 6,514.71ha and comprises extensive intertidal mudflats that encompass the entire northern and southern shores of the estuary. The site also contains the largest expanse of grazing marsh in Kent, which provides important feeding and roosting grounds for many waterbirds. The grazing marshes contain a complex of brackish and freshwater ditches and areas of open water. Areas of saltmarsh can be found bordering the intertidal mudflats at the north of the Swale National Nature Reserve and a large area east of Flanders Mare on the north shore. There are several patches of littoral rock and mussel beds at Shellness point on the northern shore in addition to north of Cleve marshes on the southern shore. The estuary also provides extensive roosting sites for large populations of waterbirds and is of major importance during the winter for duck and wader species and for supporting wader populations moving to the south east coast of Britain during the spring and autumn migration periods[6].

5.8 The Swale SPA was classified in 1985 and extended in 1993. Updated conservation objectives were most recently published in 2019[7] and are shown in Table 3.

Table 3: Conservation Objectives for the Swale SPA

Conservation Objectives	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its qualifying features, by maintaining or restoring: • The extent and distribution of qualifying natural habitats and habitats of qualifying species; • The structure and function (including typical species) of qualifying natural habitats; • The structure and function of the habitats and qualifying species; • The supporting processes on which qualifying natural habitats and habitats of qualifying species rely; • The populations of qualifying species; and • The distribution of qualifying species within the site.

5.9 The Swale Ramsar site was designated in 1993 and covers an area of 6,514.71ha. It has a complex of brackish and freshwater, floodplain grazing marsh with ditches, and intertidal saltmarsh and mudflats. These habitats together support internationally important numbers of wintering waterfowl. Rare wetland birds breed in important numbers. The saltmarsh and grazing marsh are of international importance for their diverse assemblages of wetland plants and invertebrates[8].

5.10 Government Guidance states that: For Ramsar sites, a decision has been made by Defra and NE not to produce Conservation Advice packages, instead focussing on the production of High Level Conservation Objectives. As the provisions on the Habitats Regulations relating to HRAs extend to

[6]https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UK9012011&SiteName=the%20swale&countyCode=&responsiblePerson=&HasCA=1&NumMarineSeasonality=2&SiteNameDisplay=The%20Swale%20SPA

[7] http://publications.naturalengland.org.uk/publication/5745862701481984

[8] https://rsis.ramsar.org/ris/299

Ramsar sites, NE considers the Conservation Advice packages for the overlapping protected marine sites to be, in most cases, sufficient to support the management of the Ramsar interests.[9]

5.1 The boundaries of the SPA and Ramsar site are coincident. The sites are approximately 160m from the Project site at their closest point. The location of the Project in relation to these sites is shown in

9 https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UK11071&SiteName=swale&SiteNameDisplay=The%20Swale%20Ramsar&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=&HasCA=0

5.11 Figure 2.

5.12 LSEs upon interest features of the Swale SPA and Ramsar site were identified via changes to air quality, noise and visual disturbance and changes to water quality. No LSEs in-combination with other plans or projects were identified. The impacts upon each feature for which an LSE was identified are set out in Table 4.

Table 4: Impacts upon each feature of the Swale SPA and Ramsar site for which LSE was identified

Note that construction below refers to WKN only. Construction effects of the K3 Proposed Development were addressed in the 2010 ES with a conclusion of no LSE/no AEoI.

(C = construction; O = operation and maintenance; D = decommissioning)

Designated Site	**Qualifying feature/s**	**Changes to air quality**		**Noise and visual disturbance**		**Changes to water quality**	
		alone	incombination	alone	incombination	alone	incombination
The Swale SPA	Dark-bellied Brent Goose	CD		CO		CO	
	Dunlin	CD		CO		CO	
	Overwintering bird assemblage of international importance	CD		CO		CO	
	Diverse assemblage of breeding birds	CD		CO		CO	
The Swale Ramsar site	Nationally rare and scarce plant species	CD		CO		CO	
	British Red Data Book invertebrates	CD		CO		CO	
	Dark-bellied Brent Goose	CD		CO		CO	
	Grey Plover	CD		CO		CO	
	Redshank	CD		CO		CO	
	Overwintering bird assemblage of international importance	CD		CO		CO	

Changes to air quality

5.13 The Applicant provided a detailed assessment of the anticipated air quality impacts arising from the Project in Chapter 5 of the ES. Potential impacts on protected sites and their qualifying features arising from dust generation during the construction and decommissioning of WKN were identified in the Applicant's HRA Report.

5.14 The Secretary of State considers that in the absence of mitigation there is the potential for LSE to the features of the Swale SPA and Ramsar site from the effects of changes to air quality and that accordingly an AA is required to determine the potential for the Project to lead to an AEoI.

5.15 The Applicant's HRA Report found that based on findings from external studies most dust from the construction and decommissioning of WKN would likely be deposited in the area immediately surrounding the source (up to 50m, which is outside the boundary of the Swale SPA and Ramsar site), and that no change in the level of exposure is expected beyond 300m from the site. This means that some impacts are possible within the Swale SPA and Ramsar site boundary located 160m from the Project Site.

5.16 The Applicant stated that agreed mitigation measures will be implemented during the construction and decommissioning of WKN to ensure compliance with relevant standards and guidance provided by the Institute of Air Quality Management and with the production of a Dust Mitigation Plan. Such measures will be contained within a Construction Environmental Management Plan ("CEMP"), which is expected to include:

- Commitment to the considerate contractor's scheme;
- Minimisation of dust generation wherever appropriate;
- Damping down when conditions require;
- Wheel and body washing of vehicles where appropriate; and
- Vehicles carrying material to be sheeted as required.

5.17 The impact of dust emissions is considered to be low without mitigation. With mitigation measures included in the CEMP, the Applicant anticipated that there would be no adverse effect on the integrity of the Swale SPA and Ramsar sites from dust generated during the construction and decommissioning of WKN.

5.18 NE agreed the construction of WKN and decommissioning of K3 and WKN would be unlikely to cause an adverse effect on the integrity of the Swale SPA and Ramsar site, subject to best practice construction methods to minimise dust secured through a CEMP and a Decommissioning Environmental Management Plan ("DEMP").

5.19 The ExA is satisfied that, in terms of air quality, there will be no significant effects caused by the construction or decommissioning of the Project. A CEMP, secured through Requirement 47 of the dDCO, would provide appropriate mitigation for the WKN Development to manage the dust impacts during construction. The ExA states [ExA: 5.7.1] that on this basis the Project would have no adverse effect on the integrity of any protected site and its features.

Conclusion

5.20 The Secretary of State has considered the information provided by the Applicant and other IPs in light of the conservation objectives for the Swale SPA and Ramsar site and made a full assessment of the potential for AEoI at each of these sites from the potential for changes to air quality during construction of WKN and decommissioning of WKN and K3. Having given due consideration to the information and analysis presented to him, the Secretary of State concludes in line with the recommendation of the ExA, that changes to air quality from the Project would not adversely affect

the integrity of the Swale SPA and Ramsar site. His conclusion is dependent upon mitigation measures secured through Requirements 22 and 47 of the dDCO.

Noise and visual disturbance

5.21 The Applicant detailed impacts resulting from noise and visual disturbance in the HRA Report as well as ES Chapter 11 and ES Appendix 5.4: Assessment of Ecological Impacts. The Applicant concluded that WKN was likely to give rise to LSEs on the qualifying features of the Swale SPA and Ramsar site as a result of noise and visual disturbance during construction and operation.

5.22 The HRA Report assumes the ornithological component of the Swale SPA and Ramsar site to be highly habituated to anthropogenic activity, owing to the Knauf Jetty to the north of the Project Site, the other industrial sites located in proximity to the designated sites and use of the Swale shoreline for recreational activity. It is anticipated that few, if any, construction and operational staff will access the Swale SPA and Ramsar site, therefore the potential for disturbance to the designated sites from staff is considered low.

5.23 The Marsh Harrier is considered to be susceptible to disturbance, especially during the breeding season. The ES states that the population of Marsh Harrier has increased in north Kent and they now occupy sites previously considered unsuitable, such as the reedbed to the north of the Project Site. Surveys carried out in 2009 and 2016 note that Marsh Harrier used this reedbed despite the operation of the Knauf Jetty and the construction of the K3 facility and the DS Smith AD Plant. The creation of new reedbed as alternative habitat for the Marsh Harrier was completed in October 2018 as required under the s106 agreement at the time of the K3 Planning Permission.

5.24 The HRA Report notes that due to the distance of the Project to the Swale SPA and Ramsar site, light from the development does not have the potential to illuminate either the terrestrial or intertidal habitats above that which it is currently. The Applicant acknowledges that data on the extent to which the area is used by birds at night is limited but considers it highly unlikely that any SPA and/or Ramsar citation species would be using the WKN site. Under Requirement 48 in the dDCO, all lighting will be designed as per best practice standards to ensure no additional light spill above the current situation would occur. The Applicant predicts no adverse effect on the designated sites during construction or operation is predicted as a result.

5.25 The Applicant identified that there is potential for effects related to visual disturbance during construction and operation of WKN on qualifying bird species of the Swale SPA and Ramsar site. The Applicant refers to a study by Cutts et al[10] recording observable effects within 300m of activities. Given the Swale SPA and Ramsar site are approximately 160m from the Project Site at their closest point, site works could potentially result in disturbance to roosting or foraging birds depending on the species present. Part of the proposed mitigation includes a palisade fence, a minimum of 2m high, around much of the WKN site boundary to avoid visual disturbance effects. This is in addition to a 2.4m fence that was erected along part of the K3 site boundary for the K3 construction works that has been retained and is located on the northern boundary of the WKN site.

5.26 The Applicant's ES modelled noise impacts from the loudest construction activities (impact piling) which would potentially disturb birds wintering in the Swale SPA and Ramsar site. The noise impacts which would be received were found to be 61.5 dB LAmax, covering an area of 9.6ha. This is below the max 80dB LAmax threshold associated with the greatest disturbance to birds but above the screening threshold of 55dB LAmax. To mitigate this impact Requirement 53 and 54 of the dDCO stipulates that a piling risk assessment will be approved by the relevant planning authority in consultation with the Environment Agency ("EA"). Construction of the new outfall to serve WKN will also follow the same avoidance methods for the first outfall which serves K3. This will be

[10] Cutts, N., Phelps, A. and Burdon, D. 2009. Construction and waterfowl: Defining Sensitivity, Response, Impacts and Guidance. Report to Humber INCA, Institute of Estuarine and Coastal Studies, University of Hull.

secured via the Marine Licence. No noise and vibration impacts which would have a significant effect on the protected sites are expected to arise from construction vehicles.

5.27 Further consideration to noise and visual disturbance is provided on a species-by-species basis in the HRA Report. Qualifying bird species which were considered to be negatively impacted by construction activities through the pathway of noise and/or visual disturbance based on their sensitivity and/or spatial distribution were identified. These were as follows:

- Redshank;
- Shelduck;
- Teal;
- Lapwing;
- Wigeon;
- Avocet;
- Curlew; and
- Marsh Harrier.

5.28 To ensure these species are not disturbed during construction of WKN, the Applicant has detailed the following mitigation measures to be included in the final CEMP, secured by Requirement 47 of the dDCO:

- Erection of a visual screen along the periphery of the WKN Site to remove any visual disturbance stimuli;
- No impact piling between the months January and February inclusive;
- Limited impact piling is permissible between the months of November and December provided that any impact piling activity does not accrue to more than a total of 10 days consecutively or otherwise;
- No impact piling during the period when Marsh Harrier are breeding (April to August inclusive); and
- Impact piling is permissible unrestricted outside of these time periods.

5.29 The Applicant's HRA concludes that with the provision of mitigation measures as appropriate "*… it can be stated that the issue of construction/demolition phase noise or visual related disturbance will not compromise the objectives of The Swale SPA/Ramsar with regards to the above species*."

5.30 During examination, in request to comment on the Applicant's draft EMMP for WKN, NE responded: "*The draft WKN Ecological Management and Mitigation Plan provides sufficient information on the measures that will be undertaken to avoid and mitigate impacts on relevant protected species. In particular, the document is helpful in setting out the mitigation measures to minimise impacts on breeding marsh harriers and wintering birds, which are features of the nearby European sites. These measures accord with advice that Natural England has previously given in relation to the Habitats Regulations assessment of the proposals.*"

5.31 In its SoCG with the Applicant, NE agreed that the Project would not compromise the conservation objectives of the identified protected sites and would not result in adverse effects on the respective sites' integrity. NE further agreed that no adverse effect on the integrity of the Swale SPA and Ramsar site designations would occur during the decommissioning of the facilities, subject to best practice construction methods to minimise noise, secured by Requirement 22 of the dDCO and in the absence of impact piling (required for construction only).

5.32 The MMO set out their view that if impact piling was required during construction, soft start measures should be implemented and suggested inclusion of wording into the Requirement of the DCO. The Applicant stated that the Requirement in the dDCO provided timing restriction across a calendar year on impact piling which they considered sufficient. Further the Applicant confirmed that any impact piling undertaken to construct the WKN outfall would be carried out using a vibro

hammer and would done under control of the Marine Licence, Section 5.2.7 of which requires a soft start for any impact piling.

5.33 The Examiner concluded that the effect of the proposed mitigation would be that no residual LSEs are anticipated on any of the ecological receptors identified.

Conclusion

5.34 The Secretary of State has considered the information provided by the Applicant and other IPs in light of the conservation objectives for the Swale SPA and Ramsar site and made a full assessment of the potential for AEoI at each of these sites from the potential for impacts arising from noise and visual disturbance during the construction and operation of WKN. Having given due consideration to the information and analysis presented to him, the Secretary of State concludes in line with the recommendation of the ExA, that noise and visual disturbance from the Project would not adversely affect the integrity of the Swale SPA and Ramsar site. His conclusion is dependent upon mitigation measures secured through Requirement 22 (DEMP), Requirement 47 (CEMP), Requirement 48 (Lighting), Requirement 53 and Requirement 54 (both relate to piling) of the dDCO.

Changes to water quality

5.35 The Applicant's HRA Report identified a risk of changes to water quality during construction and operation of WKN. As the Swale SPA and Ramsar site is within 160m of the Project there is potential for LSE in the absence of mitigation.

5.36 The Secretary of State considers that in the absence of mitigation there is the potential for LSE to the features of the Swale SPA and Ramsar site from the effects of changes to water quality and that accordingly an AA is required of the potential for the Project to lead to an AEoI.

5.37 The ES identified potential environmental impacts related to changes to water quality arising from the construction of WKN. These were temporary in nature and as follows:

- Impacts which may affect temporary (construction) flood risk;
- Impacts of construction on surface water resources; and
- Impacts of construction on on-site drainage network.

5.38 The longer-term impacts assessed were the impact of operation on flood risk, the impact of operation on surface watercourses, and the impact on water resources.

5.39 To address the potential impacts to water quality and the effect on qualifying features of the Swale SPA and Ramsar site, the Applicant provided details of general industry guidance and best practice measures in Chapter 10 of the ES which will be incorporated into the decommissioning and construction phases of WKN. Such measures, the details of which are provided in Table 5, will be secured within the CEMP. Mitigation measures that will be incorporated into the operational phase are detailed in Table 6.

Table 5: Standard construction mitigation measures to be adopted during the construction of WKN [APP-062]

Construction and Future Decommissioning
Best practice measures All construction work would be undertaken in accordance with the Construction Method Statement and good practice documentation including: • CIRIA – SuDS Manual [Ref 10.35]; • Prevent surface water being affected during earthwork operations. No discharge to surface watercourses will occur without permission from the EA (SuDS Manual) [Ref 10.35]; • Environment Agency, Pollution Prevention Guidance Note 6 (PPG6): Pollution Prevention Guidelines – Working at Construction and Demolition Sites [Ref 10.38]; • Environment Agency, Pollution Prevention Guidance Note 5 (PPG5): – Working in, near or liable to affect watercourses [Ref 10.39]; • CIRIA (C741) Environmental good practice on site guide [Ref 10.36]; • Prevent surface water being affected during earthwork operations. No discharge to surface watercourses will occur without permission from the EA (SuDS Manual); • Wheel washers and dust suppression measures to be used as appropriate to prevent the migration of pollutants (SuDS Manual); • Regular cleaning of roads of any construction waste and dirt to be carried out (SuDS Manual); and • A construction method statement to be submitted for approval by the responsible authority (SuDS Manual).
Water Quality monitoring Water quality monitoring will be carried out throughout the construction phase to ensure no discharge of pollutants or increase in suspended sediments occurs. Pollution prevention measures

Refuelling of machinery would be undertaken within designated areas where spillages can be easily contained. Machinery would be routinely checked to ensure it is in good working condition. Any tanks and associated pipe work containing substances included in List 1 of the Groundwater Directive would be double skinned and be provided with intermediate leak detection equipment. The following specific mitigation measures for the protection of surface water during construction activities would be implemented: • Management of construction works to comply with the necessary standards and consent conditions as identified by the EA; • A briefing highlighting the importance of water quality, the location of watercourses and pollution prevention included within the site induction; • Areas with prevalent run-off to be identified and drainage actively managed, e.g. through bunding and/or temporary drainage; • Areas at risk of spillage, such as vehicle maintenance areas and hazardous substance stores (including fuel, oils and chemicals) to be bunded and carefully sited to minimise the risk of hazardous substances entering the drainage system or the local watercourses. Additionally, the bunded areas will have impermeable bases to limit the potential for migration of contaminants into groundwater following any leakage/spillage. Bunds used to store fuel, oil etc. to have a 110% capacity; • Disturbance to areas close to watercourses reduced to the minimum necessary for the work; • Excavated material to be placed in such a way as to avoid any disturbance of areas near to the banks of watercourses and any spillage into the watercourses; • Construction materials to be managed in such a way as to effectively minimise the risk posed to the aquatic environment; • All plant machinery and vehicles to be maintained in a good condition to reduce the risk of fuel leaks; • Drainage works to be constructed to relevant statutory guidance and approved via the LLFA prior to the commencement of construction; and • Consultation with the EA to be ongoing throughout the construction period to promote best practice and to implement proposed mitigation measures.
A Decommissioning Environmental Management Plan would be produced and agreed with the relevant authorities prior to decommissioning works. The Decommissioning Environmental Management Plan would consider in detail all potential environmental risks on the site and contain guidance on how risks can be removed or mitigated. This would include details of how surface water drainage should be managed on the WKN Proposed Development site during the decommissioning. The plan would also consider how the attenuation pond should be managed and whether there would be environmental benefits from retaining this feature. Decommissioning practices to incorporate measures to prevent pollution and increased flood risk, to include emergency spill response procedures, and clean up and remediation of contaminated soils.

Table 6: Standard mitigation measures to be adopted as part of WKN operation and maintenance

Operation and Maintenance
Operational practices to incorporate measures to prevent pollution and increased flood risk, to include: • Emergency spill response procedures; • Clean up and remediation of contaminated water run-off; • Operational drainage gullies to prevent run-off from site; • Drainage strategy (Appendix 10.2), including surface water management plan, maintenance and/or monitoring procedures of drains and gullies; and

• Operational management plan (including site storage procedures).

5.40 The Applicant's HRA Report notes that process water from WKN will be reused within the process to ensure no discharge of water occurs. As proposed, WKN would have two separate drainage systems. The first would collect clean surface water runoff and store this in a lagoon. The second would collect 'dirty' runoff, storing it in the 'dirty' water tank to be used as required. The clean water in the lagoon would top up the 'dirty' water tank. If the lagoon reached the maximum acceptable capacity, it would be discharged at a controlled rate into the River Swale. The Applicant states that these measures would ensure that no adverse impacts in relation to drainage and surface water would affect the Swale SPA and Ramsar site.

5.41 All activities/items involving refuelling and maintenance of machines, oil storage tanks, chemical or fuel storage and on-site concrete batching plants would also be located more than 20m from the site boundary and a strict waste management system would be established to avoid leaches. These measures, to be secured through the CEMP, would avoid any accidental release of pollutants to the reedbed north of the WKN site, which supports three Schedule 1 breeding birds including Marsh Harrier.

5.42 The Applicant stated that the construction of the proposed second outfall for WKN into the Swale would follow the same methodology/timing restrictions set out in the approved Marine Licence for the outfall constructed to serve K3. This approach is codified in the amended Marine Licence submitted to the MMO. An ecological appraisal of the potential effects on the marine component of the Swale SPA and Ramsar site is included in the application for the amended Marine Licence.

5.43 The Applicant concludes that "*Implementation of these measures during both construction and operational phases of the proposed development limits the risk of a significant pollution incident. Following implementation of mitigation measures, no adverse effect on site integrity of the Swale SPA/Ramsar site is anticipated as a result of the proposed project*."

5.44 The SoCGs between the Applicant and NE and the Applicant and the EA agree that the Project does not pose a risk to water quality or the River Swale subject to the controls set out in the mitigation measures as detailed in Table 5 and Table 6 of this HRA, and the draft CEMP and secured through Requirement 43 of the dDCO.

5.45 The ExA sought clarification on the details of intertidal habitats where the second surface water outfall would be located. In response, the Applicant submitted the full Marine Licence application documents which contain a full assessment of effects on marine interest features.

5.46 During the examination, the Applicant provided information on the scope and conclusions of the assessment in respect of the South East Inshore Marine Plan relating to the surface water outfall elements of the Project. The assessment stated that the outfalls would not generate significant impacts and would only discharge clean surface water so that no deterioration of water quality would result. The process was not considered to have the potential to impact on the Swale Ramsar site.

5.47 The ExA states [ExA: 4.19.46] that with respect to WKN "*potential impacts to the water environment would be avoided where practicable through implementation of a number of industry standard mitigation measures, and careful consideration of the drainage design, construction techniques and operational best practice of the WKN Proposed Development*." The ExA also states [ExA: 4.19.47] that "*Subject to the controls provided through R12 Preferred dDCO [REP7-003] in respect of the K3 Proposed Development, or R18 in respect of the WKN Proposed Development, surface water run-off would be securely managed during construction, operation and decommissioning, as the case may be, of the Proposed Development, and there would not be any detrimental impact on water quality*."

Conclusion

5.48 The Secretary of State has considered the information provided by the Applicant and other IPs in light of the conservation objectives for the Swale SPA and Ramsar site and made a full assessment of the potential for AEoI at each of these sites from the potential for changes to water quality during construction and operation of WKN. Having given due consideration to the information and analysis presented to him, the Secretary of State concludes in line with the recommendation of the ExA, that changes to water quality from the Project would not adversely affect the integrity of the Swale SPA and Ramsar site. His conclusion is dependent upon mitigation measures secured through Requirement 37 in respect of K3 and Requirement 43 in respect of WKN of the dDCO.

6 Habitats Regulations Assessment Overall Conclusions

6.1 The Secretary of State has considered the information provided by the Applicant and other IPs in light of the conservation objectives for each of the protected sites and made a full assessment of the potential for AEoI at each of these sites.

6.2 The Applicant concluded that the Project would not adversely affect the integrity of either the Swale SPA or Ramsar site, either alone or in-combination with other plans or projects.

6.3 The recommendation of the ExA is that [ExA: 5.7.2] "*On the basis of the information before me I consider that the Proposed Development would have no adverse effect, subject to the controls set out in the dDCO, either alone or in-combination with other plans or projects, on the integrity of any European site and its features.*" The ExA also states [ExA: 5.7.3] "*I am also satisfied that sufficient information has been provided by the Applicant to enable the SoS to undertake an appropriate assessment and discharge his obligations under the Habitats Regulations.*"

6.4 **The Secretary of State concludes in line with the recommendation of the ExA, that, subject to the mitigation secured in the DCO, the effects of the Project, either alone or in-combination with other plans and projects, on the features of the Swale SPA or Ramsar site, would not lead to an adverse effect on the integrity of these sites.**

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