



Department for  
Business, Energy  
& Industrial Strategy

# THURROCK FLEXIBLE GENERATION PLANT HABITATS REGULATIONS ASSESSMENT

Regulation 63 of the Conservation of Habitats and Species  
Regulations 2017



February 2022



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## 1. Introduction

### 1.1. Background

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 (“the Habitats Regulations”) in respect of the Development Consent Order (“DCO”) for the Thurrock Flexible Generation Plant and its associated development (the “Project”). For the purposes of these Regulations the Secretary of State is the competent authority under the Habitats Regulations.

The planning application (“the Application”) proposes the construction and operation of a flexible generation plant comprising up to 48 reciprocating gas engines with an electrical output of up to 600 MW and batteries with rated electrical output of up to 150 MW and storage capacity of up to 600 MWh, totalling a net rated electrical output of up to 750 MW, along with associated development at land adjacent to the north of the National Grid Tilbury Substation in Thurrock, off Station Road, near Tilbury, Essex. The Applicant is Thurrock Power Limited.

The Project constitutes a Nationally Significant Infrastructure Project (NSIP) as defined by s15(2) of the Planning Act 2008 as it is for a generating station of over 50 MW.

The Application, dated 27 May 2020, was submitted under section 37 of the Planning Act 2008 (“PA2008”) and was received in full by the Planning Inspectorate (“PINS”) on that date.

The Application was accepted by PINS under section 55 of the PA2008 for Examination on 24 June 2020 and a single appointed person was appointed as the Examining Authority (“ExA”) for the Application. The Examination of the Application began on 16 February 2021 and completed on 16 August 2021. The ExA submitted its report of the Examination, including its recommendation (“the ExA’s Report”), to the Secretary of State on 16 November 2021.

The report also contains analysis and assessment of the potential effects of the Project upon designated sites in European Economic Area States (“transboundary sites”). This is included under the transboundary assessment section of the report (Section 7).

In his letter dated 21 December 2021, the Secretary of State requested the Applicant, Port of Tilbury London Limited (“PoTLL”) and RWE Generation (UK) PLC (“RWE”) to provide an update of any discussions relating to securing an ‘Alternative AIL Access Route’<sup>1</sup>. In response, each party confirmed that an agreement had been reached and a suitable voluntary agreement signed<sup>2 3 4</sup>. Changes sought to the DCO included removal of reference to the causeway which would no longer be required. As such, the assessment of likely significant effects as a result of the causeway is no longer necessary.

In response to a Rule 17 request for further information made by the ExA [PD-019] the Applicant provided amended documents which reflect a scenario where the construction, operation and decommissioning of the causeway is no longer required [REP7-052 – REP7-092]. The Applicant also requested some additional changes to the DCO in their response of 12 January 2022 in order to remove powers of compulsory acquisition and temporary possession over PoTLL and RWE’s land, and to exclude the

<sup>1</sup> BEIS (2021). *Application by Thurrock Power Limited (“the Applicant”) for an Order granting Development Consent for the proposed Thurrock Flexible Generation Plant (“the Thurrock Plant”).* 21 December 2021.

<sup>2</sup> Burges Salmon LLP (2022). *Applicant’s Response to Requests for Further Information Dated 21 December and 23 December 2021.* 12 January 2022.

<sup>3</sup> Port of Tilbury London Limited (2022). *Response to Secretary of State Consultation of 21 December 2021.* 12 January 2022.

<sup>4</sup> Eversheds Sutherland (International) LLP (2022). *Response to Request for Information dated 21 December 2021 on behalf of RWE Generation (UK) Plc.*

application of street works powers and selected other powers. Other changes were requested to ensure the correct versions of plans and documents were certified by the Secretary of State. The Secretary of State has considered these documents and has referred to these where applicable.

### 1.2. Habitats Regulations Assessment (HRA)

The Conservation of Habitats and Species Regulations 2017 (“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 Habitats Regulations cover England and Wales including their inshore waters up to 12 nautical miles (“nm”).

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, referred to as European sites in legislation, form part of the UK’s national site network.

The Convention on Wetlands of International Importance 1971 (“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”).

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.*

*And that: In the light of the conclusions of the assessment, and subject to regulation 64 [IROPI<sup>5</sup>], 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).*

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. Therefore, the Secretary of State must determine whether the project will have an adverse effect on the integrity of the site(s). In this document, the first stage assessment of LSE and, where required, the second stage assessment (“the AA”) to determine whether there is an adverse effect on the integrity of a site, are collectively referred to as the Habitats Regulations Assessment (“HRA”).

### 1.3. Report on the Implications for European Sites (RIES) and Statutory Consultation

Under 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. Natural England (“NE”) is the Statutory Nature Conservation Body (“SNCB”) for England and for English waters within the 12 nm limit.

<sup>5</sup> Imperative reasons of overriding public interest

The ExA prepared a RIES [PD-018], with support from the Planning Inspectorate's Environmental Services Team. The RIES was based on matrices provided by the Applicant and relevant information provided by Interested Parties ("IPs"). The RIES documented the information received during the Examination (up until 12 July 2021) and presented the ExA's understanding of the main facts regarding the HRA to be carried out by the Secretary of State.

The RIES was published on PINS planning portal website and the ExA notified IPs that it had been published. Consultation on the RIES was undertaken between 19 July 2021 and 9 August 2021. The RIES was issued to ensure that IPs, including the SNCBs, were consulted formally on Habitat Regulations matters, as required under regulation 63(3) of the Habitats Regulations.

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.

In addition, this HRA has been compiled using evidence from the application documents and consultation responses, which are available on the Planning Inspectorate's Nationally Significant Infrastructure Project web pages<sup>6</sup>. In particular:

- The ExA's Report
- The Applicant's Environmental Statement ("ES")
- The Applicant's Habitats Regulations Assessment Report ("HRAR")

Plus, other information submitted during the Examination. Key information from these documents is summarised and referenced in this HRA.

<sup>6</sup> <https://infrastructure.planninginspectorate.gov.uk/projects/south-east/thurrock-flexible-generation-plant/>

## 2. Project Description

The Project involves the construction, operation and maintenance of a flexible generation plant comprising up to 48 gas fired reciprocating engines with rated electrical output totalling 600 MW together with storage batteries with rated electrical output of 150 MW and a storage capacity of 600 MWh. The Project is located on land adjacent to the National Grid Tilbury Substation in Thurrock, off Station Road, near Tilbury, Essex. For the purposes of the HRA, the Project has been treated as a single integrated station with a total electrical output of up to 750 MW generating capacity.

The Project is comprised of the following main parts:

- Up to 48 reciprocating gas engines with rated electrical output of up to 600 MW;
- Batteries with rated electrical output of up to 150 MW (with storage capacity of up to 600 MWh);
- Gas and electricity connections;
- Creation of temporary and permanent private access routes for construction haul and access in operation; and
- Replacement Common Land and habitat creation or enhancement for protected species translocation and biodiversity gain.

The Project is located within the boundary of the administrative area of Thurrock Council. The main development site is located on land to the south west of Station Road, Tilbury and is comprised of around 20 ha of open fields crossed by drainage ditches and three overhead power lines with steel lattice electricity pylons. It lies in the metropolitan Green Belt and around half of the main development site is also registered Common Land, forming part of a larger area known as The Green, Hall Hill, Fort Road, Parsonage, Walton and Tilbury Fort Commons. Immediately to the south is the existing Tilbury Substation and the site of the now decommissioned Tilbury B power station. Further south is the River Thames while to the north is a section of the London, Tilbury and Southend Railway (also known as the Tilbury Loop).

The eastern edge of Tilbury is around 720 m from the edge of the main development site, the village of West Tilbury around 1 km to the north and East Tilbury village is approximately 2 km to the east. There are a number of individual or small groups of houses within around 800 m of the main development site.

# Thurrock Flexible Generation Plant Habitats Regulations Assessment

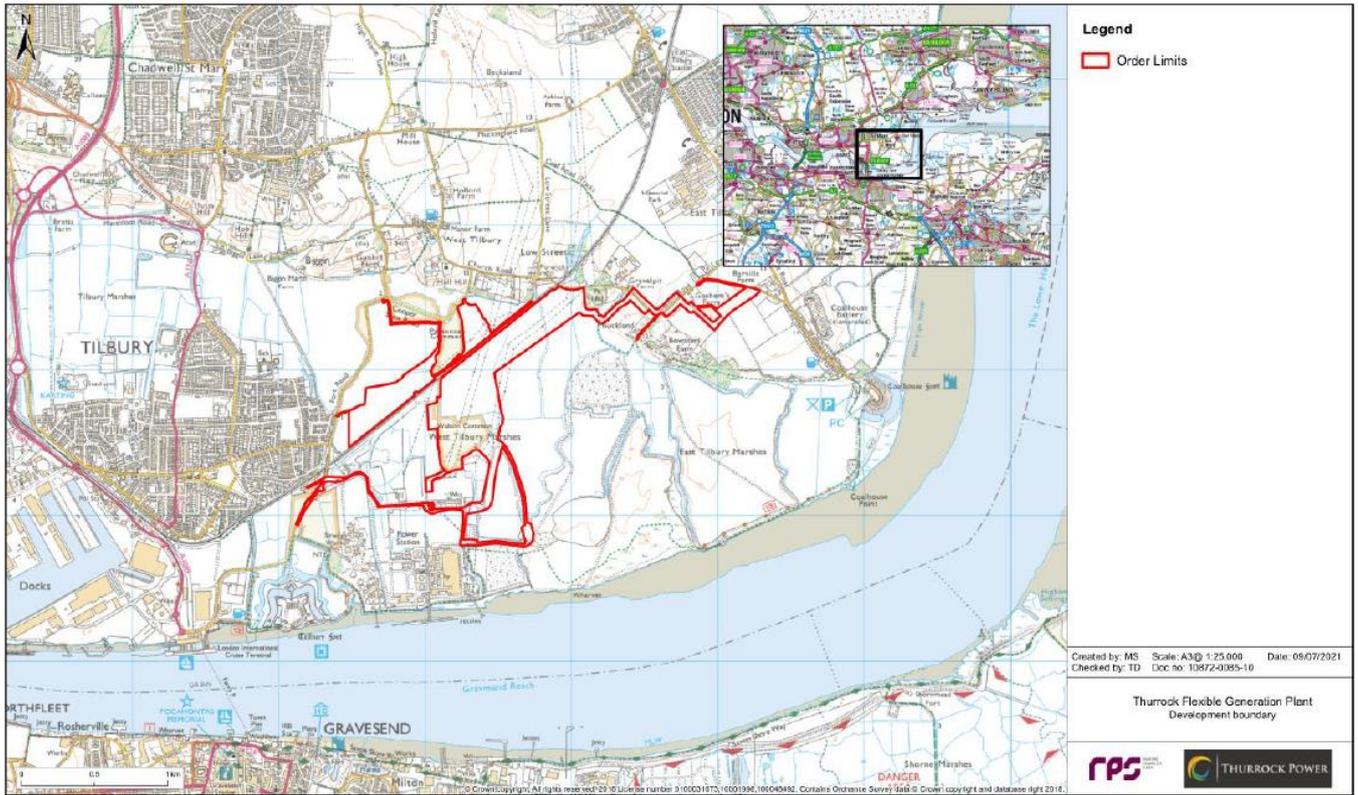
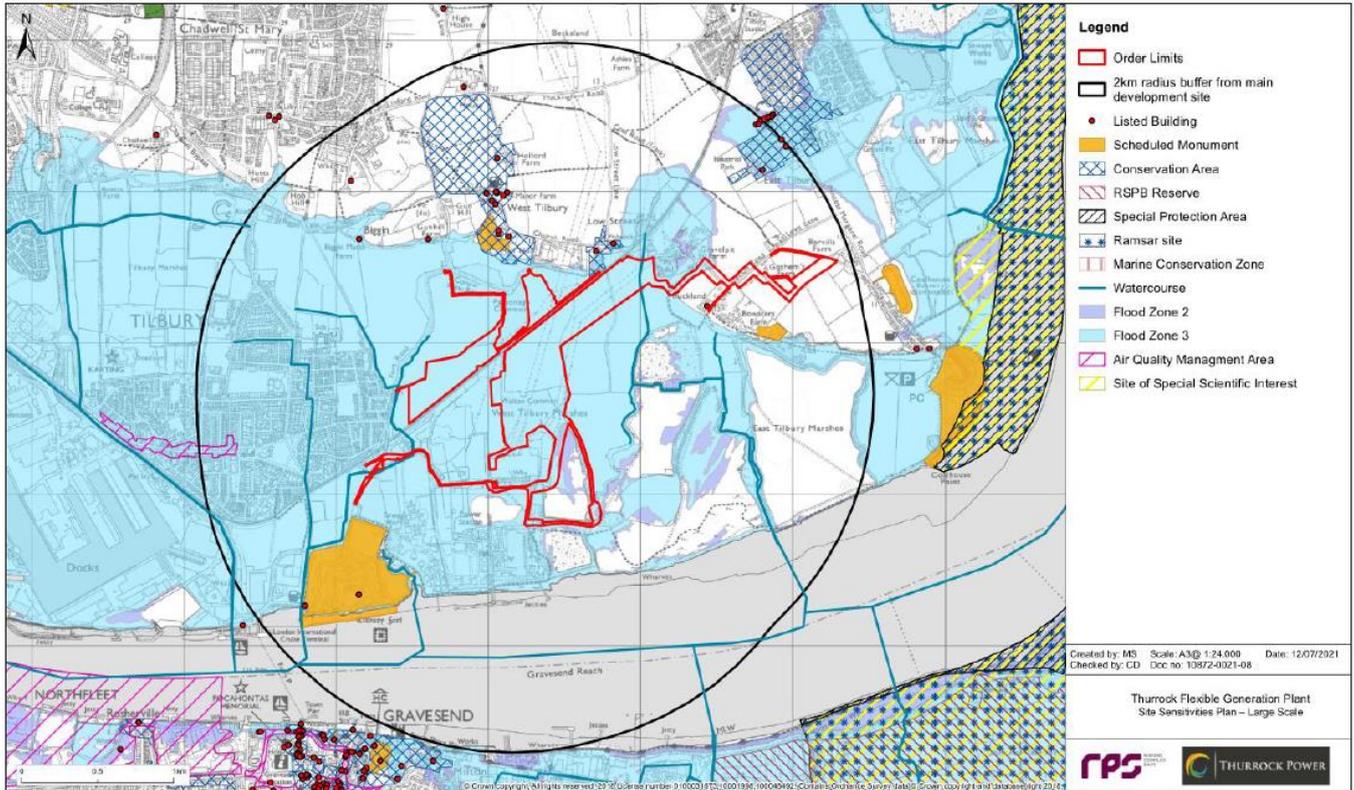


Figure 1: Proposed location of the Project



**Figure 2: Environmental receptors within 5 km of the Project**

The nearest protected sites are the Thames Estuary and Marshes SPA and Thames Estuary and Marshes Ramsar site, approximately 2.4 km east of the main development site.

### 3. Likely Significant Effects Test

Under regulation 63 of the Habitats Regulations the Secretary of State must consider whether a project will have an LSE on a European site, either alone or in combination with other plans or projects.

The purpose of this section is to identify any LSEs on protected sites and to record the Secretary of State’s conclusions on the need for an AA and his reasons for including activities, sites or plans and projects for further consideration in the AA.

Of all the protected sites identified during Examination, the ExA concluded that LSEs could not be excluded for the following sites and their qualifying features, either alone or in combination with other plans or projects, based on the final version of the Applicant’s HRAR [REP7-065]:

- Thames Estuary and Marshes SPA; and
- Thames Estuary and Marshes Ramsar site.

The HRAR identified sites within 15 km of the Project which is the maximum zone of influence of potential impacts. The protected sites identified were not disputed by any IPs in the Examination.

The Applicant updated its HRAR, screening and integrity matrices during Examination to list the correct features of the Thames Estuary and Marshes SPA and Ramsar site in line with the Joint Nature Conservation Committee (“JNCC”) and NE websites upon request from the ExA. The Applicant also screened in ringed plover, redshank and dunlin as features of the Thames Estuary and Marshes SPA and Ramsar site.

The ExA was satisfied with the Applicant’s revised screening matrices and that the correct protected sites and qualifying features had been identified and considered.

**Table 1: Protected sites for which LSE cannot be excluded, when the Project is considered alone or in combination with other plans or projects, on the listed qualifying features (summarised from ExA Report [ExA: 6.7. 4]).**

Name of protected site	Qualifying features	Potential impact(s)
Thames Estuary and Marshes SPA	Hen harrier <i>Circus cyaneus</i> Ringed plover <i>Charadrius hiaticula</i> Dunlin <i>Calidris alpina</i> Redshank <i>Tringa tetanus</i> Avocet <i>Recurvirostra avosetta</i> Grey plover <i>Pluvialis squatarola</i> Knot <i>Calidris canutus</i> Black-tailed godwit <i>Limosa limosa</i> Waterfowl assemblage	Changes to hydrology (alone and in combination during all phases)  Changes to water quality (alone and in combination during all phases)
Thames Estuary and Marshes Ramsar site	Hen harrier Ringed plover Dunlin Redshank Grey plover Knot Black-tailed godwit Waterfowl assemblage Invertebrate assemblage	Changes to hydrology (alone and in combination during all phases)  Changes to water quality (alone and in combination during all phases)

Name of protected site	Qualifying features	Potential impact(s)
	Nationally rare plant assemblage	

The Secretary of State has considered the LSEs of the Application on all relevant qualifying features of the protected sites listed above, with consideration of their conservation objectives, to determine whether there will be LSEs in the context of the Habitats Regulations. The Applicant considered that impacts associated with the decommissioning phase of the Project are likely to be broadly similar in nature to those associated with the construction phase [REP7-039]. The Secretary of State recognises that powers are in place for decommissioning effects to be addressed fully by the relevant authorities prior to decommissioning and with consideration of more detailed information on decommissioning processes and environmental conditions at that time. The Secretary of State therefore considers that it is reasonable not to include a detailed discussion on decommissioning effects in this report and notes that decommissioning is not a barrier to the Application being granted.

### 3.1. Likely Significant Effects Alone Assessment

The Secretary of State agrees with the recommendations of the ExA and concludes that LSEs cannot be excluded at the two protected sites listed in Table 1: Protected sites for which LSE cannot be excluded, when the Project is considered alone or in combination with other plans or projects, on the listed qualifying features (summarised from ExA Report [ExA: 6.7. 4], when the Project is considered alone.

The protected sites listed in Table 1 are taken forward to the AA to consider whether the Project will result in an adverse effect upon the integrity of these sites.

### 3.2. Likely Significant Effects In-Combination Assessment

Under the Habitats Regulations the Secretary of State is obliged to consider whether other plans or projects in combination with the Project might affect protected sites.

Two Nationally Significant Infrastructure Projects (“NSIPs”) are on land adjacent to and in some places overlapping with the Project application boundary. The consented Tilbury2 port expansion to the west which is under construction, and the Lower Thames Crossing motorway and link road to the east and north is in the process of EIA and public consultation. Outline planning permission has been granted for several residential and mixed-use developments expanding Linford and East Tilbury in the direction of the Project. However, these are generally further than 500 m from the Project and also in-land so avoid disturbance effects on intertidal habitats and wintering birds [REP7-065].

The approach used by the Applicant to assess in-combination effects was to select plans or projects which may affect the protected site feature under consideration. The plans or projects included in the in-combination assessment are provided in ES Chapter 18 Cumulative Effects Assessment [APP-067].

The Secretary of State agrees with the recommendations of the ExA and concludes that LSEs cannot be excluded at the same two protected sites identified in the LSE alone assessment, listed in Table 1, when the impacts of the Project are considered in combination with the other identified plans or projects.

The protected sites listed in Table 1 are taken forward to the AA to consider whether the Project in combination with other plans or projects will result in an adverse effect upon the integrity of these sites.

## 4. Appropriate Assessment Methodology

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 or 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<sup>7</sup>.

The purpose of this AA is to determine whether adverse effects on the integrity of the features of the two sites identified can be ruled out for the Application alone or in combination with other plans or projects in view of the site's conservation objectives and using the best scientific evidence available.

If the competent authority cannot ascertain the absence of an adverse effect on integrity within 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 compensation measures are identified.

### 4.1. Conservation Objectives

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<sup>8</sup>. 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*".

Conservation objectives have been established by NE and 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 ("AEoI") 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 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.

NE has issued generic conservation objectives, which should be applied to each interest feature of the site. Supplementary advice for each site underpins these generic objectives to provide site-specific information and give greater clarity to what might constitute an adverse effect on a site interest feature.

Where supplementary advice is not yet available for a site, NE advises that HRAs should use the generic conservation objectives and apply them to the site-specific situation. For SPAs, the overarching objective is to:

Avoid the deterioration of the habitats of qualifying features, and the significant disturbance of the qualifying features and ensuring the integrity of the site is maintained and the site makes a full contribution

<sup>7</sup> <https://www.gov.uk/guidance/appropriate-assessment#what-must-an-appropriate-assessment-contain>

<sup>8</sup> <https://www.gov.uk/guidance/appropriate-assessment#what-must-an-appropriate-assessment-contain>

to achieving the aims of the Wild Birds Directive. This is achieved by, subject to natural change, maintaining and 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 populations of the qualifying features; and
- The distribution of the qualifying features within the site.

The conservation objectives and supplementary advice on conservation objectives have been used by the Secretary of State to consider whether the Project has the potential to have an adverse effect on the integrity of sites, either alone or in combination with other plans or projects. The potential for the Project to have an adverse effect on site integrity is considered for each site in turn.

## 5. Appropriate Assessment

### 5.1. Appropriate Assessment: Thames Estuary and Marshes SPA and Ramsar site

The Thames Estuary and Marshes SPA covers an area of 4,838.94 ha and forms part of the wider Thames Estuary together with other classified SPAs in both Essex and Kent. The site is comprised of a mosaic of intertidal habitats, saltmarsh, coastal grazing marshes, saline lagoons and chalk pits. The site provides wintering and breeding habitats for important assemblages of wetland bird species, particularly wildfowl and waders as well as supporting migratory birds on passage.

The site qualifies as an SPA as it is used regularly by 1% or more of the British population of the following Annex I species in any season:

- Avocet; and
- Hen harrier.

The site also qualifies as an SPA as it is used regularly by 1% or more of the biogeographic populations of the following regularly occurring migratory species in any season:

- Ringed plover;
- Grey plover;
- Dunlin;
- Knot;
- Black-tailed godwit; and
- Redshank.

The SPA also supports a waterfowl assemblage feature, as it is regularly used by over 20,000 waterfowl in any season<sup>9</sup>.

In addition to the generic conservation objectives for SPAs presented in Section 4.1. NE has provided supplementary conservation objectives for the individual qualifying features of the site, which include but are not limited to:

- Maintain the safe passage of avocet, black-tailed godwit, dunlin, grey plover, hen harrier, knot, redshank and ringed plover moving between roosting and feeding areas;
- Maintain the species diversity of the waterbird assemblage;
- Reduce the frequency, duration and/or intensity of disturbance affecting roosting, foraging, feeding, moulting and/or loafing birds so that they are not significantly disturbed;
- Maintain the structure, function and supporting processes associated with all qualifying features and their supporting habitat through management or other measures (whether within and/or outside the site boundary as appropriate) and ensure these measures are not being undermined or compromised;
- Maintain the availability of fresh water on mudflats for avocet, black-tailed godwit, dunlin, grey plover, knot, redshank and ringed plover within feeding and resting areas;
- Maintain the density of channel networks within intertidal feeding areas for avocet, black-tailed godwit, dunlin, grey plover, knot and redshank; and
- Reduce aqueous contaminants to levels equating to Good/High Status, avoiding deterioration from existing levels for all qualifying features.

<sup>9</sup> <http://publications.naturalengland.org.uk/publication/3227002>

The Thames Estuary and Marshes Ramsar site boundary is broadly coincident with the limits of the Thames Estuary and Marshes SPA. The Ramsar site covers an area of 5,589 ha and supports saltmarsh and grazing marsh which are of international important for their diverse assemblages of wetland plants and invertebrates<sup>10</sup>.

The Ramsar site is designated under Ramsar criterion 2 as it supports more than 20 British Red Data Book invertebrates and populations of the Great British Red Book endangered least lettuce (*Lactuca saligna*), as well as the vulnerable slender hare's-ear (*Bupleurum tenuissimum*), divided sedge (*Carex divisa*), sea barley (*Hordeum marinum*), Borrer's saltmarsh-grass (*Puccinellia fasciculata*), and dwarf eelgrass (*Zostera noltei*).

The site is designated under Ramsar criterion 5 as it supports waterfowl in assemblages of international importance of over 20,000 or more.

The site is also designated under Ramsar criterion 6 as it supports the following species which occur at levels of international importance:

- Black-tailed godwit;
- Dunlin; and
- Red knot.

### 5.1.1. Appropriate Assessment: Alone

#### 5.1.1.1. Changes to water quality

Poor water quality can result in a range of impacts including immediate death of aquatic wildlife, increased vulnerability to disease and changes in behaviour. Eutrophication can increase plant growth which can smother mudflats, and decomposition of organic matter which can accompany eutrophication can deoxygenate water.

As surface water drainage links to the existing ditch system which is associated with adjacent agricultural land and leads to the Thames Estuary and Marshes SPA and Ramsar site, mitigation measures will be adopted during the construction phase to minimise the risk of contaminated runoff, silt and pollutants reaching watercourses. Full details of the pollution control measures and safeguards are provided in Volume 3, Chapter 15: Hydrology and Flood Risk of the ES [APP-064] and the Outline Code of Construction Practice ("CoCP") [REP7-083]. Discharges to water and environmental management of the Project, including safe storage of potentially polluting substances and spillage response procedures, will be regulated through the Environmental Permit.

The measures to be implemented during construction include:

- Refuelling of machinery in designated areas so spills may be contained;
- Machinery routinely checked for working order;
- Double skinned tanks and pipes to prevent leaks and to include leak detection equipment;
- Briefing to construction staff;
- Temporary drainage for areas with prevalent run-off;
- Areas at risk of spills will be bunded with impermeable bases and carefully sited to avoid pollutants entering the drainage system;
- Minimised disturbance to watercourses;
- Excavated material and construction materials will be stored to avoid disturbance near watercourses;

<sup>10</sup> <https://rsis.ramsar.org/ris/1025>

- Plant machinery will be maintained in good condition;
- Settling tanks or ponds will manage surface runoff via a temporary drainage system;
- Haul road will be removed following completion of construction and any impacted watercourses will be reinstated to their previous condition;
- Temporary construction compounds will be made permeable to ensure risk of flooding is not increased and surface water will be intercepted by a temporary drainage system; and
- A method statement will be developed.

Mitigation measures to be implemented during operation include:

- Drainage channels around the boundary of the site connecting to existing drainage channels via balancing and containment features;
- Treatment features and pollution prevention interceptors to avoid polluted flows being discharged into designated sites; and
- Any chemical storage on site will be suitably bunded and containment features will be incorporated within the drainage system so that spills can be dealt with on site.

These mitigation measures are secured in Requirement 5 (CoCP) of the DCO.

With the implementation of these mitigation measures, the Applicant concluded there would be no adverse effects on the integrity of the Thames Estuary and Marshes SPA and Ramsar site as a result of the Project alone [REP7-065].

In its Statement of Common Ground, NE agreed that appropriate mitigation measures in the form of surface water management features and pollution control safeguards were identified which will ensure there will be no adverse effects on the integrity of the Thames Estuary and Marshes SPA and Ramsar site. It agreed that the CoCP [REP7-083] was an appropriate means to provide pollution control safeguards subject to the discharge of the relevant DCO requirement [REP7-036].

The ExA was satisfied that with these mitigation measures in place, an adverse effect on the integrity of the Thames Estuary and Marshes SPA and Ramsar site due to changes to water quality from the Project alone could be excluded.

The Secretary of State agrees with the recommendation of the ExA and concludes that an adverse effect on the integrity of the Thames Estuary and Marshes SPA and Ramsar site from the effects of changes to water quality from the Project alone can be excluded.

### *5.1.1.2. Changes to hydrology*

The Applicant referred to the Conceptual Drainage Strategy [APP-125] which sets out that drainage ditches removed by the Project will be replaced with a reconfigured ditch network that will not alter the hydrodynamic regime overall outside the main development site itself. Runoff from the Project will be suitably managed via an attenuation system such that the greenfield runoff rate will not be exceeded.

With implementation of these mitigation measures, as secured in Requirement 10 of the DCO, the Applicant concluded there would be no adverse effects on integrity due to hydrological changes as a result of the Project alone [REP7-065].

In its Statement of Common Ground, NE agreed that appropriate mitigation measures in the form of surface water management features and pollution control safeguards were identified which will ensure there will be no adverse effects on the integrity of the Thames Estuary and Marshes SPA and Ramsar site. It agreed that the Drainage Strategy [PDC-007] was an appropriate means to provide pollution control safeguards subject to the discharge of the relevant DCO requirement [REP7-036].

The ExA was satisfied that with these mitigation measures in place, an adverse effect on integrity of the Thames Estuary and Marshes SPA and Ramsar site due to hydrological changes from the Project alone could be excluded.

The Secretary of State agrees with the recommendation of the ExA and concludes that an adverse effect on the integrity of the Thames Estuary and Marshes SPA and Ramsar site from the effects of changes to hydrology from the Project alone can be excluded.

### **5.1.2. Appropriate Assessment: In combination**

#### *5.1.2.1. Changes to water quality and changes to hydrology*

As discussed in Section 5.1.1.1 and **Error! Reference source not found.**, no impacts to water quality or hydrology were anticipated with implementation of the mitigation measures described in the Conceptual Drainage Strategy [APP-125], Volume 3, Chapter 15: Hydrology and Flood Risk of the ES [APP-064] and the Outline CoCP [REP7-084]. Further, all discharges and environmental management of the Project will be regulated through the Environmental Permit.

As no impacts from the Project alone are anticipated, the Secretary of State is content that an adverse effect on the integrity of the Thames Estuary and Marshes SPA and Ramsar site from the effects of changes to water quality and hydrology from the Project in combination with other plans or projects can be excluded.

## 6. Habitats Regulations Assessment Overall Conclusions

The Secretary of State has carefully considered the information presented before, during and after the Examination, including the RIES, the ES, representations made by Interested Parties, and the ExA's report itself. He considers that the Project has the potential to have a LSE on two protected sites when considered alone and in combination with other plans or projects. These sites are listed below:

- Thames Estuary and Marshes SPA
- Thames Estuary and Marshes Ramsar site

The Secretary of State has undertaken an AA in respect of the conservation objectives of these sites to determine whether the Project, either alone or in combination with other plans or projects, will result in an adverse effect on site integrity.

The recommendation of the ExA is that [ExA: 6.8.6]: *“Overall, I consider that, subject to the mitigation measures to be secured in the dDCO, AEoI on the Thames Estuary and Marshes SPA and Ramsar sites from the Proposed Development when considered alone or in combination with other plans or projects can be excluded from: water quality, hydrological changes and noise and visual disturbance impacts during construction and visual impacts during operation.”*

The ExA's recommendation was provided prior to the removal of the causeway elements of the Project post-Examination. Therefore, the recommendation on adverse effects from noise and visual disturbance is no longer applicable, however, the ExA's conclusions on water quality and hydrological changes still apply.

**The Secretary of State concludes that, in line with the recommendation of the ExA and subject to the mitigation secured in the DCO, an adverse effect on the integrity of the Thames Estuary and Marshes SPA and Ramsar site from the effects of the Project, alone or in combination with other plans or projects can be excluded.**

## 7. Transboundary Assessment

During the pre-application stage on 6 December 2018, the Planning Inspectorate undertook a transboundary screening on behalf of the Secretary of State [OD-001] to satisfy processes under EIA Regulation 32. This found that the Project was not likely to have a significant effect either alone or cumulatively on the environment in a European Economic Area State.

A second screening was carried out on 6 July 2020 following submission of the Application and the Planning Inspectorate considered that the conclusion remained unchanged from the previous transboundary screening.

The Secretary of State is satisfied that the Project, alone or in-combination with other plans or projects, will not have a likely significant effect the integrity of any transboundary protected site.

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