

Date: 30 April 2018  
Our ref: Tilbury 2 Deadline 3 Response  
Your ref: TR030003



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Dear Sir/Madam,

**NSIP Reference Name / Code: Tilbury2**  
**User Code: TR030003**

Thank you for your consultation on the above dated the 26<sup>th</sup> of February 2018. Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

### **Written Submission of Oral Case & Post-Hearing Submissions**

Further to oral representations made on the 18<sup>th</sup> April 2018 at the Issue Specific Hearings ('ISH'), Natural England provides the following written submission:

#### **Cumulative & Combined Impacts**

#### **7.3 Does Natural England accept the Applicant's reasoning set out in section 2 of its Response to Relevant Representations [AS-049] for excluding the LTC and TEC from assessment of in-combination effects?**

Natural England assumes the question is to be understood to include both in-combination (HRA) effects and cumulative effects (EIA). Natural England does not accept the reasoning presented by the Applicant. We also note that the question has been superseded by additional information and submissions since the Relevant Representations, and we have sought to take these into account in providing our answer.

With respect to the Tilbury Energy Centre (TEC), we note that the Planning Inspectorate are now in receipt of the EIA scoping report prepared by RWE for their NSIP project. Whilst Natural England has not yet had opportunity to review this report, we regard it to present significant additional project information to enable a more detailed Cumulative Environmental Assessment with Tilbury2.

We suggest that this report should be viewed alongside as much additional information as may be available for the TEC project, including the public consultation (February – March 2018), and further to this Natural England understands that additional ecological survey information is likely to be available from the RWE project team which may not yet be publically available. Natural England has requested of RWE that any relevant data should be made available for the purposes of CEA, especially with respect to terrestrial invertebrates (but also with respect to HRA issues). We understand that a dialogue exists between the PoTLL and RWE, and would hope that exchange of data could be arranged. We also note that considerable ecological information already exists in the public domain for former development proposals at the wider Tilbury Power Station site. This information should also be used as alongside any more recent information to inform the CEA.

Whilst Natural England acknowledges the desire of the PoTLL to be helpful to the Examination in producing CEA assessments for TEC and LTC (despite their own disagreement that this is required), we note that this is consistent with the Planning Inspectorate's own Advice Note 17 at paragraph 3.4.3 where "an assessment should be provided for all Tier 1 and Tier 2 'other development', where possible".

The submission of RWE's EIA scoping report for their TEC project promotes TEC to a "Tier 2" project, with reference to table 3 of Advice Note 17. We also note that paragraph 3.4.9 of Advice Note 17 advises on the question of "Assessment Cut-off-Date" that "the Examining Authority may request additional information during the examination in relation to effects arising" if other development comes forward following the stated cut-off period. As this is now the case, the need for CEA is entirely consistent with the Planning Inspectorate's advice notes on this matter.

To this end we note that a Cumulative Effects Assessment has been prepared (ahead of the submission of the TEC EIA scoping report) and submitted as Appendix C to the PoTLL "Response to Written Representations". Natural England has not yet reviewed this version of the CEA with TEC, but will endeavour to do so as soon as possible.

Natural England considers CEA with TEC to be particularly important because of the close ecological relationship which exists between the two projects. Clearly they are both similar in character as holding brownfield habitats and there is likely to be interchange of mobile species between them and a shared overall habitat resource. The assessment of impacts arising for both of the proposed NSIPs having close associations and essentially comprising a single overall node for terrestrial invertebrates in this area of the Thames Estuary lends itself appropriately to CEA. Indeed we note that Thurrock Council's draft local wildlife sites review includes additional areas within both the Tilbury2 red-line boundary and wider Tilbury Power Station complex which supports the notion that the overall ecological resource affected by Tilbury2 is beyond that which sits strictly within the red-line boundary.

It is important to note that many of the species of concern operate at a meta-population level (broadly defined as populations which operate as smaller sub-groups which interact between each other. This strategy is more stable in the long term as it allows flexibility in the variable use of resources, and recolonization in the event of localised extinctions). Hence the availability of resources in the long-term within range of linked populations is critical to the success of conservation efforts.

Natural England is concerned that the loss of a significant proportion of this overall resource may compromise the viability and longer-term functionality of remnant populations. In particular we are concerned regarding the spatial scale of impacts across both projects for both individual species and group of species which have minimum habitat and population sizes to ensure long-term viability. We are also concerned regarding the temporal availability of habitats, noting the need for construction lay-down areas, and whether sufficient resource exists at any given point in time, noting the lengthy construction periods required. CEA would assist by providing information on habitats likely to be affected – whether permanent or temporary, known or indicative, best or worst case – and undertake appropriate impact assessment.

With respect to the Lower Thames Crossing, much of the above also applies, although we note that LTC is less closely associated with Tilbury2 than TEC, with the exception of the transport corridor containing the "Tilbury link road".

Natural England's advice on the HRA in-combination assessment is expanded in answers to later questions, however in summary, we cannot yet rule out the likelihood of the significant effects of Tilbury2 in-combination with TEC and / or LTC.

## **Biodiversity, Ecology & Natural Environment**

### **2.1 Why does Natural England (NE) consider the habitats on the proposed development site “arguably ... irreplaceable (in particular the Lytag site)” [REP1-074], and Buglife the site “unique and irreplaceable” [REP1-030] in their respective WRs? Is it the characteristics of the Lytag and PFA products themselves or the nature of the ground conditions on which they have been placed which gives rise to these circumstances?**

Brownfield loss is most acute nowadays in that it tends not to be recreated, especially when the end use is housing. Whilst the substrates are post-industrial, and hence “artificial” this does not diminish their value or the value of the faunas that develop on them. In many respects, this makes them a scientifically interesting case of faunas that are otherwise naturally very limited to habitats such as eroding soft-rock cliffs.

Whilst the Thames gateway is seen as a hot-spot from brownfield habitats, the losses to that resource have been, and continue to be significant. The 2013 Buglife report on brownfield showed that 51% (n=198) of Thames brownfields had either been damaged, lost, or were threatened with conversion. Within Essex the report showed that of 38 High value sites, only 23 were intact at the time of writing (2013), seven were partially destroyed, four destroyed, and four had extant planning permission granted on them. It is unclear how many of the latter sites have moved on in the intervening years. The cluster of high quality sites in and immediately around the application site demonstrate its value as there will be faunal exchanges, and again emphasise the importance of a landscape scale resource here. With the sort of trajectory of losses, it is quite possible for the hot spot to turn fully cold.

The named areas at the Tilbury application site are artefacts of sampling and analysis convenience. The fauna shows a reasonable degree of mobility, such that the lytag area will be benefiting from a wider range of substrate mixes than just the pulverised fuel ash (pfa) that was deposited across it. It is the range of substrate types and mixes, all randomly arrived at, that makes the site significant. Even within the pfa, it is likely that there is substrate variation. As the species are selecting micro-habitats that meet their particular and individual needs, having as diverse matrix of substrate and substrate conformation does allow a rich fauna to form. On the lytag, it is the deposition of the pfa, and the proximity of that pfa to other substrates and other substrates mixes, depths, and slopes, that supports such an important fauna.

### **2.2 Do NE, Buglife, the Applicant and the Environment Agency (EA) all agree the status of the Lytag Local Wildlife Site (LoWS) is of high quality and of national importance, which is at risk of declining due to successional processes if left unmanaged?**

Almost all habitats in the UK benefit from some management, and some intervention within any brownfield site would increase the range of substrate variability and hence opportunities for invertebrates. Since many invertebrates operate on choice of micro-habitat parameters, increasing those options can only benefit the fauna. The lytag site data does have a scrub signal within the assemblages identified through the various surveys, and it does remain true that the early successional faunas have a requirement for open and hot substrates, and that shading does diminish the substrate mix. Whether the trajectory on the lytag is towards one of inevitable woodland is not clear, and if it is over what time frame. If such a trend is real, it is very easily reversible. Randomised relatively small-scale disturbance would benefit any such system, but most especially in the context of this happening within a rich brownfield ecosystem, since re-colonisation opportunities are greatly enhanced when proximity is a major factor.

### **2.3 Are EA, NE, Buglife (and Marine Management Organisation (MMO) if appropriate) content with the proposals for offsite compensation set out in the draft Ecological Mitigation and Compensation Plan (EMCP) submitted at Deadline 2? [ REP2-009]**

Natural England notes the submission of the most recent version of the EMCP (issued for purposes of deadline 2). This also follows a meeting held with the PoTLL on Friday 16<sup>th</sup> March, a minute of which has recently been agreed and should be made available to PoTLL. We note the amendments proposed to the scheme of off-site compensation, in particular the new off-site compensation proposed at

Paglesham. We understand that this site is proposed for compensation for losses of coastal grazing marsh habitats, and reptile populations. Natural England has not made specific representations on either of these ecological receptors, and it may be that other interested parties will have comments to make on the suitability of this location for the stated purposes. We would however invite the PoTLL to consider the compatibility of the Paglesham compensation site with the Essex and south Suffolk Shoreline Management Plan, to ensure there are no conflicts arising with the long-term aspirations for coastal management in this area. The SMP can be located at this link.

Importantly however, the EMCP scheme of off-site compensation does not yet make provision for terrestrial invertebrates and brownfield compensation, and as such it should be regarded as incomplete (this is noted at paragraph 9.33). Natural England's opinion is that the Paglesham site is not appropriate for off-site invertebrate compensation because it lacks any meaningful connectivity with the development site and so fails largely on proximity grounds. We also note however that in our view it also lacks an appropriate ecological context and is devoid of any equivalent urban brownfield habitats.

We understand that the PoTLL are actively pursuing other options for terrestrial invertebrate compensation, and are willing to assist them in advising on site suitability. During the course of the hearing, reasons of commercial sensitivity were raised as limiting the ability of the PoTLL to provide specific details on the location of compensation sites, and the PoTLL drew the Examining Authority's attention to our apparent unwillingness to enter a non-disclosure agreement (NDA) with them and prospective landowners. Natural England considers the use of NDA to be both inappropriate and unnecessary. Any decision not to enter an NDA should not be viewed that we are unwilling to provide assistance to the Port in providing advice on the relative suitability of compensation sites.

In addition, we are in receipt of an email from PoTLL ecologists (dated 17<sup>th</sup> April 2018) seeking to reach agreement with us on a range of ecological criteria which may help in appropriate site selection for compensation sites. We will respond to this email shortly.

Further to the above, we note that the questions arising on matters related to biodiversity and nature conservation are concentrated around the adequacy of mitigation and compensation measures required. As we have sought to emphasise both to the PoTLL and the Examining Authority throughout our representations on this proposed development, Natural England emphasises the importance of following the "mitigation hierarchy" which seeks to avoid impacts as a first principle, and we urge the Examining Authority to give due regard to avoidance of impacts, in the context of a project design which (in view of the answers provided to the Examining Authority's questions) appears to have been driven to maximise commercial advantage, rather than for any particular operational limitation.

**2.5 What is the position concerning the additional wintering bird survey data for February and March 2018 referred to in NE's WR [REP1-074] concerning land functionally linked to SPAs? In light of this information, does NE still consider that annual bird surveys are required (between 01 September to 31 March during the construction and operational phases)?**

Natural England's view is that notwithstanding the February and March supplementary data supplied, the annual bird surveys proposed remain appropriate. We remain of the view that we cannot rule out that significant effects are likely, possibly alone, but also in-combination. The reason for this view is that additional survey data exists (other than that surveyed by the PoTLL) which indicates that the area of foreshore contiguous with the Thames Estuary & Marshes SPA has supported significant numbers of over-wintering (and / or passage) bird species and that more recent activities in the area of the foreshore (linked to the Goshem's Farm development) are thought to have caused a reduction in bird usage of the area in proximity of the Tilbury2 project. These factors place the PoTLL's data in a wider context, such that Natural England cannot rule out that the disturbance of birds in this area and their inability to feed / roost effectively could be regarded as a significant and likely effect.

On this basis, an Appropriate Assessment would be required in advance of any permission granted, with further surveys and/or desk based studies, as necessary. Should the Examining Authority be minded to grant permission without an appropriate assessment, Natural England would not regard ongoing surveys as mitigation. We advise that monitoring surveys would be necessary to assess the scale and

significance of the construction activities and operational activities, both alone and in combination with other plans or projects. There would also need to be a linked and robust mechanism to deliver an adequate scale and type of mitigation and impact-offsetting (identified by survey results) in a suitably timely and appropriate way. In this context, we believe additional survey work to inform an Appropriate Assessment enables a rigorous assessment of the in-combination issues to ensure the mitigation and mechanisms can be part of any permission granted.

The Examining Authority will be aware that the submitted HRA has been supplemented by additional survey and analysis which has been provided to Natural England, in the form of a "Bird Note". The most recent version of this note is dated April 2018, and was submitted on 9th April. Natural England wishes to submit a fuller response to this report (see below), within the answer provided to this question, although for avoidance of doubt we did not set out this detail during the hearing session.

In our Written Representations Natural England has drawn attention to the following contextual remarks around the "low" bird numbers reported in the ES and used to inform the HRA, as follows (with emphasis added):-

*"We are pleased to see that surveys have been carried out in September and October of 2017, thus completing an overwintering season in conjunction with the 2016 data. We would, however, have expected the application to be supported by a number of years of full data and **consider that this limitation may have contributed to bird numbers identified being low.** Paragraph 1.277 of the ES gives limited detail relating to survey work prior to 2016. Any further data available should be presented within the ES to corroborate the findings of the most recent surveys. With regards to functionally linked land, Natural England notes that 'several of the bird species underpinning the European Site designations make use of intertidal habitats in closer proximity to the Tilbury2 site than the European Site itself.' From the information provided Natural England has been unable to ascertain which areas SPA birds are using, which species or in what numbers. **We note that it is considered that there is 'relatively low' usage of intertidal habitats within the area of 'potential disturbance' identified, but would expect to see consideration of what the habitat is being used for and potential impacts on the species concerned. It is worth bearing in mind that whilst some key species are identified in the SPA conservation objectives, water bird assemblage is also a qualifying feature.**"*

Natural England requested that any "further data available should be presented ... to corroborate the findings of the most recent surveys".

#### Assessment of "Bird Note"

Natural England notes the WeBS Low Tide Counts undertaken for the relevant sector during 1998-99, and how this information may assist when considering the value of the feeding habitat for non-breeding waterbirds of the SSSI, SPA assemblage. In particular we note the excerpts from Musgrove which state: *Many of the individual species were widespread but showed concentrations in one or more areas. Such species included [...] **Dunlin (especially East Tilbury [...]). Avocets were highly concentrated on the East Tilbury shoreline, with most of the Black-tailed Godwits also here and along the North Kent shore. Ringed Plovers were in their highest densities at Thamesmead, West Thurrock to Coalhouse and [...].***"

We note that the BioScan survey methodology during 2016/17 does not cover the full non-breeding survey season and that low tide counts were not undertaken during the January & February 2017 period, which may be expected to be among the higher count months. The Low Tide and High Tide counts during the 2017/18 season including February 2018 and March 2018 are therefore welcomed. The assertion from Bioscan in Section 4 of the T2 Note that a wider area may have been the context for our precautionary position is partially correct. It is important for the applicant's consultants to recognise (consistent with points made at the outset) that these inner Thames areas are particularly important during severe weather & prolonged freezing conditions and a 'snapshot assessment' may not adequately cover this important aspect and value of the site. This is particularly important for this development noting the weather during the survey period until late February 2018 has been mild and the March 2018 date chosen was also mild temperature and weather. In addition to this, the extra survey

information undertaken by Atkins for the river area around Goshams Jetty provides additional non-breeding bird surveys for 2016/2017. These surveys help to fill some gaps in counts for the January – February 2017 period. For example, during January 2017, we note BioScan recorded 11 avocets at high tide in the IT4 sector and Atkins recorded 8 avocets at low tide in the E6 sector of the Tilbury Port 2 study area. The Atkins surveys also recorded 27 ringed plovers in the IT7 zone during Low tide (November 2016), which is geographically closer to the development zone than the maximum record of 44 ringed plovers recorded in the IT8 zone in October 2017 by the BioScan study. In summary, these counts are either within or sufficiently close to the application area to warrant detailed consideration. In this respect, whilst we acknowledge these figures are low numbers, it is important to recognise that these bird species have relatively low significance population thresholds at a national and international level, for example:

- Avocet - 11 individuals represents approximately 14.7% of a Nationally Important non-breeding population and 1.5% of an internationally important population.
- Ringed Plover – 27 individuals represents approximately 7.9% of a Nationally Important non-breeding population and 3.7% of an internationally important population.

The effect on these species should therefore be considered in more detail within the context of the SPA and the nearby constituent Mucking Flats & Marshes SSSI.

- Avocet – 11 individuals represents approximately 3.9% of the Thames Estuary & Marshes SPA population at classification
- Ringed Plover – 27 individuals represents approximately 2% of the Thames Estuary & Marshes SPA population and 20% of the Mucking Flats & Marshes SSSI population at SPA classification.

The survey counts within or close to the development area for these two species should not be regarded as insignificant and therefore the potential impact of the proposed development needs to be assessed in more detail, to meet EIA and HRA requirements.

To assist with this assessment Natural England can advise as follows:

- i. The potential disturbance to waterfowl of the SPA, SSSI assemblage caused by noise (notably piling) may be more significant than appreciated for the Goshem's Farm jetty application noting the concerns expressed and complaints we received about the bird disturbance it caused. This experience offers a helpful site-based observation.
- ii. Based on the data available (including consideration of the White Young Green report 2012) the importance of non-breeding bird interest within BioScan's '300m impact zone' is regarded to be more significant than indicated within the T2 Note and therefore should not be regarded as supporting insignificant value at the outset of HRA and EIA assessment. The area of intertidal immediately to the east of the Tilbury Power Station supports noteworthy habitat for non-breeding birds and provides diversity to the mud/sandflat and saltmarsh mosaic through patches of shingle and typically winter-warmer conditions around an Outfall. To the west, the mouth of Bill Meroy Creek may also be regarded as supporting SPA bird interest. On this basis, the 300 metre zone should not be immediately dismissed within any HRA or EIA assessment as an area that does not contribute either significant bird interest or notable supporting habitats for a SPA. Consistent with the iterative approach required, our evaluation has raised a number of questions arising from the WYG report, and therefore the robustness of the linked conclusions within the BioScan T2 Note. Noting the requirements of the precautionary principle (see Infrastructure Planning Commission [Advice Note 10](#)) this has implications for the content and conclusions within the ES and HRA.

Please note, it is possible that more data exists within the referenced White Young Green reports that would assist with helping to better define the area and boundaries of significant interest and non-significant interest. In the absence of this, it is only reasonably possible to conclude that (a) the density of notable birds (SPA feature and notable assemblage birds) generally appears to be higher within the

central - eastern third of the survey area if compared with the western third closest to and within the application area (red-line boundary), (b) the western third is used by notable birds (SPA feature and notable assemblage birds) in numbers that may be regarded as a significant proportion of the nearby SPA and SSSI, (c) the application area (ie red line boundary on Map attached) is also used by some of the listed notable birds (SPA feature and notable assemblage birds) in potentially significant numbers.

- i. With reference to the White Young Green report (2012) and Mr Larkin's (Essex Birdwatching Society) counts (2014 -17), the area east of the '300m impact zone' clearly supports notable non-breeding bird interest.
- ii. Natural England is keen to understand what 'zone of impact' is being proposed for the Construction and Operational Noise and how this is being justified. For reasons set out above, accounting for site-based experience, the proposed '300 metre zone' may not be sufficient to adequately safeguard the non-breeding birds. In addition to this, the 300m distance is also unlikely to be relevant for a number of development effects (eg, alterations to hydrodynamics & sediment regime, risk of pollution by displacing contaminated sediment, changes to port vessels etc) which may all have an impact on the foraging bird population across a wider area of relevance. In this context, the likely impact/effect of these different aspects needs to be assessed accounting for their respective geographical zones and scales of influence (alone, in combination and cumulatively). An evaluation of the relative scale and significance of the effect/impact on the key feature birds (SPA, SSSI, notable) and the supporting intertidal habitats can then be made.
- iii. Natural England is keen to ensure an appropriate and robust nature conservation value for non-breeding birds is attached to the whole intertidal area from application site to the Coalhouse Point area. Consistent with advice provided at the outset, this needs to be based on a broader context (ie, accounting for the value of its location proximal to existing designated sites; the 'relative warmth' it provides during severe weather periods and anthropogenic influences). This response seeks to help the applicant address these points to comply with best practice to meet EIA and HRA requirements and enable an exemplar sustainable development solution to be achieved. Consistent with this, Natural England regards it appropriate that the Lower Thames Crossing and other relevant geographically overlapping projects are included within the HRA assessments as 'in combination' plans and projects to ensure they collectively ensure this area of Tilbury achieves a strategically meaningful regeneration to deliver and secure significant nature conservation assets.

The Bird Note appears to acknowledge in its conclusions that the contextual data referred to above (WeBS low tide counts, Atkins Goshem's Jetty surveys, and Mr. Larkin's Essex Birdwatching Society data) have indicated some changes in bird numbers using the foreshore area in recent years, however it does not regard these changes as sufficient to warrant changes to the assessment process (with reference to paragraph 6). Natural England does not agree with this conclusion, and regards that consistent with the precautionary principle, a likely significant effect cannot be ruled out, and that consequently HRA assessment should proceed to the Appropriate Assessment stage.

We also wish to draw the Examining Authority's attention to a recent ruling by the Court of Justice of the European Union (the CJEU) on the interpretation of the Habitats Directive in the case of People Over Wind and Sweetman vs Coillte Teoranta. Whilst we are still considering the implications of this ruling, the central conclusion is that:

*"Article 6(3) of the Habitats Directive must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate (emphasis added), at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site."*

We recommend that the competent authority takes this recent judgement into account when considering the impacts of the project upon European sites, however we note that the ruling signals a presumption in favour of Appropriate Assessment, and that mitigation measures require further scrutiny. The applicant

may wish to seek their own legal opinion on the implications of this ruling for their shadow HRA, however consistent with that ruling, and in view of our current position that we cannot exclude a likely significant effect, we respectfully suggest that the HRA proceed to the Appropriate Assessment stage.

## **2.7 Can the Applicant explain how the functionally-linked habitat has been valued in the Environmental Impact Assessment (EIA) [APP-031] and the Habitats Regulations Assessment (HRA) [APP-060] report?**

Natural England notes that this question is addressed to the Applicant, and did not provide a response at the hearing session. We noted that the Applicant regarded functionally-linked habitat as being intrinsically less valuable than the SPA itself, nevertheless it is appropriate for us to point out the case law establishes that functionally-linked land should receive equivalent protection.

## **2.10 Further to its assessment in its WR [REP1-074] of the site as a potential Site of Special Scientific Interest (SSSI), what progress has NE made in considering the site for SSSI notification?**

In our Written Representations, we advised that “the overall assemblage could be considered to be of sufficient quality to meet the designation requirements of a SSSI” and that “consistent with its duties, Natural England must consider such a site for notification”.

It remains the case that we are considering the suitability of the site to put forward for designation, consistent with our statutory duty and designations strategy. This remains an option available to us, however we have discussed this with the PoTLL in a meeting on Friday 16<sup>th</sup> March. Paragraph 17 of the meeting minute discusses this option – where we outlined that the option around SSSI designation is weighed up against alternative outcomes – and these alternative options are the subject of live discussions with the PoTLL. We advise however that discussions on such alternative options have not progressed to a point at which we can remove SSSI notification from the options available to us. Specifically, to the best of our knowledge, Natural England is aware only of additional *off-site* options being explored, and with reference to paragraph 12 of the meeting minute, we have not been advised of any plans to adjust layout arrangements within the Order Limits.

We can update the Examining Authority however that since the Issue Specific Hearing on 18th April, Natural England has discussed the option of SSSI designation on our national High Risk Casework Panel. We can now advise PoTLL and the Examining Authority that Natural England will be adding the site to our SSSI designations’ pipeline, consistent with the requirements of our designations’ strategy. This means that it will be put forward for consideration by Natural England’s Senior Leadership Team for formal notification in due course.

## **11.1 What are the Applicant’s intentions for the revised version of the HRA report to be submitted for Deadline 3 in the light of NE’s statement in its WR [REP1-074] about further work required to cover for example functionally-linked habitat, Invasive Non-Natural Species (INNS), waste and pollutants, dredging, noise, dust and in-combination effects?**

Although the question is directed to the Applicant, Natural England welcomes the intentions for the HRA to be updated in response to our earlier statements in our Written Representations. We will be pleased to review this in due course, noting that additional comments are provided within this submission, such that a further revision may be appropriate. We also note the intention of the Examining Authority to undertake its own assessment consistent with its duties as the competent authority (Report on the Implications for European Sites).

## **11.3 What further mitigation measures to ensure compliance with the Habitats Regulations does NE have in mind, pursuant to its WR [REP1-074] and response to FWQ?**

In answering this question, some mitigation measures are proposed elsewhere in the submission that in the HRA, and we recommend that these are captured within the HRA in order to establish a clear audit trail. In other situations, such as dredging, the methodology has been suggested as an option but not

confirmed, and we have outstanding concerns around the uncertainties of sediment movement, pollution & scale of impact on birds/supporting habitats. Notwithstanding this, we have sought to provide some extended advice and be helpful where we can.

**Noise generation** by piling within the river is likely to significantly disturb birds of the SPA and Ramsar site assemblage without additional mitigation. For example, the design and methodology will require careful programme timing to avoid the sensitive September – end March period. Based on recent experience at Goshem's Jetty, this will need to be strictly adhered to, to avoid significant disturbance to SPA feature birds.

**Surface water pollution** needs to be effectively managed to avoid impacting on intertidal habitats supporting SPA and Ramsar site features. This requires additional mitigation measures to comply with best practice, in accordance with advice from the Environment Agency within the written representations. This refers to and would align with the concerns expressed and requirements of the EA set out in the Written Reps (see attached EA reps – Section 11) to meet WFD and Pollution Prevention Guidelines.

**Dredging operations** are likely to significantly impact on birds of the SPA and Ramsar site assemblage if undertaken without additional mitigation. For example, the design and methodology will require careful programme timing to avoid disturbing these birds during the sensitive September – end March period. Dredging operations are also likely to significantly impact on the functionally-linked intertidal habitats that support birds of the SPA and Ramsar site assemblage if undertaken without additional mitigation. For example, the appropriate design and methodology (yet to be defined, agreed and permitted) will require careful programme timing to avoid increasing the presence of contaminated sediments to invertebrate prey and birds foraging during the Autumn – end March period (includes ringed plover autumn passage). Without more information about the required dredging methodology and reliant on a precautionary position we can advise that any initial dredging should not be undertaken during the ten month period of July – April to allow for sediment to settle and be allowed to disperse, before overwintering and Autumn passage visit the area in significant numbers. A suitable sediment monitoring programme will be necessary to ground truth the sediment movement, accretion and contamination levels to SPA supporting habitats arising from this initial dredging to inform any maintenance dredging programme going forward. This is best provided by way of interim reports with monitoring data and assessment for regulator's approval in consultation with Natural England. The monitoring report & assessment will also identify the scale and type of any additional mitigation and impact-offsetting that will be necessary to meet a robustly timetabled delivery programme. Monitoring will be necessary to ensure compliance with an approved best-practice methodology; validate the predictions from modelling; assess the scale & extent of any additional mitigation that may be required by the applicants (to deliver via a robust permission-linked mechanism) that is related to unforeseen impacts on the functionally-linked and SPA habitats.

**Water Discharges** - The Port operations that would be enabled by grant of planning permission have the capacity to increase and alter water discharges to the Thames which may potentially impact on the functionally-linked habitat. They also have the capacity to introduce or mobilise contaminants via a range of activities (eg, surface run-off from increased vehicle movement, operational spillages). Natural England acknowledges the information within the ES and the Operational Management Plan (OMP), however we advise the potential impacts to the SPA and Ramsar site features and proposed mitigation need to be separately addressed within the HRA to ensure the OMP has an appropriate framework of reference to demonstrate compliance with the Habitats Regulations. The information is not clearly set out within the HRA to enable Natural England to assess the likely significance of this effect. Once received we can consider this.

**Construction Waste and Pollutants** – The construction activities within the development footprint have the capacity to introduce or mobilise environmental contaminants via a range of activities (eg, elevated construction dust; increased quantity and affected quality of surface water run-off; use or application of non-biodegradable toxic chemicals, etc) to potentially impact on the Thames Estuary and Marshes SPA and Ramsar site. Natural England acknowledges the disparate information within the ES and the Construction Environment Management Plan (CEMP), however we recommend the potential impacts to the SPA and Ramsar site features and proposed mitigation need to be separately addressed within the

HRA to ensure the CEMP has an appropriate framework of reference to demonstrate compliance with the Habitats Regulations. The information is not clearly set out within the HRA to enable Natural England to assess the likely significance of this effect. Once received we can consider this.

**Invasive Non-Native Species** - Construction works and Port operations have the capacity to introduce invasive non-native species that could potentially impact on Thames Estuary and Marshes SPA and Ramsar site features and the habitats that support them. Natural England acknowledges there is information within the Environmental Statement but advises this should also be addressed within Section 5 of the HRA to specifically address the Habitats Regulations requirements. The information is not clearly set out within the HRA to enable Natural England to assess the likely significance of this effect. It should include the full list of likely species and measures to eradicate, monitor and implement operational management measures as necessary.

**Direct Impact of development** - The development plans mainly within the terrestrial area, (but also including some intertidal areas) have the capacity to impact on functionally linked habitats that support a number of Thames Estuary and Marshes Ramsar site listed invertebrates and plants. The mitigation plans are not currently regarded as adequate to address the predicted scale of loss in extent and quality of the habitat mosaic and no compensation plans have been submitted yet for our consideration. The scale of loss to these Ramsar site features and full details of the mitigation and compensation package has not been clearly set out within the ES to enable Natural England to assess the likely significance of this impact. Our current precautionary position is that the development will have a significant impact without adequate mitigation and compensation.

### Outstanding Matters

Natural England understands that additional responses have been requested of us in order to meet deadline 3. These include response to queries raised in the "Response to Written Representations, Local Impact Reports and Interested Parties' Responses to First Written Questions" (document reference PoTLL/T2/EX/60. This response raises several items that require additional work by Natural England, and we therefore are unable to respond in time for deadline 3. With apologies, we intend to submit our further comments on these matters as soon as possible, to assist the Examination. Several of these items are linked to the Statement of Common Ground between the PoTLL and ourselves, and consequently we have been unable to progress the SoCG in the time available. Please be assured that we are endeavouring to progress our responses in a timely manner, as far as possible.