

Date: 15 February 2019
Our ref: 267771
Your ref: TR020002



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Dear Sir/Madam

NSIP Reference Name / Code: Manston Airport / TR020002
Natural England's Written Representations in respect of Manston Airport

Thank you for your consultation on the above dated 11 December 2018 which was received by Natural England on the same date.

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 Representation

Summary of Natural England's advice.

Designated nature conservation sites

Natural England's view is that the conclusion of no adverse effect on integrity of European sites is premature for a number of reasons:

- Potential loss of functionally linked land for golden plovers due to bird scaring;
- Potential operational disturbance to golden plovers, turnstones, little terns and SSSI waders from aircraft;
- Potential surface water quality impacts on intertidal habitats and species of Pegwell Bay;
- Air quality impacts

Protected species

Natural England agrees with the approach taken to mitigation and compensation measures for bats on site. Once a satisfactory draft licence application is received, we will issue a Letter of No Impediment.

1. INTRODUCTION

1.1 Purpose and structure of these representations

- 1.1.1 These Written Representations are submitted in pursuance of rule 10(1) of the Infrastructure Planning (Examination Procedure) Rules 2010 ('ExPR') in relation to an application under the Planning Act 2008 for a Development Consent Order ('DCO') for Manston Airport submitted by RiverOak Strategic Partners Ltd ('the Applicant') to the Secretary of State. The project refers to the upgrading and re-opening of Manston, primarily as a cargo airport, with some passenger services, with a capacity of at least 10,000 air cargo movements per year.
- 1.1.2 Natural England has already provided a summary of its principal concerns in its Relevant Representations, submitted to the Planning Inspectorate on 8 October 2018. This document comprises an updated detailed statement of Natural England's views, as they have developed in view of the common ground discussions that have taken place with the Applicant to date. These are structured as follows:
- 1.1.3 Section 2 describes the conservation designations, features and interests that may be affected by the Project and need to be considered. It also confirms the European sites that can be screened out from further assessment.
- 1.1.4 Section 3 comprises Natural England's submissions in respect of the issues that concern it.

2. Conservation designations, features and interests that could be affected by the proposed project

The following is a brief summary of the interest features of the relevant designated areas of concern in this matter.

2.1. International conservation designations potentially affected by the proposal

Thanet Coast and Sandwich Bay Special Protection Area (SPA), which is designated for:

- Golden plover, *Pluvialis apricaria* (non-breeding)
- Ruddy turnstone, *Arenaria interpres* (non breeding)
- Little tern, *Sterna albifrons* (breeding)

Thanet Coast and Sandwich Bay Ramsar wetland, which is designated under:

- Ramsar criterion 2: supports 15 Red Data Book wetland invertebrates
- Ramsar criterion 6: Ruddy turnstone, *Arenaria interpres* (non breeding)

Sandwich Bay Special Area of Conservation (SAC), which is designated for:

- Embryonic shifting dunes
- Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes"); Shifting dunes with marram
- Fixed dunes with herbaceous vegetation ("grey dunes"); Dune grassland
- Dunes with *Salix repens* ssp. *argentea* (*Salicion arenariae*); Dunes with creeping willow
- Humid dune slacks

Thanet Coast SAC, which is designated for:

- Reefs and submerged or partially submerged sea caves

The Swale SPA, (potential air quality impacts only) which is designated for:

- Dark bellied brent geese, *Branta bernicla bernicla* (non-breeding)

- Dunlin, *Calidris alpina alpina* (non-breeding)
- Breeding bird assemblage
- Wintering waterbird assemblage

The Swale Ramsar wetland, (potential air quality impacts only) which is designated for:

- Assemblage of wetland plants and invertebrates
- Wintering waterbird assemblage
- Redshank, *Tringa totanus*; Dark bellied brent goose; Grey plover *Pluvialis squatarola* (non-breeding)

2.2 International conservation designations where there is no likely significant effect

2.2.1 Natural England agrees with the conclusions of the Report to Inform an Appropriate Assessment (RIAA – Deadline 1 submission version), that the proposal is not likely to have a significant effect on the following sites, which can be screened out from further assessment:

- Outer Thames Estuary SPA
- Margate & Long Sands SAC
- Stodmarsh SPA, SAC and Ramsar
- Blean Complex SAC

2.2.2 Natural England notes the question raised in the ExA's Rule 6 letter regarding the discrepancy between the designated features listed in the RIAA screening matrices and found on the Standard Data Forms on the JNCC website. In response to this, Natural England provided advice to the applicant on 15 January 2019, and can confirm that the correct features are now listed in the screening matrices.

2.2.3 Where there is a discrepancy between the species on the Standard Data Forms and elsewhere, the species listed on the Conservation Objectives¹ are the legally correct ones to assess. This is because they are derived from the citation, whereas the Standard Data Forms list the species that were present in qualifying numbers when the Form was generated.

2.3 National conservation designations

Sandwich Bay to Hacklinge Marshes Site of Special Scientific Interest (SSSI) notified for:

- Ornithological interest includes wintering populations of waders: Grey plover (*Pluvialis squatarola*), sanderling (*Calidris alba*), golden plover (*Pluvialis apricaria*) and ringed plover (*Charadrius hiaticula*); and the assemblage of breeding birds of lowland open waters.
- Sand dune system and sandy coastal grassland including large colonies of the nationally rare lizard orchid (*Himantoglossum hircinum*) and bedstraw broomrape (*Orobanche caryophyllacea*)
- Habitats including saltmarsh, ditches, lowland fen, neutral grassland, woodland.
- Invertebrate and plant communities associated with saltmarsh, dune and freshwater habitats.
- Geological interest.

Thanet Coast SSSI notified for:

- Ornithological interest includes wintering populations of waders: Ruddy turnstone (*Arenaria interpres*) grey plover (*Pluvialis squatarola*), sanderling (*Calidris alba*) and ringed plover (*Charadrius hiaticula*). Breeding little terns (*Sterna albifrons*).
- Habitats including reefs, sea caves, vegetated shingle, maritime cliff and slope, woodland, neutral grassland and saline lagoons.

¹ Conservation Objectives can be found on Natural England's Designated Sites View website:



- Plant and invertebrate communities associated with those habitats.
- Geological interest.

The Swale SSSI (potential air quality impacts only) notified for:

- Ornithological interest includes aggregations of breeding and non-breeding birds associated with intertidal habitats and lowland wet grassland.
- Habitats including floodplain fen, brackish lakes, ditches, ponds, saltmarsh and standing waters.
- Plant and invertebrate communities associated with saltmarsh, open water and reedbeds.

2.4 European Protected Species

Bats (present on the project site)

Initial Stone Hill Park surveys identified 7 confirmed bat roosts: two hibernation (brown long-eared bat), four day/transitional (likely common or soprano pipistrelle bat) and one night/feeding (brown long-eared bat). Further potential roosts have been identified where the species and type is unknown.

3. NATURAL ENGLAND'S CONCERNS AND ADVICE

3.1. The principal issues

Natural England identified the following main issues in its Relevant Representations:

- a) Disturbance to birds
- b) Surface water discharge
- c) Air quality impacts
- d) Protected species - bats

These issues will be discussed in corresponding sections below along with any updates on the progress or resolution of issues.

3.2 Disturbance to birds

3.2.1 Golden Plover

Golden plovers are a wading bird that spend time feeding on the intertidal habitat of Pegwell and Sandwich Bays, but also make use of terrestrial habitat inside and outside the designated nature conservation sites. The most favoured habitat outside the designated site is winter cereal fields, but significant use is made of pasture and ploughed or bare fields.

3.2.2 Surveys for the application found a peak count of 530 golden plovers using a field to the south of the airfield red line boundary, and west of the A299 (figure 3.1 in Appendix 7.5 [APP-045]). Use of the same field by a peak of 402 birds was recorded by Henderson and Sutherland², also in November 2016 (figure 4.4 in the Ecological Desk Study Report [APP-045] erroneously records this count as being from within the airfield red line boundary). Paragraph 4.2.4.4 of the RIAA [REP1-007] states that at the end of November 2016 the field was cultivated and became unsuitable for golden plovers.

3.2.3 The survey records show that golden plover distribution is highly dependent on arable cropping regime. The field to the SW of the airfield is likely to be favoured when it is in an appropriate cropping regime as it is relatively close to Pegwell Bay. Natural England's view is that the presence of high counts of golden plover in this field adjacent to the airfield demonstrates that the area can be considered functionally linked to the SPA.

Construction disturbance

3.2.4 Natural England agrees with the use of a 750m buffer around the site within which disturbance to birds could occur. Given that suitable habitat is present, and significant numbers of golden plovers have been recorded on occasion, Natural England agrees that construction disturbance could have a likely significant effect on the SPA.

3.2.5 Paragraph 4.2.4.9 of the RIAA [REP1-007] concludes that as the area within 750m of the site does not form an important part of the foraging grounds for the SPA golden plover population and as there is extensive alternative habitat available, then displacement would have a negligible effect.

² Henderson and Sutherland (2017) Numbers and distribution of Golden Plovers in the Thanet Coast and Sandwich Bay SPA during the winter of 2016/17. A report to Natural England.

3.2.6 Natural England does not agree that displacement would have a negligible effect. However, mitigation measures are included in the application documents that would minimise the potential for disturbance. These include the best practice measures set out in Table 5 of the CEMP [REP1-009], and the use of CFA piling as set out in paragraph 3.3.158 (Chapter 3) of the main ES [APP-033]. These mitigation measures, and the temporary nature of the construction works, lead Natural England to conclude that although the 750m buffer supports golden plovers when agricultural practices are favourable, construction would not have an adverse effect on the integrity of the site.

Operational displacement – habitat loss due to bird scaring activity

3.2.7 Provided that bird scaring activities will be restricted to the airfield itself (and not on adjacent farmland) Natural England agrees that a 1km buffer is an appropriate distance within which to assess impacts. However, as requested in our Relevant Representation, confirmation of the bird scaring methodology to be used at Manston would be helpful, for example how often will pyrotechnics be used.

3.2.8 Paragraph 4.2.4.13 of the RIAA [REP1-007] concludes that as the area within 1km of the Order Limits does not support golden plovers on a regular basis, effects from displacement are considered negligible.

3.2.9 Natural England does not agree that displacement from this area can be considered negligible. As noted above, the farmland within 1km supports significant numbers of golden plovers when agricultural practices are favourable, and the area to the SW is likely to be favoured due to the proximity to Pegwell Bay. Only one year's survey is presented, therefore, there is no evidence that the area is not regularly used by golden plovers.

3.2.10 In order to determine whether the effective loss of habitat within the 1km buffer will have an adverse effect on the integrity of the site, it would be helpful if information could be provided on the proportion of functionally linked land that would be lost; any reason why not all of the land within the 1km buffer would be suitable for golden plovers (eg fields are too small); the crop rotation within the 1km buffer (ie how often the land would be suitable for golden plovers). Without this information it is difficult for Natural England to advise on whether mitigation is required to ensure that the displacement of golden plovers due to bird scaring would not result in an adverse effect on the integrity of the SPA.

Operational disturbance from aircraft

3.2.11 Waterbirds are perceived to be more susceptible to being disturbed by short, sharp 'peaks' of noise (L_{Amax}) e.g. during piling (or bird scaring activities), rather than an increase in 'continuous equivalent noise levels' (L_{Aeq}), which form the basis of most noise assessment protocols. There are no clearly defined noise thresholds at which disturbance to waterbirds would be expected; this is because there are a large range of factors influencing how and to what extent birds are disturbed, and how 'disturbing' a noise event is perceived to be. This is also inextricably linked to the ambient noise levels, because a 'peak' noise event represents a sudden change from baseline conditions. The response from waterbirds to disturbance can range from head lifting and short 'escape' flights, up to complete abandonment of an area and extended flights to other feeding grounds in the estuary, all of which can result in a decreased time spent feeding, with a potential corresponding effect on body condition and survival rates.

- 3.2.12 Natural England does not advocate the use of noise thresholds because the impact of a particular noise stimulus on a bird population is site and species specific. As with other forms of disturbance, bird response varies with other factors such as degree of habituation to ambient noise levels, flock size and availability of resources such as foraging and roosting habitats. For example, a redshank in an industrial area may have less reaction to a noise event than a redshank on a pristine, undisturbed estuary. Furthermore, the fact that a bird does not fly away does not necessarily mean that it is not impacted by disturbance: it may be close to its energy budget and not be able to fly away, or it may have no alternative sites to fly to, but by remaining *in situ* it will be subject to stress, which further impacts its energy budget. Therefore, it is difficult to say with certainty, that below a certain threshold, disturbance to a particular bird species will not occur. Nevertheless, we accept that the use of noise levels can be helpful in understanding the area that will be potentially affected, and hence help devise mitigation measures.
- 3.2.13 For these reasons, Natural England does not agree with the approach taken in the ES or RIAA [REP1-007] whereby a threshold of 70dB is used to define the level below which no effect will occur. Furthermore, the 70dB threshold is taken from work carried out by the Institute of Estuarine and Coastal Studies (IECS) on the 'Waterbird Disturbance Mitigation Toolkit Informing Estuarine Planning and Construction Project'. This followed work which had been undertaken on the Humber Estuary in response to casework. The IECS carried out a literature review of bird disturbance and reported (in 2009) that there was little evidence available on the impacts of construction disturbance to birds. On this basis it is unclear how the very specific noise and distance 'triggers' for individual species of birds were derived for the subsequent toolkit.
- 3.2.14 It should also be noted that the Humber Estuary is a SPA/ Ramsar site and therefore no construction works have been carried out that would cause significant disturbance to SPA/ Ramsar birds. Evidence collected from monitoring work associated with construction disturbance undertaken on this site has either been carried out outside the sensitive season, when there are low numbers of birds present; or when the competent authority has already determined that the proposed works will not adversely affect the integrity of the designated site. Given these limitations it is not recommended that the 70dB threshold is used as a generic threshold for noise levels which result in moderate to high disturbance of birds.
- 3.2.15 For all these reasons it seems clear that generic noise threshold levels are unlikely to offer a suitable approach for assessing the potential effects of noise on birds. Natural England, therefore advises that a more suitable approach would be to assess the change in noise levels. This requires a comparison of the predicted new noise level to existing noise levels, thus necessitating the accurate measurement of existing noise levels in the vicinity of environmental receptors as a baseline.
- 3.2.16 As requested in our Relevant Representation, and prior to that, Natural England recommends that noise contour maps are produced (for both peak L_{Amax} and continuous L_{Aeq} noise levels) showing contours in 5dB increments from 55dB upwards. This reference to 55dB does not mean that Natural England considers that noise above this will have an adverse impact. However, we would like to see contours mapped below 70dB, as we do not agree that below this that effects will be negligible, for the reasons explained above.
- 3.2.17 In order to assess the impacts of the proposal, it will be necessary to compare the predicted noise contours with maps showing the current noise levels, using the same contour intervals.

These maps should be overlain with the designated site boundaries, and the locations of birds (including use of functionally linked land). This will then enable a judgement to be made of the change in noise predicted to be experienced by birds in particular locations.

- 3.2.18 Until this information is presented, Natural England's view is that a conclusion of no adverse effect on the integrity of the SPA from aircraft disturbance is premature.

Turnstone

- 3.2.19 The turnstone is a species that is confined to intertidal habitat and does not make use of terrestrial habitat inside or outside the SPA boundary. Therefore, Natural England agrees that significant effects from construction disturbance, bird scaring and operational barrier effects can be ruled out.

Operational disturbance from aircraft

- 3.2.20 Natural England notes that survey results indicate that turnstones do not use intertidal habitats for foraging and roosting within the area where aircraft are predicted to fly over at altitudes of less than 500m (figure 4.6 in the RIAA). Paragraph 4.4.3.5 of the RIAA [REP1-007] suggests that turnstones will readily habituate to disturbance, and that they react to the presence of humans at a much shorter distance than other species. Natural England's advice is that habituation is not the same as tolerance and evidence that certain individual birds may tolerate (rather than habituate to) a certain amount of disturbance (from a variety of different sources and not just noise) elsewhere within the species' range, does not demonstrate different individuals will respond in the same way following exposure at the planning application site – the context of the site is vital. Experiments have shown that if turnstones are fed with mealworms, they fly away at greater distances from disturbance³. This suggests that lack of flight in response to disturbance in this species does not necessarily mean that birds are habituated, but that they may not have the energy reserves to expend on flight.
- 3.2.21 For the same reasons as set out above for golden plovers, Natural England advises that it is premature to rule out an adverse effect on the integrity of the SPA turnstone population until the noise assessment set out in paragraphs 5.3.16-17 of this letter is carried out.

Little Tern

- 3.2.22 Little terns are a feature of the SPA but no longer breed within the site. Nevertheless we welcome the fact the RIAA considers whether the proposal would hinder the species' return. As it is a coastal species, we agree that significant effects through construction disturbance, bird scaring and operational barrier effects can be ruled out.
- 3.2.23 Natural England notes that the closest available nesting area for little tern is at Shell Ness on the southern edge of Pegwell Bay, and that this is outside the area where aircraft are predicted to fly over at altitudes of less than 500m. The noise assessment recommended above will aid understanding as to whether the additional disturbance from aircraft disturbance is likely to be significant enough to deter little terns from returning to the site.

³ Beale & Monaghan (2004) Behavioural responses to human disturbance: a matter of choice? J.Animal Behaviour 68:1065-1069

SSSI bird species – sanderling, grey plover and ringed plover

- 3.2.24 Sanderling, grey plover and ringed plover are species that are largely confined to intertidal habitat and do not make use of terrestrial habitat outside the SPA boundary. Therefore, Natural England agrees that significant effects from construction disturbance, bird scaring and operational barrier effects can be ruled out.

Operational noise from aircraft

- 3.2.25 Noise contour mapping showing the change in the noise environment likely to be experienced by SSSI waders will be helpful in understanding whether there will be a significant impact on the SSSI.

Conclusion on ornithological impacts

- 3.2.26 In order to be able to assess whether there will be an adverse effect on the integrity of the SPA and SSSI, Natural England advises that the following information should be provided:
- a. To determine the potential impacts of bird scaring on golden plovers: the proportion of functionally linked land that would be lost; any reason why not all of the land within the 1km buffer would be suitable for golden plovers (eg fields are too small); and the crop rotation within the 1km buffer (ie how often the land would be suitable for golden plovers).
 - b. To determine the potential operational disturbance to golden plovers, turnstones and little terns, and SSSI waders, from aircraft: predicted noise contour maps (for both peak L_{Amax} and continuous L_{Aeq} noise levels) showing contours in 5dB increments from 55dB upwards. This should then be compared to existing noise contour maps, and overlain with the designated site boundaries and key bird locations, to assess the change in the noise environment of the SPA.

3.3 Surface water discharge

- 3.3.1 In our Relevant Representation, Natural England raised questions and concerns over the permitting regime for the surface water discharge to Pegwell Bay, and regarding the designated site features that would potentially be affected.
- 3.3.2 We note that the Environment Agency, in their response to the ExA's first questions, has confirmed that as the applicant plans to discharge clean, uncontaminated effluent via an existing surface water outfall, then no permit or authorisation is required. This is helpful clarification, however Natural England advises that certainty is required for the HRA that the surface water will be uncontaminated.
- 3.3.3 The outline Drainage Strategy (DS) [APP-048] states that run-off from the runway and aprons will be treated by a light liquid separator and aeration system, then a Sustainable Drainage System (SuDS) comprising two ponds. Run-off from roofs and car parks will flow through permeable paving and then into the SuDS. Run-off from the fuel farm will be treated by an oil water separator.
- 3.3.4 In principle, SuDS can be an appropriate way of treating surface water run-off to an acceptable standard to avoid impacts on designated sites. Natural England would normally advocate the

use of the risk-mitigation index in the CIRIA SuDS Manual (2015)⁴ to demonstrate the SuDS are sufficient. The index approach set out in Chapter 26, section 26.7.1 of the SuDS Manual, defines the pollution hazard index, which should be compared against the mitigation index. To deliver adequate treatment, the selected SuDS components should have a total pollution mitigation index (for each contaminant type) that equals or exceeds the pollution hazard index (for each contaminant type). If the applicant set it out in this way, it would make it clear that the SuDS components chosen are appropriate, and sufficient, to address the pollutants arising from the development.

- 3.3.5 However, the approach in the CIRIA SuDS Manual does not cover the specific pollutants, including de-icers and chemicals resulting from emergency fire responses. Therefore, detail on the aerators that would be used to address these contaminants would be helpful. Natural England would also wish to see monitoring of the outflow of the ponds on site, with emergency measures incorporated, to ensure that contaminated water does not enter the designated site.
- 3.3.6 Whilst the surface water will be discharged to Pegwell Bay via an existing outfall, the outline DS states that some works are required on the scour protection, and that a channel that directs flows from the headwall of the outfall to the sea is partially buried by sand, which will need to be cleaned, repaired and refurbished. In our Relevant Representation, Natural England requested confirmation of the designated sites and interest features that have the potential to be affected by the surface water outfall (the outfall discharges to Sandwich Bay SAC, but the boundary of Thanet Coast SAC is only 200m away). This is necessary so that the impacts of work to the outfall (scour protection and channel) on designated site habitats and species can be fully assessed.

Conclusion on surface water quality impacts

- 3.3.7 In principle, SuDS are an appropriate way of avoiding pollutants entering sensitive designated sites. However, Natural England recommends using the risk-mitigation index approach in the CIRIA SuDS Manual to demonstrate that the SuDS proposed is sufficient. Furthermore, clarity is required over the additional measures required to address the specific pollutants arising from the runway and aprons. Monitoring will also be required, with emergency measures incorporated, to ensure that contaminated water does not enter the designated site.
- 3.3.8 Confirmation of the designated sites and interest features that have the potential to be affected by the surface water outfall is required. This is necessary so that the impacts of work to the outfall (scour protection and channel) on designated site habitats and species can be fully assessed.

3.4 Air quality

- 3.4.1 The Habitats Regulations require plans and projects to be considered “in combination”. This is so that multiple impacts, which may in themselves be considered to not have a likelihood of significant impact and have thus been screened out (or considered that there is no adverse effect on the integrity of designated sites), do not combine with other projects to produce a significant impact “in combination”.

- 3.4.2 Clarity on this was provided within the Wealden judgement⁵. Please also note that much of the guidance quoted in the air quality chapter of the ES (Chapter 6 [APP-033]) is dated prior to the Wealden judgement so all screening criteria quoted should be considered on the “in combination” impacts of the proposal and not on the impacts of the proposal “alone”.
- 3.4.3 Chapter 18 [APP-035] discusses cumulative impacts and states “*cumulative effects from major developments beyond 5km of the Proposed Development application boundary would be limited to traffic and transport effects, and these are already accounted for in the air quality, noise and traffic and transport assessments*”. It appears from Chapter 16 –Traffic and transport [APP-034] that TemPro has been used which includes future growth of traffic including the Local Plan. However, it is not entirely clear whether air quality from increased traffic as a result of the proposals are considered “in combination” with Local Plan figures or are considered as an “addition” and thus considered “alone” over the higher baseline.
- 3.4.4 This is an important point and clarity is required on this. Our comments below therefore relate to the information presented in Chapter 6 and 7 [APP-033] and if “in combination” has not been correctly applied then further information will be required for air quality impacts.
- 3.4.5 Please note that areas where further assessment is required are those over 1% (without decimal point accuracy) so those under 1.5% are considered as 1% for the purposes of this review.
- 3.4.6 Natural England welcome the use of APIS to consider the background however the date of the last APIS update should be considered and other potential increases from other plans or projects need to be added to the APIS figure if those proposals have become operational since the last APIS update. If these are not taken into account within the background figures then these should be added to the modelling figures to ensure potential impacts from all relevant plans and projects are correctly assessed.
- 3.4.7 We note from a recent telephone conversation with the applicants that the cross source attribution has been assessed (ie roads transport plus airport where the distance criteria overlaps) however this is not demonstrated in the contour plots as noted in Paragraph 6.1.6 of the ES [APP-033]. It would be more useful if the contour plots were able to demonstrate this overlap and also for the contour plots to clearly show where the process contribution of NOx is more than 1% (or relevant proxy) of the critical level where the background is at or over 100% of the critical level. This would clearly illustrate the areas of habitat that are discussed further as to potential effects on designated sites within Chapter 7 [APP-033].
- 3.4.8 Table 6.2 [APP-033] in response to a PINS comment states “*The previous airport operator funded TDC to operate a continuous monitor near the airport...*” however the same table at page 6-14 in response to a comment from Natural England states “*No information on impacts of previous airport use is available...*” We note following a recent telephone conversation that the lack of information relates to ecological monitoring but recommend that some clarification is provided within the relevant text to explain the apparent disparity between these comments.

⁵ CO/3943/2016 Wealden District Council v Secretary Of State For Communities And Local Government



- 3.4.9 Paragraph 6.4.9 [APP-033] relates to distance criteria for evaluating air quality impacts. This has been taken from the EA permitting guidance that identifies the distance criteria for SSSIs, NNRs and LNRs as 2km however Natural England's distance criteria for planning is 5km for SSSIs. Further information is therefore required as to whether additional SSSIs should have been included in the modelling.
- 3.4.10 Where Defra maps are used instead for near roadside locations, we welcome the use of a model adjustment factor to correct possible under prediction from Defra maps and also that the most sensitive habitat has been considered at the designated sites. We also welcome the use of conservative assumptions and the CURED model.
- 3.4.11 Paragraph 6.8.25 [APP-033] summarises that the process contribution of annual mean NO_x from the proposals is "small" at less than 5%. This is misleading as a process contribution of over 1% is such that it cannot be considered "insignificant" and requires further consideration as to whether there will be an adverse effect on the integrity of the sites where the sites are sensitive to air quality impacts. We recommend that this wording is amended to correctly reflect the potential risk of significance.
- 3.4.12 Tables 6.14, 6.21 and 6.27 [APP-033] identify the maximum PCs and PECs for annual mean NO_x at the relevant years modelled. These tables identify the worst receptors but all receptors where the process contribution is more than 1% of the CLe and the background is close to/or over the CLe must be considered against the relevant interest features of the designated sites rather than just the worst receptors.
- 3.4.13 The ecological effects of annual mean NO_x on designated sites (6.11.22 – 6.11.25) [APP-033] have not been fully assessed. Table 6.36 demonstrates the modelled annual mean NO_x concentrations across the A299 Thanet Way which is close to The Swale SPA, Ramsar and SSSI to demonstrate the greatest total concentrations of annual mean NO_x. However, the table does not include the relevant columns of process contribution (in combination) of the proposals expressed as a percentage of the critical level. This table requires amendment to specifically illustrate this to allow consideration of whether impacts require further consideration. It is also unclear as to why road contribution and total concentration have been disaggregated on "with proposed development" and "without proposed development" scenarios as it is the air quality impacts on the designated sites from the proposals in combination with other plans and projects that needs to be considered. It would also be useful for the further consideration of impacts for the information within this table to be presented within a contour plot to aid understanding of potential areas of impact.
- 3.4.14 Table 6.36 [APP-033] only considers the A299 however the following sections, that discuss nutrient nitrogen deposition, note various roads within 200m of other European designated sites where the impact of nutrient nitrogen has been considered. This consideration has not been given to annual mean NO_x impacts. Further information is therefore required on this aspect as it is not possible at present to screen out air quality impacts from NO_x on these sites from road traffic.
- 3.4.15 Table 6.40 [APP-033] summarises the significance of effects. The rows relating to ecological effects both note in the rationale that some designated sites do not meet the EA criteria for further assessment "*largely because of the background deposition rates*". This is misleading as it is the process contribution in combination that is being assessed as a consideration of the percentage of the critical load or level and not of the background rates. The text requires

amendment within this table to avoid any misunderstanding and to clarify that this is where the background rates are below the critical load or level and as such there is “headroom” where this is appropriate.

- 3.4.16 Chapter 7, Section 10 [APP-033] considers in more detail the potential effect of air quality impacts on designated sites and other ecological receptors. There are a number of areas where further clarity is required as follows:
- 3.4.17 Paragraphs 7.10.8 and 7.10.10 refer to a legal limit of $40 \mu\text{g m}^{-3}$ for NO_2 however this may be in relation to human health which is not relevant to this chapter. The critical level for all vegetation types for NO_x is $30 \mu\text{g m}^{-3}$.
- 3.4.18 Paragraph 7.10.16 mentions committed development but as noted previously, it is unclear whether air quality impacts “in combination” from the Local Plan have been taken into account.
- 3.4.19 Paragraph 7.10.22 appears to have transposed some of the wording in the EA guidance. This requires checking.
- 3.4.20 Paragraph 7.10.24 refers to best available technology (BAT). This is relevant to permitting (e.g waste water treatment works etc) but is not relevant to planning or the Habitats Regulations.
- 3.4.21 Paragraph 7.10.36 states “*for NO_x concentrations in air to have negative effects on vegetation there has to be correspondingly high levels of SO_2 and O_3 and the level for NO_x should only be applied where levels of SO_2 and O_3 are close to their critical levels*”. This rationale has also been used in paragraph 7.10.20. This is only the case for daily mean NO_x and not for annual mean NO_x which is the subject of this assessment. As daily mean NO_x impacts have been screened out, this statement is not relevant to consideration of annual mean NO_x impacts as it is not appropriate to use this higher critical level for annual mean NO_x
- 3.4.22 Construction and operation phase effects sections for years 2, 6 and 20 specifically consider the impact of NO_x on the designated sites but all appear to be incorrect. These sections all state that whilst the PC will be over 1% of the critical level, the total concentration is below $30 \mu\text{g m}^{-3}$. This is clearly not the case as evidenced in Chapter 6 on air quality (see tables 6.14, 6.21 and 6.27) [APP-033].
- 3.4.23 These sections also consider effects on Thanet Coast SSSI only in many cases. There has been no assessment of air quality impacts on other designations where they are impacted by increased road emissions (see paragraph 3.4.15 in this document)
- 3.4.24 These sections on the assessment of the impacts are key to the PINS appropriate assessment to determine whether the impacts will have an adverse effect on the integrity of the designated sites. Until this further information is presented, Natural England’s view is that a conclusion of no adverse effect on the integrity of the designated sites from air quality impacts is premature.

Conclusion on air quality impacts

- 3.4.25 The following conclusion relates to the information presented in Chapter 6 and 7 [APP-033] and if “in combination” has not been correctly applied then further information will be required for air quality impacts.

- 3.4.26 Acidity levels on ecological receptors (inc priority habitat and local wildlife sites (LWS)) on all years modelled fall below the level of potential significance and we are therefore satisfied that no further consideration is required.
- 3.4.27 Nutrient Nitrogen deposition on all years modelled for major receptors (European sites and SSSIs) fall below the level of potential significance and we are therefore satisfied that no further consideration is required. Natural England defers to others on LWS and priority habitat and our comments relate to national and European sites only.
- 3.4.28 Daily mean NOx (short term) on ecological receptors (inc priority habitat and LWS) on all years modelled fall below the level of potential significance and we are therefore satisfied that no further consideration is required
- 3.4.29 Annual mean NOx all years tested will be over level of “insignificance” for some of the receptors for European sites from both localised airport impacts and from increased NOx on roads further away from the application site.
- 3.4.30 Some (but not all) of these annual mean NOx impacts have been subject to further assessment in Chapter 7 [APP-033]. However Chapter 7, Section 10 assessment of air quality impacts on designated sites needs to be completely revisited.
- 3.4.31 Until the further information requested in the above paragraphs have been presented, Natural England’s view is that a conclusion of no adverse effect on the integrity of the designated sites from air quality impacts is premature.

3.5 Protected species - bats

- 3.5.1 As noted in section 4.4 of this written representation, the applicant has not yet completed the necessary surveys to identify and characterise all potential bat roosts. Therefore, the mitigation and compensation measures (Appendix 7.13 Mitigation and Habitat Creation Plan [APP-046]) have been designed based on the worst case scenario. Natural England has provided the applicant detailed comments on the Mitigation and Habitat Creation Plan. Broadly speaking, we agree with the approach taken, and our view is that the provision of the bat barn, bat bunkers and bat boxes, are suitable compensation for losses. However, we have made the following recommendations:
- a) Roosts will need to be correctly characterised by species (for example through DNA analysis);
 - b) Confirmation of the roost types and mitigation for each will be necessary.
 - c) The different requirements of transitional as opposed to night feeding roosts need to be considered;
 - d) To avoid the hibernation period, we would expect no works between November and mid-March;
 - e) Baseline environmental conditions of the confirmed roosts should be obtained, so they can be replicated within the new provisions;
 - f) Monitoring on the compensatory habitat will be necessary for five years, spread over a 10 year period. It is important that evidence is provided that bats use the new structures, and if not, that they are modified to ensure their suitability.

3.5.2 Natural England has advised the applicant to submit a draft licence application, incorporating the comments made, following the hibernation surveys that are being carried out this winter. Once a satisfactory draft licence has been received, Natural England will issue a Letter of No Impediment.

3.6 Conclusions

3.6.1 Natural England's view is that the conclusion of no adverse effect on integrity of European sites is premature for a number of reasons:

- Potential loss of functionally linked land for golden plovers due to bird scaring – confirmation is required on the proportion of functionally linked land that would be lost; any reason why not all of the land within the 1km buffer would be suitable for golden plovers (eg fields are too small); and the crop rotation within the 1km buffer (ie how often the land would be suitable for golden plovers).
- Potential operational disturbance to golden plovers, turnstones and little terns (and SSSI waders) from aircraft – therefore, we request predicted noise contour maps (for both peak L_{Amax} and continuous L_{Aeq} noise levels) showing contours in 5dB increments from 55dB upwards. This should then be compared to existing noise contour maps, and overlain with the designated site boundaries and key bird locations, to assess the change in the noise environment of the SPA.
- Potential surface water quality impacts - Confirmation of the designated sites and interest features that have the potential to be affected by works to the surface water outfall is required. Natural England also requests confirmation that the SuDS proposed will be sufficient to address the specific pollutants arising from the airport, and monitoring of the efficacy of the SuDS.
- Air quality - Annual mean NOx for all years tested will be over level of “insignificance” for some of the receptors for European sites from both localised airport impacts and from increased NOx on roads further away from the application site. Some (but not all) of these annual mean NOx impacts have been subject to further assessment in Chapter 7 [APP-033]. However Chapter 7, Section 10 assessment of air quality impacts on designated sites needs to be completely revisited to address the comments set out in section 5.4 of this letter.

3.6.2 Regarding protected species, Natural England has provided the applicant detailed comments on their Mitigation and Habitat Creation Plan for bats. Once we receive a satisfactory draft licence application, we will issue a Letter of No Impediment.