

LONDON ASHFORD AIRPORT ECOLOGY

Initial Response to Applicants Rebuttal

For

Shepway District Council

Project No. 1348979

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**BUREAU
VERITAS**

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1.0 Introduction

1.1. Terms of Reference

- 1.1.1. Following the publication of Shepway District Council's Officer Report regarding the recommended refusal of planning applications Y06/1648/SH and Y06/1647/SH on a number of grounds (including ecological reasons) the applicant (London Ashford Airport Ltd) has produced a response detailing their views on this report.
- 1.1.2. This document aims to clarify Bureau Veritas position and views regarding the application and officer's report in light of any new (or newly presented) information within the applicant's document.
- 1.1.3. This document should be read in the understanding that it is intended to form the basis of discussion between the applicant, Shepway District Council and Bureau Veritas with the aim of clarifying outstanding ecological issues.

2.0 Main Areas of Dispute

2.1 Impact on the Integrity of the SAC (Dungeness SAC) through Habitat Loss

- 2.1.1. The applicant argues that the permanent loss of 0.007% of the SAC habitat area (through expansion of the paved area) is insignificant and points to the government policy circular 06/2005 which 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 classified”.
- 2.1.2. Any loss of habitat from a site of European Importance (SAC, SPA and Ramsar sites) however should be viewed as significant. The permanent loss of 0.007% of the total SAC area equates to 0.23ha. In addition to this a newly created clear and graded area and instrument strip will lead to the further loss of 0.049% of the total SAC (1.59ha) giving a total loss of 0.056% or 1.82ha. The percentage lost appears small because the total designated SAC area is large. Should development be permitted within the boundary of a SAC then it may set a precedent that development of a small area of a European site is acceptable and it would be difficult to argue against further incremental losses. In this instance the permanent loss of 1.82ha (of largely sub optimal habitat) is in itself not likely to significantly affect the integrity of the site; however it reduces the buffer area between development and more valuable habitat. That is removal of this area of the SAC reduces the distance between built development and the features for which the SAC is designated (perennial vegetation of stony banks, and annual vegetation of drift lines).
- 2.1.3. Bureau Veritas are of the opinion that any loss of habitat from a SAC is unlawful and this should be followed up further through examples of case law and discussions with counsel.
- 2.1.4. The applicant also draws attention to the habitat creation proposals within the site BAP that are proposed should the development proceed. Part of the proposals suggests that habitat will be created to replicate that of the SAC feature perennial vegetation of stony banks. The applicant has not presented a methodology for delivery of habitat creation and advice from Natural England suggests this type of habitat creation is

unlikely to be achievable and hence the deliverability of this aspect of the suggested BAP in this area is questionable. Habitat creation and enhancement with regard to great crested newts are however likely to be deliverable and will ensure that the development does not have a detrimental impact upon the current population.

- 2.1.5. It is also important to make the distinction between mitigation and compensation. Compensatory habitat under the Habitat Regulations is to compensate for accepted damage or habitat loss during development. The implementation of the BAP is therefore not a consideration when assessing the initial impact upon the integrity of the SAC which has to be undertaken without consideration of mitigation measures.

2.2. Impact on the Integrity of the SAC (Dungeness SAC) through Habitat Degradation

- 2.2.1. The applicant argues that Bureau Veritas has misunderstood the methodology used to calculate patterns of Nitrogen deposition across the SAC. The applicant claims that the (small) predicted increase in Nitrogen deposition will not adversely affect the SAC. Bureau Veritas does not question the methodology used to calculate Nitrogen deposition and does not question therefore the results of this analysis or dispute the accuracy of the presented deposition maps and tables. Bureau Veritas does however disagree with the assessment of effects from the applicant based on this data.
- 2.2.2. As a general point, the graphical deposition data was not always very well presented with similar deposition contours being shown with the same fill and only distinguished by contour lines which were sometimes difficult to interpret. The location of the SAC was not shown on some of the deposition maps which also made interpretation more difficult and although maps were presented with this data in the “statements to inform” in 2007 the use of contour colours did not match that used in other documentation. This has not helped the interpretation of the air quality and deposition data supplied by the applicant.
- 2.2.3. Further maps showing the current deposition of Nitrogen, deposition with 300,000 ppa and 500,000ppa clearly showing the boundary of the SAC (and SSSI) supported with tables showing the total area affected by deposition of between 5 and 20kgN ha-1 under each scenario would aid the understanding of the potential effects for lay persons.
- 2.2.4. Regardless of the methodology used to calculate Nitrogen deposition it can be concluded that any increase in Nitrogen deposition across any part of the SAC may



lead to a detrimental impact upon vegetation composition and therefore site integrity. The vegetation composition at Dungeness is unique in Europe and as a result predicting the impact upon this type of vegetation community is difficult without empirical experiment based data. The species present are widely acknowledged as being those which thrive only in low nutrient systems and it can therefore be argued that any increase in Nitrogen deposition may lead to an alteration in this community structure and function.

- 2.2.5. Two development scenarios have been suggested with an increase in passenger numbers of up to 300,000 per annum and an increase up to 500,000 per annum. At 300,000ppa the deposition maps show an increase in Nitrogen deposition at or above 10kgN ha⁻¹ across small areas of the SAC which has the potential to affect the perennial vegetation of stony banks. At 500,000ppa the deposition maps show a significant increase in Nitrogen deposition at or above 10kgN ha⁻¹ across significant areas of the SAC which also has the potential to affect the perennial vegetation of stony banks.
- 2.2.6. Bureau Veritas are of the opinion that the vegetation community at Dungeness is unique and as such the impact of Nitrogen deposition can only be estimated based on a number of broad brush assumptions. Air Pollution Information System (APIS) provides an assessment of broad habitat types and their sensitivity to various types of airborne pollutants. This system covers the whole of the UK but is focussed only on broad sensitivities and habitat types. There has been significant scientific doubt raised as to whether APIS has recorded the sensitivity of this habitat correctly, by work commissioned by the RSPB and KWT. This work has suggested that perhaps the sensitivity should be amended to be sensitive at the level of 5kgN ha⁻¹ per annum rather than 10kgN ha⁻¹ per annum.
- 2.2.7. At present a worst case scenario is that significant areas of the SAC feature perennial vegetation of stony banks would be subject to an increase in Nitrogen deposition. This could lead to severe degradation of the feature through increased competition from Nutrient loving plants. Significant uncertainty exists as to the likely impact of Nitrogen deposition upon the habitats within the SAC and as such development should not be allowed to proceed.



2.3. Impact on the Integrity of the SPA (Dungeness to Pett Levels SPA)

- 2.3.1. The applicant argues that they have presented a clear case that birds of conservation concern would habituate to increased aircraft noise. A literature review and statement to inform was produced in 2007 to support this view and examples of other airports in the vicinity of SPA's were shown. Site specific case studies however were not presented and direct evidence of bird behaviour in the immediate vicinity of airports was also not shown. Research identified in the literature review concentrated on the impact of noise rather than an assessment of noise coupled with visual impact which has the potential to have a greater effect.
- 2.3.2. Bureau Veritas is of the opinion that those birds species included in the SPA designation (shoveler, aquatic warbler, common tern, little tern and Mediterranean gull) are likely to habituate to an increase in aircraft noise in the medium term as argued by the applicant. How these birds will react to an increase in aircraft noise coupled with an increase in type and duration of bird scaring methods associated with the implementation of the Bird Control Programme (BCP) and the increased visual disturbance of aircraft passing overhead is however not clear. The scientific literature is large and varied with regard to the impact of aircraft noise (and visual impact) upon birds during the breeding, migration and winter seasons and it is not possible to draw from this any degree of certainty that the birds of conservation concern using the SPA will therefore not be affected. Data supplied by the applicant in support of the assumption to habituate to aircraft noise is not specific rather identifying airports close to SPA's where the SPA is still able to function. Further data regarding the distribution of birds in the vicinity of airports as compared with the whole of the SPA would be a more useful measure of assessing the potential impact.
- 2.3.3. The SPA at Cape Wrath is an example of seabirds inhabiting a military bombing range where disturbance from low flying jets is high and breeding success has not been reduced. Research from SNH suggests that birds are not affected by this bombing activity in terms of breeding success but nevertheless low flying jets do cause significant disturbance at the time of the disturbance event. Although the integrity of the SPA remains intact at present it cannot be concluded that an increase in activity at this site would not lead to a detrimental effect in the future. More specific and relevant case studies backed up by empirical data would help in judging whether activity would have a likely significant effect or not.

- 2.3.4. The deliverability of the BCP is also not certain with the current reliance on off site management agreements for which no evidence of an in principle agreement with local landowners has been provided. The provision of a draft landowner agreement for land surrounding the airport and some “in principle” landowner agreements would be useful in enabling the assessment of deliverability of this aspect of the BCP. At present the level of uncertainty regarding the combined impact of aircraft noise, visual impact and impact from a range of bird scaring methods is too great to allow the conclusion to be reached that the developments would not have a detrimental impact upon the integrity of the SPA.
- 2.3.5. Further discussion with the applicant with regard to the impacts of aircraft and BCP noise coupled with visual intrusion would be welcomed.

2.4. Significant Adverse Effects upon the SSSI

- 2.4.1. The impacts upon the SSSI are similar to those summarised above for the SAC and SPA in terms of loss of site area and habitat degradation through Nitrogen deposition and will not therefore be repeated in detail below. Additional impacts which the applicant has mentioned in turn will be addressed below. Significantly more habitat however will be permanently lost from the SSSI should the runway development proceed and this will not be replaced with additional habitat only through the proposed improvement of habitat through the implementation of the airfield Biodiversity Action Plan (BAP). The designation of the SSSI also encompasses the assemblage of birds using the site and the invertebrate populations reliant upon the vegetation communities. Legislation and planning policy do not permit development where it will lead to direct loss of land area within a SSSI.
- 2.4.2. The applicant argues that impacts upon terrestrial invertebrates will be minimised by implementation of a site wide BAP to improve terrestrial habitat within the airfield and the use of low impact lighting in the terminal building.
- 2.4.3. Night flying invertebrates are likely to be affected by airfield lighting and increased aircraft movements. Terrestrial invertebrates are also likely to be impacted by a change in vegetation structure caused by a change in the pattern of Nitrogen deposition in the vicinity of the airfield. The proposed BAP will compensate for the loss of habitat through the increase in value of previously low value area to invertebrates rather than



increase the total area of available habitat. Natural England has suggested serious doubt regarding the deliverability of the BAP with regard to some aspects of habitat creation and as such the issue of replacement habitat and habitat enhancement should be discussed further.

- 2.4.4. The applicant argues that Bureau Veritas have misunderstood information relating to which ditches are proposed for netting (as part of the BCP) and the distribution of medicinal leech. Bureau Veritas would welcome discussion with the applicant to discuss this matter further and ensure a thorough understanding of the proposals. Assuming the information presented is correct then it is likely that the development will not lead to any impact upon aquatic invertebrates.
- 2.4.5. The applicant makes the same argument regarding SSSI plants as for SAC plants and therefore Bureau Veritas remain of the opinion that the development proposals have the potential to detrimentally impact the assemblage of plants within the SSSI.
- 2.4.6. The applicant makes the same argument regarding SSSI birds as for SPA birds in that birds habituate to aircraft noise. The impact upon SSSI birds as a result of the increase in aircraft noise, increase in visual impact from over-flying aircraft and increase in type, duration and distribution of bird scaring methods and site safeguarding would be greater than on the SPA designated species. The SSSI is closer to the airport than the SPA and so impacts of noise and visual would be significantly greater. The SSSI is also designated for its assemblage of birds rather than particular species of conservation concern as for the SPA and as such the impact upon every species must be considered.
- 2.4.7. Birds behave very differently when in a group situation (particularly mixed flocks) as opposed to single group flocks or as individuals. Behaviour is also dependent upon the type of activity the bird is displaying (i.e breeding, foraging, roosting and flying) and it is therefore not possible to predict the impact of the development and BCP with any degree of certainty. Many species of waterfowl are known to be extremely site faithful during the winter period often returning to the same beach, lake or mudflats to feed and roost for many years. Competition for foraging and roosting locations may affect how far birds can move from traditional locations particularly during the winter period. Finally it is very difficult to measure the impact of stress inducing situations upon waterfowl. Subtle changes in foraging success pre-migration has been proven to affect survivorship on return migration which is difficult to measure on a site by site basis but



has been assumed as a reason for population change in other parts of the UK. The impact upon an assemblage of birds is difficult to measure without significant amounts of baseline and monitoring data.

- 2.4.8. Impacts upon SSSI birds are therefore almost impossible to quantify with any degree of certainty, however it is not possible to say with any degree of scientific certainty that the proposed development would not lead to a detrimental impact upon the ornithological features for which the SSSI was designated. In order to fully assess the potential impact it would be necessary to collate monitoring data and evidence from constructed airports that the distribution of birds in the vicinity of an airport does not change in the medium term following a significant increase in air traffic. Data should be compared with contemporary bird survey data relating to the site and SSSI and coupled with qualitative observational data collected during existing aircraft movements.
- 2.4.9. It is the opinion of Bureau Veritas that it will be very difficult to prove with any degree of certainty that the development proposals (either 300,000 or 500,000ppa scenarios) will not have a detrimental effect upon the bird assemblage for which the SSSI has been designated.

2.5. Significant Adverse Effects upon the pSPA and pRamsar

- 2.5.1. The matter of the weighting given to the impact upon the pSPA and pRamsar is one to be determined through advice from Counsel but Bureau Veritas are of the opinion that the development proposals would have a greater impact upon a pRamsar (than the existing SPA) for the reasons described above under SSSI. The designation of the site as a Ramsar recognises the importance of the assemblage of waterfowl and the protection conferred by the status is therefore to all species using the site rather than just those listed on the citation as being of particular conservation concern. The impact of development upon a large assemblage of waterfowl is greater than upon individual species and therefore more difficult to accurately quantify. It is the opinion of Bureau Veritas that it cannot be concluded with any degree of scientific certainty that the development proposals would not impact the integrity of the pRamsar or pSPA (should they be designated).
- 2.5.2. The further work suggested above to inform the effect of development upon the SSSI would be sufficient to assess the impact upon the pSPA and pRamsar. Site and

species specific accounts would be required that provide clear evidence that similar schemes operate without affecting the behaviour and distribution of similar assemblages of birds. This should be accompanied by a thorough literature review regarding noise, aircraft noise and visual impacts upon those species for which the pSPA would be designated and similar assemblages of shorebirds for which the pRamsar would be designated.

2.6. Impacts upon Hammonds Corner

- 2.6.1. UK Planning policy states that planning authorities should be in receipt of a full set of ecological survey data prior to granting planning consent. The need for water vole and breeding bird surveys is therefore recommended prior to consent being granted. Bureau Veritas would again be happy to meet the applicant to discuss this point and ensure that this point is not caused through a misunderstanding of the survey work undertaken to date and the reason for further work being recommended. In the case of baseline breeding bird and water vole surveys already having been undertaken and the need for only pre construction surveys to confirm results then this may be acceptable in terms of planning policy.



3.0 Conclusions

- 3.1.1. The further information and rebuttal presented by the applicant do not alter the view of Bureau Veritas that sufficient scientific doubt about the effect of the proposals (300,000 and 500,000ppa) remains. Should the developments proceed they would lead to a likely detrimental effect upon the SAC, SPA, SSSI, pSPA and pRamsar.
- 3.1.2. A number of smaller matters may be resolved through a meeting with the applicant however the main reasons for refusal are unlikely to be agreed upon based upon the stance of the applicant at present and the currently available data.