RiverOak Strategic Partners

Applicant's Response to Secretary of State's Request for Comments and Further Information

TR020002/D/Cover

Decision Stage Document

Project Name:	Manston Airport Development Consent Order
Application Ref:	TR020002
Date:	31 January 2020

BDB PITMANS

Manston Airport Case Team
The Planning Inspectorate
Kite Wing, Temple Quay House
2 The Square
Bristol
BS1 6PN

Your Ref

Our Ref
JNG/ADW/166055.0003

Date
31 January 2020

By Email manstonairport@planninginspectorate.gov.uk

Dear Sir or Madam

Proposed Manston Airport Development Consent Order
Applicant ref: TR020002
Applicant's submission of comments and further information requested by the Secretary of State on 17 January 2020

Please find enclosed with this letter the Applicant's submissions following the Secretary of State's request for comments and further information on 17 January 2020.

Yours faithfully

[redacted]

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Enclosure 1

The Applicant responses to the Secretary of State's request for comments and further information on 17 January 2020

No.	The Applicant's response
	Unilateral Undertakings
1	RiverOak Fuels Ltd was the named party in respect of the Unilateral Undertakings made to Kent County Council and Thanet District Council as this was the only company which had a proprietary interest in land at the airport site (the Jentex fuel farm site) at the time the Undertakings were drafted. Late on 9 July 2019 the Applicant's subsidiary RiverOak MSE Ltd completed the acquisition of the main airport site. The Applicant is content to change both the UUs to be on behalf of RiverOak MSE Ltd as well as RiverOak Fuels Ltd, and revised versions accompany this submission. Note that the Unilateral Undertaking relating to Thanet District Council is further amended in line with the answer to questions 4 and 7 below and further tidying amendments have been made to both undertakings. Tracked change and clean versions of each are provided. As the consent of the Secretary of State is needed for a replacement to a Unilateral Undertaking, then it is for him to decide whether to substitute the new undertakings for the old. Please take this submission as consent from RiverOak Fuels Ltd.
2	The Applicant's contribution for the Air Quality Station ZH3 was calculated based on costs of £600 pre month which were provided by Thanet District Council. The email confirming this is provided at **Enclosure R2**.
3	As noted during the examination the figure for the schools' fund was calculated based on 1% of each of the seven affected schools' budgets. This sum was calculated by applying per pupil funding under the National Funding Formula to each of the schools in question. If KCC has any concerns about the acceptability of the figure then the Applicant would request evidence is provided in relation to any alternatively proposed figure.
4	A revised Unilateral Undertaking with Thanet District Council is provided with this submission with the reference to the Secretary of State in Schedule 3 changed to Thanet District Council.
5	The Transport Assessment work undertaken in support of the Manston Airport DCO resulted in the identification of traffic impact at 13 junctions on the local road network that required a mitigation scheme. The mitigation schemes were each drawn up as concept scheme design, tested in the junction modelling and subject to a Stage 1 Road Safety Audit (RSA), and all were signed off by the road safety auditor. A number of the schemes were minor works, comprising widening and/or white lining and signing, which was appropriate to the scale of impact, and resulted in 'nil detriment' (i.e. the operation of the junction is no worse off than existing with the addition of the development

	traffic). A number of the schemes were more significant works and resulted in 'betterment' (i.e. improvement on the existing situation). Costs were calculated for the improvement works based on the concept scheme designs and construction cost rates from the Spon's Civil Engineering and Highway Works Price Book. The approach to this was summarised in 'Estimation of Off-Site Junction Mitigation Costs and Trigger Points' [**REP8-017**] which includes a Capex summary Excel file which details the contributions for each junction. It should be noted that a 44% optimism bias has been applied to all of the constriction cost estimates to reflect the level of design development undertaken to date. This 'Green Book' approach is recognised as best practice and applicable to the level of design at this time. Downward adjustments to this % would be made as the detailed design of the schemes progress. The justification for the need for the improvements was addressed in multiple examination questions, as referenced in **Enclosure R5**. The Applicant considers that these responses adequately justify its approach to the highway improvements. A meeting was held with Kent County Council (KCC) on 21st November 2019 to discuss the on-site and off-site junctions to refine the designs and work collaboratively with KCC to come to mutual agreement on the mitigation proposals (although agreement was not reached). Any alternative amounts and timings from KCC should be justified with evidence.
Transport/Engagement with public transport operators	
6	The Applicant accepts the Secretary of State's revised wording requirement 7 to include reference to the Bus Service Enhancement Scheme.
Transport/Controlled Parking Zones	
7	Calculation of the Applicant's contribution to the controlled parking zones was based on a cost per m provided by Thanet District Council. The Applicant has provided a technical note at **Enclosure R7** detailing the calculation. The Applicant notes that there is an error in the Unilateral Undertaking in that the contribution off £231,400 is not an annual payment but the total payment figure and this has been corrected in the replacement undertaking being supplied with this submission. The Applicant understands that Thanet District Council accepts the per metre figure but not the total number of metres. If it is proposing a different number it should provide evidence as to how this was arrived at.
Transport/Public Rights of Way	

8	See the Applicant's response attached at **Enclosure R8**. Based on this we consider our costs estimate to be appropriate.
Compulsory Acquisition ("CA")	
9	The Applicant made numerous attempts to contact lawyers acting for the MoD during the examination (around 50 attempts). The only land of concern to the MoD appeared to be that containing the High Resolution Direction Finder, which is freehold land and cannot be acquired compulsorily. The Applicant considers that the requirement proposed by question 19 adequately deals with the issue of the HRDF.
10	The Government Legal Department has chosen not to make any decision about the two parcels of bona vacantia land (actually 019c and *050*b). The former is a licence relating to land adjacent to the highway, which the Applicant understands that in cases such as this the bona vacantia division's policy is to disclaim such land, thereby terminating the licence (although this has not taken place). The latter is an option exercisable by a dissolved company that expires in July 2020, whereupon it will presumably expire.
11	Negotiations with the Met Office have been productive and agreement is near on a new site for the weather station within the airport. The Applicant is engaging with BEIS for their corresponding consent.
12	The Applicant would note that it made numerous attempts to engage with BT from February 2018 and throughout the examination period but received no substantive response from BT.
13	The Applicant notes that agreement has been reached with South Eastern Power Networks plc. The agreement between the parties was completed on 31 January 2020.
Draft Development Consent Order	
14	The Applicant accepts the Secretary of State's revised wording requirement 19 for inclusion in the DCO.
15	The Applicant accepts the Secretary of State's revised definition of "airport related" for inclusion in article 2 of the DCO.

16	The Applicant accepted the wording proposed by Historic England to Requirement 3(3) in its Deadline 11 covering letter. It proposes amendments to the start of proposed Article 6(3) for further clarity as follows: *"The authorised development may not deviate within the limits of deviation in this article to such as an extent as would ~~Deviations are restricted where they are likely to~~ harm heritage assets of national importance and their settings as defined in the development masterplan that are considered worthy of conservation by the relevant planning authority, Kent County Council and Historic England as defined in the further assessment required in requirement 3(3)(a)"*
17	The Applicant agrees that the documents listed in Annex B of the Secretary of State's letter of 17 January 2020 can be added to Schedule 10 of the DCO.
18	The Applicant understands the reasons why the Secretary of State is seeking to impose a restriction on passenger ATMs based on the illustrative timetable used in the transport modelling. Nonetheless it was never intended that the input data in question should be used for such purposes. With a relatively low number of flights through the day, for modelling purposes it was necessary to adopt an indicative schedule of flights during the day and evening period. The spread adopted was based on CAA data and to add or remove flights would have resulted in forecasting inconsistencies. As discussed during the examination, the local highway network is relatively insensitive to additions of low numbers of passenger flights in and around the peak hour and as such the addition of a limited number of passenger arrivals or landings would be unlikely to affect the conclusions presented in the ES and, in particular, the need for highway improvements beyond those already secured in the dDCO and s.106 obligation. It should further be noted that a passenger ATM cap of 9,298 is already imposed by the dDCO (Requirement 19a [**PD-018**]), which is equivalent to an average of fewer than 13 aircraft arriving and departing each day. If that cap were reached it would make Manston only the 30th busiest passenger airport in the UK based on passenger ATMs in 2018. These daily figures are reflected in the noise and air quality assessments which use LAeq 16 hour and AADT figures respectively and are therefore not sensitive to hourly fluctuations in arrivals or departures. The noise and air quality assessments are presented in the ES and were discussed at length during the examination. Flight movements (arrivals and departures) are further constrained by the noise contour cap which is secured by Requirement 9d. The Applicant therefore suggests that, rather than imposing a restriction that will severely limit the commercial potential of the airport and reduce the benefits of passenger connectivity to this part of the country (see further below), any potential change or impact could be monitored as part of the Operational Environmental Management Plan (traffic management and green travel planning section) – requirement 7(2)(a)(xi). In the event that impacts over and above those reported in the

ES arise, additional restrictions or surface infrastructure improvements could then be introduced to ensure that those effects are limited to those reported.

Potential wording could be:

"The traffic management and green travel planning section of the operational environmental management plan must contain proposals to monitor and resolve, through transport improvements or air or surface traffic restrictions or both, congestion on the road transport network caused by passenger air transport movements at the airport'.

This would align with the growing practice for preferring adaptive environmental monitoring and mitigation rather than imposing restrictions at the outset that may not be necessary. It is similar in nature to requirement 26(3) of the M4 Motorway (Junctions 3 to 12) (Smart Motorway) Development Consent Order 2016 relating to air quality, where a scheme of mitigation is to be submitted if limits are exceeded.

In terms of connectivity, the Secretary of State will be aware of the need to improve and enhance this both for freight and passengers, and this project responds to these objectives. Limitations on passenger movements would seriously compromise those objectives, placing limitations on operators such that they may not see the airport as a viable route. The Secretary of State will be aware that the business case for the project is based primarily on dedicated freight rather than passenger operations, although the latter are a material complementary component. But as is the case with many other regional airports, passenger operations create significant employment and wider economic benefits for their host region (e.g. enhanced business connectivity, improved trade and inward invest potential and increased tourism), and thus passenger operations are considered to be an important local benefit of the project, where the freight benefits are expected to be spread more widely because of the strategic nature of the role being envisaged for Manston. The restrictions on which comments are sought, if implemented, would make scheduled passenger operations doubtful to the point that it would be very difficult to attract a carrier to base an aircraft at Manston or fly in the evening because of scheduling risk. Whilst it is accepted that the suggested restrictions would be less onerous on charter passenger operations, these are unlikely to develop to the level of traffic that would justify passenger services at Manston at all in the absence of viable scheduled services.

The Secretary of State will also be aware that many regional airports rely on passenger operations that are marginal at best and in some cases have to rely on Government aid (e.g Derry, Dundee and Newquay). The present plan for Manston envisages, without any Government subsidy, a new passenger terminal building and a surface transport integration with the proposed Thanet parkway station; the former is a big upfront investment for the airport owner and the latter likely to be a much bigger driver of an increase in local road traffic than any airport passenger operations could ever be.

In summary, whilst the proposed restrictions would not fundamentally undermine the viability of the project itself, they would make the range of passengers operations anticipated far more difficult to deliver, as scheduling and the ability of based aircraft to undertake the requisite number of

	sector rotations would be compromised forcing a reliance on inbound aircraft which in turn will create a higher risk high risk that some important routes will remain undeveloped. In light of the above, the Applicant considers that no direct restrictions should be imposed on passenger flights in the early evening but if concern remains, a monitoring regime is imposed to measure and deal with surface transport congestion caused by passenger flights.
19	The Applicant accepts the proposed requirement with the modification that in sub-paragraphs (1) and (4) the word 'operation' is added after 'commence' to contrast this with sub-paragraph (3). Thus sub-paragraph (1) should read *"(1) No part of the authorised development is to commence operation until …"* and sub-paragraph (4) should read *"(4) No part of the authorised development is to commence operation unless …"*.
20	The wording at Annex C is the Applicant's and so it has no further comments.
Habitats Regulations Assessment	
21	See the Applicant's response attached at **Enclosure R21**.
Climate Change	
22	The *Climate Change Act 2008 (2050 Target Amendment) Order 2019*[1] amended s.1(1) of the Climate Change Act 2008 to impose a duty on the Secretary of State to ensure that the net UK carbon account for the year 2050 is at least 100% lower than the 1990 baseline. This is commonly referred to as the 'net zero' target. International aviation (and shipping) is not formally part of the net zero target, for these sectors continuation of the "headroom" approach is assumed instead. The UK Government has previously indicated that it would accept the previous Committee on Climate Change (CCC) recommendation that the "headroom" for aviation is 37.5MtCO_2/annum[2]. This figure was used to contextualise the Environmental Statement assessment [**APP-034**] and remains the current planning assumption. On 24 September 2019, following the amendment to the target in the Climate Change Act 2008, the CCC provided a letter to the Secretary of State for Transport[3] indicating that 2050 was an

[1] HM Government, 2019. Climate Change Act 2008 (2050 Target Amendment) Order 2019. Available online at: https://www.legislation.gov.uk/ukdsi/2019/9780111187654/pdfs/ukdsi_9780111187654_en.pdf

[2] HM Government, 2018. Aviation 2050: The future of UK aviation. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/769695/aviation-2050-web.pdf

[3] The Committee on Climate Change, 2019. Letter: International aviation and shipping and net zero. Available online at: https://www.theccc.org.uk/wp-content/uploads/2019/09/Letter-from-Lord-Deben-to-Grant-Shapps-IAS.pdf

appropriate date for the net zero target to formally apply to International Aviation and Shipping ('IAS'). The letter states that the planning assumption for IAS should be to achieve net zero by 2050 and that this should be reflected in the forthcoming Aviation Strategy and Clean Maritime plan. The letter accepts, however, that aviation is highly unlikely to achieve 'zero-carbon' by 2050, but that there are opportunities to reduce its contribution through improvements in fuel efficiency and other measures. The letter acknowledges, therefore, that for aviation measures will be required to remove CO_2 from the atmosphere to offset remaining emissions; these measures are referred to as Greenhouse Gas Removals (GGRs). The CCC expresses the view that GGRs will ideally be delivered by the international framework, for example, the International Civil Aviation Organisation (ICAO) managed Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)[4], but that additional UK policies may be required.

Despite the need for GGRs, the CCC letter is clear that in order to reach net zero a reduction in aviation emissions is still required. Their calculations suggest that a mixture of fuel efficiency gains, sustainable fuels and reduced demand are required to reach $30MtCO_2$/annum, which is referred to as the '2050 Further Ambition'. The analysis carried out supporting the CCC letter suggests that a '2050 speculative case' which adds alternative fuels and constrained demand reduces the headroom by 40% compared to 2017 levels. It is important to note that neither the 2050 Further Ambition or Speculative Case scenarios have been adopted in national policy. This may, however, be a matter to be clarified in the forthcoming Aviation Strategy.

Chapter 16 of the Environmental Statement [**APP-034**] assesses greenhouse gases (GHGs) associated with the Proposed Development and concludes that aviation emissions would amount to $730.1ktCO_2$ in year 20 of operation at paragraph 16.9.5. This is 1.9% of the $37.5MtCO_2$/annum planning assumption for aviation emissions in 2050. The assessment assumes all aircraft are existing designs and does not project for future efficiencies as contemplated by the CCC letter. Thus the ES assessment represents a pessimistic and worst-case scenario, as any improvement in aircraft emissions will lower the figure.

The assessment assumes all aircraft are existing designs and does not project for future airframe, engine or operational efficiencies or indeed greater use of biofuels, as contemplated by the CCC letter. It also makes no allowance for example for indirect routings (i.e. that Manston is not the only stopover for the freight being carried) and hence all of the emissions cannot be allocated solely to its operations, because it was designed to be a 'worst case' assessment. In the same vein, and because of the paucity of data in the issue, does it include offsetting of the emissions from cargo no longer needing to be trucked cross-channel to near European airports.

The CCC's view is that no more than 10% of fuel used in aircraft by 2040 will be from sustainable biofuels sources, which may be pessimistic - 50% biofuel use is already being achieved at some airports in Scandinavia and on long haul commercial passenger services where a number of successful trials have been undertaken. Electric and hybrid-engine aircraft advances are also being boosted by Government support for major technical programmes in the UK, the EU and US. Since such aircraft are likely to be primarily be used on routes of 1000km or less, the domestic and near-European feed services in the forecast route schedule could well be amongst the first to benefit as they are introduced into the commercial fleet later this decade and thereafter.

	Thus, it is important to emphasise that the ES assessment presents what is very much a pessimistic and worst-case scenario, as if any of these factors, and a range of other mitigations (e.g. airspace design efficiencies, minimising ground-running and associated reductions in delays compared to other more congested airports), would all reduce aircraft emissions and lower the figure. Without technological improvement, the Proposed Development's calculated emissions of 1.9% of the existing planning assumption would rise to 2.4% of the Further Ambition scenario. This is still a small contribution to the overall revised aviation contribution and it does not pose any real threat to it being achieved. If consented and brought into operation, the Proposed Development would comply with any national and international (e.g. CORSIA) requirements to reduce or offset emissions from aviation; but these should be carefully developed as part of a national strategy. To impose restrictions on a case-by-case basis rather than developing a national strategy would distort competition and may frustrate the development of regional economies. In terms of individual commitment, since the end of the examination, the Applicant has committed the private sector contribution to the £1m tree planting project that enables it to go ahead (the first in England), the Forestry Commission's Urban Tree Challenge Fund initiative. Thanet currently has the lowest percentage tree canopy in the UK. The Applicant would be prepared to accept a requirement that the operations at the airport other than aircraft emissions become 'net zero' within five years of the airport coming into operation, of which this initiative would form part.
Late Representations	
23	It is the Applicant's view that the late representations made by Five10Twelve Ltd dated 17 October, 27 October, 1 November, 19 December, 20 December and 23 December (and any further submissions by them and other parties that fully participated in the examination) should be considered to be vexatious under section 106(1)(a) of the Planning Act 2008 and do not merit serious consideration. They add little to the substantial volume of material that Five10Twelve submitted during the examination; indeed the late submissions should have been made during the examination and not after the examination had closed. The Applicant notes that Five10Twelve and its directors made 135 submissions during the examination of the scheme consisting of a total of 12,057 pages of information. Five10Twelve have thus played a very active role in the examination process and the majority of the points they have raised have been examined through the course of the examination process already and do not need to be made again. For this reason we do not respond in great detail to the representations. Where there are technical points to respond to, particularly relating to events that occurred after the end of the examination, the Applicant has responded to the relevant submission in this table or in an appendix as referenced. Dr Sally Dixon of Azimuth and Chris Cain of Northpoint Aviation have responded on behalf of the Applicant to points raised in the late representation made by Five10Twelve Ltd dated 17 October 2019 at **Enclosure R23**; in **Enclosure R23** a list of references to the examination material is also appended. The Applicant provides a response to specific paragraphs in the late representation made by Five10Twelve Ltd dated 27 October 2019 below.

	Paragraph 1.8 The Applicant does not consider that the effects reported in the ES [**APP-034**] are inaccurate. For the reasons set out in the Applicant's response to Written Question Ns.4.3 in the Applicant's response to Fourth Written Questions [**REP9-006**] the Applicant does not accept that the methodology and input assumptions used to produce noise contours referred to (produced by ERCD) are more appropriate than those used in the ES [**APP-034**]. As set out in [**REP9-006**], the assumptions used by Five10Twelve are not consistent with those used for the ES. The '*approach used in the ES was based on detailed analysis of likely flight path options and detailed consideration of numerous other factors. The crude approaches adopted by …. Five10Twelve are not truly comparable with the approach adopted in the ES which is considered appropriate and robust, as described in chapter 12.6 of the Environmental Statement [APP-034].'* **Paragraph 1.9** The Applicant notes that an ES addendum was submitted at Deadline 6 (Appendix OP.2.7 in [**REP6-014**]) which considered the potential effects of a PSZ and concluded that there would be no significant effects as a result of such an intervention. Clarifications requested by the ExA on the PSZ were also provided as part of the Applicant's responses to Written Questions OP3.10 and OP4.6.
24	It is noted that Ramsgate Royal Harbour has been included within the Heritage at Risk Register by Historic England subsequent to the conclusion of the examination. This designation is a reflection of the present condition of the asset and does not affect the nature or magnitude of any effect arising from the construction and operation of the proposed development, nor does it affect the weight given to any such effect in planning terms. Consequently, the assessment presented in the Environmental Statement [**APP-052**] at Table E.3, which found that the existing noise environment does not contribute to heritage significance and that no adverse effect would arise, remains valid. It is, however, acknowledged that in line with national planning policy (NPPF para. 185) that the future of a designated heritage asset like Ramsgate Royal Harbour is best secured by its being put into a viable use consistent with its conservation. This issue of appropriate reuse is entirely independent of the operation of the Proposed Development, but is related to the generalised economic benefit to the town of Ramsgate discussed in Appendix HE 1.2 to the RSP Responses to the ExA First Written Questions [**REP3-187**]. This generalised benefit would be expected to complement heritage-based regeneration, such as that of the Royal Harbour, rather than conflicting with it.
25	The Applicant provides a response to specific paragraphs in the late representation made by Five10Twelve Ltd dated 20 December 2019 below. **Paragraphs 29-33**

	The Applicant does not consider that the effects reported in the ES [**REP-034**] are inaccurate, for the reasons set out in the Applicant's response to Written Question Ns.4.3 [**REP9-006**]. **Paragraphs 34-40** The air quality impacts on the Thanet Urban Air Quality Management Area have been considered in the Environmental Statement [**APP-033**], which showed that the impacts would be negligible and that no exceedances of legal limits are predicted. The impact of the Proposed Development on the AQMA in particular was further addressed in the Applicant's response to questions AQ.1.2 [**REP3-195**] and AQ.2.5 [**REP6-013**]. **Paragraphs 45-46** The Applicant does not accept that the noise contours or the ES [**REP-034**] conclusions are inaccurate or based on what Five10Twelve describe as a 'best case' scenario. A reasonable fleet mix and set of assumptions was used to derive the ES forecast and this was the subject of detailed discussion during the examination. A number of measures including a noise contour cap and limits on ATM's have been introduced to ensure that the ES forecast cannot be exceeded and as such it is very much a worst-case scenario. **Paragraph 47** The airspace change application to the CAA will be the subject of a separate Environmental Assessment using the methodology described in CAP 1616. This process will not allow the aerodrome to exceed the Requirements of the DCO. Osprey Aviation have further responded on behalf of the Applicant to points raised in the late representations made by Five10Twelve Ltd dated 19 and 20 December 2020 at **Enclosure R25**.
26	See the Applicant's response to request No. 23 above in relation to the late representations made by Five10Twelve Ltd dated 23 December 2019.
27	The Applicant provides a response below in relation to the following two points raised in the late representation from Mr Chris Lowe dated 6 January 2020 relating to air quality, namely that: 1 Airports are a major source of Ultrafine particles (UFP) 2 Air pollution and Noise affect Birth outcomes This letter references a recent (January 2020) academic paper that is not adopted in national policy or guidance. The ES [**APP-034**] uses a precautionary approach based on the contemporary policy framework. It would not be appropriate to rely on new research to derive criteria for an assessment until it is accepted into national policy. Understanding the sources and effects of air quality is an area of active research. Air pollution is made up of a wide range of substances, and research such as the Kings College study are aimed

at identifying sources of certain specific constituents of the overall mix, which should ultimately lead to a better understanding of the health effects due to individual components and sources . The present state of knowledge is not yet so far advanced, and uses a small number of pollutants, whose health effects are relatively well characterised, as markers for the whole mix. Since health effects are assessed epidemiologically, based on real-world exposure to the mix of air pollutants, this is a legitimate approach.

Therefore, the Environmental Statement [**APP-034**] and Health Impact Assessment (Appendix 15.1 to the Environmental Statement [**APP-058**]) use current best practice, based on legal limits, World Health Organization recommendations, and recommendations of the Government's Committee on the Medical Effects of Air Pollutants (COMEAP) to assess the impacts of the Proposed Development against the best accepted standards.

The Applicant provides a response below in relation to the following two points raised in the late representation from Mr Chris Lowe dated 6 January 2020 relating to noise:

Paragraphs 3.1-3.2

The Applicant does not believe consider that the likely significant effects associated with the proposal have been underestimated. It is incumbent on the Applicant to carry out its assessment based on relevant policy and the ICCAN report is not policy. It examines several areas relating to aviation noise impacts and recommends that further research and consultation is needed to enable better consensus. The report does not make specific recommendations for immediate change in Government policy. The conclusions of the ICCAN report will therefore not result in any immediate change in the currently used criteria. There has been no change in Government policy in the context of health outcomes, the level at which LOAEL is set, or with respect to annoyance related to when change in noise levels occurs following changes in noise levels.

The assessment of likely significant effects of noise for Manston was is based on the forecast use of the Airport twenty years after opening, and the Noise Mitigation Plan [**AS-579**] was produced in this context. Should Government policy change in future (as a result of work prompted by ICCAN or from other sources), the Applicant has already agreed to consider such change and how this might affect the operation of the Airport. It remains the view of the applicant that basing an assessment on the recommendations of one organisation would be inappropriate. It is the Applicant's view that any decision on Manston should be taken in the context of current Government policy, not speculation on how policy might or might not develop in the future.

The WebTAG methodology does not define significance criteria and was not material in determining the likely significant effects for noise reported in the ES. The Applicant concludes, therefore, that that the points raised by ICCAN do not have any material bearing on the effects assessed in the ES.

BDB PITMANS

Enclosure R2

Email relating to cost of air quality monitoring station

Wed 12/06/2019 17:38

Iain Livingstone <iain.livingstone@thanet.gov.uk>

Draft Section 106 agreement

To WALKER Angus

Cc HALLATT Alex; MURRAY Emily; Jonathan Buckwell <jonathan.buckwell@dhaplanning.co.uk>

Dear Angus,

Further to the receipt of the Section 106 draft in the appendices to the Third written question answers, we have reviewed the proposed obligations from Thanet's perspective. In advance of the production of a new draft at deadline 8 following the ExA initial thoughts, below are our initial comments on the S106 (please note these are not exhaustive):

- Remove section 20: Communications.
- We don't have Annex 4 as mentioned at 22.2, but it doesn't appear relevant as none of the money is to be paid to a third party.
- The interest rate in the definitions should be set at "2% per annum", not "4% per annum" as suggested.

In response to First Schedule:

- The figure in monthly payment 2 should be £600.
- The definition of "Air Quality Station ZH3 Contribution Purposes" should be expanded to include monitoring of fine particles PM10 and PM2.5
- Tranche 1 contribution should be £70,000 not £45,000
- Definition of "Operation" of the project should be provided (as the trigger at 31.1) and we will then take a view on whether this is sufficient as a trigger.

Enclosure R5

Justification for transport improvement cost calculation

Junction	Summary of Mitigation Scheme	Examination question responses
Off-site junction mitigation		General questions – TR3.6 – TR3.11 TR5.7, TR5.8
Junction 1 (A256/Sandwich Road)	Minor widening on Arms	TR4.22
Junction 2 (A299 / A256 / Cottington Link Road)	Signalisation of Roundabout	TR2.37, TR3.24, TR4.23
Junction 4 (A299 / B2190)	Signalisation of Roundabout	TR2.38, TR3.25, TR4.24
Junction 6 (A299 / Seamark Road / A253 / Willetts Hill)	Signalisation of Roundabout	TR2.39, TR3.26, TR4.25
Junction 7 (A299 / A28)	New Advanced Signs and Whitelining	TR2.40, TR3.27, TR4.26
Junction 10 (Shottendane Rd / Manston Road / Margate Hill)	Minor widening and white lining	TR4.28
Junction 13 (Manston Court Road / B2050 Manston Road)	Provision of a new three arm signalised junction with pedestrian crossing facilities linked to the signalised junction proposals for the main airport terminal access	TR4.30
Junction 15 (Manston Rd / Hartsdown Rd / Tivoli Rd / College Rd / Nash Rd)	Provision of new signal head locations, road markings and revised stage sequence operation	TR2.42, TR3.29, TR4.31
Junction 16 (Ramsgate Rd / College Rd / A254 / Beatrice Rd)	Provision of new stop line, road markings, signal head locations and revised stage sequence operation.	TR2.43, TR3.30, TR4.32
Junction 17 (Ramsgate Road / Poorhole Lane / Margate Road / Star Lane)	New Signal Arrangement/Whitelining	TR4.33

Enclosure R7

Justification for CPZ cost calculation

Technical note:
Controlled Parking Zone – Cost of Implementation

1. Introduction

The potential need for a Controlled Parking Zone (CPZ) was raised by Thanet District Council (TDC) response to the Car Park Management Strategy and was included in the Examining Authority's Written Questions **TR.4.51** [REP9-026 and REP9-006] and **TR.5.11** [REP11-002].

A CPZ is an area where all on street parking is controlled and is used in urban areas to address particular parking problems in a community, usually in order to help residents park near to their homes. Within CPZs, parking is only permitted in designated parking bays, the remainder of the kerbside space has to be restricted and is subject to yellow line restrictions. When entering a CPZ there are entry signs to notify drivers that restrictions apply there. The CPZ area is applicable only to where there are designated parking bays as well as restrictions. It is not necessary for double yellow line restrictions only and would cause confusion if CPZ entry signage is a long distance from designated parking bays and where it is needed to address parking problems in urban community locations. Traffic Regulation Orders (TROs) are required in order to identify the restrictions and permissions, and road signs and carriageway lining are needed to show the extent of the CPZ and permitted parking bays.

2. Cost Calculations

2.1 Extent of CPZ

Sections of Manston Road (B2050) (up to Manston Court Road), Manston Road and Spitfire Way already have double yellow line parking restrictions. It is proposed that the entirety of Spitfire Way would have double yellow line restrictions as part of the Development Consent Order (DCO) scheme.

It is also proposed that double yellow line restrictions are imposed on Manston Road to the west of the Spitfire Way junction, Manston Road (B2050) to Manston village and Manston Court Road, as these are routes that are inappropriate for on-street parking.

In identifying the extent of the CPZ, consideration was given to likely distance from the Airport access points and parts of the network where parking does occur and is appropriate.

Assessment of this has been based on walking distances of up to 1km (10-minute walk) from all the Passenger, Cargo and Northern Grass Area Accesses, and roads where parking is appropriate (based on road safety and vehicular throughput). The plan included in **Appendix TR.5.11** [REP11-003] illustrates the existing and proposed extensions to the double yellow line restrictions and appropriate CPZ locations where parking bays would be marked out.

This includes double yellow extensions along the following sections which would not be part of a CPZ:

- B2050 Manston Road between end of end of current provision and East of Manston Village (973m);
- Manston Court Road 848m north of the junction with the B2050 Manston Road;

- B2050 Manston Road 407m West of the Spitfire Way/Manston Road Junction;
- Alland Grange Road 614m north of the junction with Spitfire Way; and
- Manston Road 875m north of the existing provision.

This equates to a total distance of 3,717m. The cost for single yellow lining in Spon's Civil Engineering and Highway Works Price Book 2019 is £18 per m. Assuming £36 per metre would equate to a contribution of £13,381.20.

CPZs could be required in the following locations:

- St Catherine's Grove 130m;
- Elm Grove 55m;
- Highlands Glade 95m; and
- High street 610m.

Daigor Lane is a residential road but not a highway maintainable at the public expense and therefore cannot have any parking restriction placed on it.

This equates to 890m of CPZ area.

2.2 Cost Calculation

Within TDC's response to **TR.4.51** [REP9-026], they provided an estimated cost of £260 per metre to implement a CPZ. Based on the extent of the CPZ area being 890m, as identified above, a contribution amount of £231,400 would be required in the unlikely event that the monitoring to be undertaken as part of the Travel Plan identifies a need for the CPZ.

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Nick Hilton

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Enclosure R8

Justification for right of way cost calculation

Technical note:
Public Rights of Way Upgrade Costing

1. Introduction

This Technical Note has been prepared to set out the methodology used to calculate the cost of upgrading the Public Rights of Way (PRoWs) to the east of the Airport, which provide a connection to Manston Village and the development known as Manston Green, as well as the western edge of Ramsgate. The PRoWs are TR8 (an unmade path from Manston Road to TR9), TR9 (a surfaced path not requiring improvement) and TR10 (un unmade route between TR9 and the A2566 to the east; they are shown on **Figures 1.1**, **1.2** and **1.3** respectively.

Figure 1.1 TR8 – an unmade path from Manston Road to TR9

Source: Manston Airport DCO Transport Assessment Appendix M – Public Rights of Way Management Strategy (PRoWMS) produced by Wood for RiverOak Strategic Partners Limited [APP-073].

Figure 1.2 TR9 – a surfaced path not requiring improvement

Source: Google StreetView.

Figure 1.3 TR10 – un unmade route between TR9 and the A2566 to the east

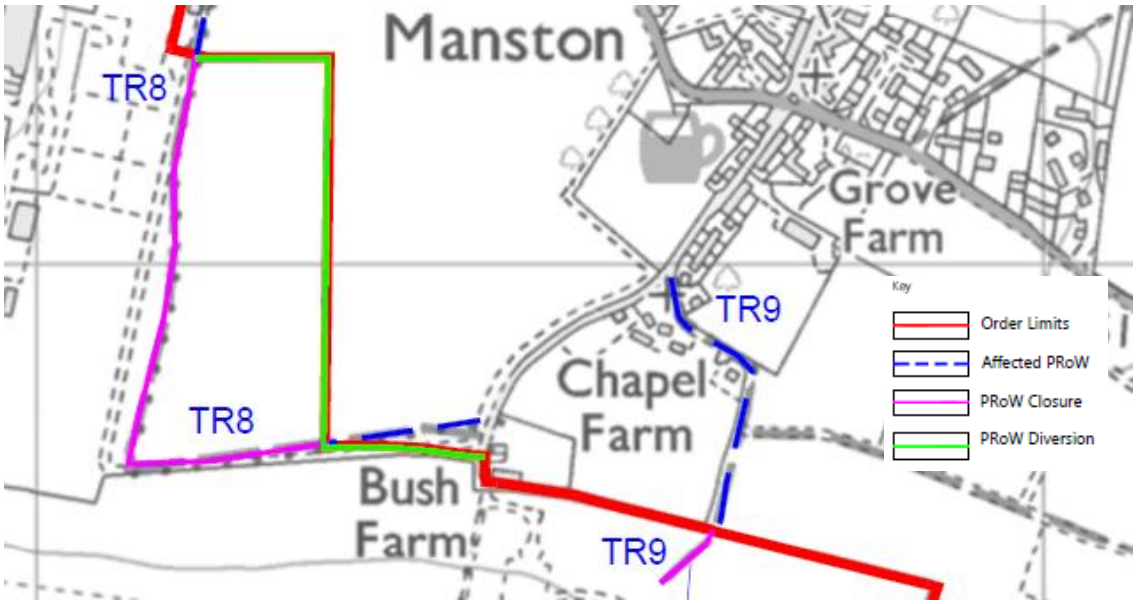
Source: Manston Airport DCO Transport Assessment Appendix M – Public Rights of Way Management Strategy (PRoWMS) produced by Wood for RiverOak Strategic Partners Limited [APP-073].

An Ordnance Survey (OS) map showing the locations of the existing PRoW routes of TR8, TR9 and TR10 is shown in **Figure 1.4**.

Figure 1.4 Existing locations of TR8, TR9 and TR10

The proposal is to divert part of TR8 so that it is no longer within the redline, and to extinguish a section of TR9 which routes to and into the redline and serves no purpose. This is shown in **Figure 1.5**.

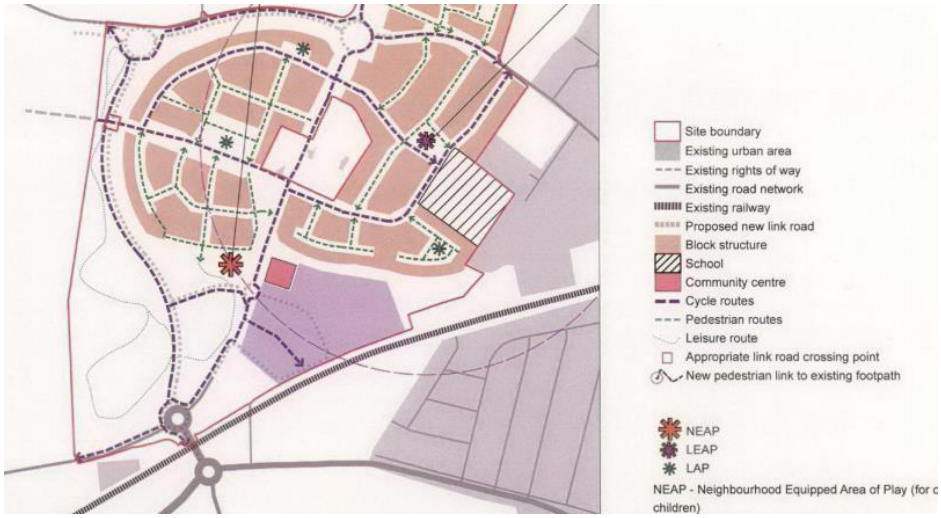
Figure 1.5 Proposed diversion and stopping up changes to PRoW TR8 and TR9



Source: Manston Airport DCO Transport Assessment Appendix M – Public Rights of Way Management Strategy (PRoWMS) produced by Wood for RiverOak Strategic Partners Limited [APP-073].

The initial proposal also included upgrade of the western section of TR10, the eastern section being within the Manston Green development, as shown in **Figure 1.6**.

Figure 1.5 The Manston Green development



Source: Manston Green Design and Access Statement (2015).

The upgrade of TR8 was not included in the initial cost estimations. TR9 is already surfaced and therefore was considered not to require an upgrade.

2. PRoW Upgrade Cost Calculations

The cost calculations were based on a cost per metre length and width of shared use path, as provided via email dated 9th April 2019 by Kent County Council (KCC) Public Rights of Way officer Denise Roffey:

- total cost of surfacing with compacted type one (passing 37.5mm sieve) to 100mm depth with 15mm thickness of 4mm to dust limestone fines = £45 per metre

2.1 KCC Cost Calculation

- TR8 cost = 889 m (length) x 3 m (width) at £45 per metre = **£120,015** (based on the existing route - adjustment may be required once new route has been fully defined)
- TR9 cost = 190 m (length) x 3 m (width) at £45 per metre = **£25,650**
- TR10 cost = 964 m (length) x 3 m (width) at £45 per metre = **£130,140**
- Total cost = **£275,805**

2.2 Wood Cost Calculation

- TR8 cost = 789 m (length) x 3 m (width) at £45 per metre = **£106,515** (based on existing route with required diversion measured on OS plan)
- TR9 cost = **£0** (not required as already surfaced)
- TR10 cost = 964 m – Manston Green section (298 m) = 666 m (length) x 3 m (width) at £45 per metre = **£89,910**
- Total cost = **£196,425**

Issued by

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Nick Hilton

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Enclosure R21

Habitats Regulations Assessment response

Manston Airport DCO application:
RIAA Addendum – Update of AQ Assessment

1. Introduction

1.1.1 The RIAA for the Manston Airport DCO Application [REP7a-014] screened in, and then presented an Appropriate Assessment of the effects of changes to air quality, resulting from operation of Manston Airport, on the Annex 1 habitats contained within the Sandwich Bay SAC and on Thanet Coast and Sandwich Bay Ramsar – Invertebrates.

1.1.2 The assessment considered the potential for ecological effects of changes to annual mean NOx, daily mean NOx, nitrogen deposition and acid deposition, based on a modelling that included the Manston-Haine link road. However, an assessment based on the Applicant's original Transport Assessment (TA) [APP-060 and APP-061], which excludes the Manston–Haine link road, has now been requested.

1.1.3 Therefore, an updated assessment of changes in air quality has been prepared and is presented in Wood (2020)[1](included as **Appendix A** to this Note). Wood (2020) identified that the assessment locations, in the SAC / SPA / Ramsar site, and scenarios indicated in Table 1.1 below required further assessment by an ecologist.

Table 1.1 Receptors requiring further assessment

Impact Type	Rationale
Ecological effects: Annual mean NO_x concentration	Yr2: ER012 Yr 6: ER012 Yr 20: ER012.
Ecological effects: Daily mean NO_x concentration	All modelled SAC, Ramsar and SPA receptors meet the EA criteria for not requiring further assessment.
Ecological effects: Nutrient nitrogen deposition	Yr2: None Yr 6: None Yr 20: ER012.
Ecological effects: Acid deposition	All modelled SAC, Ramsar and SPA receptors meet the EA criteria for not requiring further assessment.

1.1.4 Therefore this note presents an updated RIAA in respect of air quality effects on Annex 1 habitats of Sandwich Bay SAC and on the Thanet Coast and Sandwich Bay Ramsar – Invertebrates. The note only presents sections from the RIAA that have been updated.

[1] Wood (2020). Manston Airport DCO Application. Modelling and Assessment of Air Quality Impacts Using Original Road Traffic Data.

2. Sandwich Bay SAC – Annex I habitats

2.1.1 The current baseline and future baseline conditions reported in the RIAA [REP7a-014] are unchanged and are not repeated here.

Predicted Adverse Effects – Air Quality

2.1.2 There is potential for direct effects resulting from a deterioration in air quality. Plant and equipment used during construction, as well as road traffic generated during the construction phase, will produce emissions. During operation, emissions will result from aircraft and airside plant and equipment; and road traffic generated during the operation phase.

2.1.3 The principal pollutant of concern associated with emissions that might affect sensitive habitats is oxides of nitrogen[2] (NOx). Road and air traffic emissions may increase the ambient NOx concentrations in the air to which vegetation is exposed. The air quality standard measurement used for NOx concentrations in air is the annual mean and the daily mean.

2.1.4 In addition to NOx concentrations in air, NOx may also result in deposition, following chemical conversion in the air from nitrogen dioxide. This nitrogen deposition may affect plant communities (with the consequent potential to alter habitats) by causing:

i. Nutrient enrichment of soils; and

ii. Acidification of soils.

2.1.5 The strongest effect of NOx emissions is through their contribution to nitrogen deposition (either through nutrient enrichment or acidification) rather than through the NOx concentrations in air. Furthermore, there is substantial evidence to suggest that the effects of ambient nitrogen are much more likely to be adverse in the presence of equivalent concentrations of SO_2, with the ratio of SO_2 to NO_2 having decreased greatly in the UK over the past 30 years[3]. Ozone (O_3) has a similar effect to SO_2. Ozone has also decreased and in 2016 for the UK "*all zones and agglomerations met the target values for health and for protection of vegetation*"[4]. There is also a long-term objective for the protection of vegetation from O_3. In 2016 the south-east of England was below this long-term objective for the protection of vegetation[5]. In terms of potential impacts upon ecological receptors this means that any elevated levels of NOx concentrations in air are unlikely to have adverse impacts when levels of SO_2 and O_3 are also low.

2.1.6 The EA and Institute of Air Quality Management (IAQM) has specific guidance for ecological receptors.

2.1.7 The EA[6] guidance gives criteria for screening out source contributions at designated nature conservation sites. For SPAs, SACs and Ramsar sites, there is no need for further assessment if the screening calculation finds that:

[2] Assessment of sulphur oxides (SO_2) has been scoped out as such emissions are expected to be negligible (see **Chapter 6, Section 6.4 of the Environmental Statement [APP-033]**).
[3] http://www.apis.ac.uk/overview/pollutants/overview_NOx.htm
[4] Defra, Air Pollution in the UK 2016. September 2017: https://uk-air.defra.gov.uk/assets/documents/annualreport/air_pollution_uk_2016_issue_1.pdf
[5] Five zones (Yorkshire and Humberside, the West Midlands, the North-East, South Wales and North Wales) were above the long-term objective for vegetation in 2016 (Defra, Air Pollution in the UK 2016. September 2017).
[6] Environment Agency (2016). 'Air emissions risk assessment for your environmental permit'. https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit, dated 2 August 2016.

- Both the following are met:
  - The short-term Process Contributions (PC)[7] is less than 10% of the short-term AQAL[8]; and
  - The long-term PC is less than 1% of the long-term AQAL;
- Or:
  - The long-term Predicted Environment Contributions (PEC) is less than 70% of the long-term AQAL.

2.1.8 Following detailed dispersion modelling, no further action is required if:

- The proposed emissions comply with Best Available Technique (BAT) associated emission levels (AELs) or the equivalent requirements where there is no BAT AEL; and
- The resulting PECs won't exceed AQALs.

2.1.9 Wood (2020) has calculated effects on air quality of operation of Manston Airport in-combination with other plans and projects, indicating that impacts on ecological receptors are assessed in accordance with guidance from the Environment Agency[9] (EA) as detailed in paragraph 6.2.35 et seq. of Chapter 6 of the ES [APP-033,034,035], and subsequent guidance from Natural England[10] on in-combination assessments.

2.1.10 For the purpose of the in-combination assessment, three key measures of impact are presented:

- Predicted Environmental Concentration (PEC). This is the total impact from the background, the Proposed Development, and other plans and projects.
- Process Contribution (PC). This is the impact from the Proposed Development (included related traffic) only.
- In-Combination Contribution (ICC). This is the impact from the Proposed Development (including related traffic) plus other plans and projects which came or will come into existence subsequent to the background base year.

2.1.11 The terms PEC and PC are used in EA guidance and are very widely used throughout the air quality assessment community, using the term "process" to mean any kind of proposed development. Similarly, the term "concentration" in PEC is also used to mean deposition rate. The term ICC is not a standard term but is adopted in this Note.

2.1.12 In the above definitions, with regard to deposition, "background" refers to the background deposition rates taken from the UK Air Pollution Information System (APIS). These deposition rates relate to the years 2013–2015 and therefore do not include any new sources which came or will come into existence after those years. The only new developments that have been identified that are likely to have a significant effect on the modelled receptors will do so by creating additional road traffic. They have therefore been incorporated into the ADMS-Roads dispersion model

[7] The predicted concentrations resulting from the process (i.e. the process contribution (PC)) are used along with background concentrations and the percentage contribution that the predicted environmental concentrations (PEC) would make towards the relevant standard, objective or guideline value (see **Chapter 6 of the Environmental Statement [APP-033]**).

[8] AQAL = Air quality assessment level. A generic term to embrace air quality standards, air quality objectives, targets, limit values, critical levels, critical loads, etc. This term is promulgated by IAQM/Environmental Protection UK.

[9] Environment Agency (2016). 'Air emissions risk assessment for your environmental permit'. Available online at: https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit [Accessed February 2018], dated 2 August 2016.

[10] Natural England (2018). 'Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations'. Version: June 2018.

through the traffic modelling, which includes growth due to expected developments (including those associated with Thanet's Local Plan).

2.1.13 To calculate PEC, PC and ICC, three sets of road traffic data are needed:

- With Proposed Development, which includes contributions from the Proposed Development and from other plans and projects as well as baseline traffic;
- Without Proposed Development, which includes contributions from other plans and projects as well as baseline traffic; and
- No Growth, the counterfactual case where traffic flows are unchanged from 2016, and therefore does not include other plans and projects.

2.1.14 The amount of traffic growth between 2013–2015 and 2016 is very small and has been neglected.

2.1.15 The PC may therefore be calculated as:

- The contribution from the Proposed Development, excluding road traffic; **plus**
- The contribution from the With Proposed Development road traffic; **minus**
- The contribution from the Without Proposed Development road traffic.

2.1.16 The ICC may be calculated as:

- The contribution from the Proposed Development, excluding road traffic; **plus**
- The contribution from the With Proposed Development road traffic; **minus**
- The contribution from the No Growth road traffic.

2.1.17 Because growth in road traffic can displace existing traffic from certain road links, either completely or partially onto other road links, it is better to think in terms of a consistent traffic scenario rather than increments from one scenario to another. Hence, the PC and ICC are calculated by subtracting one traffic scenario from another.

2.1.18 Deposition is calculated from concentrations of NO_2 in air, not concentrations of NO_x, and NO_2 concentrations are derived from NO_x concentrations in a mathematically complex, non-linear way. Consequently, the PCs and ICCs for deposition are calculated by determining the total NO_x concentrations for appropriate scenarios, converting to NO_2, and taking the differences.

2.1.19 The air quality assessment has been based upon three operational years, two of which also cover the construction phase, as follows:

- Year 2, representing the first year of aircraft operation;
- Year 6 (the point at which the airport exceeds 10,000 movements per year); and
- Year 20, representing the worst-case year in terms of likely emissions from aircraft and vehicular movements.

2.1.20 Construction activity will be spread over the first 18 years of the Proposed Development, but is assumed to be at its most intense during Phases 1 and 2. This approach has ensured that the assessment has captured the peak construction years as well as the worst-case operational year.

2.1.21 Based on the updated air quality assessments presented in Wood (2020, see **Appendix A**), and as indicated in Table 1.1 of this Note, it is concluded that air quality effects cannot be screened out as insignificant on the following ecological receptors associated with the SAC / SPA / Ramsar site:

- Annual mean NO_x on one receptor (ER012) in Year 2, Year 6 and Year 20 year; and
- Nitrogen deposition on one receptor (ER012) in Year 20.

2.1.22 All other receptor locations for the SAC / SPA / Ramsar are therefore screened out.

Annual Mean NOx

2.1.23 Under EA guidance[6], where the PEC is greater than 21 µg m^{-3} (70% of the AQAL) at major ecological receptors and the PC[11] is >1% of AQAL, further assessment may be required. One receptor exceeds this criterion, namely Receptor ER012, which is located alongside the A256 Margate Road (see **Figure 2.1** in Wood 2020 in **Appendix A**).

2.1.24 The annual mean NO_x AQAL is not exceeded but the PEC is predicted in Year 2 to be 24.87 µg m^{-3} (or 82.9% of the AQAL, of which the PC is 0.2 µg m^{-3}, 0.7% of the AQAL), in Year 6 to be 22.34 µg m^{-3} (or 74.5% of the AQAL), and in Year 20 to be 22.020 µg m^{-3} (or 74% of the AQAL).

2.1.25 This modelled location has been related to the nearest unit of the Sandwich Bay to Hacklinge Marshes SSSI with the habitats present and condition status[12], detailed in **Table 2.1**.

Table 2.1 Modelled location related to unit details for Sandwich Bay to Hacklinge Marshes SSSI

Receptor	SSSI Unit Number	Main Habitat/ Area (Ha)	Condition Assessment Status/ Latest Assessment Date
ER012	08	Littoral sediment / 22.76	Favourable / 28.07.2009

2.1.26 However, the following factors are relevant in determining the potential for, and significance of, ecological effects at this location:

- None of the habitats present within the area affected by the exceedance of the 70% (21 µg m^{-3}) threshold are considered to be particularly sensitive to NO_x deposition (i.e. they are considered very unlikely to support sensitive bryophyte species for example).
- Additionally, the APIS[13] website states that NO_x are known to have greater adverse effects in the presence of SO_2 or O_3, and hence the critical level should apply where these pollutants are also close to their critical level. The levels of both these pollutants are well below their critical level (refer to paragraph 7.10.20 of Chapter 7 of the ES [APP-033, 034, 035]); hence these pollutants would not exacerbate any effects of NO_x in these locations.
- Habitats within the Sandwich Bay to Hacklinge Marshes SSSI Unit 08 (Sandwich Bay SAC, Thanet Coast and Sandwich Bay SPA and Thanet Coast and Sandwich Bay SPA Ramsar), approximately 5m from ER012, comprise littoral sediment. Where vegetated, the habitats present are regularly covered by eutrophic tidal waters. NO_x deposition in each of the three assessment years at Receptor ER012 remains significantly lower than the AQAL.
- Additionally, Defra forecasts that NOx concentrations will fall by about 2% per year during the 2020s, and these trends are expected to continue in response to strong political pressure to reduce emissions from road vehicles, both of air pollutants and CO_2, bearing in mind that

[11] EA guidance refers to the PC, but following the Wealden judgement, the criteria should properly apply to the ICC
[12] Each unit of SSSI land is assessed against six condition states: **Favourable; Unfavourable recovering; Unfavourable no change; Unfavourable declining; Part destroyed; Destroyed.**
[13] Air Pollution Information System (2019) Nitrogen Oxides: Grasslands. Available at: [online] http://www.apis.ac.uk/nitrogen-oxides-grasslands [Accessed April 2019].

concentrations at ER012 are dominated by road traffic. Whilst the Emission Factors Toolkit used in the modelling (version 8) only provides forecasts out to 2030, it does not include any electric vehicles on rural roads; whereas in reality, by Year 20, a very large fraction of the vehicle fleet is expected to be zero-emission, given current behavioural trends, the Government's commitment to end sales of new petrol and diesel vehicles by 2040, and the increasing pressure to decarbonise the vehicle fleet as soon as possible.

- Therefore, the additional NOx deposition predicted to result from operation of the airport (including traffic generated in-combination with other developments), is most likely to be off-set as time passes by reduced NOx emissions generally. This will ensure that the development will not contribute to any undermining of achievement of the conservation objectives.

2.1.27 Overall therefore, taking the above factors into account, the annual mean NOx emissions predicted at ER012 would not undermine the conservation objectives for the SAC and therefore there would be no adverse effect on the integrity of the Sandwich Bay SAC from changes to annual mean NOx.

Nitrogen Deposition

2.1.28 Under EA guidance[6], where the PEC is greater than 70% of the AQAL at major ecological receptors and the PC[11] is >1% of AQAL, further assessment may be required.

2.1.29 Nitrogen deposition is predicted to exceed the criteria for insignificance at ER012 only in Year 20 (0.21 kg N ha^{-1} y^{-1} in-combination contribution, which is 2.6% of AQAL (see **Table 5.3** of Wood (2020) in **Appendix A**).

2.1.30 This modelled location has been related to the nearest unit of the Sandwich Bay to Hacklinge Marshes SSSI with the habitats present and condition status[14], detailed in **Table 2.2**.

Table 2.2 Modelled location related to unit details for Sandwich Bay to Hacklinge Marshes SSSI

Receptor	SSSI Unit Number	Main Habitat/ Area (Ha)	Condition Assessment Status/ Latest Assessment Date
ER012	08	Littoral sediment / 22.76	Favourable / 28.07.2009

2.1.31 As indicated above, air quality effects cannot be screened out as insignificant for nitrogen deposition at ER012 in Year 20 (where the ICC will be 2.6% of the AQAL, albeit the PEC will already significantly exceed the AQAL (approximately 169%). However, the following factors are relevant in determining the potential for, and significance of, ecological effects at ER012:

- Habitats within the Sandwich Bay to Hacklinge Marshes SSSI Unit 08 (Sandwich Bay SAC), approximately 5m from ER012 comprise littoral sediment. Where vegetated, this will be most likely with saltmarsh, the habitats present are regularly covered by eutrophic tidal waters, which would be expected to limit the potential for the elevated nitrogen deposition rates to adversely affect the littoral habitat areas.
- As there are no quantitative forecasts of background deposition rates the modelling assumes that current (2013–2015) levels of deposition continue into the future. However, current trends are for nitrogen deposition to fall in future years and as such the adopted approach is conservative. Emissions of nitrogen, especially from road vehicles, are declining, as explained above. Emissions of ammonia, which contributes to nitrogen deposition, have been flat for

[14] Each unit of SSSI land is assessed against six condition states: **Favourable; Unfavourable recovering; Unfavourable no change; Unfavourable declining; Part destroyed; Destroyed.**

many years. The UK Government's Clean Air Strategy 2019 has placed new focus on ammonia and is introducing measures to control and reduce emissions. Therefore, the additional nitrogen deposition predicted to result from operation of the airport (including traffic generated in-combination with other developments), is most likely to be off-set as time passes by reduced Nitrogen emissions generally. This will ensure that the development will not contribute to any undermining of achievement of the conservation objectives.

2.1.32 Overall therefore, taking the above factors into account, the nitrogen deposition predicted at ER012 would not undermine the conservation objectives for the SAC and therefore there would be no adverse effect on the integrity of the Sandwich Bay SAC from changes to nitrogen deposition.

Conclusion

2.1.33 No adverse effects on the integrity of the Sandwich Bay SAC are predicted due to air quality changes caused by the Proposed Development alone or in-combination, during construction or operation.

3. Thanet Coast and Sandwich Bay Ramsar – Invertebrates

3.1.1 The current baseline and future baseline conditions reported in the RIAA [REP7a-014] are unchanged and are not repeated here.

Predicted Adverse Effects – Air Quality

3.1.2 There is potential for adverse effects on the Red Data Book invertebrate species, resulting from a deterioration in air quality. The principal pollutant of concern associated with ground-based traffic and aircraft emissions that might affect sensitive habitats is nitrogen oxide (NO_x[15]). Road traffic and aircraft emissions may increase the ambient NO_x concentrations to which vegetation that the invertebrates depend upon is exposed. NO_x emissions may also, following chemical conversion in the air, form NO_2, which is then deposited. This (nutrient) nitrogen deposition may affect plant communities by causing nutrient enrichment and by acidifying the soils.

3.1.3 Concentrations of NO_x in air are associated with adverse effects on plant growth, and are therefore included in this assessment. In addition, emissions of NO_x and SO_x to the air may result in deposition onto ecological sites, which may be sensitive to both nutrifying nitrogen and acid deposition. Emissions of SO_x are expected to be negligible (see **Section 6.4 in Chapter 6: Air Quality** of the ES [APP-033 and APP-044]), but the impact of NO_x on nutrifying and acid deposition are included in this assessment.

3.1.4 The precise locations of the populations of Red Data Book invertebrate species within the Ramsar site are not known, though the majority of these species are associated with habitats such as sand dunes, marshes and reedbeds, the locations of which are shown on **Figure 4.2, Appendix 7.2** of the ES [APP-033 and APP-044].

3.1.5 In respect of the development, although the majority of the Proposed Development i.e. the active part of the airport including the runways from which aircraft will be taking off and landing, and from where the source of much of the pollution will be derived) is removed from the Thanet Coast

[15] Nitrogen oxides were taken to be nitrogen dioxide (NO_2) + nitric oxide (NO).

and Sandwich Bay Ramsar site, the traffic generated will also create emissions that have the potential to affect the habitats within the Ramsar site.

3.1.6 However, the receptor locations discussed in the ecological assessment of predicted changes in air quality (**Section 2** of this Note, supported by **Appendix A**) are all adjacent, and therefore relevant, to the Ramsar site. Additionally, as the invertebrates present will predominantly depend on the quality of the habitat present, it is considered that the assessments of potential for habitat effects presented in **Section 2** appropriately cover the assessment of effects on the Ramsar invertebrates present.

3.1.7 Therefore, please refer to **Section 2** for the assessment. However, in summary, based on the assessment it can be concluded that the additional contribution of air-borne and deposited nitrogen ($NO_{x,}$ nitrogen deposition and acid deposition) from the Proposed Development in areas containing habitats on which the Red Data Book species of invertebrates depend (within the Ramsar site) would not undermine the conservation objectives of the Ramsar site. Therefore, there would be no adverse effect on the integrity of the Thanet Coast and Sandwich Bay Ramsar.

4. Conclusion to RIAA

4.1.1 Assessments have now been completed of the effects of changes to air quality resulting from the construction and operation of Manston Airport both assuming presence of the Manston Haine link road [as reported in REP7a-014] and in the absence of this link road [this Note]. Both have concluded that no adverse effects on the integrity of the Sandwich Bay SAC or Thanet Coast and Sandwich Bay Ramsar will occur as a result the Proposed Development alone or in-combination with other plans and projects.

Issued by

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Appendix A
Wood (2020). Manston Airport DCO application: Modelling and Assessment of Air Quality Impacts using Original Road Traffic Data

Manston Airport DCO application:
Modelling and Assessment of Air Quality Impacts Using Original Road Traffic Data

1. Introduction

1.1.1 This document presents an updated air quality assessment that focuses on the consequential impacts to relevant European sites and features from anticipated changes in air quality, in order to support the Habitats Regulations Assessment (HRA) [REP1-007]. It is informed by the Applicant's original Transport Assessment (TA) [APP-060 and APP-061] which excludes the Manston–Haine link road, and in this respect, it differs from the assessments presented at Deadline 6 [REP6-016] and Deadline 7a [REP7a-014]. Results were previously presented using the traffic data from the original TA, in the Environmental Statement (ES) [APP-033 and APP-044], but this did not include an in-combination assessment of the impacts of air quality on relevant European sites consistent with the requirements of recent case law.

1.1.2 The Addendum to the Environmental Statement [APP-033], Chapter 6 Air Quality [REP6-016] and the Updated Report to Inform the Appropriate Assessment (RIAA) [REP7a-014] included an in-combination assessment of the impacts of air quality on relevant European sites which was consistent with the requirements of recent case law; the methodology for this in-combination assessment was accepted by Natural England [REP9-025].

1.1.3 This document uses the same methodology for carrying out the in-combination assessment as the RIAA [REP7a-014], but with traffic data from the original TA [APP-060 and APP-061].

2. Methodology

2.1.1 The methodology follows that used for the ES [APP-033 and APP-044] in most respects, but some changes were required in order to carry out the in-combination assessment. These changes are described below.

2.2 Road Traffic

2.2.1 For the purposes of the in-combination assessment, traffic flows for 2016 were modelled for each of the three future assessment years, using appropriate emission factors. This provides a counterfactual "no growth" scenario, in which traffic growth due to the Thanet Local Plan and other plans and projects do not occur. This, therefore, provides a baseline against which the in-combination effects of both the Proposed Development and other plans and projects can be assessed.

2.3 In-Combination Assessment

2.3.1 Impacts on ecological receptors are assessed in accordance with guidance from the Environment Agency[1] (EA) as detailed in paragraph 6.2.35 et seq. of Chapter 6 of the ES [APP-033], and subsequent guidance from Natural England[2] on in-combination assessments.

2.3.2 For the purpose of the in-combination assessment, three key measures of impact are presented:

- Predicted Environmental Concentration (PEC): This is the total impact from the background, the Proposed Development, and other plans and projects;
- Process Contribution (PC): This is the impact from the Proposed Development (included related traffic) only; and
- In-Combination Contribution (ICC): This is the impact from the Proposed Development (including related traffic) plus other plans and projects which came or will come into existence subsequent to the background base year.

2.3.3 The terms PEC and PC are used in EA guidance and are very widely used throughout the air quality assessment community, using the term "process" to mean any kind of proposed development. Similarly, the term "concentration" in PEC is also used to mean deposition rate. The term ICC is not a standard term. The ICC may be compared against the 1% threshold for insignificance.

2.3.4 In the above definitions, with regard to deposition, "background" refers to the background deposition rates taken from the UK Air Pollution Information System (APIS)[3]. These deposition rates relate to the years 2013–2015 and therefore do not include any new sources which came or will come into existence after those years. The only new developments that have been identified that are likely to have a significant effect on the modelled receptors will do so by creating additional road traffic. They have therefore been incorporated into the ADMS-Roads dispersion model through the traffic modelling, which includes growth due to expected developments (including those associated with Thanet's Local Plan).

2.3.5 To calculate PEC, PC and ICC, three sets of road traffic data are needed:

- With Proposed Development, which includes contributions from the Proposed Development and from other plans and projects as well as baseline traffic;
- Without Proposed Development, which includes contributions from other plans and projects as well as baseline traffic; and
- No Growth, the counterfactual case where traffic flows are unchanged from 2016, and therefore does not include other plans and projects.

2.3.6 The amount of traffic growth between 2013–2015 and 2016 is very small and has been neglected.

2.3.7 The PC may therefore be calculated as:

- The contribution from the 'Proposed Development', excluding road traffic; **plus**
- The contribution from the 'With Proposed Development' road traffic; **minus**

[1] Environment Agency (2016). 'Air emissions risk assessment for your environmental permit'. Available online at: https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit [Accessed February 2018], dated 2 August 2016.
[2] Natural England (2018). 'Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations'. Version: June 2018.
[3] http://www.apis.ac.uk/

- The contribution from the 'Without Proposed Development' road traffic.

2.3.8 The ICC may be calculated as:

- The contribution from the 'Proposed Development', excluding road traffic; **plus**
- The contribution from the 'With Proposed Development' road traffic; **minus**
- The contribution from the 'No Growth' road traffic.

2.3.9 Because growth in road traffic can displace existing traffic from certain road links either completely or partially onto other road links, it is better to think in terms of a consistent traffic scenario rather than increments from one scenario to another. Hence, the PC and ICC are calculated by subtracting one traffic scenario from another.

2.3.10 Deposition is calculated from concentrations of NO_2 in air, not concentrations of NO_x, and NO_2 concentrations are derived from NO_x concentrations in a mathematically complex, non-linear way. Consequently, the PCs and ICCs for deposition are calculated by determining the total NO_x concentrations for appropriate scenarios, converting to NO_2, and taking the differences.

2.4 Assessment and screening criteria

2.4.1 The assessment and screening criteria used to evaluate the air quality impacts and to screen them out as insignificant, where appropriate, have been given in the ES [APP-033], but are summarised here for convenience.

2.4.2 Assessment levels for ecological sites are:

- Annual mean NO_x: 30 µg m^{-3};
- Daily mean NO_x: 200 µg m^{-3};
- Annual mean nitrogen deposition: site-specific; and
- Annual mean acidity deposition: site-specific.

2.4.3 Site-specific assessment levels are given in the results tables.

2.4.4 The Environment Agency suggests criteria below which impacts may be considered insignificant. For long-term impacts (annual mean NO_x, nitrogen deposition and acid deposition) at major ecological sites (Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Ramsar sites and Sites of Special Scientific Interest (SSSIs)), impacts may be considered insignificant if:

- The PC is less than 1% of the assessment level; **or**
- The PEC is less than 70% of the assessment level.

2.4.5 For short-term impacts (daily mean NO_x) at major ecological sites, impacts may be considered insignificant if:

- The PC is less than 10% of the assessment level.

2.4.6 Guidance from the Institute of Air Quality Management (IAQM) clarifies that percentages should be rounded before applying these criteria, so for example an impact of 1.4% of the AQAL would be considered to meet the 1% criterion.

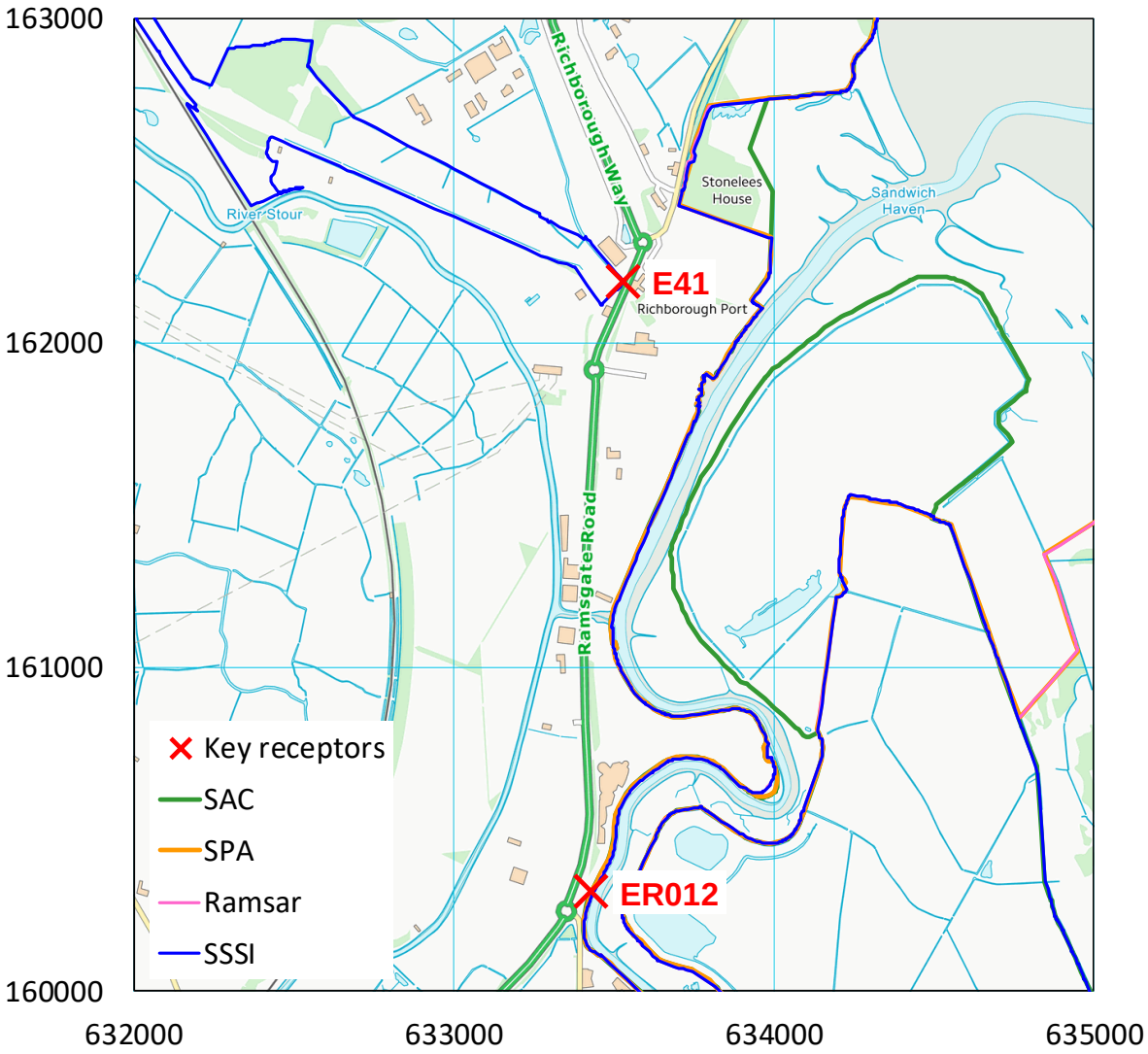
2.4.7 The EA guidance refers to the PC, but following the Wealden judgement, the criteria should properly apply to the ICC.

2.4.8 There are different criteria for local nature sites; these are given in the ES and are not reproduced here for brevity.

2.5 Receptors

2.5.1 Impacts have been assessed at the full list of receptors described in the ES [APP-033, APP-044]. The results below show that the receptors where impacts are greatest are E41 (633527,162189), representing the Sandwich Bay to Hacklinge Marshes SSSI close to the A256 Ramsgate Road, and ER012 (633429,160307), representing the Sandwich Bay SAC, Thanet Coast & Sandwich Bay SPA and Ramsar and Sandwich Bay to Hacklinge Marshes SSSI close to the A256 Ramsgate Road. These two receptors are shown in **Figure 2.1**, along with the SPA, SAC, Ramsar and SSSI boundaries.

Figure 2.1 Key receptors



3. Results and Evaluation: Year 2

3.1.1 Results are presented to several decimal places in the following discussion, so as to enable comparison between receptors and between PC and PEC contributions. The number of decimal places should not be taken as providing any indication of the accuracy of the results.

3.1.2 Results for local nature sites have been assessed and found to be **insignificant** for all receptors and all assessment criteria, so detailed results for local nature sites are omitted for brevity.

Ecological receptors: annual mean NO_x concentrations in air

3.1.3 ***Summary***: *While some exceedances of the assessment level for NO_x are predicted, these are largely due to existing background concentrations and the additional contribution from the Proposed Development is insignificant, except at the E41 and ER012 receptors.*

3.1.4 The full set of ecological receptors described in the ES [APP-044] were modelled. In view of the large number of modelled receptors, results are given here for only a selection of receptors, namely the major environmental sites (SPAs, SACs, Ramsar sites and SSSIs) with the five highest ICCs and PECs. This includes all those receptors where the impacts cannot be screened out as insignificant. Note that some receptors are in the top five for both ICC and PEC. Modelled annual mean NO_x concentrations at these selected receptors are given in **Table 3.1**.

Table 3.1 Assessment of annual mean NO_x concentrations, Year 2, worst receptors

Receptor	AQAL (µg m^{-3})	PC (µg m^{-3})	ICC (µg m^{-3})	PEC (µg m^{-3})	PC (% of AQAL)	ICC (% of AQAL)	PEC (% of AQAL)	Site type
E22	30	0.74	0.74	12.41	2.5%	2.5%	41.4%	Major
E41	30	0.39	2.09	38.38	1.3%	7.0%	127.9%	Major
ER003	30	0.22	0.61	16.95	0.7%	2.0%	56.5%	Major
ER004	30	0.22	0.61	16.95	0.7%	2.0%	56.5%	Major
ER012	30	0.20	1.03	24.87	0.7%	3.4%	82.9%	Major
E28	30	0.19	0.60	15.70	0.6%	2.0%	52.3%	Major

3.1.5 At the major environmental sites, the additional in-combination contribution is, at most, 7.0% of the assessment level at the E41 receptor where the A256 Ramsgate Road passes close to the Sandwich Bay to Hacklinge Marshes SSSI, which at this point is less than 5 m from the kerb. The PEC here is 128% of the assessment level. Under EA guidance, further assessment by a qualified ecologist is required at the E41 receptor; however, this receptor represents a SSSI and not a European site and is therefore not relevant to the HRA. Under EA guidance, **further assessment** by a qualified ecologist is also required at the at the ER012 receptor, which does represent a European site (Sandwich Bay SAC) and is therefore relevant to the HRA. The further assessment for receptor ER012 is given in the RIAA Addendum to which this is an appendix.

Ecological receptors: daily mean NO_x concentrations in air

3.1.6 ***Summary***: *No exceedances of the assessment level for daily NO_x are predicted, and the additional contribution from the Proposed Development is insignificant at all receptors.*

3.1.7 The full set of ecological receptors described in the ES [APP-044] were modelled. In view of the large number of modelled receptors, results are given here for only a selection of receptors, namely the major environmental sites (SPAs, SACs, Ramsar sites and SSSIs) with the five highest ICCs and PECs. This includes all those receptors where the impacts cannot be screened out as insignificant. Note that some receptors are in the top five for both ICC and PEC. Modelled daily mean NO_x concentrations at these selected receptors are given in **Table 3.2**.

Table 3.2 Assessment of daily mean NO_x concentrations, Year 2, worst receptors

Receptor	AQAL (µg m^{-3})	PC (µg m^{-3})	ICC (µg m^{-3})	PEC (µg m^{-3})	PC (% of AQAL)	ICC (% of AQAL)	PEC (% of AQAL)	Site type
E22	200	1.25	1.25	24.59	0.6%	0.6%	12.3%	Major
E28	200	0.43	1.26	31.45	0.2%	0.6%	15.7%	Major
E41	200	0.80	4.22	76.79	0.4%	2.1%	38.4%	Major
ER003	200	0.41	1.18	33.86	0.2%	0.6%	16.9%	Major
ER004	200	0.41	1.18	33.86	0.2%	0.6%	16.9%	Major
ER012	200	0.18	1.83	49.51	0.1%	0.9%	24.8%	Major
E40	200	0.48	1.00	31.04	0.2%	0.5%	15.5%	Major

3.1.8 At the major environmental sites, the additional in-combination contribution is, at most, 2.1% of the assessment level at the E41 receptor where the A256 Ramsgate Road passes close to the Sandwich Bay to Hacklinge Marshes SSSI, which at this point is less than 5 m from the kerb. The PEC here is 20% of the assessment level. Under EA guidance, because the ICC is less than 10% of the assessment level, the impact is **insignificant** at all major receptors and does not need to be assessed further.

Ecological receptors: nitrogen deposition

3.1.9 ***Summary***: *While some exceedances of the critical loads for nitrogen are predicted, these are due to existing background deposition rates and the additional contribution from the Proposed Development is insignificant.*

3.1.10 The full set of ecological receptors described in the ES [APP-044] were modelled. In view of the large number of modelled receptors, results are given here for only a selection of receptors, namely the major environmental sites (SPAs, SACs, Ramsar sites and SSSIs) with the five highest ICCs and PECs. This includes all those receptors where the impacts cannot be screened out as insignificant.

3.1.11 Modelled nutrient nitrogen deposition rates at these selected receptors are given in **Table 3.3**, along with the receptor-specific critical loads. Nutrient nitrogen background deposition rates at most of the modelled receptors are modelled to be at exceedance already, based on background deposition rates from APIS and without any additional contribution from the airport; no account is taken of reductions in deposition rates in future years.

Table 3.3 Critical Loads assessment of nitrogen deposition, Year 2, worst receptors

Receptor	AQAL (kg N ha^{-1} y^{-1})	PC (kg N ha^{-1} y^{-1})	ICC (kg N ha^{-1} y^{-1})	PEC (kg N ha^{-1} y^{-1})	PC (% of AQAL)	ICC (% of AQAL)	PEC (% of AQAL)	Site type
E21	8	0.04	0.04	10.82	0.5%	0.5%	135.2%	Major
E22	8	0.05	0.05	10.83	0.7%	0.7%	135.4%	Major
E23	8	0.04	0.04	13.48	0.5%	0.5%	168.5%	Major
E28	8	0.01	0.05	13.45	0.2%	0.6%	168.2%	Major
ER012	8	0.01	0.08	13.45	0.2%	1.0%	168.2%	Major
E30	8	0.01	0.01	15.69	0.1%	0.1%	196.1%	Major
E43	5	0.00	0.00	14.28	0.1%	0.1%	285.7%	Major
E44	5	0.00	0.00	14.28	0.1%	0.1%	285.7%	Major
E48	5	0.00	0.00	14.28	0.1%	0.1%	285.7%	Major
E49	5	0.00	0.00	14.28	0.1%	0.1%	285.7%	Major

3.1.12 At the major environmental sites, the additional in-combination contribution is, at most, 1.0% of the critical load at the ER012 receptor where the A256 Ramsgate Road passes close to the Sandwich Bay complex of designated sites. The PEC here is 168% of the critical load. At all modelled major receptors, the ICC is less than 1% of the critical load. Under EA guidance, since the ICC at all major sites is less than 1% of the critical load, it can be considered **insignificant** and does not need to be assessed further.

Ecological receptors: acid deposition

3.1.13 ***Summary***: *While some exceedances of the critical loads for acidity are predicted, these are due to existing deposition rates and the additional contribution from the Proposed Development is insignificant, except at the E41 receptor.*

3.1.14 The full set of ecological receptors described in the ES [APP-044] were modelled. In view of the large number of modelled receptors, results are given here for only a selection of receptors, namely the major environmental sites (SPAs, SACs, Ramsar sites and SSSIs) with the five highest ICCs and PECs (as a percentage of the receptor-specific critical load function). This includes all those receptors where the impacts cannot be screened out as insignificant.

3.1.15 Modelled in-combination contribution and background deposition rates are given in **Table 3.4**. A comparison with the critical load function is given in **Table 3.5**[4]. The PCs are not used in the assessment and have not been quantified for brevity.

3.1.16 Background acid deposition rates at many of the modelled receptors are modelled to be at exceedance already, based on background deposition rates from APIS and without any additional contribution from the airport; no account is taken of reductions in deposition rates in future years.

[4] These are calculated using the same formulae as the APIS critical load function tool, but without rounding of intermediate values, so results differ slightly from those generated by the website tool.

3.1.17 At the major environmental sites, the additional in-combination contribution is, at most, 2.0% of the critical load function at the E41 receptor where the A256 Ramsgate Road passes the Sandwich Bay to Hacklinge Marshes SSSI, which is within 5 m of the kerb. The PEC here is 223% of the critical load. Under the EA criteria, this impact cannot be screened out as insignificant and requires further assessment by a qualified ecologist; however, this receptor represents a SSSI and not a European site and is therefore not relevant to the HRA.

3.1.18 At all other major ecological receptors, including all sites that are relevant to the HRA, the ICC is less than 1% of the critical load function. Under the EA criteria, the impacts at all other modelled major ecological receptors can be considered **insignificant** and do not need to be assessed further.

Table 3.4 Acid deposition rates, Year 2, worst receptors

Receptor	Sulphur ICC (keq ha^{-1} y^{-1})	Nitrogen ICC (keq ha^{-1} y^{-1})	Sulphur background (keq ha^{-1} y^{-1})	Nitrogen background (keq ha^{-1} y^{-1})	Site type
E40	0	0.0027	0.20	0.96	Major
E41	0	0.0106	0.20	0.96	Major
ER003	0	0.0034	0.20	1.00	Major
ER004	0	0.0034	0.20	1.00	Major
ER012	0	0.0055	0.17	0.96	Major
E35	0	0.0003	0.25	1.12	Major
E37	0	0.0002	0.25	1.12	Major
E44	0	0.0003	0.22	1.02	Major
E48	0	0.0003	0.22	1.02	Major
E49	0	0.0003	0.22	1.02	Major

Table 3.5 Critical Loads assessment of acid deposition, Year 2, worst receptors

Receptor	Exceedance (keq ha^{-1} y^{-1})			Percent of critical load function			Site type
	ICC	Background	PEC	ICC	Background	PEC	
E40	No exceedance	0.63	0.64	0.5	220.5	221.0	Major
E41	No exceedance	0.63	0.64	2.0	220.5	222.5	Major
ER003	No exceedance	0.46	0.46	0.5	161.5	162.0	Major
ER004	No exceedance	0.46	0.46	0.5	161.5	162.0	Major
ER012	No exceedance	No exceedance	0.01	0.5	100.0	100.5	Major

Receptor	Exceedance (keq ha^{-1} y^{-1})			Percent of critical load function			Site type
	ICC	Background	PEC	ICC	Background	PEC	
E35	No exceedance	0.84	0.84	0.1	260.5	260.5	Major
E37	No exceedance	0.84	0.84	0.0	260.5	260.5	Major
E44	No exceedance	0.70	0.70	0.0	228.8	228.8	Major
E48	No exceedance	0.70	0.70	0.1	228.8	228.8	Major
E49	No exceedance	0.70	0.70	0.1	228.8	228.8	Major

4. Results and Evaluation: Year 6

4.1.1 Results are presented to several decimal places in the following discussion, to enable comparison between receptors and between PC and PEC contributions. The number of decimal places should not be taken as providing any indication of the accuracy of the results.

4.1.2 Results for local nature sites have been assessed and found to be **insignificant** for all receptors and all assessment criteria, so detailed results for local nature sites are omitted for brevity.

Ecological receptors: annual mean NO_x concentrations in air

4.1.3 ***Summary***: *While some exceedances of the assessment level for NO_x are predicted, these are largely due to existing background concentrations and the additional contribution from the Proposed Development is insignificant, except at the E41 and ER012 receptors.*

4.1.4 The full set of ecological receptors described in the ES [APP-044] were modelled. In view of the large number of modelled receptors, results are given here for only a selection of receptors, namely the major environmental sites (SPAs, SACs, Ramsar sites and SSSIs) with the five highest ICCs and PECs. This includes all those receptors where the impacts cannot be screened out as insignificant. Note that some receptors are in the top five for both ICC and PEC. Modelled annual mean NO_x concentrations at these selected receptors are given in **Table 4.1**.

Table 4.1 Assessment of annual mean NO_x concentrations, Year 6, worst receptors

Receptor	AQAL (µg m^{-3})	PC (µg m^{-3})	ICC (µg m^{-3})	PEC (µg m^{-3})	PC (% of AQAL)	ICC (% of AQAL)	PEC (% of AQAL)	Site type
E28	30	0.30	0.84	14.44	1.0%	2.8%	48.1%	Major
E41	30	0.79	3.07	33.12	2.6%	10.2%	110.4%	Major
ER003	30	0.29	0.80	15.75	1.0%	2.7%	52.5%	Major
ER004	30	0.29	0.80	15.75	1.0%	2.7%	52.5%	Major

Receptor	AQAL (µg m^{-3})	PC (µg m^{-3})	ICC (µg m^{-3})	PEC (µg m^{-3})	PC (% of AQAL)	ICC (% of AQAL)	PEC (% of AQAL)	Site type
ER012	30	0.40	1.50	22.34	1.3%	5.0%	74.5%	Major
E18	30	0.21	0.21	14.84	0.7%	0.7%	49.5%	Major

4.1.5 At the major environmental sites, the additional in-combination contribution is, at most, 10.2% of the critical load at the E41 receptor where the A256 Ramsgate Road passes close to the Sandwich Bay to Hacklinge Marshes SSSI, which at this point is less than 5 m from the kerb. The PEC here is 110% of the assessment level. Under EA guidance, further assessment by a qualified ecologist is required at the E41 receptor; however, this receptor represents a SSSI and not a European site and is therefore not relevant to the HRA. Under EA guidance, **further assessment** by a qualified ecologist is required at the at the ER012 receptor, which does represent a European site (Sandwich Bay SAC) and is therefore relevant to the HRA. The further assessment for receptor ER012 is given in the RIAA Addendum to which this is an appendix.

Ecological receptors: daily mean NO_x concentrations in air

4.1.6 ***Summary***: *No exceedances of the assessment level for daily NO_x are predicted, and the additional contribution from the Proposed Development is insignificant at all receptors.*

4.1.7 The full set of ecological receptors described in the ES [APP-044] were modelled. In view of the large number of modelled receptors, results are given here for only a selection of receptors, namely the major environmental sites (SPAs, SACs, Ramsar sites and SSSIs) with the five highest ICCs and PECs. This includes all those receptors where the impacts cannot be screened out as insignificant. Note that some receptors are in the top five for both ICC and PEC. Modelled daily mean NO_x concentrations at these selected receptors are given in **Table 4.2**.

Table 4.2 Assessment of daily mean NO_x concentrations, Year 6, worst receptors

Receptor	AQAL (µg m^{-3})	PC (µg m^{-3})	ICC (µg m^{-3})	PEC (µg m^{-3})	PC (% of AQAL)	ICC (% of AQAL)	PEC (% of AQAL)	Site type
E21	200	8.07	8.07	34.93	4.0%	4.0%	17.5%	Major
E22	200	12.15	12.15	35.50	6.1%	6.1%	17.7%	Major
E23	200	6.98	6.98	30.33	3.5%	3.5%	15.2%	Major
E24	200	7.63	7.63	27.25	3.8%	3.8%	13.6%	Major
E41	200	5.69	10.24	70.36	2.8%	5.1%	35.2%	Major
E20	200	6.01	6.01	34.20	3.0%	3.0%	17.1%	Major
ER012	200	0.56	2.75	44.42	0.3%	1.4%	22.2%	Major

4.1.8 At the major environmental sites, the additional in-combination contribution is, at most, 6.1% of the assessment level at the E22 receptor. The PEC here is 18% of the assessment level. Under EA guidance, because the ICC is less than 10% of the assessment level, the impact is **insignificant** at all major receptors and does not need to be assessed further.

Ecological receptors: nitrogen deposition

4.1.9 ***Summary**: While some exceedances of the critical loads for nitrogen are predicted, these are due to existing deposition rates and the additional contribution from the Proposed Development is insignificant at all receptors.*

4.1.10 The full set of ecological receptors described in the ES [APP-044] were modelled. In view of the large number of modelled receptors, results are given here for only a selection of receptors, namely the major environmental sites (SPAs, SACs, Ramsar sites and SSSIs) with the five highest ICCs and PECs. This includes all those receptors where the impacts cannot be screened out as insignificant.

4.1.11 Modelled nutrient nitrogen deposition rates at these selected receptors are given in **Table 4.3**, along with the receptor-specific critical loads. Nutrient nitrogen background deposition rates at most of the modelled receptors are modelled to be at exceedance already, based on background deposition rates from APIS and without any additional contribution from the airport; no account is taken of reductions in deposition rates in future years.

Table 4.3 Critical Loads assessment of nitrogen deposition, Year 6, worst receptors

Receptor	AQAL (kg N ha^{-1} y^{-1})	PC (kg N ha^{-1} y^{-1})	ICC (kg N ha^{-1} y^{-1})	PEC (kg N ha^{-1} y^{-1})	PC (% of AQAL)	ICC (% of AQAL)	PEC (% of AQAL)	Site type
E22	8	0.07	0.07	10.85	0.9%	0.9%	135.7%	Major
E23	8	0.06	0.06	13.50	0.7%	0.7%	168.7%	Major
E26	8	0.03	0.06	13.47	0.4%	0.7%	168.4%	Major
E28	8	0.03	0.07	13.47	0.3%	0.9%	168.3%	Major
ER012	8	0.03	0.12	13.47	0.4%	1.5%	168.4%	Major
E30	8	0.01	0.01	15.69	0.1%	0.1%	196.1%	Major
E43	5	0.01	0.01	14.29	0.1%	0.1%	285.7%	Major
E44	5	0.01	0.01	14.29	0.2%	0.2%	285.8%	Major
E48	5	0.01	0.01	14.29	0.2%	0.2%	285.8%	Major
E49	5	0.01	0.01	14.29	0.2%	0.2%	285.8%	Major

4.1.12 At the major environmental sites, the greatest additional in-combination contribution (ICC) is 1.5% of the critical load at the ER012 receptor where the A256 Ramsgate Road passes close to the Sandwich Bay complex of designated sites. The PEC here is 168% of the critical load. At all modelled major receptors, the ICC is no more than 1% of the critical load (to the nearest figure), and under EA guidance, can be considered **insignificant**.

Ecological receptors: acid deposition

4.1.13 ***Summary**: While some exceedances of the critical loads for acidity are predicted, these are due to existing deposition rates and the additional contribution from the Proposed Development is insignificant, except at the E41 receptor.*

4.1.14 The full set of ecological receptors described in the ES [APP-044] were modelled. In view of the large number of modelled receptors, results are given here for only a selection of receptors, namely

the major environmental sites (SPAs, SACs, Ramsar sites and SSSIs) with the five highest ICCs and PECs (as a percentage of the receptor-specific critical load function). This includes all those receptors where the impacts cannot be screened out as insignificant.

4.1.15 Modelled in-combination contribution and background deposition rates are given in **Table 4.4**. A comparison with the critical load function is given in **Table 4.5**. The PCs are not used in the assessment and have not been quantified for brevity.

4.1.16 Background acid deposition rates at many of the modelled receptors are modelled to be at exceedance already, based on background deposition rates from APIS and without any additional contribution from the airport; no account is taken of reductions in deposition rates in future years.

4.1.17 At the major environmental sites, the greatest additional in-combination contribution is 3.1% of the critical load function at the E41 receptor where the A256 Ramsgate Road passes the Sandwich Bay to Hacklinge Marshes SSSI, which is within 5 m of the kerb. The PEC here is 224% of the critical load. Under the EA criteria, this impact cannot be screened out as insignificant and requires further assessment by a qualified ecologist; however, this receptor represents a SSSI and not a European site and is therefore not relevant to the HRA.

4.1.18 At all other major ecological receptors, including all sites that are relevant to the HRA, the ICC is less than 1% of the critical load function. Under the EA criteria, the impacts at all other modelled major ecological receptors can be considered **insignificant** and do not need to be assessed further.

Table 4.4 Acid deposition rates, Year 6, worst receptors

Receptor	Sulphur ICC (keq ha^{-1} y^{-1})	Nitrogen ICC (keq ha^{-1} y^{-1})	Sulphur background (keq ha^{-1} y^{-1})	Nitrogen background (keq ha^{-1} y^{-1})	Site type
E40	0	0.0040	0.20	0.96	Major
E41	0	0.0162	0.20	0.96	Major
ER003	0	0.0045	0.20	1.00	Major
ER004	0	0.0045	0.20	1.00	Major
ER012	0	0.0083	0.17	0.96	Major
E35	0	0.0005	0.25	1.12	Major
E37	0	0.0004	0.25	1.12	Major
E44	0	0.0006	0.22	1.02	Major
E48	0	0.0006	0.22	1.02	Major
E49	0	0.0005	0.22	1.02	Major

Table 4.5 Critical Loads assessment of acid deposition, Year 6, worst receptors

Receptor	Exceedance (keq ha^{-1} y^{-1})			Percent of critical load function			Site type
	ICC	Background	PEC	ICC	Background	PEC	
E40	No exceedance	0.63	0.64	0.8	220.5	221.3	Major
E41	No exceedance	0.63	0.65	3.1	220.5	223.6	Major
ER003	No exceedance	0.46	0.46	0.6	161.5	162.1	Major
ER004	No exceedance	0.46	0.46	0.6	161.5	162.1	Major
ER012	No exceedance	No exceedance	0.01	0.7	100.0	100.7	Major
E35	No exceedance	0.84	0.84	0.1	260.5	260.5	Major
E37	No exceedance	0.84	0.84	0.1	260.5	260.5	Major
E44	No exceedance	0.70	0.70	0.1	228.8	228.9	Major
E48	No exceedance	0.70	0.70	0.1	228.8	228.9	Major
E49	No exceedance	0.70	0.70	0.1	228.8	228.9	Major

5. Results and Evaluation: Year 20

5.1.1 Results are presented to several decimal places in the following discussion, so as to enable comparison between receptors and between PC and PEC contributions. The number of decimal places should not be taken as providing any indication of the accuracy of the results.

5.1.2 Results for local nature sites have been assessed and found to be **insignificant** for all receptors and all assessment criteria, so detailed results for local nature sites are omitted for brevity.

Ecological receptors: annual mean NO_x concentrations in air

5.1.3 ***Summary***: *While some exceedances of the assessment level for NO_x are predicted, these are largely due to existing background concentrations and the additional contribution from the Proposed Development is insignificant, except at the E41 and ER012 receptors.*

5.1.4 The full set of ecological receptors described in the ES [APP-044] were modelled. In view of the large number of modelled receptors, results are given here for only a selection of receptors, namely the major environmental sites (SPAs, SACs, Ramsar sites and SSSIs) with the five highest ICCs and PECs. This includes all those receptors where the impacts cannot be screened out as insignificant.

Note that some receptors are in the top five for both ICC and PEC. Modelled annual mean NO_x concentrations at these selected receptors are given in **Table 5.1**.

Table 5.1 Assessment of annual mean NO_x concentrations, Year 20, worst receptors

Receptor	AQAL (µg m^{-3})	PC (µg m^{-3})	ICC (µg m^{-3})	PEC (µg m^{-3})	PC (% of AQAL)	ICC (% of AQAL)	PEC (% of AQAL)	Site type
E28	30	0.40	1.51	14.40	1.3%	5.0%	48.0%	Major
E41	30	1.08	5.70	32.81	3.6%	19.0%	109.4%	Major
ER003	30	0.34	1.39	15.70	1.1%	4.6%	52.3%	Major
ER004	30	0.34	1.39	15.70	1.1%	4.6%	52.3%	Major
ER012	30	0.55	2.78	22.20	1.8%	9.3%	74.0%	Major
E18	30	0.27	0.27	14.90	0.9%	0.9%	49.7%	Major

5.1.5 At the major environmental sites, the additional in-combination contribution is, at most, 19% of the critical load at the E41 receptor where the A256 Ramsgate Road passes close to the Sandwich Bay to Hacklinge Marshes SSSI, which at this point is less than 5 m from the kerb. The PEC here is 109% of the assessment level. Under EA guidance, further assessment by a qualified ecologist is required at the E41 receptor; however, this receptor represents a SSSI and not a European site and is therefore not relevant to the HRA. Under EA guidance, **further assessment** by a qualified ecologist is required at the at the ER012 receptor, which does represent a European site (Sandwich Bay SAC) and is therefore relevant to the HRA. The further assessment for receptor ER012 is given in the RIAA Addendum to which this is an appendix.

Ecological receptors: daily mean NO_x concentrations in air

5.1.6 ***Summary**: No exceedances of the assessment level for daily NO_x are predicted, and the additional contribution from the Proposed Development is insignificant at all receptors.*

5.1.7 The full set of ecological receptors described in the ES [APP-044] were modelled. In view of the large number of modelled receptors, results are given here for only a selection of receptors, namely the major environmental sites (SPAs, SACs, Ramsar sites and SSSIs) with the five highest ICCs and PECs. This includes all those receptors where the impacts cannot be screened out as insignificant. Note that some receptors are in the top five for both ICC and PEC. Modelled daily mean NO_x concentrations at these selected receptors are given in **Table 5.2**.

Table 5.2 Assessment of daily mean NO_x concentrations, Year 20, worst receptors

Receptor	AQAL (µg m^{-3})	PC (µg m^{-3})	ICC (µg m^{-3})	PEC (µg m^{-3})	PC (% of AQAL)	ICC (% of AQAL)	PEC (% of AQAL)	Site type
E21	200	13.31	13.31	40.18	6.7%	6.7%	20.1%	Major
E22	200	20.04	20.04	43.38	10.0%	10.0%	21.7%	Major
E23	200	11.46	11.46	34.81	5.7%	5.7%	17.4%	Major
E24	200	12.58	12.58	32.21	6.3%	6.3%	16.1%	Major
E41	200	9.02	18.25	72.48	4.5%	9.1%	36.2%	Major

E20	200	9.91	9.91	38.09	5.0%	5.0%	19.0%	Major
ER012	200	0.78	5.22	44.06	0.4%	2.6%	22.0%	Major

5.1.8 At the major environmental sites, the additional in-combination contribution is, at most, 10% of the assessment level at the E22 receptor. The PEC here is 22% of the assessment level. Under EA guidance, because the ICC is less than 10% of the assessment level (to one figure), the impact is **insignificant** at all major receptors and does not need to be assessed further.

Ecological receptors: nitrogen deposition

5.1.9 ***Summary***: *While some exceedances of the critical loads for nitrogen are predicted, these are due to existing deposition rates and the additional contribution from the Proposed Development is insignificant, except at the ER012 receptor.*

5.1.10 The full set of ecological receptors described in the ES [APP-044] were modelled. In view of the large number of modelled receptors, results are given here for only a selection of receptors, namely the major environmental sites (SPAs, SACs, Ramsar sites and SSSIs) with the five highest ICCs and PECs. This includes all those receptors where the impacts cannot be screened out as insignificant.

5.1.11 Modelled nutrient nitrogen deposition rates at these selected receptors are given in **Table 5.3,** along with the receptor-specific critical loads. Nutrient nitrogen background deposition rates at most of the modelled receptors are modelled to be at exceedance already, based on background deposition rates from APIS and without any additional contribution from the airport; no account is taken of reductions in deposition rates in future years.

Table 5.3 Critical Loads assessment of nitrogen deposition, Year 20, worst receptors

Receptor	AQAL (kg N ha^{-1} y^{-1})	PC (kg N ha^{-1} y^{-1})	ICC (kg N ha^{-1} y^{-1})	PEC (kg N ha^{-1} y^{-1})	PC (% of AQAL)	ICC (% of AQAL)	PEC (% of AQAL)	Site type
E22	8	0.09	0.09	10.87	1.2%	1.2%	135.9%	Major
E23	8	0.08	0.08	13.52	1.0%	1.0%	169.0%	Major
E26	8	0.04	0.09	13.48	0.5%	1.2%	168.5%	Major
E28	8	0.03	0.12	13.47	0.4%	1.5%	168.4%	Major
ER012	8	0.05	0.21	13.49	0.6%	2.6%	168.6%	Major
E31	8	0.02	0.02	15.70	0.2%	0.2%	196.2%	Major
E43	5	0.01	0.01	14.29	0.2%	0.2%	285.8%	Major
E44	5	0.01	0.01	14.29	0.2%	0.2%	285.8%	Major
E48	5	0.01	0.01	14.29	0.2%	0.2%	285.8%	Major
E49	5	0.01	0.01	14.29	0.2%	0.2%	285.8%	Major

5.1.12 At the major environmental sites, the additional in-combination contribution is, at most, 2.6% of the critical load at the ER012 receptor where the A256 Ramsgate Road passes close to the Sandwich Bay complex of designated sites. The PEC here is 169% of the assessment level. Under EA guidance,

further assessment by a qualified ecologist is required at this receptor. The further assessment for receptor ER012 is given in the RIAA Addendum to which this is an appendix.

5.1.13 At all other major environmental receptors, the ICC is less than 1% (to one figure) of the assessment level, so under EA guidance, can be considered **insignificant** and do not require further assessment.

Ecological receptors: acid deposition

5.1.14 ***Summary***: *While some exceedances of the critical loads for acidity are predicted, these are due to existing deposition rates and the additional contribution from the Proposed Development is insignificant, except at the E41 receptor.*

5.1.15 The full set of ecological receptors described in the ES [APP-044] were modelled. In view of the large number of modelled receptors, results are given here for only a selection of receptors, namely the major environmental sites (SPAs, SACs, Ramsar sites and SSSIs) with the five highest ICCs and PECs (as a percentage of the receptor-specific critical load function). This includes all those receptors where the impacts cannot be screened out as insignificant.

5.1.16 Modelled in-combination contribution and background deposition rates are given in **Table 5.4**. A comparison with the critical load function is given in **Table 5.5**. The PCs are not used in the assessment and have not been quantified for brevity.

5.1.17 Background acid deposition rates at many of the modelled receptors are modelled to be at exceedance already, based on background deposition rates from APIS and without any additional contribution from the airport; no account is taken of reductions in deposition rates in future years.

5.1.18 At the major environmental sites, the additional in-combination contribution is at most 5.6% of the critical load at the E41 receptor where the A256 Ramsgate Road passes close to the Sandwich Bay to Hacklinge Marshes SSSI, which at this point is less than 5 m from the kerb. The PEC here is 226% of the assessment level. Under EA guidance, further assessment by a qualified ecologist is required at this receptor; however, this receptor represents a SSSI and not a European site and is therefore not relevant to the HRA.

5.1.19 At all other major ecological receptors, including all sites that are relevant to the HRA, the ICC is less than 1% of the critical load function. Under the EA criteria, the impacts at all other modelled major ecological receptors can be considered **insignificant** and do not need to be assessed further.

Table 5.4 Acid deposition rates, Year 20, worst receptors

Receptor	Sulphur ICC (keq ha^{-1} y^{-1})	Nitrogen ICC (keq ha^{-1} y^{-1})	Sulphur background (keq ha^{-1} y^{-1})	Nitrogen background (keq ha^{-1} y^{-1})	Site type
E40	0	0.0065	0.20	0.96	Major
E41	0	0.0295	0.20	0.96	Major
ER003	0	0.0076	0.20	1.00	Major
ER004	0	0.0076	0.20	1.00	Major
ER012	0	0.0151	0.17	0.96	Major
E35	0	0.0006	0.25	1.12	Major

E37	0	0.0005	0.25	1.12	Major
E44	0	0.0008	0.22	1.02	Major
E48	0	0.0009	0.22	1.02	Major
E49	0	0.0008	0.22	1.02	Major

Table 5.5 Critical Loads assessment of acid deposition, Year 20, worst receptors

Receptor	**Exceedance (keq ha^{-1} y^{-1})**			**Percent of critical load function**			**Site type**
	ICC	**Background**	**PEC**	**ICC**	**Background**	**PEC**	
E40	No exceedance	0.63	0.64	1.2	220.5	221.8	Major
E41	No exceedance	0.63	0.66	5.6	220.5	226.1	Major
ER003	No exceedance	0.46	0.46	1.0	161.5	162.5	Major
ER004	No exceedance	0.46	0.46	1.0	161.5	162.5	Major
ER012	No exceedance	No exceedance	0.02	1.3	100.0	101.3	Major
E35	No exceedance	0.84	0.84	0.1	260.5	260.6	Major
E37	No exceedance	0.84	0.84	0.1	260.5	260.5	Major
E44	No exceedance	0.70	0.70	0.2	228.8	228.9	Major
E48	No exceedance	0.70	0.70	0.2	228.8	228.9	Major
E49	No exceedance	0.70	0.70	0.1	228.8	228.9	Major

6. Summary of Receptors Requiring Further Assessment by an Ecologist

6.1.1 **Table 6.1** summarises the receptors requiring further assessment by an ecologist. The further assessment for these receptors is given in the RIAA Addendum to which this is an appendix.

Table 6.1 Receptors requiring further assessment

Impact Type	Rationale
Ecological effects: Annual mean NO_x concentration	Some Ramsar, SAC, SPA and SSSI receptors do not meet the EA criteria for not requiring further assessment, largely because of existing background concentrations. Of these receptors, the sites of relevance to the HRA are: Yr2: ER012 Yr 6: ER012 Yr 20: ER012. The sites that cannot be screened out as having insignificant impacts, but which are not relevant to the HRA are: Yr2: E41 Yr 6: E41 Yr 20: E41. All modelled local nature sites meet the EA criteria for not requiring further assessment.
Ecological effects: Daily mean NO_x concentration	All modelled Ramsar, SAC, SPA and SSSI receptors meet the EA criteria for not requiring further assessment. All modelled local nature sites meet the EA criteria for not requiring further assessment.
Ecological effects: Nutrient nitrogen deposition	Some Ramsar, SAC, SPA and SSSI receptors do not meet the EA criteria for not requiring further assessment, largely because of existing background deposition rates. These sites are: Yr2: None Yr 6: None Yr 20: ER012. All modelled local nature sites meet the EA criteria for not requiring further assessment.
Ecological effects: Acid deposition	All modelled Ramsar, SAC and SPA receptors meet the EA criteria for not requiring further assessment. Some SSSI receptors do not meet the EA criteria for not requiring further assessment, largely because of existing background deposition rates. These sites, which are not relevant to the HRA, are: Yr2: E41 Yr 6: E41 Yr 20: E41 All modelled local nature sites meet the EA criteria for not requiring further assessment.

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Enclosure R23

Response to late submissions on need from Azimuth

Enclosure 23

Points from Dr Sally Dixon of Azimuth and Chris Cain of Northpoint Aviation in response to Five10Twelve late submission dated 17 October 2019

Five10Twelve Ltd's late submission to the Secretary of State dated 17 October 2019 (Doc number TR020002-005183) repeats a number of points it made during the examination of the Applicant's case for development consent, all of which were rebutted at the time. The purpose of this short note is, therefore, to address a selection of the statements in the late submission in order to clarify the Applicant's position.

The points made by Five10Twelve are identified below, with a reference to where they appear in the late submission and the Applicant's response.

Airports NPS – pages 8 to 11

"*At* [sic] *the oral evidence given by the Applicant/Azimuth at the Need and Operations Issue Specific Hearing of 21 March 2019 confirmed that the Azimuth Report upon which the entirety of the Need Case for Manston relies has no realistic foundation as a basis for predicting the extent to which Manston might actually be used*." (Page 9, para 3)

This assertion is simply wrong and typical of the unsubstantiated and often vexatious approach that Five10Twelve Ltd has taken to the examination process. What was made clear during the examination was that the Azimuth Report was used as the core source for the subsequent Environmental Assessment work but was by no means the stand-alone statement of the need case. Substantial supporting evidence was provided by Northpoint Aviation that Azimuth's 'bottom-up' forecasts were comfortably within a range of 'top-down' strategic forecasting scenarios prepared using a UK airport freight demand and capacity model that they had prepared, and to which there was no real critique during the examination process. Northpoint also submitted an extensive Deadline 4 Report [REP4-031] setting out the contextual strategic evidence as to why their model and Azimuth's forecasts provided a reasonable base case against which to evaluate the Manston proposals.

Manston use of existing airport capacity – pages 12 to 13

"*It is therefore unreasonable and not supported by policy or emerging policy to prioritise the re-opening of Manston with no airport capacity and which is solely reliant on road surface access for air cargo, workers and fuel with a very poor logistics infrastructure (see map below), particularly given both the number of existing airports in the South East and the numerous airport expansion plans currently being developed and proposed at existing and currently operational airports in other regions, including the more under-served Northern Powerhouse*." (Pages 12 and 13)

This passage provides another example of misleading statements from Five10Twelve Ltd, demonstrating again that their submissions adopt a tunnel-vision approach to RSP's proposals and a comprehensive misinterpretation of the substantive submitted in support of them. So:

(a) Manston is not solely reliant on road access – RSPs have set out their intention to examine rail connectivity for freight and passengers given the railway line that runs close to the airport; plans for local public transport links by bus and coach have also been provided.
(b) Manston is strategically located in East Kent whose geographical position offers the shortest crossing points to the continent, has three gateway ports within 30-40 minutes' drive (i.e. Dover, the Channel Tunnel at Folkestone and Ramsgate) and sits astride one of three strategic radial routes from London and the M25 to the English Channel. As a result, Kent has always had a substantive logistics industry, excellent infrastructure to support it (not "poor logistics infrastructure" claimed by Five10Twelve), and is acknowledged as such by key organisations including the DfT (witness the extent of preparations for a no deal Brexit in Kent), the Freight Transport Association and the South East Local Enterprise Partnership (SELEP) – the region's ports, high speed rail links, and national and regional airport capacity make it the most significant economic gateway and linking mainland Europe to London and the rest of the UK.
(c) As Northpoint set out at great length during the examination process, there is currently little or no spare capacity for air freight at South East airports and even if the plans to expand Heathrow did come to fruition, which remains uncertain, they have not yet been able to demonstrate in their DCO consultations to date how they will deliver the 3 million tonnes of freight capacity mentioned in the NPS. Moreover, even if they solve this conundrum, the latest timescale for a third runway opening at Heathrow has now been pushed back to 2029 and the full capacity the runway offers will not be entirely released before 2040. None of the proposals being developed for other airports in the South East (Luton, Stansted and Gatwick) include an expansion of cargo activity.
(d) Northpoint's written and verbal evidence made quite explicit that the market for Manston was focused on London and the South East and thus was not in competition with East Midlands (which is anyway focused in the integrator not the freighter and new e-commerce markets) or other regional airports. Indeed, RSP believe that like Manston they will be needed to make up for the critical shortage of capacity at the main London airports and to reduce the UK traffic that is already leaking across the Channel to use Near European airports.

The current cluster of Freight Forwarders around Heathrow is a natural response to the ability to air freight to and from the airport. The area around Manston can expect to benefit in a similar way to Heathrow in this respect.

Stansted para 3.4.2 – pages 16 and 17

The late submission continues to misunderstand the situation at Stansted, despite lengthy explanations in the Applicant's case during the examination period. To re-iterate, the Cargo Air Transport Movement (CATM) limit was removed to increase passenger flights not to allow more cargo traffic.

Gatwick para 3.4.3 – pages 17 and 18

Again, the late submission misunderstands the role of Gatwick in air freight. Gatwick takes some belly freight, but no dedicated freighters. It is prevented from doing so by TDRs (Traffic Distribution Rules) that have been in place for over two decades.

Location of Manston – pages 19 to 20

The Applicant was clear in its evidence that large amounts of air freight are currently trucked to and from European airports; this was not refuted at any point by any third party in the Examination and is clearly set out in reports that were referenced regularly during different hearings. Manston will be able to intercept this air freight, providing transportation from a UK airport without incurring additional truck movements or replacing UK flights elsewhere.

Summary and Appendix 1 – pages 27 to 33

"*Dr Dixon also accepted under cross-examination that she/Azimuth has no relevant experience of air cargo forecasting*." (Page 27)

"*The Applicant has attempted to rebut the respected expert evidence of York Aviation, Altitude Aviation, Avia Solutions and others by pitting this against the work of freelance contractors such as Dr Sally Dixon, author of the Azimuth Report, who - by her own admission - is inexperienced in air freight forecasting*" (page 33)

This statement is completely wrong. Dr Dixon explained in detail her extensive experience in forecasting, particularly in situations where complex political, social and economic factors influence future operations. Indeed, Dr Dixon is highly qualified and a specialist lecturer at Cranfield University and thus is extremely well qualified to provide intelligent forecasts of future use of the airport.

Furthermore, her analysis was also supported strongly by Northpoint Aviation and Viscount Aviation who both have in-depth knowledge of the air freight, airport and aviation sector that matches, and arguably exceeds, any of the companies Five10Twelve mention, on the grounds that the principals have substantive hands-on experience of commercial and operational management of regional airports and freight operations. This contrasts with the principals of Five10Twelve, who have no such experience and are relying on the work of parties that are no longer participants to the Examination, was not prepared for them and which they do not so far as we are aware have the qualifications or

permission to re-produce or interpret for that purpose. This is in addition to noting that their submissions are late (they had more than adequate opportunity to make them during the Examination period) and vexatious.

Appendix 1

Cross-references to where in the examination material the points raised in the late submission dated 17 October 2019 heave already been dealt with

- **There is no need for additional dedicated airfreight airport in South East (at paragraph's 1.1, 2.1, 2.5 and 6.2)**

Applicant's Overall Summary of Need Case [REP11-013] – para 3.1
Azimuth Report [APP-085] – Executive Summary and pages 4-7, 20-23
Volume 1 of the Environmental Statement [APP-033] - para 2.1
Applicant's Written Summary of Case put Orally – Need and Operation Hearing and Associated Appendices [REP5-024] – Agenda Item 4 (Policy) and Item 5 (Forecasts and Freight Types / Patterns)
Statement of Reasons [APP-012] – Point 4 (The Need For and the Benefits of the Proposed Development) specifically paras 4.8 to 4.21
Summary of Applicant's Case at Compulsory Acquisition Hearing on 4 June 2019 [REP8-011] – Paragraph 5, Item Agenda 10, specifically paras 5.3 to 5.4
Applicant's Answers to Second Round of Written Questions [REP6-012] – ND.2 Need
Applicant's Answers to Third Round of Written Questions [REP7a-002] – ND.3.10

- **There is no evidence that Manston would be an effective solution if there is a case for need (at paragraph's 1.1 and 2.4)**

Summary of Applicant's Case at Compulsory Acquisition Hearing on 4 June 2019 [REP8-011] – Agenda Item 10 (Compelling case in the public interest), specifically paras 5.1 to 5.4

- **The Govt's preferred way to handle any need concerns is by way of a third runway at Heathrow (at paragraph's 2.1, 2.2 and 3.1)**

Applicant's Answers to Third Round of Written Questions [REP7a-002] – ND.3.21
Applicant's Overall Summary of Need Case [REP11-013] – para 2.6

- **The IATA 2019 Annual Review confirms that freight demand growth eased in 2018 (paragraph 1.2). The Government does not go onto identify any further anticipated shortfall in capacity for airfreight that needs to be addressed before 2050 (paragraph 2.1).**

Applicant's Overall Summary of Need Case [REP11-013] – this does not directly rebut the new findings of the IATA Report 2019, but indicates that there could nevertheless be a shortfall in airfreight capacity. (paragraphs 3.2 to 3.5)

- **Ministry of Defence concerns re. compulsory acquisition powers (at paragraph 1.3)**

Applicant's Answers to Fourth Round of Written Questions [REP9-006] – DCO.4.25

- **Network Rail concerns re. compulsory acquisition powers (at paragraph 1.3)**

Applicant's Answers to Fourth Round of Written Questions [REP9-006] – CA.4.23
Statement of Reasons [APP-012] – paragraph 9

- **There is no evidence that Manston will provide additional long term capacity (at paragraph 2.2)**

Applicant's Answers to Second Written Questions [REP6-012] - ND.2.8

- **The location of Manston is problematic (at paragraphs 2.4, 3.6-3.11)**

Applicant's Overall Summary of Need Case [REP11-013] - paras 3.6 to 3.11

- **There is no evidence that Manston will be cost-efficient, sustainable and deliverable (at paragraph 2.5)**

Azimuth Report [APP-085] – page 43, para 4.2.54 (cost effective)

- **Concerns over Manston's capacity (at paragraph 2.7)**

Applicant's Answers to Second Written Questions [REP6-012] – ND.2.28

- **Heathrow/Stansted/Gatwick/Luton/East Midlands Airport (at paragraphs 3.4.1 to 3.4.5)**

Applicant's Answers to Second Round of Written Questions [REP6-012] – ND.2.20, ND.2.21, ND.2.22, ND.2.23, ND.2.24, ND2.25 and ND.2.28
Azimuth Report [APP-085] – Executive Summary and pages 23-28

- **Trucking (at paragraphs 4.1 to 4.3)**

Applicant's Answers to Second Round of Written Questions [REP6-012] – ND.2.18
Applicant's Answers to Third Round of Written Questions [REP7a-002] – ND.3.10

- **Dedicated freighters (paragraph 5)**

Azimuth Report [APP-085] – pages 33-36

- **Modern airport (e-commerce) (paragraph 6)**

Azimuth Report [APP-085] – pages 31-32

Enclosure R25

Response on late submission on CAA matters from Osprey

Enclosure R25

RESPONSE TO LATE SUBMISSIONS BY FIVE10TWELVE IN LETTERS DATED 19 DECEMBER 2019 and 20 DECEMBER 2019

RESPONSE BY OSPREY AVIATION ON BEHALF OF THE APPLICANT

Introduction

Before addressing the points raised in the Five10Twelve submission dated 19 December 2019 and 20 December 2019, we feel there would be value in briefing explaining the CAAs airspace change process as there is a clear misunderstanding in their submission with regard to the purpose of the various stages of the airspace change process and how the CAA has directed they are to be applied.

Changes to the design of UK airspace are proposed by an airspace change sponsor (an Applicant), usually an airport or a provider of air navigation services (including air traffic control). In the case of Manston, the CAA and Planning Inspectorate (PINS) accepted at a joint meeting that RSP could initiate the airspace change process once PINS had accepted its DCO submission.

The CAA requires the change sponsor of any permanent change to the published airspace design to follow the CAP1616 Airspace Change Process. Subject to operational constraints (including safety), the design of airspace, and the airspace change process, do not specify, or limit future increases in, the volume of air traffic using a piece of airspace at any given point in time. The volume of air traffic using an airport may however be addressed by land-use planning conditions / requirements, where relevant.

The Manston Airport consultation stage (Stage 3) of the CAP1616 process has not yet begun. Manston stakeholder engagement (CAP1616 Stage 1 'Define') did, however, begin in November 2019 and we are currently in Stage 1B, the development of Design Principles. The CAP1616 stages are shown in Figure 1, below:

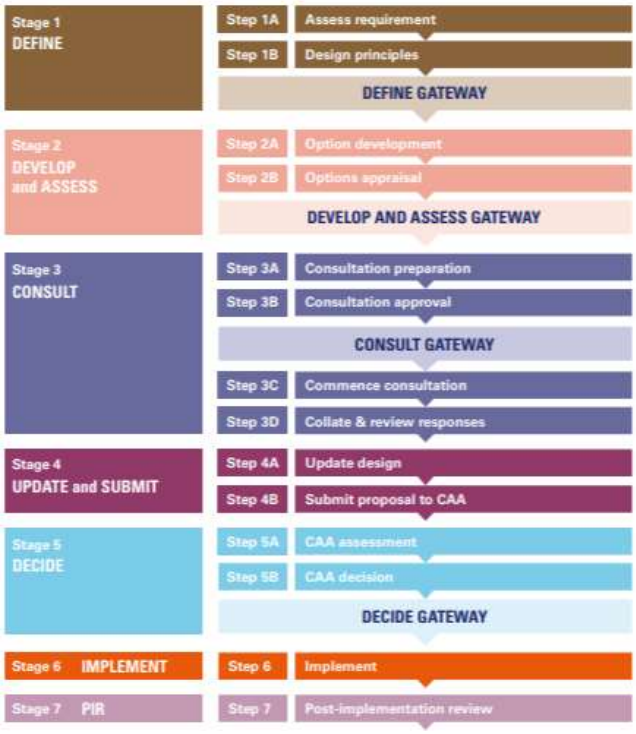

Figure 1: Overview of the Airspace Change Process

The CAA makes decisions in accordance with the relevant legal framework. It will consider the objective of the change and before deciding whether to agree any change it considers a range of factors set out in section 70 of the Transport Act 2000, including safety, security, operational and environmental impacts such as aircraft noise and emissions.

To ensure that the needs of all stakeholders are met, the CAP1616 process emphasises the importance of engagement to develop relationships with a range of relevant stakeholders, covering a variety of activities. Consultation, or a formal notified period seeking input from stakeholders on proposals, is one element of engagement within the CAP1616 process and is specifically covered in Stage 3 of the process (Figure 1 above). During Stage 1B engagement must include information provision, regular and one-off meetings, workshops, and 'town hall' discussions and other contact with third parties included in the sponsor's 'consultation strategy'.

RE - REQUEST FOR COMMENTS AND FURTHER INFORMATION (PARAGRAPH 25) REGARDING Five10Twelve Limited (dated 19 December 2019) relating to NEW EVIDENCE: CORRESPONDENCE RECEIVED FROM THE CIVIL AVIATION AUTHORITY ("THE CAA")

<u>With regard to the comment of 'NO AERODROME'</u>.

Points 1 - 4

The Applicant (RSP) is now the owner of the Manston Airport site; RSP does not yet have 'aerodrome operator' status.

Aerodrome Operator status will be achieved as part of the application of the EASA Aerodrome Certification process in accordance with EU Regulation 139/2014. In the UK, the application of this process is the responsibility of the CAA; a preliminary meeting with the Airports, Aerodromes and Airspace (AAA) section of the CAA has already been undertaken and a proposed approach to the Aerodrome Certification process agreed.

The Five10Twelve extract, which suggests that the lack of an aerodrome operator approval is a flaw in the Applicant's proposal is highly selective and therefore misleading. For completeness and clarity, the full extract is shown below (bold added to the original text by the Applicant for emphasis):

> 'For the avoidance of any doubt we in the AREE team do not believe that RSP is an aerodrome operator **but there is nothing to prevent them from progressing a proposal at this time**.'

With regard to the comment of 'NO AIRSPACE'.

The Applicant has already initiated (April 2019) the CAA's CAP1616 Airspace Change Process as part of the Future Airspace Strategy Implementation South (FASI-S) programme. The Letter to Sponsor (Applicant) from CAA Airspace Modernisation is on the CAA Manston Airspace Change Webpage. (see appendix 1) The Manston Airport airspace change project is fully embedded in the FASI-S programme.

Points 5 - 7

Provision is being made to ensure that proportionate and appropriate procedures and, if justified, airspace is made to enable operations at Manston. That said, we do not necessary agree with the assertion in Point 6 that 'planes need airspace to fly in' (perhaps referring to specific Manston Airport Controlled Airspace); in accordance with the Secretary of States recent Directions to the CAA, we will only be seeking a solution (not necessarily 'controlled' airspace) which is proportionate, justified and takes into account the requirements of all airspace users.

Points 8 and 9

An essential aspect of the CAP1616 Airspace Change Process is, at the point of submission to the CAA, a rationale for the requirement in the form of a Statement of Need (the Manston SoN was submitted in May 2019). There is no requirement to provide commercial or economic justification at the start of the CAP1616 process; indeed, in Five10Twelve's subsequent Point 9 they acknowledge that the process takes over 2 years to complete. Turning specifically to Point 9, we fully accept that there is no guarantee at this stage of CAA approval of the Applicant's proposals (once again, we must re-iterate this may not actually be to request the provision of 'controlled airspace'). We fully accept that the responsibility is the Applicant's, at the time of submission to the CAA, to present a robust and compelling operational case to justify its proposals. This is no different to any other airspace change proposal in the UK.

Point 10

We do not accept that, due to an airspace change process being under development, Manston will fail to attract the attention of air cargo operators. If that were the case no airport would ever grow or develop to meet future demand. There are many UK examples (not least FASI-S itself) where the airspace change process is intended to encourage and enable increases in operations, capacity and

route development. Once again, we recognise our responsibility to develop a robust argument to the CAA to justify any proposals we make.

Points 11 - 16

Five10Twelves comments relate to Manston as it was. The level of investment, infrastructure development and commitment described in the Applicant's DCO submission represents a very different commercial and operational proposition.

With regard to the comment of 'REFUSED AIRSPACE APPLICATION'.

For the avoidance of doubt, the Applicant will be continuing the current airspace change process, under CAP1616, through to final submission to the CAA for consideration.

Point 17

It is not for the CAA to dictate or direct whether an airspace change submission is made; its position regarding whether an airspace change will be submitted is therefore completely understandable.

Point 18

This highlights the robust and comprehensive approach that the CAA take to scrutinising such submissions; we fully recognise and accept this. We consider the emboldening of text by Five10Twelve to imply rejection, by what is an independent and robust process, to be misleading.

Points 19 – 24

We fully recognise and accept that the CAA, as the regulatory body for assessing aviation environmental impact (on behalf of the Department for Transport, (DfT)), will closely scrutinise all aspects of the Applicant's subsequent airspace change submission including a wide range of environmental factors. We believe that this provides the Secretary of State with assurance that any such proposal will receive an additional, and specialised, level of environmental scrutiny.

Points 25 - 30

CAP1616 requires separate consultation which satisfies very specific criteria. Therefore, irrespective of Five10Twelves comments on DCO consultation, the consultation associated with the airspace change proposal will be completely separate and in accordance with CAP1616. Indeed, within the CAP1616 process there is a specific stage dedicated to 'Consultation' (Stage 3) and a Gateway beyond which the Sponsor cannot progress without satisfying the CAA that the requirements of the process have been met. Manston stakeholder engagement (CAP1616 Stage 1 'Define') began in November 2019.

Point 31

We particularly refute the assertion that CAP1616 consultation will be constrained *'to only those in favour of the airport re-opening in relation to future CAA applications'*. The CAA simply would not allow this to occur and the Applicant would not be allowed to progress through the 'Consult' Gateway to public consultation.

Point 32 and 33

The Applicant takes exception to the comment at Point 32 which is both highly selective and factually misleading. The quotation extract from a *YouTube* clip does not reflect the previous minute of the presentation in which the CAA airspace change process, including opportunity for further public consultation, was explained to attendees. Of great concern, Five10Twelves 'quotation' includes text which, though within quotation marks, was not said (emboldened by the Applicant for emphasis):

> " *…for those people in Ramsgate* ***[the area to the East of Manston that planes will overfly at altitudes of 200-700 feet]*** *in particular who are genuinely interested in the impact of the airport as opposed to it not happening at all there will be a further opportunity for them to have a dialogue here "*.

Inclusion of this selective and inaccurate extract without any clarification seeks to present a negative perspective on what was actually an open, honest and accurate statement by the Applicant. It is not therefore an accurate reflection of the statement made and only seeks to mislead; this, in turn, invalidates Point 33.

Point 34

As previously stated, the CAA airspace change process attaches significant importance on both the quality and effectiveness of consultation. Any failure to apply the correct consultation process would be identified at the Consult gateway; any deficiencies in the quality of consultation would be identified in the CAA's assessment process.

RE - REQUEST FOR COMMENTS AND FURTHER INFORMATION (PARAGRAPH 25) REGARDING Five10Twelve Limited (dated 20 December 2019) relating to INCONSISTENCIES IN DCO APPLICATION IN TERMS OF SCALE, SIGNIFICANCE AND ALLEGED BENEFITS OF PROPOSED DEVELOPMENT AND OPERATIONS AT MANSTON AIRPORT

<u>With regard to the comment of 'THE APPLICANT IS POSITIONING ITS PROPOSED DEVELOPMENT WITH SMALL AIRPORTS'</u>.

Points 1 - 6

The Five10Twelve submission states that:

> *"During recent CAA focus group meetings, the Applicant has positioned itself with small airports and a gliding club rather than as a nationally strategic airport (aspirational or otherwise). This is inconsistent with the DCO application"*

This statement is incorrect and displays a clear misunderstanding of the purpose of the Stage 1B stakeholder engagement and focus groups.

The airspace change process is not designed to be a referendum on views, but it is designed to reach an outcome fairly having regard for the views of all the various stakeholder groups and having considered those views in accordance with duties in section 70 of the Transport Act 2000. To achieve this outcome and reach a decision, there will have to be trade-offs where there are conflicting objectives, which could mean that some parties are more affected than others. Some trade-offs are

the subject of over-arching government policy, such as the altitude-based priorities, which determine how competing environmental priorities should be handled.

In contemplating any airspace change proposal, the change the Applicant must consider the impacts on others and the implications those impacts may have and engage with them appropriately. Depending on the level of the change, this may include the general public, their elected representatives and environmental interest groups; other airspace users; airport operators; and air navigation service providers.

The Manston Airport Statement of Need (SoN) setting out what airspace issue the Applicant is seeking to address is hosted on the CAA Manston Airspace Change Webpage and attached at appendix 2. The CAA has met with the Applicant and agreed that the airspace change is a relevant option to consider. The Applicant held a number of 'Design Principle' Focus Groups in Kent on 4th and 5th November 2019 to discuss potential design principles for the airspace around Manston Airport. Design Principles encompass the safety, environmental and operational criteria and strategic policy objectives that the Applicant aims for in developing the airspace change proposal. They are developed through engagement with stakeholders and form a qualitative structure against which design options can be evaluated.

Invitations to the focus groups were sent to elected representatives from all over Kent (Council, District and Parish) within the red "potentially affected area" shown on the CAA Manston Airspace Change Webpage; other airspace users (including, but not restricted to Maypole Airfield, Biggin Hill Airport, Rochester Airport and Kent Gliding Club); airport operators; and air navigation service providers. This will be evidenced to the CAA as part of the CAP1616 requirements, at the Stage 1 'Define Gateway' (see Figure 1, top). Three focus groups were held; one dedicated to aviation stakeholders and two dedicated to Kent elected representatives. Many invited representatives; elected representatives, airlines and airports did not attend the focus groups.

It is for this reason that the focus group which Five10Twelve refer to related to local airspace users (quoted as Maypole Airfield, Biggin Hill Airport, Rochester Airport and Kent Gliding Club) who have a vested interest and direct influence on the design principles to be employed moving forward. Airports such as Heathrow and Stansted (as quoted) do not, in themselves, have a direct influence on the Design Principles which Manston will employ; their involvement via FASI-S is covered below.

As part of Stage 1 the Applicant also invited Lydd Airport, Gatwick Airport, London City Airport and Southend Airport, encouraging them, as well as all other invitees, to respond to the Design Principles questionnaire and also comment on a shortlisted Design Principles that will be taken to the CAA 'Define Gateway (see Figure 1, top).

Design Principles must be set through a two-way process and involve effective engagement. However, the Applicant is not required to carry out a lengthy or detailed consultation at this stage (Stage 1), since this will take place in Stage 3 of the process (see Figure 1, top). The Applicant must have up-to-date knowledge of local plans (initially scoped during the DCO process) and undertake relevant engagement with local authorities while developing Design Principles. The Design Principles form a framework against which airspace change design options can be evaluated. Once the Applicant begins to select technical solutions that meet the intended need, it must then ensure compliance with regulatory guidance.

Points 7-8

Manston is fully integrated into the FASI-S programme alongside the likes of Heathrow, Gatwick and others. It is in this forum that the respective requirements and objectives of each airport are taken into account. The Applicant has signed the relevant non-disclosure agreements with the other FASI-S airports allowing the confidential sharing of information. In accordance with FASI-S membership, one of the Design Principles will be to ensure that the wider programme requirements are considered.

The Applicant is therefore confident that, through the use of focus groups at a local level and participation in FASI-S at a national level, it is fully complying with both the letter and spirit of the CAP1616 process.

With regard to the comment of 'EVIDENCE SUGGESTS THE APPLICANT'S BUSINESS MIX IS INCONSISTENT WITH ITS DCO APPLICATION AND OPERATIONS OF A NSIP AIR CARGO HB'.

Points 9 - 23

The purpose of Stage 1B stakeholder engagement is to develop an understanding of the factors that will influence the Design Principles to be used. It is not intended, nor required, to include every potential stakeholder; these will be consulted in the subsequent formal consultation stage. The inclusion of Magma Aviation, to give an insight into the nature and requirements of air freight operations is therefore entirely reasonable.

The rationale for the Design Principle Focus Groups is to capture the safety, environmental and operational criteria and strategic policy objectives that the Applicant aims for in developing the airspace change proposal. The objective of the CAP1616 requirements is not to justify economic or commercial credibility of the operation.

Many invited representatives; airlines and airports were not able to attend the Design Principle Aviation Focus Group; this does not undermine its value nor infer that Magma Aviation is a preferred operator to the exclusion of all others. Magma's involvement has allowed the development of Design Principles to take into account, as aviation experts in its field, the requirements and views of their stakeholder group.

With regard to the comment of 'OPERATIONAL LIMITATIONS OF PROPOSED DEVELOPMENT'.

Points 24 - 28

This stage of the airspace change process (see Figure 1, top) is not about individual operator operational limitations; indeed, to do would potential constrain both initial and future operations.

The rationale for the Design Principle Focus Groups is to capture the safety, environmental and operational criteria and strategic policy objectives that the Applicant aims for in developing the airspace change proposal. It is not about specific operators or aircraft types. It is therefore inappropriate to extrapolate Magma Aviation's voluntary participation in a focus group to suggest the use of specific aircraft types.

Many invited representatives; airlines and airports were not able to attend the Design Principle Aviation Focus Group, but this does not infer that Magma Aviation is a preferred operator to the exclusion of all others. This will be evidenced to the CAA as part of the CAP1616 requirements.

With regard to the comment of 'ENVIRONMENTAL STATEMENT AND AIR QUALITY'.

Points 29 - 40

This is not a post-DCO Examination change to flight frequency.

The Environmental Statement and impact on Air Quality was modelled on the basis of an average 4 flights per hour which equates to 8 movements; one flight entails one landing and one take-off, each item classed as a movement. 'Bunching' and 'concentration' are two words to describe a similar air traffic flow consequence that is operationally out of the control of an airport. 'Bunching' or 'concentration' is likely to be a very transitory effect, over only one or two hours in the day, and small in nature, leaving average movements unchanged, but providing difficult perturbations to capture quantitatively.

The CAA will review the airspace design submission to ensure that all necessary environmental assessment requirements have been provided. CAA reviews the environmental assessment to ensure it continues to meet the requirements of guidance plus any other request placed upon the Applicant by the CAA or the Secretary of State. Clarifications or corrections may be sought by the CAA from the Applicant with regard to the analysis of the anticipated environmental impacts throughout the CAP1616 process.

With regard to the comment of 'ENVIRONMENTAL STATEMENT and REFUSED AIRSPACE'.

Points 41 - 50

This is not a post-DCO Examination change to flightpaths.

Invitations to the Non-Aviation Focus Groups were sent to elected representatives from all over Kent (Council, District and Parish) within the red "potentially affected area" shown on the CAA Manston Airspace Change Webpage. The Chief Executive and Leader for each local authority were invited to respond to the questionnaire, attend the focus groups and comment on the shortlisted Design Principles. Where there has been changes in council leaderships both former and new incumbents have been engaged during Step 1.

The following councillors attended and inputted into the 5th November afternoon focus group session on behalf of Thanet District Council; Cllr Trevor Roper, Cllr Lesley Game and Cllr Sam Bambridge.

Many invited elected representatives did not respond to the invite despite 2-3 reminders and many did not attend the Design Principle Focus Groups. The nascent flightpath designs discussed at the focus groups were the flightpaths used within the Manston Airport Environmental Statement for noise and emissions analysis in the 'likely significant effects' scenario. However, for the purposes of the airspace and flightpath environmental analysis only within the CAP1616 process, these flightpath 'swathes' represent a framework for the worst-case. The Design Principles will further refine these 'swathes' and inform the airspace environmental assessment required by the CAA. Five10Twelve appear to have misconstrued the intended purpose of the CAP1616 process. The CAA will not look for the 'worst-case' but demand routes/paths that balance the operational constraints, safety, security, the environment and the needs of all users of airspace near the Airport; searching for the balanced 'best-case'.

Concluding Response to both Five10Twelve Limited Letters of December 2019

We do not believe there are any additional or new points raised in the conclusion of the Five10Twelve submissions that have not been comprehensively covered.

It is the CAA's responsibility to undertake a detailed consultation assessment during Stage 5 (Regulatory Decision) of the CAP1616 airspace change process. At this stage it will formally assess whether the content of the stakeholder engagement and consultation meets requirements and review the way in which the consultation has been conducted in order to determine whether or not the required standards were met. The CAA assess the consultation material and the methodology applied by the Applicant and review its management of correspondence received from stakeholders during the consultation period (Stage 3) to ensure that its contents have been properly captured and, where appropriate, responded to. It will look closely at the key issues and concerns raised by all stakeholders, how they have been taken into account by the Applicant and consider any revisions that may have been made to the original proposal. The CAA will also take into account any representations that have been made directly to the regulator as the CAA is tasked by the Government to provide a focal point for aviation related environmental enquiries and complaints

The detailed CAA analysis is recorded in a consultation assessment which, alongside the operational and environmental assessments, underpins the final regulatory decision whether or not to approve the change to airspace design requested. Assessment reports are published on the airspace change pages of the CAA website.

However, at this stage Manston (alongside a number of FASI-S airports) is currently at Step 1B (development of Design Principles). This requires engagement with a range of representative stakeholders to gather, collate and where possible, accommodate, their views in the fundamental principles which will underpin and justify the final design. This reflects the iterative and collaborative nature of the CAP 1616 process which the Five10Twelve submissions do not appear to take into account.

Appendix 1

CAA Letter to Sponsor

29/07/2019

ACP-2018-75 Manston Airport FASI-South Airspace Change Proposal

Dear Manston Airport,

Please note the following which is relevant to the airspace change proposal that you commenced by virtue of your DAP 1916 dated 9th November 2018.

Airspace change decisions and airspace modernisation

The Government's Air Navigation Directions require the CAA to make airspace change decisions in accordance with our strategy and plan. In December 2018 we published the Airspace Modernisation Strategy (AMS(CAP 1711)), that superseded and replaced the Future Airspace Strategy.

The CAA's Airspace Modernisation Strategy and the Masterplan that NERL has been commissioned (jointly by the CAA and the Department for Transport) to produce will affect your proposed airspace change and any decision on it.

The on-going Masterplan process has identified your airspace change proposal as strategically important for modernisation of the airspace within the area covered by the plan.

Design Principles

Stage 1B of the CAP 1616 process requires sponsors to develop Design Principles. Paragraph 108 states that the principles must "encompass the safety, environmental and operational criteria and the strategic policy objectives that the change sponsor seeks to achieve in developing the airspace change proposal" and must "take account of government policy." Paragraph 109 states that Design Principles must be "drawn up through discussion between the change sponsor and affected stakeholders at this early stage in the process" (with examples as to which local stakeholders may be relevant).

In developing your Design Principles, it is important that:

1. The impact of the AMS and the Masterplan work on your proposed change is included; and
2. Your stakeholders are made aware of the way in which the AMS is reflected in your Design Principles, and that this is of particular importance to your airspace change proposal.

Because of the CAA's AMS and the co-sponsored Masterplan work, the CAA is therefore advising you that it will expect to see the following concepts reflected and adopted in your Design Principles.

Subject to the overriding design principle of maintaining a high standard of safety, the highest priority principle of this airspace change that cannot be discounted is that it accords with the CAA's published Airspace Modernisation Strategy (CAP 1711) and any current or future plans associated with it.

Further explanation of the Co-ordinated Modernisation Design Principle and why it is important to your proposal

The CAA's AMS (CAP 1711) describes what airspace modernisation must deliver, drawn from relevant national and international policy and law. Paragraphs 3.5-3.7 set out factors that airspace modernisation must deliver, drawn from section 70 of the Transport Act 2000 and relevant policy, such as:

- the need to increase aviation capacity in the South East;
- for this growth to be sustainable; and
- for the need to make the best use of existing runways.

In addition, as set out in paragraph 1.25 and 3.1 of the CAA's AMS, the government's Airports National Policy Statement makes clear that capacity (accommodating additional runway capacity at Heathrow and making best possible use of existing infrastructure) is the context of airspace modernisation.

Given this policy context, the CAA and DfT, as co-sponsors of airspace modernisation, commissioned NERL to create a single coordinated implementation plan for airspace changes focussing initially on in Southern England (a south-east airspace change masterplan, or masterplan for short). Further detail on this masterplan is outlined in Chapter 6 of the CAA's AMS.

The masterplan is to build on work undertaken in NERL's feasibility assessment, described in paragraphs 5.18-5.20 of the AMS. In that feasibility assessment NERL identified that 15 airports (and their ANSPs) and NERL would need to co-ordinate in order that the extra capacity sought in the ANPS could be delivered. The ongoing Masterplan work has identified a total of 18, your airport is one of those.

It is expected that iterations of the Masterplan will be assessed by the CAA and the DfT and when applicable accepted into the AMS by the CAA as part of it statutory strategy and plan.

For these reasons we will expect to see that this airport participates in the development of that Masterplan in conjunction with ACOG, NERL and the other identified airports.

The CAA will expect to see a Design Principle related to this proposal (and ultimate requirement of the proposal itself) that this change will, as applicable, serve to further, and will not conflict with, the realisation of the AMS. It is noted that that this coordinated modernisation Design Principle may impact on your development of options.

Yours Sincerely,

[redacted]

[redacted]

Manager Airspace Regulation

Appendix 2

Statement of Need

DAP 1916 - Statement of Need: Intended Change to Notified Airspace

This form may be used to provide information to the CAA about an intended change. Once this form is completed then please submit it by clicking the button at the end of this form.

---

1. Change Title

Please enter a title for this intended change, (max 80 characters): *

Manston Airport - Airport Reactivation

2. Change Sponsor Details

Please select the appropriate category and complete. *

- (•) A Company
- ( ) An Unincorporated Association or other body
- ( ) Individual (including sole traders and partnerships)

2a. A Company

Registered Company name (in full) *

RiverOak Strategic Partners Limited

Registered Company Number

10269461

Country of Company Registration

England and Wales

Registered Office Address

16 Charles II Street, LONDON

Postcode

SW1Y 4NW

E-mail

manston@communityrelations.co.uk

Trading name (if applicable)

Trading Address (primary site)

Country

Postcode

Website address

http://rsp.co.uk/

Primary Point of Contact Name *

[redacted]

Telephone *

[redacted]

E-mail *

[redacted]

Secondary Point of Contact Name

Telephone

[redacted]

E-mail

manston@communityrelations.co.uk

3. Independent Aviation/Airspace Consultancy

☑ Is an Independent Aviation/Airspace Consultancy involved in this proposal?

Aviation Consultancy

Registered Company name (in full) *
Osprey Consulting Services Ltd

Registered Company Number
6034579

Country of Company Registration
England and Wales

Registered Office Address
Suite 10 The Hub, Fowler Avenue, Farnborough Business Park, Farnborough

Postcode
GU14 7JP

Telephone
01420 520 200

Email
enquiries@ospreycsl.co.uk

Trading Name (if applicable)

Trading Address (primary site)

Country

Postcode

Website address
www.ospreycsl.co.uk

Primary Point of Contact Name *
[redacted]

Primary Contact

☑ Should the CAA use the Independent Consultancy as the primary point of contact for this airspace change proposal?

Telephone *
[redacted]

Email *
[redacted]

Secondary Point of Contact name
[redacted]

Telephone
[redacted]

Email
[redacted]

4. Summary of Intended Change

Please use the check boxes below to indicate the nature of the intended change(s): *

- ☐ Flight Information Region (ENR 2.1)
- ☐ Upper Information Region (ENR 2.1)
- ☐ Terminal Control Area (ENR 2.1)
- ☐ Other Regulated Airspace (ENR 2.2)
- ☐ Lower ATS Routes (ENR 3.1)
- ☐ Upper ATS Routes (ENR 3.2)
- ☐ Area Navigation Routes (ENR 3.3)
- ☐ Helicopter Routes (ENR 3.4)
- ☐ Other Routes (ENR 3.5)
- ☐ En-Route Holding (ENR 3.6)
- ☑ Name-Code Designators (ENR 4.4)
- ☐ Prohibited/Restricted/Danger Areas (ENR5.1)
- ☐ Military Exercise/ Training Areas (ENR 5.2)
- ☐ Other Danger/ Hazard (ENR 5.3)
- ☐ Aerial/Sporting/Recreational Activities (ENR 5.5)

- [ ] Bird Migration/Sensitive Fauna (ENR 5.6)
- [x] ATS Airspace (AD-EGXX-2.17)
- [x] Flight Procedures (AD-EGXX-2.22)
- [x] ATCSMAC (AD-EGXX-5)
- [x] Standard Instrument Departure (AD-EGXX-6)
- [x] Standard Arrival Route (AD-EGXX-7)
- [x] Instrument Approach Procedure (AD-EGXX-8)
- [ ] Visual Reference Point .
- [ ] Release of Controlled Airspace .

Please use the check box below to indicate whether this is an administrative change:

- [ ] Does your proposal represent an administrative change to the Aeronautical Information Publication (AIP)?

5. Statement of Need

Please provide a brief 'Statement of Need' expressing explicitly what airspace issue or opportunity you are seeking to address. Your Statement of Need should clearly articulate the current situation, the issue (and the cause of it) to be resolved or the opportunity to be addressed along with any other factors or requirements. *

Introduction:

Prior to closure the aerodrome at Manston had conventional flight procedures that allowed aircraft to land on and take-off from the runway and an Aerodrome Traffic Zone (ATZ) to offer protection to aircraft in the critical stages of flight near the runway. All such measure were removed when the aerodrome closed.

The issues to be addressed:

The Masterplan submitted with the Development Consent Order (DCO) application describes an integrated aviation services hub with an air freight centre, at Manston Airport, capable of handling in excess of 10,000 air freight Air Traffic Movements (ATM) annually. Should the DCO be granted, there will be a need to introduce appropriate flight procedures and airspace to enable safe operations. The procedures will need to comply with Resolution 36/23 ratified by the 36th International Civil Aviation Organisation (ICAO) General Assembly and the UK Future Airspace Strategy (FAS) published by the Civil Aviation Authority (CAA). This involves the introduction of routes and procedures compliant with Performance Based Navigation (PBN) criteria; a State requirement for 2024.

Future Airspace Strategy Implementation (South) (FASI(S)) and London Airspace Management Programme (LAMP) require UK southeast airports to implement PBN in order that the complex interactions between the region's airports are fully considered. The aerodrome sits below Controlled Airspace (CAS), the eastern extensions of the London Terminal Manoeuvring Area (TMA) which contains busy routes into and out of inter alia Heathrow, Gatwick and London City (to/from The Continent). Routes into and out of the future Manston Airport will need to integrate with these London TMA routes at some distance from the Airport.

The airspace solution will seek to provide an appropriate degree of protection to enable the safe management of the Airport associated ATMs in the critical stages of flight; take-off and landing.

Please specify the altitudes (where applicable) affected by your Statement of Need:

- [x] Surface to below 4,000 feet
- [x] 4,000 feet to below 7,000 feet
- [x] 7,000 feet to below 20,000 feet
- [ ] 20,000 feet and above

6. Proposed Dates

Please provide your proposed date for the submission of your change proposal to the CAA. This should be the date on which you are expecting to submit your formal airspace change proposal to the CAA. Please note that your formal airspace change proposal must be submitted alongside all of the supporting documentation required by the CAA to complete our regulatory assessment of the Proposal; consequently the date on which you place in this field should represent the point at which you will have the formal airspace change proposal **and all** of the supporting documentation ready to submit to the CAA. This date is required to assist us with the allocation of the required CAA-resource to your proposal and therefore it is a key date in our planning process. Whilst we will try to accommodate your specified timescales, there may be occassions where it is not possible for us to do so given the large number of projects that are already 'in process' You should also note that any changes to the above date may impact our ability to process your airspace change proposal within your preferred timescales. It should also be noted that from September 2018 any amendments submitted by a Data Originator or ANSP for onward promulgation in the UK IAIP will be subject to the Aeronautical Data Quality Requirements. See Commission Regulation (EU) No 73/2010 (updated by 1029/2014) and CAP 1054: Aeronautical Information Management guidance material for further information. These requirements will be discussed in greater detail during the course of your initial meeting with the CAA.

- [x] Confirmation of Understanding *

Please provide your proposed date for the submission of your change proposal to the CAA. *

29 Jul 2020

Please provide your proposed AIRAC effective date *

AIRAC 13/2021

If this change forms a part of a modular airspace change proposal please provide the relevant title and further information below (Note we will require individual submissions for each module) . *

No

If this change requires the implementation of a Five-Letter Name Code (5LNC) please specify your requirements below: *

Required for RNAV T-Bar Y-Bar IAPs and potential en-route points