Wolverhampton Business Airport
Review of Environmental Statement

Prepared for South Staffordshire Council

Final Report
December 2004
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Part One

About the Review
Section i
Structure

1.1 The Review is presented in two parts. The first, About the Review, sets out the scope, purpose and structure of the review and flags up the main findings. The second, the Chapter by Chapter Assessment, reviews the chapters of the ES one by one in the order that they occur in that document. The sub headings listed below have been used in the longer chapters:

1.11 Summary - This highlights the main findings of the chapter in plain English and may be read without reference to the rest of the chapter in order to gain a basic understanding of the issues.

1.1ii Approach - This section compares the methodology used in the chapter being reviewed to that set out in Chapter Two of the ES. It also provides guidance on standard methodologies used in Environmental Impact Assessment and states whether or not these have been followed.

1.1iv Review - Here, the main body of the text is reviewed and attention is drawn to any shortcomings. This provides the detail from which the summary is drawn. The sub headings used in the relevant ES chapter are used as the sub headings in this section for ease of understanding.

1.1v Further Information Needed - This lists not only the information that is required to bring the ES into line with the EIA regulations but also the information and structure that would be expected of a good Environmental Statement.
Section II
Scope and Purpose

II.i Atkins has been commissioned by South Staffordshire Council to undertake an objective review of the Environmental Statement (ES) submitted as part of planning application 04/00748 concerning the provision of a new runway and engine testing facility at Wolverhampton Business Airport.

II.ii This review has been made in accordance with guidelines set down by the Institute of Environmental Management and Assessment (IEMA) in July 2001.

II.iii It assesses only the Environmental Statement (ES) provided. Other documents submitted as part of the planning application, such as the Supporting Planning Statement, are not considered, although reference may be made to them from time to time for the purpose of comparison.

II.iv The purpose of this Review is twofold. Firstly, it allows the Local Planning Authority to determine whether further information relating to the ES is required under Regulation 19 of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999. Secondly, it provides a guide as to how the ES should have been written and what the Local Planning Authority should be looking for when assessing it.

II.v Regulation 19 states that:

"Where the relevant planning authority, the Secretary of State or an Inspector is dealing with an application or appeal in relation to which the applicant or appellant has submitted a statement which he refers to as an environmental statement for the purposes of these Regulations, and is of the opinion that the statement should contain additional information in order to be an environmental statement, they or he shall notify the applicant or appellant in writing accordingly, and the applicant or appellant shall provide that additional information."

II.vi On 30th September 2004, the Council wrote to the applicant enclosing a draft version of the Review and requesting that further information be provided. That version of the Review did not seek to determine whether the ES was well written or whether the development would be acceptable. It merely sought to identify what would need to be done to bring the ES into line with what was required by the Regulations.

II.vii This, the final version of the Review, presents the information in a more structured format and lists not just what is required to satisfy the Regulations but the information and structure that would be expected of a good Environmental Statement. The Local Planning Authority may wish to consider the latter when determining the application or preparing documents such as proofs of evidence should the application go to appeal.
Information Provided

II.viii In undertaking the Review, it has become clear that there is insufficient information on certain aspects of the proposal, such as the implications for ground operations and the timing and nature of flights. Without this information it is difficult to make an accurate judgement on the environmental impact of the development. The red line for the application encloses the whole of the airport operation. The information in the ES provided relates only to the provision of a runway extension and the engine testing facility. The Regulations require that all the environmental effects of the proposed development are assessed.

II.ix Our view is that the applicant has supplied insufficient detail to allow a proper assessment to be undertaken. This could be because some of the existing buildings are to be used to support the new runway and testing facility but no information is provided on this matter. The ES cannot, therefore, be taken to be complete. There is also a question as to whether the application is complete and is capable of determination.

II.x We would advise that the Council seeks legal advice as to whether the ES provided can be used, bearing in mind the outcome of R v Rochdale Metropolitan Borough Council on behalf of Milne and Other (1999) (3 PLR 74). This case considered that certain information fundamental to the proposal had to be provided to enable a proper assessment to be undertaken in accordance with the Environmental Impact Assessment Regulations.

II.xi Notwithstanding this concern, the information provided in the accompanying sections shows where the submitted ES requires further information to be provided under Regulation 19. However, the Council should make it clear that this does not mean that this should be the only request under Regulation 19 or that further information may be required in clarification of the Planning Supporting Statement supplied with the application.
Section III
Summary of Findings

iii.i There is a lack of co-ordination across the Statement. Different chapters are written in different styles and the document does not flow well. This lack of togetherness means that readers may find it difficult to settle into the 'language' of the ES, which does not make for a clear or legible document.

iii.ii Paragraph 2.4.4 sets out four categories of impact, which it states will be used to assess the significance of effects where they are predicted to occur. However, it is clear that certain of the chapters have made up their own categories for doing this. This makes it impossible to make comparisons between chapters.

iii.iii Many of the chapters fail to provide enough detail to allow a fair assessment to be made. However, the nature of what is missing varies across the document. In some chapters, baseline data is missing while, in others, there is little discussion of the impacts or intended mitigation measures.

iii.iv The discussion of alternatives is very brief and does not include any assessment, quantitative or otherwise, of the environmental impacts of the two other options at the site.

iii.v There are discrepancies between the information given in the introduction and the information given in later chapters. For example, the description of development in paragraph 1.1.2 does not appear to tie in with the description of development in Chapter Ten.

iii.vi The case for the development is based on an assumption drawn from the Aviation White Paper of December 2003 which appears to have been misinterpreted. This assumption appears to be the linchpin of the applicant’s assessment of need and without its support the case for developing in the Green Belt may be hard to make.

iii.vii The applicant claims that paragraph 9.30 clearly supports the expansion of the Airport. In fact, this paragraph states that the Airport "should continue its role of serving business and general aviation." This implies to us that no change is being sought. Paragraph 9.30 goes on to say that the Airport "could be capable of delivering commercial services on a limited scale, but should do so only in line with regional planning and transport priorities". In order for this statement to support the proposal, therefore, the expansion of Wolverhampton Business Airport would need to be listed as a priority in RPG11. It is not. Taking these two points into account, our view is that Paragraph 9.30 does not support the expansion of the Airport.

iii.viii Transportation - Chapter Seven of the ES does not seek to quantify the environmental impacts of the transport proposals. It simply sets out a summary of the detailed information presented in the Transport Assessment without providing an
assessment of how the proposals and associated mitigation measures would impact on the mainly rural surroundings of Wolverhampton Airport.

iii.x Noise - The ES as submitted focuses almost exclusively on long term average noise levels from aircraft movements. It provides no information on noise impacts arising during the construction phase, noise from site generated road traffic during the operational phase or noise from other on site sources including the ground running of aircraft.

iii.x Air Quality - The Review agrees with the general conclusions of this Chapter on the basis of experience of similar schemes. However, no objective assessment of the conclusions can be made as the data and information used to reach these has not been included.

iii.xi Landscape and Visual Impact - The assessment very broadly covers the requirements of a landscape and visual assessment. This includes a methodology, description of baseline conditions and impacts. However, there are many inconsistencies and omissions throughout the assessment. This creates a document that is misleading and difficult to understand.

iii.xii Drainage - The Drainage chapter appears to consist solely of a Drainage Strategy Report for the specific redevelopment works at the airport. Whilst this report covers general principles and options for the drainage of surface water and foul water at the site, it does not comprise a satisfactory ES. The report focuses on the proposed airport development works and does not consider the wider environment.

iii.xiii Cultural Heritage - This chapter falls short of adequately assessing the effects of the proposed development. The principal shortcomings lie in the inconsistent methodology used and thus the robustness of the assessment and how it is reported. Consultation held with English Heritage and with Local Planning Authority Archaeologists and Conservation Officers may well have resolved many of the outstanding issues but if this did take place it was not reported.

iii.xiv Socio-Economic Factors - This chapter appears to have been written as an afterthought. The baseline data consists of a few figures relating to population change and unemployment. The information that has been provided is patchy and does not provide a platform for assessment. The impacts of the development are expressed mostly in notional form and cannot, therefore, be assessed.

iii.xv Flora and Fauna - There is no clear separation of construction impacts from operational impacts, nor is it clear which are direct and indirect impacts, short term and long term impacts or permanent and temporary impacts. Neither is it clear whether there are any cumulative ecological impacts arising from the proposals to extend the existing airfield. The cumulative impacts from the construction of the new fire station and from the re-laying of the navigational equipment should have been assessed as well despite being permitted development.
Part Two
Chapter-by-Chapter Assessment
Chapter One

Introduction

1.1 The description of the development in paragraph 1.1.2 should refer to the drawings submitted with the planning application.

1.2 The wording of the last bullet point in paragraph 1.1.2 needs to state that the application would allow the landing and take-off of jet aircraft through the removal of a condition presently restricting these activities.

1.3 This chapter contains no indication as to the overall timescale of the works, as is recommended by the JEMA.
Chapter Two

Approach

2.1 This chapter makes clear the key objectives of the ES (paragraph 2.1.1) and lays out the terms to be used in assessing the significance of effects (paragraph 2.4.4). These terms are:

- Major positive or negative effect
- Moderate positive or negative effect
- Minor positive or negative effect
- No change

2.2 However, it is clear that not all sections have taken this approach. For the sake of consistency and understanding, it is important that the ES uses the same objectives and assessment terms throughout.

2.3 Paragraph 2.1.1 makes no reference to the scale or magnitude of environmental effects, only the significance.

2.4 Some reference should have been made in paragraph 2.2.1 to Appendices 1.1 to 1.4, which contain the applicant's requests for scoping and screening opinion and the Council's response to these requests.

2.5 The IEMA recommends that mention is made of any subjects removed at the scoping stage. The applicant's scoping request included a section on sustainability but no such section appears in the ES. Mention should be made of when and why the decision not to include this section was taken.

2.6 Paragraph 2.3.1 should be explicit that the bodies it lists were consulted as part of the scoping exercise. The Government office for the West Midlands appears to have been left out, despite the important role of Regional Planning Guidance in assessing the need for the development.

2.7 Wherever significance needs to be assessed, it should be done in accordance with the terms given in paragraph 2.4.4. In fact, many chapters use their own scales. This makes it difficult to compare chapters with each other. Somebody should have gone through the document to ensure that the stated methodology had been used correctly in each chapter.
Chapter Three
The Site

3.1 Environmental statements should assess all development that is to take place within the red line shown on the accompanying planning application.

3.2 The red line used for the purposes of this ES covers the whole of the Airport and the field to the south east within which the engine testing facility and part of the new runway will lie.

3.3 We would draw into question whether this ES is sufficient to assess the development and the implications of this development within the red line shown for the reason set out below.

3.4 Although the planning application only makes reference to the new runway, engine testing facility and removal of the condition limiting the use of jet aircraft, it is clear that the expansion of the airport and the resulting increase in passenger numbers is likely to give rise to more development than is described in the ES. Such development is likely to include new terminal buildings, baggage handling facilities and changes to road infrastructure as well as a rise in the general level of human activity on and around the site.

3.5 This would clearly constitute an intensification of use. In order to be complete, the ES must assess this intensification as it would any other impact. We would therefore recommend that information on all intended development is both provided and assessed. If this information is not assessed, the ES will not reflect the real impacts of the development when it occurs.

3.6 Paragraph 3.1.4 states that the triangular area of land to the south of the airport consists of agricultural land. This is inconsistent with the evidence in Appendix 10.1, which quite clearly shows an area of woodland in this triangle.
Chapter Four
Planning Policy Context

4.1 No mention is made in paragraph 4.2.1 of what may be considered relevant Structure Plan policies relating to sustainable location (T1A), public transport (T7) or protection of the countryside (NC1).

4.2 The 2003 Deposit Local Plan has not been properly assessed (paragraph 4.2.10). Only one policy is mentioned. Reference should be made to all policies equivalent to those quoted from the Adopted Local Plan together with an indication of whether they have been amended. If they have, they should be reproduced here. Reference is made in the Planning Supporting Statement to a number of policies in the Deposit Plan but this is a freestanding document that does not form part of the ES submission.

4.3 We have assumed that it is the 2004 adopted version of RPG11 that is referred to in paragraph 4.3.1 as no indication is given. When quoting policy documents, the status i.e. draft, amended, adopted etc and date of publication should always be given.

4.4 Paragraph 4.3.1 states that RPG11 contains sections on green belts and transport that are of particular relevance to the application. This is, however, the sole mention of these policies in Chapter Four. If these sections are relevant to the application, why are they not discussed here?

4.5 The paragraph number of the quote from the White Paper reproduced at paragraph 4.4.1 should have been given.

4.6 Given that the White Paper effectively delegates the development of the airport to local decision making, it may have made more sense to have put section 4.4 before those dealing with regional and local planning.

4.7 In section 4.5, reference should at least be made to the following relevant PPGs:

- PPG9 Nature Conservation
- PPG16 Archaeology and Planning
- PPG25 Development and Flood Risk

and to the following relevant PPSs

- PPS1 Creating Sustainable Communities
- PPS7 Sustainable Development in Rural Areas
4.8 Paragraph 4.6.2 asks whether the proposal achieves the requirements of the Government’s White Paper. In fact, it would appear that the White Paper has no requirements in relation to Wolverhampton Business Airport.

4.9 It goes on to state that the proposal will bring much-needed employment and regeneration to this part of South Staffordshire. Where is the evidence that South Staffordshire is in need of such employment and regeneration?
Chapter Five
The Need for the Development

Summary

5.1 The whole case for there being a need for this development appears to rest on a reference to Wolverhampton Airport in the Government's White Paper, The Future of Air Transport, published in December 2003.

5.2 The applicant has concluded from this reference that the White Paper supports the expansion of the Airport. The Review does not concur with this conclusion; the White Paper actually states that the Airport should continue its role of serving business and general aviation. It states that any plans to fly commercial services from the Airport should be a matter for local decision making, effectively washing its hands of the issue.

Review

5.3 In ES section 5.2, quotes and text reproduced from the White Paper should be referenced with the appropriate paragraph number.

5.4 Paragraphs 5.2.3 to 5.2.5 state that the White Paper identifies a need for a new runway in the Midlands and that this runway should be at Birmingham Airport. The Review concurs with this interpretation.

5.5 ES paragraph 5.2.6 reproduces the text of paragraph 9.30 of the White Paper. This is the only paragraph in the White Paper that contains anything more than a passing reference to Wolverhampton Airport. Its wording is therefore critical to the need argument.

5.6 The conclusion drawn from paragraph 9.30 in ES paragraph 5.2.7, that the White Paper "clearly supports" the expansion of Wolverhampton Airport is, in our opinion, quite wrong. The first sentence states that the Airport "should continue its role of serving business and general aviation". Rather than supporting the broadening of the Airport's operations, the words "should continue" imply that no change is being sought. The second sentence states that the airport could be capable of delivering commercial service on a limited scale but adds that any such plans should a) be in line with regional priorities and b) take account of the lack of strategic road access. The third sentence states that any plans to expand the airport or its operations "should be a matter for decision locally".
6.7 For the White Paper to support the proposed development, therefore, the need to expand the Airport would have to be identified in RPG11, which sets regional planning priorities. RPG11 identifies no such need.

5.8 The statement in paragraph 5.2.9 that the extended runway "would assist with the required growth in the region" is misleading. Paragraph 9.5 of the White Paper clearly states that Birmingham is the preferred choice for runway expansion. Expanding Wolverhampton's runway would therefore not only be unnecessary but counterproductive to the aims of the White Paper.

5.9 The reference in paragraph 5.4.3 to jets being 76% quieter than they were in the 1960s may be true but it is not proof of need. This statement would have been more useful in Chapter Eight, which deals with noise.

5.10 The reference in paragraph 5.5.2 to Wolverhampton Airport being key to meeting the demand for additional airport facilities in the West Midlands is misleading. As has already been shown, there is nothing in the White Paper or Regional Planning Guidance to suggest that this is the case.

5.11 There is no justification for the statement in paragraph 5.5.3. Given that there appears to be no identified need for the expansion of Wolverhampton Airport, it would be hard to see how this application could possibly constitute a "Very Special Circumstance" in terms of Green Belt policy.
Chapter Six
Options Considered

Summary

6.1 An ES should assess not just alternative sites and patterns of development but alternative construction techniques and operating processes. No information is given on these.

6.2 The discussion of alternative sites and layouts is very brief and does not consider the advantages or disadvantages in enough depth to form any judgement. The ES gives no detail at all on the impacts of the option of extending the existing runway other than to say it would pass close to a listed building. It may be that this would be the only difference in long term impacts but what about impacts on construction noise and traffic; surely these would differ for an extended runway and an entirely new runway?

6.3 The environmental impacts of doing nothing are not even mentioned. Section 6.3 does bear the heading "No Change" but is concerned only with demonstrating that the "do nothing" option would not be the best option for the operator.

Review

Options at the Site

6.4 The statement in paragraph 6.3.3 that the implications of the White Paper could not be realised if the Airport were to remain at its current level of operation is incorrect. As is clear from our analysis in Chapter Five, the White Paper places no obligation on Wolverhampton Airport to expand.

6.5 The assertion in paragraph 6.3.4 that Wolverhampton Airport has been identified as an airport that could help to meet the need for additional runway capacity in the Midlands is incorrect. The White Paper makes it clear that Birmingham is the preferred option.

6.6 Paragraph 6.3.5 states that the "do nothing" option was ruled out because it would not have benefited the airport operators or the region as a whole. The purpose of an Environmental Impact Assessment is not to assess the benefit of the development to the applicant or operator but to assess its impact on the environment. The environmental impact of the "do nothing" option is not even mentioned in section 6.3, let alone assessed.

6.7 Paragraph 6.3.10 makes no sense.
6.8 Given that the option of a new runway is being assessed against, amongst other things, the option of doing nothing, it is quite wrong to say that the new runway option would have the fewest impacts in terms of cultural heritage, noise, landscape, visual impacts, ecology and air quality as is claimed in paragraph 8.3.11. Clearly, doing nothing would have fewer impacts on all of these, not least because it would involve no construction phase and would mean that larger aircraft could not use the site.

Options at Other Airports in the Midlands

6.9 The information given in section 8.4, drawn mostly from the White Paper, is largely accurate. However, it is unclear how the applicant would be able to implement any of these options, given its lack of control over the other airports mentioned. This limits their use as valid alternatives for the purposes of this ES. There is little use in discussing alternatives which the applicant would be powerless to implement.

6.10 Little mention is made of the advantages and disadvantages of any of the options in section 8.4; the text provided merely picks out the main points of the White Paper.

Further information needed

The whole chapter needs to be rewritten in far greater depth, addressing all the environmental issues covered by this ES with regard to alternative sites, layouts, construction practices and operating processes. The implications of alternatives should be discussed alongside the main proposal in each chapter and this information should be fed back into this chapter, which should act as a summary.
Chapter Seven
Transportation

Summary

7.1 We have been unable to provide a detailed appraisal of Chapter Seven of the ES as it does not seek to quantify the environmental impacts of the transport proposals. The chapter simply sets out a summary of the detailed information presented in the Transport Assessment without providing an assessment of how the proposals and associated mitigation measures would impact on the mainly rural surroundings of Wolverhampton Airport.

7.2 Based on the information presented, Atkins has summarised the key areas of concern in terms of their potential environmental impact:

7.3 The proposed development would have a significant impact on the local highway network. The site is located in open countryside and the only means of access to it is via unclassified lanes. Intensification of the use of these routes will have a significant impact and highway safety is a concern. Improvements to the network will be required, including the assessment of HGV routes to the airport. This is not considered as part of the TA or ES Transportation Chapter.

7.4 The addition of airport traffic will have an impact on the junction of Chester Road / A458 located to the south of the site. Using the trip assignment provided in the TA it can be assumed that, as a minimum, Zones F, G and H will leave the site via the Chester Road / A458 junction therefore some 10% of traffic will route through this junction.

7.5 Assessment of the A449 / B4176 junction shows that the junction is already at or above capacity at peak times without the addition of development traffic. Intensification of the use of this junction will have an impact on traffic movements so mitigation measures will be required. The proposed junction improvements illustrated in Figure 7-9 of the TA show that the following junction improvements are proposed:

- Provision of a left turn lane on the A449 northbound approach;
- Amendment to the road markings on the A449 northbound approach to reduce the length of the right turn lane and increase the length of the two lane straight on approach; and
- Provision of an indicative green arrow on the B4176 eastbound approach.

7.6 The TA proposes improvements to White Cross junction, with the provision of a small roundabout. This solution does not appear to be appropriate for this location; it
would be more suited to an urban location with speed limits of 30 miles per hour or lower. The speed limit on the approach routes is currently D-restricted.

7.7 Overall, the intensification of demand for access to the site would be problematic. From observations on site, we are concerned that the increase in traffic in this rural location and the proposals necessary to accommodate this safely would have a very high impact on the highway environment.

Approach

7.8 Chapter Two of the ES sets out the objectives and methodology for the assessment. Section 2.4 sets out the assessment criteria to be used to determine the impact of the development with reference to specific environmental issues, to be assessed quantitatively where possible.

7.9 Chapter Seven makes no attempt to quantify the potential impact of the proposed airport expansion and simply provides a summary of the detailed assessment presented in the Transport Assessment (TA) produced by Capita Symonds Ltd. The report does not provide an assessment of the potential environmental impacts of the scheme and simply summarises the contents and conclusions of the TA section by section.

7.10 In order to make a detailed assessment of the environmental effects of the transport proposals, the ES would need to provide an assessment in line with government guidance, rather than simply setting out a summary of the Transport Assessment.

7.11 The Department for Transport has published guidance called "Transport Analysis Guidance" (TAG), which provides details on appraising transport options against the Government’s environmental objectives for transport. The guidance deals with the impacts on both the built and natural environments and on humans.

7.12 The TAG advice is based chiefly on recognised current best practice, where this is available and applicable. In addition to the guidance presented in TAG, information can be found in unpublished research by the Highways Agency entitled "Multi-Modal Environmental Assessment -- Extract of Phase 1 Report" (unpublished) (HA, 1999). Table One details the broad categories of Environmental Impact as set out in TAG.
Review

Transport Policy Context (Section 7.2)

7.13 The ES provides a summary of all relevant policy contained in the main TA report. This section draws no conclusion with regard to the potential impact of the proposals; however, the review implies general policy support for the expansion of the airport.

Local Highway Network (Section 7.4)

7.14 The airport lies within a mostly rural area, to the west of the A449 and to the south of the A454 close to the villages of Bobbington and Halfpenny Green. The highway network surrounding the airport site consists of, with the exception of the B4716, unclassified country lanes of varying standard, with narrow carriageways bounded by established trees and hedgerows.

7.16 The ES provides a summary of the four proposed main routes to the airport identified in the TA, with routes allocated in terms of attractiveness to each catchment zone determined through a gravity modelling exercise. The ES does not provide an assessment of the environmental impacts of intensification of the use of these routes or their potential impact on the surrounding area.

Development Proposals (Section 7.5)

7.16 The airport presently operates as a fully functional airport to meet the business and recreational needs of the area. The proposal is to implement a limited passenger service with landing and take off for jet aircraft; however, this would require the airport to be brought to CAA standard. The proposal therefore comprises the construction of a new runway to the immediate north east of the existing runway 16-34. The new runway would be 1657 metres in length, of which 492 metres would comprise the runway end safety area and the emergency distance required by the CAA. The width of the new runway would be 45 metres. The existing runway would be closed once the new runway was fully operational. Part of the new runway would be sited within a triangular shaped area of land to the south, currently outside the airport boundary.

7.17 The ES simply provides a summary of the development proposals, rather than providing an assessment of the environmental impact of the transportation implications as set out in Chapter Two of the ES.

Traffic Generation (Section 7.6)

7.18 The proposed expansion will provide capacity for half a million passengers per year. It is anticipated from the proposed aircraft movement profile that there would be 1840 passengers per day passing through the airport.
7.19 The ES refers to the Institution of Highways and Transportation “Guidelines for Traffic Impact Assessment” stating that, where two way flow increases by more than 10% on a non congested link or 5% on a congested link, there is a material impact. This general guidance on material impact does not take account of the environmental and safety issues that could arise from relatively small increases in traffic on these country lanes.

7.20 This will have an impact on the surrounding area. The ES does not provide an assessment of the potential environmental impacts as a direct result of traffic generation associated with the airport expansion. The report does, however, acknowledge that improvements to the network are required and have yet to be discussed with Staffordshire County Council.

Traffic Assignment (Section 7.7)

7.21 In order to identify the potential catchment area for the airport, Capita Symonds produced a one hour isochrone to / from Wolverhampton Airport based upon drive profiles obtained from Microsoft AutoRoute Express 1998. The catchment area was then divided into thirteen zones and proportions of total trips generated were assigned to each of the zones. These proportions were based on distance from the airport and population density.

7.22 Traffic travelling on these assigned routes will have an environmental impact. No assessment of the potential impacts has been provided in the ES.

Year of Assessment & Traffic Growth (Section 7.8)

7.23 Section 7.8 provides a summary of the assessment years used for the purpose of the transport assessment and the traffic growth levels that have been applied.

7.24 The summary shows that traffic growth rates have been applied to the unclassified roads surrounding the airport site. It is our opinion that the unclassified roads will, in practical terms, have only limited opportunity for traffic growth without significant improvement. Such improvements coupled with the impact on the rural community resulting from increased traffic could be unacceptable in environmental terms. There is no assessment of the potential impact provided.

Traffic Impact (Section 7.9)

7.25 Chapter Seven of the ES provides details of the traffic surveys carried out in March 2004; a mixture of automatic counts and manual turning counts at key junctions (TA Section 7.9.2).

7.26 This section also summarises the results of assessments contained in the TA which show that the proposed development will result in significant impact on the B4176 / Tom Lane / Six Ashes Road / Crab lane route (Route Two) particularly west from the
B4176. Improvements to the A449 / B4176 signalised Junction and White Cross crossroads are also identified. The report does acknowledge that improvements to the network are required and have yet to be discussed with Staffordshire County Council. The section does not assess the potential environmental impacts of the increased traffic flows.

Parking (Section 7.11)

7.27 The ES provides a summary of the anticipated parking requirements for the site (800 spaces total). This will require a significant amount of land; however, the report does not present an assessment of the potential environmental impacts.

Construction Traffic (Section 7.14)

7.28 The TA states that construction traffic would comprise HGVs delivering and exporting materials to the site. Given the rural nature of the unclassified routes surrounding the airport site and the narrow carriageways, access for HGV traffic will be problematic.

7.29 The ES provides no appraisal of the potential environmental impacts.

Proposed Mitigation (Section 7.16)

7.30 The TA recognises that details of the improvements required are to be determined with the County Council; however, it fails to give details of the potential environmental impacts.

7.31 The Campaign to Protect Rural England (CPRE) has produced a document entitled 'Guide to Quiet Lanes'. The guidance forms part of CPRE's Safer Country Lanes campaign which seeks to protect country lanes and villages from the adverse effects of speeding traffic by calling for lower speed limits and widespread designation of quiet lanes.

7.32 As part of this strategy, we would recommend that reference is made to the CPRE guidelines to help ensure that nature of other minor rural roads surrounding the airport, which are not proposed as potential airport routes, are protected from the potential adverse impacts of traffic impact that could result from airport traffic seeking alternative routes. 'Quiet Lanes' can help make country lanes feel safer, pleasant and less intimidating to pedestrians, cyclists, horse riders and all who enjoy them, by aiming to reduce the risk of collisions and reclaim their tranquillity and local character.
### Table One - Broad Categories of Environmental Impact

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<th>Environmental Attribute</th>
<th>Landtake Type Impact</th>
<th>Traffic Type Impact</th>
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<td>Noise</td>
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<td>Greenhouse Gases</td>
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7.33 In addition to the guidelines set out in TAG the Environment Agency has also produced a series of Position Statements including a paper entitled "Reducing Environmental Impacts of Road and Air Transport". The paper states that transport infrastructure, including new runways, roads and intensification in traffic usage can impact on:

- Biodiversity – with the loss of wildlife habitats and associated species;
- Flooding – new roads and other structures can interrupt natural flows and exacerbate problems on flood plains; and
- Water quality – run off from roads may include pollutants such as fuel oils and seasonal road treatments that can pollute nearby water courses.
Further Information Needed

- Intensification of usage of the site will have an impact on noise, local air quality, greenhouse gases, landscape, biodiversity, water environment, physical fitness and journey ambience therefore quantification of these impacts as a direct result of transport is required.

- In order to begin to assess the potential impacts of the proposals, Atkins has undertaken a brief overview assessment of the proposals against the areas set out in the Appraisal Summary Table. This is provided below with information regarding further information required for submission in the ES:

- **Noise** - The proposals will result in intensification of traffic on proposed routes to the site. There will therefore be an increase in the number of cars travelling through adjacent villages and resultant increase in noise. A number of properties along the proposed routes will be affected. A full assessment of the potential impact is required.

- **Local Air Quality** - Chapter 7 does not provide a summary of the impacts of intensification on air quality. A full assessment of the potential impact is required.

- **Greenhouse Gases** - There is a possibility for increase in greenhouse gases as a result of increased traffic to the airport (in addition to that contributed by jet aircraft). A full assessment of the potential impact is required.

- **Landscape** - The area surrounding the airport is rural in character with established highway verges. Intensification of use would require significant improvements to approach routes to the airport such as road widening and improvements to visibility all of which would have an environment impact on which would require mitigation. Proposals for junction improvements will also require additional land which will have a direct impact on the landscape surrounding the site. A full assessment of the potential impact is required.

- **Heritage of Historic Resources** - No historic features have been identified in Chapter 7 of the ES. A full assessment of the potential impact is required.

- **Biodiversity** - Road widening on approaches and improvement at key junctions may be required, therefore there may be loss of hedgerows, vergeways and adjacent green land. No assessment of this impact or potential mitigation measures are presented. A full assessment of the potential impact is required.

- **Water Environment** - Impact of increased highway run off and improved drainage measures not identified. A full assessment of the potential impact is required.
Physical Fitness — Proposals include a travel plan which will encourage cycling and walking. There is therefore likely to be a positive impact on fitness of airport employees. A full assessment of the potential impact is required.

Journey Ambiance — Not measured. A full assessment of the potential impact is required.

Accidents — Section 7.10 provides a summary of accident data for a three year period surrounding the site. Between the B4176 and Crab Lane there have been 9 accidents, 2 of which were fatal.

Security — No assessment has been made.

Transport Economic Efficiency — Chapter 7 sets out a summary of the results of the assessments set out in the TA. The proposed development will result in significant impact on the B4176/Tom Lane/Six Ashes Road/Grab Lane route (route 2) particularly west from the B4176. Improvements to the A449/B4176 signalised junction and White Cross crossroads are also required. The TA acknowledges that improvements to the network are required and have yet to be determined with Staffordshire County Council.

Reliability — Not measured. A full assessment of the potential impact is required.

Wider Economic Impacts — Not measured. A full assessment of the potential impact is required.

Option Values — Assessment of the A449/B4176 junction shows that the junction is already at/exceeding capacity in the peak periods without the addition of development traffic. Intensification of use at this junction will have an impact on traffic movements; therefore mitigation measures will be required. A full assessment of the potential impact is required.

Severance — The proposed development will result in an increase in the movement of vehicles through adjacent villages. No measures to deal with potential community severance as a result of traffic intensification have been presented. A full assessment of the potential impact is required.
Chapter Eight

Noise

Summary

8.1 The ES as submitted focuses almost exclusively on long term average noise levels from aircraft movements. It provides no information on noise impacts arising during the construction phase, noise from site generated road traffic during the operational phase or noise from other on site sources including the ground running of aircraft.

8.2 Long term average noise levels from aircraft movements are predicted on the assumption that a significant proportion (66%) of the existing usage for general aviation would cease. The assessment would therefore be unrealistic if this were not to occur.

8.3 There is no information on the existing noise climate in the area. Clearly, a development capable of generating significant noise emissions will be less acceptable in a quiet area.

8.4 While the approximate location of the proposed engine testing facility is shown, there is no quantitative information on noise exposure for nearby residents when the facility is in use.

8.5 These deficiencies, and others which are reviewed below, are significant. Together, they act to prevent an informed judgement of the noise impacts being made.

Approach

8.6 A comprehensive noise assessment would be based upon an assessment of the existing baseline situation and would not be limited to aircraft noise. It would examine the impact during the construction phase, including both on site activities and construction traffic. It would then set out clearly and quantitatively noise arising from all sources during the operational phase. Where, as is the case with aircraft movements, there is an impact from discrete events as well as a cumulative impact this should be explicitly addressed.

8.7 It is clear that the submitted document does not adopt this approach.
Review

8.8 An adequate ES should establish baseline conditions. The ES provides no information on the existing ambient noise climate other than that generated by aircraft movements. Appendix 1.3 of the ES contains the Council's scoping opinion letter of 18th May 2004. This clearly states that the existing noise climate should be assessed.

8.9 The ES does not contain adequate information to allow assessment of the noise impacts arising from:

- Site generated road traffic
- Ground running of aircraft
- Auxiliary Power Units (APUs)
- Construction

8.10 Paragraph 8.1.6 suggests that the omission of these areas was with the agreement of South Staffordshire Council. While Appendix 1.3 indicates that aircraft noise is viewed by the Council as a significant issue requiring attention, it does not remove the responsibility for setting out other noise impacts from the applicant.

8.11 The information on the Engine Testing Facility is extremely limited, being confined to its location, it having some kind of barrier on three sides and if not being used at night. It is asserted (Paragraph 8.6.4) that, on the basis of measurements taken by SRP, it could be demonstrated that acceptable noise levels could be achieved. In this situation it is regrettable that the ES contains no evidence to support this assertion.

8.12 Appendix 8.6 comprises a sheet headed "Departure Destinations". Without any column headings it conveys no information other than that most existing destinations are not very distant. There is little use in including such information if it cannot be deciphered.

8.13 Appendix 8.7 also gives numbers and sets of letters rather than seeking to convey information. There are many different general aviation aircraft that use the existing airport. Many of them would do so in a future scenario. It does not help a decision maker to know that there will be 0.0004 usage of Runway 04 for departures by aircraft type 10b, and the same for aircraft type 115. In the INM model that has been constructed, both aircraft are represented by the same generic source, as single engine fixed propeller aircraft. In fact, most of the aircraft listed are either assigned to this generic source or to that for variable pitch propeller aircraft (GASEPF and GASEPV as set in the last column of Appendix 8.4). It would have been more helpful to have shown the number of movements by different generic types of aircraft.

8.14 Noise from helicopter movements has been modelled for the same flight paths as for fixed wing aircraft. This does not lead to a robust assessment. The omission of
helicopter circuit movements could lead to an underestimate of noise levels, particularly if there is an element of training in the usage.

8.15 Impacts are reported averaged over 92 sixteen hour days. While this is a valid scenario, it is not the only scenario that should be considered. During any one day, departures are likely to be in one direction only, and the contours will be both wider and longer in the direction of the departure. Some 92% of departures by commercial aircraft are expected to be on Runway 15-16. The method of assessment dilutes this effect.

8.16 There is no clear statement of the number of aircraft movements expected, or of how these are to be distributed over the sixteen hour day. Even if the number and distribution is not yet known, some indication would be better than none. Clearly, the impact of movements at 0700 hours and 2300 hours would be greater than at 1200 hours.

8.17 Appendix 8.12 seems to imply that 68% of general aviation usage would cease once commercial flights were in operation. Given that general aviation is presently permitted at the airport and that there is nothing in the description of development in paragraph 4.1.2 to suggest that this will change, it cannot be assumed that this reduction in usage will actually happen. The effect of withdrawing two-thirds of existing flights would be substantial and the ES as submitted uses this as an assumption. If current usage continued unabated the increase in aircraft noise levels would be greater than reported.

Further Information Needed

- Existing ambient noise climate
- Noise impacts arising from:
  - Site-generated road traffic
  - Ground running of aircraft
  - APU’s (Auxiliary Power Units)
  - Construction
- Predicted noise levels from the Engine Testing Facility
- Information on helicopter circuit movements
- An indication of how aircraft movements would be distributed across the day
- $L_{max}$ or SEL contours for the aircraft types with the highest noise emissions
Chapter Nine
Air Quality

Summary

9.1 With regard to air quality, the ES considers only selected aspects of the proposal and does not include an appraisal of each of the proposal's many criteria.

9.2 In general terms, the ES concludes that air quality will not be adversely affected by the proposed development and that statutory air quality objectives are unlikely to be breached in the study area. The assessment considers that construction activities may give rise to concerns regarding short-term emissions of dusts and proposes mitigation measures for this phase.

9.3 The Review concurs with these general conclusions on the basis of foreknowledge and experience of other schemes in comparable locations. However, the Environmental Statement as written does not allow an objective assessment of the conclusions to be made as the data and information used to reach these conclusions has not been included. It cannot, therefore, be reviewed or examined.

Approach

9.4 The approach used to assess air quality is broadly in line with government guidance. The following review details those instances where significant discrepancies were found.

Review

Background to the Assessment.

9.5 This section (9.1) fits in with the scope of the study although no reference is made to the assessment years and the dates for the attaining of the air quality objectives contained in the Air Quality (England) Regulations 2003. Such a reference would allow a direct comparison of the relevance of the assessment to the regulations.

Policies and Guidelines of Greatest Relevance

9.6 Much of this section is given over to a discussion of the legal and planning contexts of an air quality assessment and is adequate for the purposes of the statement. It is noted, however, that the latest version of the air quality regulations is not referenced in the statement (Table One, page 9-3), the regulations having been last amended in 2003 and not in 2000 as stated.
9.7 Sections 9.3 and 9.4 of the Environmental Statement outline the method used to assess the air quality impacts of the scheme.

9.8 No assessment of baseline conditions is included in the Statement. Little or no attempt appears to have been made to determine local ambient air quality conditions. For sites where no direct readings have been taken, indicative data can be obtained from the nearest monitoring site in the DEFRA Automatic Urban and Rural Network (AURN). If no local AURN site exists then a conclusion can be drawn from representative sites within the Network. Other useful information can often be found from non-continuous monitoring undertaken by local authorities.

9.9 Paragraph 9.4.3 indicates that ambient air quality background levels, published by DEFRA for each OS grid square across England and Wales, were used in the dispersion modelling exercise. It should be noted that these values are intended as base data for screening assessments only (e.g. by the Design Manual for Roads and Bridges toolkit) and not for assessing ambient air quality levels. For advanced dispersion modelling, more accurate background levels should be used derived from AURN data or local monitoring.

9.10 No mention is made of the local authority’s assessment which will have drawn certain conclusions as to the baseline conditions at the development site.

Prediction of Impact

9.11 Section 9.6 refers to the impacts of the scheme. The statement suggests that these were prepared using the ADMS and EDMS models to determine emission factors for road and air traffic respectively. The advanced AERMOD model was then reportedly employed to derive ambient air quality levels from these emission factors. The predicted and reported impacts of the development on ambient air quality for NO₂ and PM₁₀ are all negligible. It is reported that air quality objectives will not be breached at the development site.

9.12 It is not possible to assess the truthfulness of these conclusions as the ES does not contain enough information with which to validate the conclusions drawn. The road and air traffic data used in the assessments cannot be verified as they are not supplied; they are merely referenced in another consultant’s report. Similarly, the background concentrations used in the calculations are not included in the report.

9.13 However, with reference to known ambient air quality conditions at similar rural sites, it is concluded that the findings of the ES and impacts of the development are likely to be correct.
Assessment of the Significance of Impacts

9.14 Section 9.8 indicates that the significance of the impacts of the development on ambient air quality are negligible. This statement is probably accurate. However, only a qualitative assessment of this opinion can be made as there is not enough data in the report with which to check the conclusion.

9.15 The ES gives information regarding the effects of building works on short term air quality. Again, the report concludes that these effects will be negligible and provides mitigation measures for their reduction. This review concurs with these statements.

Mitigation Proposals

9.16 The mitigation measures proposed in paragraph 9.8.4 are adequate and appropriate for the scale of the development.

Further Information Needed

- An assessment of baseline conditions including local ambient air quality derived from the AURN monitoring network
- Data used to predict the impact of air and road traffic
- Background concentrations used in the calculation of traffic impacts
Chapter Ten

Landscape and Visual Impact

Summary

10.1 A landscape and visual assessment should consist of two separate but related sections. Landscape character assessment is the description of the physical characteristics of the landscape. Visual amenity assessment is the description of the viewers or people within the landscape.

10.2 The landscape and visual assessment in the ES has taken a very simplistic approach to both the description of existing conditions and the assessment of the varied impacts of the many aspects of the proposed development.

10.3 The assessment very broadly covers the requirements of a landscape and visual assessment. This includes a methodology, description of baseline conditions and impacts. However, there are many inconsistencies and omissions throughout the assessment. This creates a document that is misleading and difficult to understand.

Approach

10.4 The landscape section of the ES should outline clearly the existing conditions, including landscape and heritage relevant designations. It should consider impacts on landscape character, both direct impacts through the predicted loss of landscape elements and the indirect impacts on the wider landscape character. This analysis should include any direct or indirect impacts on landscape and relevant heritage designations within a clear study area.

10.5 The visual section should clearly outline the existing visual amenity receptors. It should consider impacts on all relevant visual receptors including residential and business properties, public rights of way, public open space and road corridors. The methodology used should be described and the baseline conditions and impacts, at different stages and for each aspect of the development, identified within a clear study area.

10.6 Appropriate landscape and visual assessment guidance should be referenced.

10.7 The development which should be covered in this assessment includes:

* The extension to the runway, including the regrading of the landform as mentioned in paragraphs 10.3.1 to 10.3.5.
* Engine testing facility (ETF)
10.8 In addition, the landscape and visual impacts of the increase in flights as well as road improvements and traffic increases should be covered.

10.9 Both the construction and operational impacts should be described as should the scale of impact (slight / moderate / large / adverse / beneficial / no change / neutral or similar and agreed).

10.10 The terms to be used for the grade of impact (major, moderate, minor, positive and negative and no change) are defined in 2.4.4. This terminology, however, has not been used in Chapter Ten of the ES. In 10.4.5, the changes in view as a result of the proposed development are categorised as major, minor and some. For the evaluation of landscape effects in 10.7.2 the terms used are major, minor and not significant. This will cause confusion. Neither has there been any distinction made between positive and negative impacts or effects. Terms used should be consistent and defined.

Review

10.11 Only the phase of development with the least impact (the extension to the runway) has been considered in depth. Although other aspects of the development and their impacts on landscape character and visual amenity have been considered, at least in part, this is not consistent with the stated methodology and on the phasing of the development (construction and operation).

10.12 Insufficient detail is provided on the design of the Engine Testing Facility to allow its impact on the landscape to be fully assessed.

10.13 In 10.1.5 the ES recognises that published material was referenced as part of the desk study. This information should be stated.

10.14 In 10.1.5 it states that "field survey work [was carried out] on site and in the surrounding area." The extent of the field survey work should be stated. Was it a geographical extent of field survey for example, Xkm around the proposed application site or maybe within the visual envelope? This is not clear.

10.15 In 10.1.8 and 10.2.35 the visual envelope for the new runway under construction and operation is defined and shown on Drawing 10.2. It is not clear what development the visual envelope is illustrating. Is it just the runway / ETF / flights, with or without mitigation measures? What do the dashed lines mean on Figure 10.2? A key is required. The visible extent of planes taking off and landing would be difficult to define but this envelope should clearly state that it does not illustrate this.

10.16 In 10.1 the methodology focuses on visual amenity baseline and impact assessment. The methodology does not mention baseline landscape character or impact assessment. Landscape assessment considers two different but related aspects
including landscape character assessment and visual amenity assessment. These are defined in paragraph 10.1.4 but are not continued into the methodology. In the same way in 10.4.4, visual impacts have been defined but not landscape character impacts.

10.17 In 10.2.1 the site location should be cross referenced to a figure. Is the site the application site? Is this the area of study? It is confusing and clarification is required.

10.18 In 10.2, generally, there are a lot of impact statements within the baseline assessment. The baseline is described as a base upon which the impacts can be assessed. To have a mix of impacts within the baseline and then have more impacts described later on in the chapter is confusing and allows potential conflicts.

10.19 In 10.2.4 why is the existing woodland described as an unattractive element within the landscape? This should be explained.

10.20 In paragraph 10.2.13 it states that there are no designated landscape areas. However, in paragraph 10.2.15 it is stated that the whole area is a Special Landscape Area (SLA). This is a conflict. The effects of the proposed development have not been considered on the wider landscape; its significance having been recognised through its SLA designation. Through this designation, it should be assumed that this is a more sensitive landscape, therefore potentially more susceptible to change. Any development would affect the character of the wider area.

10.21 Are there any heritage designated sites such as Scheduled Ancient Monuments, Listed Buildings, Conservation Areas, Historic Parks and Gardens? Through cross referencing to Chapter Twelve: Cultural Heritage, these features are outlined. However, the impact on the setting of these designated areas should be dealt with consistently in this section. The effects as a result of the proposed development have not been fully considered in the landscape or heritage sections. In 10.2.20 Listed Buildings are mentioned as part of the landscape character baseline description but this is not carried through to the impact assessment. What is the impact on the setting of the Listed Buildings and, in fact, all heritage influenced sites? The designation of such receptors will increase their sensitivity and potentially the scale and significance of effects.

10.22 The landscape character assessment should refer to the Landscape Character Area assessment guidance by the Countryside Agency. The diversity of the surrounding landscape has not been considered in depth; neither have the qualities that have led to its Special Landscape Area designation. What about the vineyard? Is this not a receptor or an indicator of character? What about the ridgeline to the east which provides containment to the proposals and limits the wider impacts from Wombourne? Potentially this ridge will also provide higher views over the airport.

10.23 Why are these areas defined as good and damaged quality? Definitions outlined in relevant guidance such as the Guidelines for Landscape and Visual Impact
Assessment (GLVIA) should be given as a table either in the text or in the Appendices.

10.24 In 10.2.26 the Staffordshire Way passes alongside the southern boundary of Highgate Farm and passes east to west before running north to south. In the text the implication is that this sensitive footpath only occurs to 1200m to the east of the site.

10.25 The development site falls within the Countryside Agency Regional Character Area 66: Mid Severn Sandstone Plateau and not Regional Character Area 81 Shropshire and Staffordshire Plain as stated in 10.2.27. It is also not a ‘designation.’ However, it does state in 10.2.31 that it is within this area. This is a conflict of information.

10.26 Within the Staffordshire Landscape Assessment the development site is within the Sandstone Estates landscape character type, sub type farmlnds. The information found in the text is incorrect as it is the regional character areas that are referenced and described.

10.27 In 10.2.32 “The Objectives or Targets identified are not generally appropriate to the airport...” Why? What does this mean? What objectives or targets?

10.28 Photographs have been taken (location Figure 10.3) but these are not referenced in the text. All photographs appear to have been taken immediately adjacent to the airport. What about wider views within the visual envelope? For clarity, the view should be described as should the direction of view and photos annotated. It is also normal to state the technical requirements of photos, for example the lens size etc. so no distortion of photos can be assumed (35mm SLR with 50mm lens). This is equivalent to the human eye and corresponds to the appropriate landscape assessment guidance.

10.29 In 10.3.2 “Claire Hayes” is mentioned. What is this? This is the first and only time this is mentioned.

10.30 With reference to the English Nature Scoping Opinion dated 27 April 2004, “the EIA should consider if there are opportunities within the development site for (re-) creating habitats, particularly heathland.” This has not been considered in 10.8 Mitigation Measures.

10.31 The key issues in 10.9 are not just about mitigation, visual impacts etc as stated within this section but whether this area has the capacity to accept the airport. This is not just the physical aspect of development but, perhaps more importantly, the indirect effects such as increase in flights, bigger aircraft, increase in traffic, improvements to roads and effects on surrounding villages. These have not been covered in this section of the assessment.
Further Information Needed

1. Consistent impact assessment for both landscape character and visual amenity for all aspects of development and for the two identified phases (construction and operation).

2. An explanation of how the terms used to grade the impacts relate to those set out in paragraph 2.4.4

3. Details of the published material referred to in paragraph 10.1.5

4. The extent of the field survey work referred to in paragraph 10.1.5

5. Clarification as to whether the application site falls within a Special Landscape Area

6. Impacts on views of Scheduled Ancient Monuments, Listed Buildings, Conservation Areas, Historic Parks and Gardens; this is a landscape rather than a heritage matter

7. A reworking of the baseline character assessment in line with comments above and particular reference to the ridge to the east

8. Clarification of paragraph 10.3.2: 'what are the objectives or targets?'

9. Properly referenced photographs with their locations identified precisely

10. Clarification of methodology of the visual envelope

11. Photographs of the wider visual envelope

12. An explanation of "Claire Hayes" (paragraph 10.3.2)

13. Elevations showing the detailed design of the engine testing facility

14. Cross reference to Scoping Opinion for mitigation measures
Chapter Eleven

Drainage

Summary

11.1 The Drainage chapter of the ES appears to comprise solely of a Drainage Strategy Report for the specific redevelopment works at the airport. Whilst this report covers general principles and options for the drainage of surface water and foul water at the site, it does not comprise a satisfactory ES. The report focuses on the proposed airport development works and does not consider the wider environment.

11.2 An ES should be clear and logical in its layout and should be capable of being understood by the non-specialist. As such, the use of a technically based Drainage Strategy Report is inappropriate.
### Approach

11.3 The structure of the Drainage chapter does not follow the accepted layout for an ES. This is set out in paragraph 2.1.1 of the ES as: establish baseline, identify, predict and assess impacts, identify mitigation, establish follow up. The Drainage chapter of the ES appears to comprise solely of a Drainage Strategy Report for the specific redevelopment works at the airport and does not comprise a satisfactory ES.

11.4 We would expect the drainage chapter of the ES to cover the following topics:

<table>
<thead>
<tr>
<th>Expected Content</th>
<th>Extent Covered by ES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water supply - mains, borehole, quantity, potable, fire fighting.</td>
<td>Not considered.</td>
</tr>
<tr>
<td>Groundwater - aquifer recharge, pollution, movement, mobilising contaminants.</td>
<td>Constraints established but impacts not identified.</td>
</tr>
<tr>
<td>Surface water - existing features, flows and quality, impact direct or secondary, flows, habitats; structures</td>
<td>Strategy considered for on site drainage. Wider environment not considered. Impacts not quantified.</td>
</tr>
<tr>
<td>Land drainage / field drainage</td>
<td>Not considered.</td>
</tr>
<tr>
<td>Increased flood risk to the development or to others, both from watercourses and from inadequate drainage</td>
<td>Not considered.</td>
</tr>
<tr>
<td>Flood risk assessment</td>
<td>Not considered.</td>
</tr>
<tr>
<td>Foul drainage - disposal and treatment options. Preference is typically for positive drainage and treatment, not on site treatment. Impact of treated effluent on receiving watercourse. Consultations for discharge consents. Practicality of private sewage treatment works or consultations with sewerage undertaker.</td>
<td>The need for foul drainage and treatment is recognised. Impacts and mitigation are not considered. Wider environment is not considered.</td>
</tr>
<tr>
<td>Water quality, pollution - construction and use; silt, de-icing, fuel and oil storage, etc</td>
<td>The need has been recognized but not all potential sources of pollution and receptors have been considered. Residual impacts and emergency conditions not considered.</td>
</tr>
<tr>
<td>Results of Consultations - Environment Agency, drainage authority, etc</td>
<td>Not reported.</td>
</tr>
<tr>
<td>Follow up e.g. management plans and emergency arrangements for pollution prevention.</td>
<td>Not considered.</td>
</tr>
</tbody>
</table>
Review

Existing Conditions

11.5 Baseline conditions should establish current flows (including peaks), quantities and quality of surface and foul discharges and of existing watercourses. Sections 11.1.4 to 11.1.9 do not establish these.

Impacts

11.6 The impact of flows on the existing drainage network should be assessed. In particular, the receiving watercourse for the drainage is very small and may not be able to accept increased flows. Sections 11.2.5 to 11.2.7 of the ES discuss the benefits of SUDS and section 11.3.5 discusses the need for storage and the controlled release of surface water runoff. Although the proposed holding systems will reduce peak flows to the brook, there will still be an increase in the total volume discharged to the brook.

11.7 Flood risk, both to and from the proposed development has not been addressed.

11.8 Paragraph 11.3.18 of the ES discusses the future expansion of the airport, in particular the provision of car parking. However, the cumulative effects and impacts of future growth have not been fully assessed as part of the ES. Passenger growth, impact of potential new terminal buildings, additional aprons or taxiways for aircraft, road improvements (as suggested in Chapter Seven) should all be considered in addition to the direct effect of current proposals.

11.9 The impact on ponds and wetland areas has not been assessed. Chapter Fourteen identifies a pond that will be affected by the works and suggests mitigation. This impact and mitigation should also be assessed in Chapter Eleven so that the ES addresses all impacts as a whole and not individually.

11.10 The potential impacts of pollution have been discussed in the ES (para 11.2.8) and the need to contain and treat polluted runoff has been established (para 11.3.5).

11.11 Construction stage impacts on hydrology have not been assessed, for example impacts of increased flows, silty runoff, and potential pollution from building works.

Mitigation and Residual Impacts

11.12 While the drainage strategy report presented in Chapter Eleven of the ES gives possible options for site drainage that may be achievable, it does not fully assess the residual impacts, nor are alternative options fully explored.

11.13 The impacts on water supply, groundwater and local water features have not been established and therefore no mitigation has been proposed.
Further Information Needed

- An explanation of why the chapter does not follow the structure set out in Paragraph 2.1.1
- Baseline conditions of water supply
- Impacts upon water supply
- Impacts upon groundwater
- Quantified impacts upon surface water drainage
- Baseline conditions of field drainage
- Impacts upon field drainage
- Impact upon existing water courses and assessment of flood risk
- Impacts upon foul drainage
- Fuller assessment of water quality to include wider environment
- Management plans and emergency procedures
- Assessment of the construction phase
Chapter Twelve
Cultural Heritage

Summary

12.1 The cultural heritage chapter of the ES falls short of adequately assessing the effects of the proposed development.

12.2 The principal shortcomings lie in the inconsistent methodology used and thus the robustness of the assessment and how it is reported. Consultation held with English Heritage and with Local Planning Authority Archaeologists and Conservation Officers may well have resolved many of the outstanding issues, such as potential for impacts on as yet unknown buried archaeological remains and the requirement to undertake further field evaluations to support the ES. However, if this did take place it was not reported.

Approach

12.3 An adequate Cultural Heritage Chapter of an ES should include the following sections:

12.4 Introduction, including reference to the aims and objectives of the assessment

12.5 Methodology, including references to the study area assessed, the standards or guidance used to undertake the assessment, the data sources viewed and consulted, the methodologies of the surveys undertaken as part of the assessment (where appropriate) and the criteria used for assessing:

- the scale of the impacts of the proposals;
- the importance (or value) of the cultural heritage resource; and
- the significance of the impacts of the proposals.

12.6 Baseline conditions, including statements on the topography and geology of the study area, historical and archaeological background of the study area, a summary of the known sites or areas of cultural heritage interest within the study area and particularly within the development footprint (where appropriate), the results of any surveys (walkover, field walking, geophysical, trial excavations) undertaken (where appropriate) and a statement on the potential for as yet unknown buried archaeological remains on the site.

12.7 Assessment of the Impacts, referring to the scale of the impacts, both physical and on the settings of elements of the cultural heritage resource, and the significance of these impacts.
12.8 A strategy for mitigation, including a scheme for any additional surveys that may be required to further the understanding of the significance of the impacts and to formalise the mitigation strategy (where appropriate).

12.9 Further details of the consultations undertaken, including (where appropriate) copies of correspondence with English Heritage and Local Planning Authority Archaeologists and Conservation Officers.

12.10 Bibliography, including details on the written, map based and pictorial (including air photographs) references.

Review

12.11 Paragraph 12.1 makes no reference to the aims or objectives of the cultural heritage assessment (although brief references to the key EIA objectives are referred to in the Approach chapter of the ES).

12.12 Paragraph 12.2 is an amalgamation of the baseline conditions, impacts and mitigation proposals. It includes reference to the data sources consulted in accordance with the guidance contained in PPG16. Although the sources are appropriate, no such guidance exists in PPG16; an appropriate guidance document is the IFA Standards and Guidance for Desk-Based Assessments (1994, revised 2001). However, PPG16 does include recommendations for consulting with the County Archaeological Officer (or equivalent). If this consultation has taken place it has not been reported. Although Chapter Two of the ES briefly refers to the methodology to be adopted, no further details of how this was used in the cultural heritage assessment are provided.

12.13 The bounds of the study area are referred to neither in the text of the ES nor on appendix 12.1 (Recorded Sites). Appendix 12.1 suggests that the study area encompasses the whole of the proposed development footprint but it can not be ascertained as to whether a suitable study area has been adopted to assess the wider impacts of the flight paths immediately before landing and following takeoff.

12.14 No statement on the topography or geology of the study area is included; neither is there a statement on the historical development of the site. This would have allowed for a more detailed assessment on the archaeological potential of the site to be developed (see below).

12.15 Although no surveys were undertaken as part of the cultural heritage assessment, as a minimum the ES should have included a walkover survey of the site to identify known constraints, to assess the condition of the site and to assess the potential for survival of constraints as yet unidentified (i.e. buried archaeological remains). If this was undertaken it was not explicitly reported as such in the ES.
12.16 Paragraph 12.2.3 states:

"If required by the appropriate County Archaeological Officers in due course, and subject to the granting of any planning permission, further detailed field evaluations could be undertaken on any part of the site or surrounding area where it is considered that there may be remains of archaeological importance which may potentially be affected by the development now proposed."

12.17 It should have been the objective of the ES to ascertain whether detailed field evaluations were required to provide a robust assessment of the impacts of the development. It is also recommended practice (as identified in PPG16) that intrusive field evaluations should be undertaken before granting planning permission so that the results can inform the detail of the permission and, where appropriate, direct the formulation of conditions.

12.18 Although it is apparent that the only known sites of archaeological interest within the potential development footprint relate to C20th activity on the site, no assessment of the potential archaeological remains on the site has been reported. The chapter does make reference to sites of archaeological interest close to the development site, examples being a Roman Road and other Romano-British settlements, but this information has not been used to judge the potential for as yet unknown buried remains from the prehistoric, medieval, post-medieval or modern period (a brief mention on the potential for Roman remains is made, see below). Due to C20th activity on the site it is possible that works associated with the construction of the airport would have destroyed any earlier buried archaeological remains. However, if this is the case it is not reported within Chapter Twelve.

12.19 The assessment and mitigation section states that the only known sites that will be affected by the development will be the pill boxes. Proposals for recording these before their demolition are given (but not in detail). The significance of these impacts is not assessed using the criteria referred to elsewhere in the ES. No assessment of the impacts on the settings of the Scheduled Ancient Monuments or registered Parks and Gardens of Special Historic Interest is made. No assessment of the impacts on the historic landscape or existing character of the airport is made (this may be referred to in the Landscape chapter).

12.20 No detailed recommendations for further assessment i.e. fieldwork are made.

12.21 With reference to paragraph 12.3, although the assessment identifies that none of the listed buildings within the study area will be physically impacted by the development proposals, it is not made clear as to how the assessment concluded that the proposals, namely the aircraft flight paths, would not affect the setting or appreciation of these elements of the cultural heritage resource.
Further Information Needed

1. Further details on the study area used
2. A description of the methodology employed to assess the significance of the impacts
3. A statement on the likelihood of impacts on previously unknown buried archaeological remains within the development footprint and, if a robust assessment can not be made, recommendations and proposals for further assessment (i.e. fieldwork)
4. Details of any consultation held, particularly with County Archaeologists / District Conservation Officers
5. An assessment of the impacts on the settings of the Scheduled Monuments
6. An assessment of the impacts on the historic landscape and the existing character of the airport
7. An assessment of the importance of the known cultural heritage features and thus the significance of the impacts of the proposals
8. Further details on the proposed mitigation strategy, if building recording is proposed, including recommendations on the level of detail deemed to be suitable (see RCHME standards and guidance)
9. A bibliography of the reference and sources used to compile the assessment
Chapter Thirteen

Socio-Economic Factors

Summary

13.1 This chapter appears to have been written as an afterthought. The baseline data consists of a few figures relating to population change and unemployment. The information that has been provided is patchy and does not provide a platform for assessment. The impacts of the development are expressed mostly in notional form and cannot, therefore, be assessed.

Approach

13.2 This chapter deals exclusively with employment and inward investment and makes no mention of other socio-economic issues such as house prices or sustainable communities. It is likely that there would be adverse impacts on these issues at least in the immediate vicinity of the Airport. A full assessment of these is needed. In addition, the applicant fails to provide any evidence for many of the claims and statements made in this chapter. This limits its use as an ES.

13.3 The methodology set out in paragraph 2.4.4 has not been followed. No attempt has been made to quantify any of the impacts in relation to the baseline conditions provided.

13.4 Baseline information should be provided that enables like for like comparison. Chapter Thirteen provides snippets of information relating to the District, County, Region and Country but does not provide information at all of these levels for any one issue. Information relating to the Ward and Parish, which is easily obtainable from the Census, has been left out completely.

13.5 The baseline figures provided on population and employment give little impression of the situation in the area surrounding the Airport. The ES appears only to have looked at Staffordshire whereas most nearby towns lie in the West Midlands. The main population centres of Staffordshire, by contrast, lie well away from the Airport. Neither is any information given on Shropshire, which adjoins the parish of Bobbington.
Review

13.6 Paragraph 13.1.2 claims that the expansion of the Airport would help alleviate unemployment levels across the West Midlands. Whether the Region or the County is meant is unclear. In any event, the ES only supplies unemployment rates for Staffordshire. The relative remoteness of the site from the bulk of the West Midlands' population and the lack of transport links to the conurbation make it unlikely that it would have a great impact on anything other than local unemployment levels, which may not be particularly high. To claim that it would alleviate unemployment levels across the West Midlands is therefore a rather rash claim.

13.7 The term "East Midlands Conurbation" in paragraph 13.4.3 is not in general use and needs to be explained.

13.8 Paragraph 13.5.1 deals with the crucial socio-economic issue of job creation. An estimate of "in excess of 229 jobs" is given. What does this mean? 230? The same paragraph also states that this number "would increase dramatically" should services be extended further. No attempt is made to quantify this statement. Before job creation can be assessed, the numbers of people required for each area of work need to be determined and some idea given as to where these new employees would come from. The skills to do some of the more specialised jobs at the Airport may not be available in the local workforce.

13.9 No evidence has been provided to back up the claim in paragraph 13.5.3 that the Airport would encourage the use of local labour. If it is, in fact, the intention of the Airport operator to encourage the use of local labour, this would make the claim in paragraph 13.1.2 even more spurious.

13.10 Paragraph 13.5.4 states that discussions have taken place with Wolverhampton College of FE and Wolverhampton University "to optimise training benefits and forge links to enhance the job opportunities at the airport." The results of these discussions are nowhere given. How can the impact of the development on training and job opportunities be assessed if no information is provided?

13.11 The claim in paragraph 13.5.7, that the expansion plans would go a long way to alleviating regional unemployment is rather bold, based as it is on figure of 229 new jobs.

13.12 Paragraph 13.5.8 states that the site lies in an area "in desperate need of regeneration." What evidence is there of this? Certainly none is provided. Such unsupported claims do nothing to enhance the standing of the ES.

13.13 Paragraph 13.6.1 states that South Staffordshire has a higher than average unemployment rate but it does not say which average is being talked about.
13.14 How will the development of services at the Airport encourage younger age groups to remain in the County as claimed in paragraph 13.6.3? No justification is given for this statement.

Further Information Needed

1. Population and unemployment figures at Ward, District, County and Regional level
2. Comparable figures for neighbouring Wards, Districts and Counties
3. House prices for all Wards in the area likely to be affected by aircraft noise
4. Information on the estimated number of jobs in each sector likely to be created and an indication of whether these positions could be filled by the local workforce
5. A quantitative assessment of the impact of the development upon house prices and land values
6. A qualitative assessment of the impact upon sustainable and balanced communities
Chapter Fourteen
Flora and Fauna

Summary

14.1 There is no clear separation of construction impacts from operational impacts, nor is it clear which are direct and indirect impacts, short term and long term impacts or permanent and temporary impacts. Neither is it clear whether there are any cumulative ecological impacts arising from the proposals to extend the existing airfield. The cumulative impacts from the construction of the new fire station and from the resiting of the navigational equipment should have been assessed as well despite being permitted development.

14.2 Potential impacts on the nearby Highgate Common Site of Biological Importance are not assessed, nor is there any assessment of predicted impacts, if any, on statutory sites of importance for nature conservation (in particular, Checkhill Bogs SSSI).

14.3 Mitigation proposals address the direct loss of grasslands, hedgerows, the woodland of Goree Covert and a pond, as well as impacts on bat roosts and breeding birds, but these are not definite commitments. The mitigation set out in both the 'Impact Assessment' section and in the 'Mitigation' section is characterised by being recommendations rather than commitments by the applicant. Therefore, it is not possible to undertake any serious evaluation of the significance of the residual impacts after taking mitigation into account as is normal practice in ESs.

14.4 The final sentence of paragraph 14.8.2 in relation to the proposed mitigation measures states: "These measures will only be effective if a programme for their management for the benefit of wildlife is introduced and maintained in the future". This is correct in that the ecological mitigation measures will require future management if they are to be effective. No such programme is given.

14.5 The scale and significance of the residual impacts (after mitigation) are not set out in terms used in the matrix provided in Table Two (pages 14-17) nor in terms of the generic significance criteria set out in paragraph 2.4.4 of the 'Approach' section of the ES. There is no definitive assessment of the overall significance of the impacts of the proposals on flora and fauna.
Approach

14.6 The 'Flora and Fauna' chapter requires a more logical structure in terms of a clear separation into baseline data, evaluation, impact assessment, proposed mitigation and residual impacts.

14.7 The categories of significance used in Table Two (pages 14-17) are different from the generic terms for significance set out at the start of the ES in the 'Approach' section which, by implication, should be used throughout the ES.

14.8 No clear distinctions have been made between different types of impacts set out in paragraph 2.4.6 of the 'Approach' section: direct and indirect, short term and long term, permanent and temporary, primary and secondary and cumulative.

Review

Methodology

14.9 An extended Phase One habitat survey was undertaken in 2003 for the triangular area SE of Water Lane and in May 2004 for the whole site (ES paragraph 14.3.6). The time of year is reasonable given the habitats present on the application site. However, the two Phase One habitat maps (ES Appendix 14.2) are hand drawn (rather than the CAD drawing expected for a thorough Environmental Statement) and do not show the application boundary nor the usual OS base.

14.10 No survey for otters or water voles was undertaken on the grounds that the only waterbody on the site was a polluted farm pond (ES paragraph 14.3.2). However, the surface water from the airfield currently discharges into a watercourse running northwest from the NW sector of the airfield where "there are no known measures in place to control the quality or quantity of surface water runoff into the brook from the existing site" (ES Drainage chapter, paragraph 11.1.6). There may need to be changes to the method of discharge and / or the headwall that could affect the habitat around the outlet and / or the quality and quantity of the existing surface water discharge. The watercourse needs to be surveyed for otters and water voles and an assessment made of its ecological features and water quality.

14.11 The badger survey appears to be adequate and was undertaken in both 2003 and 2004, although the time of year (May 2004) may have reduced the likelihood of finding badger setts and other signs of activity, as noted in the survey limitations (ES paragraph 14.3.9). However, it is not stated whether the survey included a zone outside the application boundary (good practice usually extends to 50m). English Nature guidelines require licences to be obtained for activities within 30m of badger setts that could disturb any badgers in these setts. In addition, the Staffordshire Badger Group should have been asked for their records in addition to the Staffordshire Ecological Record.
14.12 The bird survey (ES paragraph 14.3.5) is a general survey which did not identify the territories of breeding birds. The survey-identified breeding by grey partridges and skylarks on the airfield and yellowhammers were seen in the triangular areas of land south of Water Lane. The ES notes that these three species are included on the RSPB Red List of birds of conservation concern (ES paragraph 14.5.12). Good practice would suggest that breeding birds should be surveyed in more detail in order to allow the appropriate mitigation to be incorporated into the design. A full Common Bird Census methodology involving six daytime visits and two evening visits between March and June may not necessarily be appropriate for this site, but there needs to be a justification for the level of bird survey undertaken.

14.13 The bat survey used binoculars to assess 41 trees for their potential for bat roosts (ES paragraph 14.3.4). The results are tabulated, but there is no map showing the location of each of the 41 trees. There is no further assessment of these trees or at least those which will are to be felled or topped. This could be accomplished using a cherry picker and a bat worker equipped with an endoscope for examining holes (as suggested in ES paragraph 14.5.17). Subsequent dusk and dawn emergence surveys with a bat detector could then be used to identify species and to confirm any potential roost sites where the visual examinations were not conclusive. Regular transect surveys using a bat detector to determine flightlines were not undertaken. This is particularly important for a site which has good hedges but is located in an agricultural landscape.

14.14 The one waterbody within the application site was not surveyed for great crested newts as it is polluted (ES paragraph 14.3.2). The ES notes that there is a record of great crested newts about 350m from the southern tip of the site (ES paragraph 14.4.1). Great crested newts can use overland habitat up to 500m from a breeding pond. But ponds within 500m of the application boundary have not been identified, nor is there any assessment of their potential as breeding ponds for newts, nor any survey of those with reasonable potential. A check with the 1:25,000 Pathfinder map shows a number of ponds within 500m of the application boundary and there is one pond immediately adjacent to the north west boundary of the site.

14.15 No invertebrate assessment is included in the report. The wide areas of species-rich grassland on the airfield are probably underlain by a comparable surface geology to that underlying the nearby heathlands and acid grasslands of Highgate Common (a Site of Biological Importance) which is noted for its invertebrate populations. An assessment of the potential of the grasslands of the airfield for notable invertebrates is not included in the report. Such an assessment would enable a judgement to be made on the need for targeted invertebrate surveys.

14.16 It would appear from the map produced by Staffordshire Ecological Record (ES Appendix 14.3) that the woodland (Gorse Covert) is not Ancient Semi-Natural Woodland, but the report refers to the presence of bluebells in Gorse Covert (ES paragraph 14.5.5) and in hedgerow H12 adjacent to the woodland (ES paragraph
14.5.10. There is no confirmation in the report as to whether the wood is included in English Nature's Ancient Woodland Inventory, nor whether the wood is shown on the first edition OS map (the report does refer to Gorse Covert being present on a map dated 1889-1891). Small woods of fewer than two hectares are not necessarily included in the English Nature Inventory, but woods present on the first edition of the OS are very likely to be ancient.

14.17 The hedgerow survey deals with the hedges along Water Lane and in and around the triangular area to the south (ES Appendix 14.5). In addition, the survey includes the hedge along Six Ashes Road, although this is outside the application area and it is not clear what the expected impacts may be. Hedges form the boundaries to the application site along Crab Lane and Gospel Ash Road. However, it appears from the drawing in Appendix 14.5 that the hedgerow survey did not include the hedgerows along Crab Lane and Gospel Ash Road to the north of Water Lane to Six Ashes Road where these coincide with the application boundary.

14.18 The section on survey limitations (ES paragraphs 14.3.8 – 14.3.11) is helpful, but should have referred again to the time of year for the main survey (May 2004).

Findings

14.19 A strange title; more usual is 'Baseline Data'.

14.20 This section covers the data gathering for species and the habitat survey, but does not include the data on designated sites in the vicinity which appears in the later ‘Evaluation’ section at paragraphs 14.5.21 – 14.5.23.

Evaluation

14.21 The Evaluation section presents some information on the habitats and species present in respect of their ecological importance and nature conservation value. However, the nature conservation value of the main ecological features is not included in the 'Evaluation' section but is delayed until the 'Impact Assessment' section.

14.22 There is also information in this section that should properly be in the 'Findings' section, for example, the information on the pond (ES paragraph 14.5.7) and the wet scrub (ES paragraph 14.5.8).

14.23 The grassland of the airfield is classified as unimproved species-rich neutral grassland and described as being closest to the MG5 grassland community of the National Vegetation Classification (NVC) (ES paragraph 14.5.1). There is no indication in the report as to how this attribution to MG5 was made. The usual method is through measuring plant species cover in quadrants randomly placed in the vegetation and comparing the data with national datasets. Experienced grassland surveyors can suggest a grassland type by eye, but use would normally be
made of the plant cover data as well. The lack of a methodology and associated data in the report casts doubt about the attribution of the grassland to the MG5 community.

14.24 The data on designated sites in this section (ES paragraphs 14.5.21 – 14.5.23) includes data on statutory Local Nature Reserves and Sites of Special Scientific Interest within 10km and provides printouts from the English Nature website (Appendix 14.4). Data from Staffordshire Ecological Record is set out at paragraph 14.5.23 and Appendix 14.3 and it is possible, but difficult, to determine what sites are in the vicinity of the application site by referring to the text of the report and the Appendix. The ES identifies one Site of Biological Importance (Highgate Common) next to the southern tip of the application site (ES paragraph 14.5.23). The ES also makes reference to other SBI sites and English Nature Grassland Inventory sites (ES paragraph 14.5.23), which appear from the map supplied by the Staffordshire Ecological Record to be outside the application site. However, the ES does not confirm this. It would be normal practice to show the application site on a drawing together with sites of importance for nature conservation within, say, 500m of the application boundary and then to describe these sites, their notable habitats and species and their nature conservation value.

Impact Assessment

14.25 This section starts with the direct impacts of the airfield proposals quantified in terms of habitat loss. This is a good approach that accords with best practice for ecological impact assessments.

14.26 The section continues by describing the impacts associated with the airfield and triangular area resulting from indirect impacts (e.g. noise) and on designated sites. There is no clear identification of construction impacts as distinct from operational impacts, nor is it clear which are direct and indirect impacts, short term and long term impacts or permanent and temporary impacts nor whether there are any cumulative ecological impacts arising from the proposals to extend the existing airfield. The cumulative impacts from the construction of the new fire station and from the resiting of the navigational equipment should have been assessed despite being permitted development.

14.27 The nature conservation value of the main ecological features is not included in the ‘Evaluation’ section but is delayed until the ‘Impact Assessment’ section. This is contrary to usual practice for ecological impact assessments.

14.28 The categories of significance used in Table Two (pages 14-17) are different from the generic terms for significance set out at the start of the ES in the ‘Approach’ section which, by implication, should be used throughout the ES.

14.29 In terms of assessing the significance of the impacts, Table Two on pages 14-17 sets out a matrix for the impact significance using both the nature conservation value of
the ecological feature and the scale of the effect, but does not set out criteria for
distinguishing between ‘Large scale’, ‘Medium scale’ and ‘Small scale’ or what
criteria have been used to determine the ‘value of the area / ecosystem component’.
The results of the impact assessment in terms of the significance of the impacts are,
therefore, open to question.

14.30 For example, the absence of criteria for assessing the value of ecosystem
components means that deeming unimproved grassland to be of ‘National or Higher
Value’ (ES paragraph 14.6.4) is a very subjective judgement. Such a judgement is
dependent on the grassland being attributable to the NVC MG5 grassland community
(ES paragraph 14.5.1) which is open to doubt (see paragraph above in comments on
‘Evaluation’ section). Because the best examples of the MG5 grassland community
in England are already designated as Sites of Special Scientific Interest or as Sites of
Biological Importance (or equivalent), the ‘National or Higher Value’ used in ES
paragraph 14.6.4 is not supportable without more detailed information on the
grasslands. Therefore, the impact significance (ES paragraph 14.6.9) is open to
question.

14.31 The assessment of impacts on designated sites is cursory (ES paragraphs 14.6.24 &
25). Highgate Common, a top grade Site of Biological Importance (SBI) in
Staffordshire, lies alongside the southern tip of the application site and Checkhill
Bogs SSSI lies some 2.5km SE of the application site. The potential impacts on
these sites, and other important sites of importance for nature conservation in the
vicinity, need a more rigorous examination than has been undertaken. Indeed, the
letters from English Nature dated 20th November 2002 and 27th April 2004 (ES
Appendix 1.3) refer specifically to the need to deal with impacts on Highgate
Common.

14.32 Heathlands are known to be sensitive to nitrogen inputs and there is no assessment
of potential impact on the adjacent Highgate Common from the nitrogen oxides
produced in aircraft exhaust gases. In addition, further assessment of the potential
impacts from changes in noise and light levels on notable heathland species have
not been undertaken. The Scoping Opinion dated 18th May 2004 refers to the need
to assess noise and air pollution in the context of flora and fauna over a wider area
outside the airfield.

14.33 The impacts on noise are dealt with in paragraphs 14.6.19 to 14.6.21 and Appendix
14.7. However, birds will also be sensitive to disturbance from activities and
movements in addition to noise and there is no assessment of this other than a brief
reference to an increased frequency of aircraft landing and taking off in paragraph
14.6.21. The existing and predicted noise levels at the locations of six skylark nests
are given in Appendix 14.7. The differences between existing and predicted noise
levels are greater at nests N4 and N5 which is to be expected at the southern end of
the new runway. But there is no explanation as to why the difference in noise levels
at nest N6 is much less than that at nest N5 despite both nests being in similar
positions on either side of the southern end of the runway. A drawing showing the
locations of the skylark nests and the noise contours would have been useful in understanding the noise impacts.

14.34 The Civil Aviation Authority (CAA) licences the airfield which operates within certain civil aviation standards. There is no information or assessment in the Flora and Fauna section of the ES as to whether there will be changes in the current operating standards which could affect ecological features both within and without the airfield. In particular, whether there will be a need for: a) navigation lights outside the airfield curtilage; b) control of the height of trees and woodlands under the glidepath; and c) control of birds and / or changes in grassland management within the airfield in respect of the potential for bird strike.

Mitigation

14.35 The mitigation set out in the Impact Assessment and Mitigation sections is set out as recommendations rather than commitments. The proposals are, therefore, a wish list and it has not been possible to undertake any serious evaluation of the significance of the residual impacts after taking mitigation into account as is normal practice in Environmental Statements.

14.36 The proposals for habitat translocation for grassland, woodland and hedge do not appear to have been incorporated into the scheme layout. The translocation proposals provide sparse information on the new locations and the methodology for translocation. There is no assessment of the risk of failure in terms of maintaining a given habitat and its ecological features and processes together with its particular nature conservation value.

14.37 One example is the strong recommendation that the grassland from the site of the new runway should be used to restore existing runway 18-34 to grass (ES paragraphs 14.7.2 & 14.7.5). It is not clear from the Flora and Fauna chapter whether the existing runway would be retained or whether it could be used for mitigation. Such a lack of detail in respect of a fundamental part of the mitigation proposals invalidates the basis of formal Environmental Impact Assessment.

14.38 Another example is the mitigation for the loss of some 1700m of species-rich hedgerows (ES paragraph 14.8.1). This includes minimisation of the length removed, replanting on or off site (ES paragraph 14.8.13), maintenance of hedgerow connectivity (ES paragraph 14.8.18), and minimisation of hedgerow removal combined with translocation to new locations and planting new hedgerows (ES paragraphs 14.7.9 and 14.7.16). A replacement ratio of 1:1 is mentioned in paragraph 14.7.18 as being an "aim of the mitigation plan". Details are not included for the locations of the translocated hedges and of the planted hedges, nor for the principles of hedgerow translocation.

Magnitude and Significance of Residual Impacts
14.39 A critical section which is dealt with in a rather cursory fashion. There is no clear separation of construction impacts from operational impacts, nor are temporary impacts clearly distinguished from permanent impacts.

14.40 The final sentence of paragraph 14.6.2, in relation to the proposed mitigation measures, states: "These measures will only be effective if a programme for their management for the benefit of wildlife is introduced and maintained in the future". This is correct in that the ecological mitigation measures will require future management if they are to be effective. There is an overwhelming sense that this is a recommendation by the ecologist and not a commitment by the applicant.

14.41 The scale and significance of the residual impacts after mitigation are not set out using the matrix provided in Table Two (pages 14-17). The report does not, therefore, provide the local planning authority with a definitive assessment of the overall significance of the impacts on flora and fauna.

Conclusions

14.42 The conclusions address the direct loss of grasslands, hedgerows, the woodland of Goree Covert and a pond. Mitigation proposals are given but these are not definite commitments. The conclusions also cover the potential loss of trees with bat roosts and the potential impacts on nesting birds; again mitigation is proposed but there is no commitment.

14.43 The conclusions do not address potential impacts on Highgate Common Site of Biological Importance, nor do they set out the predicted impacts, if any, on statutory sites (in particular, Checkhill Bogs SSSI).

14.44 The conclusions do not state the significance of the predicted impacts after mitigation and do not provide the planning authority with a definitive assessment of the overall significance of the impacts on flora and fauna.

Further Information Needed

4. CAD drawings of Phase One habitat surveys including the application boundary and OS base
4. A survey for otters and water voles in the watercourse to the north west of the site
4. A survey of the ecological features of the watercourse and the water quality of the brook
4. Clarification as to whether the badger survey extended 50m beyond the site boundary
A more detailed survey of breeding birds found on the site

A more detailed assessment of the trees with potential for bat roosts

A transect survey using a bat detector to determine flightlines

An assessment of waterbodies within 500m of application site boundary for potential for breeding by great crested newts and a presence / absence survey of those with potential

An assessment of the potential of the grasslands for invertebrates and targeted invertebrate surveys

Clarification on whether "Gorse Covert" is ancient semi-natural woodland

A justification of the attribution of the grassland to the MG5 grassland community

A drawing showing sites of importance for nature conservation (statutory and non-statutory) within 500m of the application boundary

An explanation of the scales used in Table Two and their criteria

A more rigorous examination of impacts on SBIs (in particular Highgate Common) and SSSIs (in particular Checkhill Bogs)

Confirmation of changes in the current CAA operating standards which could affect ecological features both within and outside the application site

Clearer proposals for the translocation of habitats such as grassland, woodland and hedgerows which have been agreed with the applicant and form a definite part of the development and its layout. This should include the translocation methodologies and an assessment of success / failure.

Confirmation as to which of the mitigation proposals are firm commitments by the applicant and which are recommendations.

Confirmation of the commitment by the applicant to the appropriate and continuing management of the existing important ecological features within the application site in conjunction with the ecological features proposed for mitigation

A clear statement of the overall significance of the impacts before mitigation and the significance of the residual impacts thereafter

Overall, a more logical structure for the chapter in terms of evaluation, followed by impact assessment, proposed mitigation and a reworking of the "Magnitude and Significance of Residual Impacts" section in line with comments made above.
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