

T R I B A L

BAA Stansted London 

Stansted G2: Economic Impact Scoping and Methodology

Consultation Document

May 2008

Services for life

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1 Introduction

- 1.1.1 In March 2008 BAA Limited and Stansted Airport Limited ('BAA') submitted planning applications for the development of a second runway and associated facilities at Stansted Airport. This project is called the Generation 2 (G2) Airport Project.
- 1.1.2 To provide surface access to this development new highway junctions would be built on the M11 and A120 (the G2 Airport Access from M11 and A120 project, referred to hereafter as the 'G2 Junctions Project'). A second rail tunnel to and a fourth platform at the Stansted Airport Railway station would also be provided (the Stansted Rail Improvement Project, referred to hereafter as the 'G2 Rail Project'). Transport orders for these projects were also made in March 2008.
- 1.1.3 The G2 Airport Project, the G2 Junctions Project and the G2 Rail Project comprise the G2 Project and although related, they have been applied for separately as there are different approval processes for the three components.
- 1.1.4 BAA anticipates that the G2 Project will be called in by the Secretaries of State and in doing so, the G2 Project may be designated as a Major Infrastructure Project (MIP). If this designation is made, BAA, as promoter of the G2 Project, is required¹ to prepare an Economic Impact Report (EIR) which would sit alongside other key documents at a public inquiry.
- 1.1.5 On the assumption that the G2 Project is called in, BAA is considering the scope of the EIR and has published this consultation document to invite comments on the scope and approach to the EIR. Details of the consultation process and how to respond are set out in section 1.3, but a brief summary of the EIR guidance is provided below.

1.2 Economic Impact Reports

The Requirement for an Economic Impact Report

- 1.2.1 In March 2006 the then Office of the Deputy Prime Minister (ODPM) published a circular¹ on 'Planning Inquiries into Major Infrastructure Projects: Economic Impact Reports'. This circular requires the preparation of an EIR when a planning application is deemed by the Secretary of State to relate to a MIP. The guidance specifically identifies airports as examples of major infrastructure projects and states: "*Investment in major infrastructure, such as airports and reservoirs, provides the foundations for economic growth*"².
- 1.2.2 Section 44 of the Planning and Compulsory Purchase 2004 Act inserts new sections 76A and 76B into the Town and Country Planning Act 1990 which allows the Secretary of State to call in any application for planning permission if he thinks that the development to which the application relates is of national or regional importance. In such cases the applicant is required to prepare an EIR.

¹ "Planning Inquiries into Major Infrastructure Projects: Economic Impact Reports" ODPM Circular 04/2006

² Ibid, paragraph 3

Purpose of an EIR

- 1.2.3 The purpose of an EIR is to ensure that the economic impact of a MIP is fully assessed before a decision is taken on whether or not to grant planning permission. The EIR is required to identify “*the economic impact for consumers, business users and for the local and regional communities on which the development will impact as well as any wider economic impacts*” (ODPM Circular, 04/2006, paragraph 5).
- 1.2.4 The guidance indicates that the EIR is an important document which should sit alongside other key documents such as the Environmental Impact Assessment (EIA) and that its role at a public inquiry is to “*better inform the inspector and parties at the inquiry (and eventually the Secretary of State) about the economic impact of the proposed development*” (ODPM Circular 04/2006, paragraph 7).

Contents of an EIR

- 1.2.5 The EIR should, according to the guidance, include assessment of the economic impact of the project on the economy at three spatial scales: local, regional and national. Annex A to the Town And Country Planning Act (General Development Procedure) (Amendment) (England) Order 2005 defines these areas further as:
- Local - within the area of the relevant local planning authority.
 - Regional - means a region specified in Schedule 1 to the Regional Development Agencies Act 1998[a].
 - National.
- 1.2.6 BAA believes that an assessment of impact at the level of a wider local area should also be included. The rationale for this proposal is that Stansted Airport is located almost on the boundary of two authorities and close to a third authority. The proposal is that an additional level of analysis should be included comprising Uttlesford, East Hertfordshire and Harlow.
- 1.2.7 Some impacts of the project – for example the “wider” economic impacts - will be felt at the national level while others, such as noise effects, are essentially local. The EIR will assess and report impacts at the appropriate geographical scale.
- 1.2.8 Stansted Airport is part of the London airports system and there are strong grounds for arguing that the development of the airport will have significant economic effects on the London area. For this reason it is considered that an assessment of economic impacts at a scale below the national level but greater than the East of England may be appropriate. It is proposed to include an assessment of impacts on an area comprising the East of England and London.
- 1.2.9 The analysis of impacts is to be undertaken with reference to a **base case** which represents the situation which would prevail if the project did not go ahead. Any costs or benefits associated with the MIP are to be measured relative to the base case.

- 1.2.10 The guidance requires the impacts of the project - costs and benefits – to be considered in terms of the three “*pillars of sustainability*” (economic, environmental and social impacts) (paragraph 14) and to be quantified and valued in monetary terms if and where possible. However, it is accepted that some effects can only be assessed in qualitative terms. All appraisals should be consistent with the guidance in the Treasury “Green Book”³.
- 1.2.11 The impacts of the project on employment, investment and gross value added (GVA)⁴ are to be considered at each spatial scale. Consideration is also to be given to wider impacts on economic welfare, such as travel time savings, if they are likely to be important (paragraph 15).
- 1.2.12 The environmental section is to include analysis of the costs and benefits of effects on the physical environment including landscape, air and water quality, noise and wildlife. It is recognised that placing monetary values on these impacts can be challenging, but the guidance states that they should not be ignored just because they cannot be easily quantified (paragraph 16).
- 1.2.13 Possible social costs and benefits include impacts on health, crime, safety, skills and education and community services. Again, it is recognised that these are hard to measure and harder still to value in monetary terms. The guidance states that particular attention should be paid to impacts on socially disadvantaged groups and to minority groups. More generally, the guidance recognises that the impact of a project, and specifically the balance between cost and benefit, may vary between areas and between groups or communities. The guidance thus calls for an assessment of project impacts on the spatial and social distribution of costs and benefits (paragraphs 17, 18 and 19).

1.3 EIR Process

Consultation Process

- 1.3.1 The EIR is a statutory requirement once an application has been designated as a MIP by the Secretary of State and should be submitted within 15 weeks following the call in of the application.
- 1.3.2 The guidance states that the EIR should be prepared as part of a process of community consultation. Consequently, BAA has put in place a consultation process for the G2 Project EIR which involves the following elements:
- Publication of this consultation document which sets out the proposed scope of and approach to the preparation of the EIR. Responses are invited on the proposed approach and methods of the EIR. This consultation document is available in print and on the BAA website (www.stanstedairport.com/future). A print copy of the document has been sent to all organisations listed in Appendix A.
 - A ten week period from the date of publication of 23rd May 2008 has been allowed for responses to be made to the consultation document. Responses are thus due by Thursday 31st July 2008.

³ “The Green Book: Appraisal and Evaluation in Central Government”, HM Treasury

⁴ Gross Value Added (GVA) is essentially the value of output less the value of the goods and services used in producing the output.

- Responses will be reviewed and a report prepared on the consultation process. The report will be published and will detail the comments received on the scope and methods of the EIR and set out the response of the EIR study team to those comments, including any amendments made to the study approach.
- The EIR will be published in accordance with the Circular¹ (Annex A, paragraph 8, a-h) and as such it will be available as a public document upon which people can make representations in writing to the Secretary of State.

1.3.3 At the end of each section of this document there are a number of questions to which consultees are invited to respond. Responses can be made in writing or by e-mail to:

BAA Public Affairs Department

G2 Economics

BAA Ltd

Enterprise House

Stansted Airport

CM24 1QW

or

stanstedpublicaffairs@baa.com

1.4 Scope of the EIR

1.4.1 The EIR will assess the costs and benefits of the three components of the G2 Project, namely:

- The G2 Airport Project which comprises the G2 Airport Development as defined above, the stopping up and diversion of airport roads, the provision of environmental offsetting works, the provision of off-site utilities infrastructure and changes to local air space. Full details of the development specification are provided in Volume 1 of the Environmental Statement which accompanies the planning application for the G2 Airport Project.
- The G2 Rail Project which comprises the construction of a second railway tunnel and the provision of a fourth platform at Stansted Airport Station. Full details of this development specification are provided in Chapter 2 of the Stansted Rail Improvement Project ES which accompanies the application under the Transport and Works Act 1992.
- The G2 Junctions Project which comprises new junctions from the M11 motorway (Junction 8b) and the A120 trunk road. Full details are contained in the Airport Access from M11 and A120 ES which accompanies the draft Orders published by the Highways Agency.

1.5 Approach to identifying impacts

1.5.1 The EIR Circular does not provide a comprehensive list of all the potential impacts to be assessed nor does it specify the approach to be adopted during the appraisal. In undertaking the EIR, the study team will follow existing Government guidance on transport project appraisal and recognised good practice.

1.5.2 Department for Transport (DfT) guidance for the appraisal of transport related projects is set out in the New Approach to Appraisal (NATA)⁵ and the NATA Refresh⁶ with detailed guidance available on the Transport Analysis Guidance website – webTAG (www.webtag.org.uk). NATA provides a framework for bringing together all information relating to the impact of a transport proposal and a good practice guide to the appraisal of those impacts. In NATA some impacts are expressed in monetary terms, others in quantitative terms and some are expressed in qualitative terms.

1.5.3 The Refresh of NATA was initiated following the recommendations of Sir Rod Eddington and Sir Nicholas Stern in their reports on transport and climate change respectively. NATA and NATA Refresh have been used as the basis for the identification of potential impacts in preparing this consultation document but account has also been taken of other relevant government guidance, specifically:

- DfT Transport Analysis Guidance – webTAG (www.webtag.org.uk)
- “The Green Book: Appraisal and Evaluation in Central Government” HM Treasury
- “The Design Manual for Roads and Bridges” The Highways Agency (www.standardsforhighways.co.uk/dmrb/index.htm)
- “How to use the Shadow Price of Carbon in Policy Appraisal” Defra, 2007
- “UK Air Passenger Demand and CO₂ Forecasts – Annex H” DfT, November 2007

1.6 Structure of the Document

1.6.1 This document sets out the proposed approach to the EIR and discusses the approach to assessment of costs and benefits in terms of the “pillars of sustainability” listed above. It is thus organised as follows:

- At the end of this section are set out consultation questions relating to the scope of the EIR.
- Section 2 describes the identified potential economic costs and benefits and the proposed approach to their appraisal. Consultation questions on the economic aspects of the EIR are set out at the end of the section.
- Section 3 describes the identified potential environmental costs and benefits and the proposed approach to their appraisal. Consultation questions on the environmental aspects of the EIR are set out at the end of the section.

⁵ First published in 1998

⁶ “The NATA Refresh: Reviewing the New Approach to Appraisal” DfT, October 2007

- Section 4 describes the identified potential social costs and benefits and proposed approach to their appraisal. Consultation questions on the social aspects of the EIR are set out at the end of the section.
- Section 5 provides a summary of where responses to this document should be sent and the deadline for submissions.

1.7 Consultation Questions

- | | |
|------------|--|
| Q1. | Has the scope of the EIR been properly identified i.e. the G2 Airport Project, the G2 Junctions Project and the G2 Rail Project? |
| Q2. | Should there be an additional geographical area of assessment which is broader than the local planning authority but not as large as the region? If so, do you agree that this should comprise Uttlesford, East Herts and Harlow? |
| Q3. | Should there be an additional geographical area of assessment which is broader than the region but not as large as the nation? Do you agree that this area should comprise the East of England and London? |
| Q4. | Are there any potential costs and benefits which have not been included in the discussion above and which should be covered by the EIR? |

2 Economic Impacts

2.1 Introduction

2.1.1 The proposed approach to the assessment of the economic costs and benefits of the G2 Project follows the approach set out in the Government's programme of research and consultation undertaken in relation to the Air Transport White Paper (ATWP) and in the recent work undertaken to support the Progress Report⁷ on the ATWP (PATWP).

2.1.2 That work identifies two main categories of economic benefits from air transport investment at the national level:

- benefits to transport users and producers which cover benefits to passengers, freight users, airport operators and government and are sometimes referred to as 'direct user benefits'; and
- benefits to the economy through the role of aviation as a facilitator of and stimulus to increased economic activity and greater economic efficiency. These are sometimes referred to as 'wider economic benefits'.

2.1.3 These benefits are summarised briefly below. The relevant economic costs are the capital and operating costs of the airport capacity created by the investment.

2.2 Transport Users and Operators Costs and Benefits

Scope of User and Operator Benefits

2.2.1 The G2 Airport Project will generate direct economic benefits to the passengers using Stansted and to the airport operator. The current⁸ airport appraisal methodology used by the DfT in the analysis to support the ATWP and the PATWP identifies benefits to the following groups who are thus included in the EIR:

- new (generated) passengers;
- existing passengers;
- persons and businesses moving freight through the airport;
- the airport operator – in the form of increased profits; and
- government through additional air passenger duty revenue⁹.

2.2.2 Increased capacity could also provide airlines with the opportunity for efficiency gains and thus increased net returns as a result of reduced aircraft delays at the airport. However, this benefit to the airlines is not included in the model. It may also be noted that the model does not assume that the opportunity to provide additional services will increase the profits of airlines and so does not include any such benefit.

⁷ "UK Air Passenger Demand and CO₂ Forecasts" DfT, November 2007

⁸ "UK Air Passenger Demand and CO₂ Forecasts" Annex H: Appraisal Methodology, DfT, November 2007.

⁹ The 2007 Pre-Budget Report announced Government plans to replace this duty with a duty "per plane" from November 2009

Measuring Benefits to Airport Users and the Operator

- 2.2.3 The provision of additional airport capacity, as created by the G2 Project, will increase the supply of air transport services in the UK. As compared with the “base case”, this increase in capacity should reduce costs to air transport users. Increased competition between airlines will drive down fares and the increased capacity at Stansted will save passengers the cost of travelling to less conveniently located airports. The benefit to users (passengers and freight customers) of the airport investment is thus measured by the consequent reduction in costs of travel. These benefits will arise year after year and are measured as annual amounts over a 60 year period. The standard appraisal period for transport projects in the UK is 60 years and reflects the fact that major transport investment results in the creation of long-lived assets.
- 2.2.4 The benefits to the airport operator consist of the additional net revenue generated by an increased number of users of the airport.
- 2.2.5 The Government has set out a methodology for estimating user benefits in the DfT publication “UK Air Passenger Demand and CO₂ Forecasts” published in November 2007. This document also sets out the DfT assessment of the user benefits of a second runway at Stansted Airport. The EIR’s assessment of transport user and producer benefits will be based on the DfT analysis which is the most comprehensive analysis available and which takes account of how changes in airport capacity affect the distribution of passengers between UK airports.
- 2.2.6 As noted above, the benefit occurs over a very long period. The EIR will calculate the capital sum equivalent to this stream of benefits (the Present Value) in line with the guidance in the HM Treasury “Green Book”.

Costs of the G2 Airport Project

- 2.2.7 The costs of the project can be divided into the “internal” costs which are met by the project itself and the “external costs” on individuals, communities and also the environment. The relevant internal costs are the capital costs of the G2 Airport Project and of the associated surface access infrastructure and the continuing asset replacement/refurbishment costs of the new infrastructure.
- 2.2.8 The external costs of the project are any adverse effects of the project on individuals and communities (which we term social costs) and on the environment (environmental costs). The environmental cost of increased emissions of carbon dioxide resulting from the development is an example of an external cost. These costs are included in the EIR. Environmental costs are discussed in Section 3 while social costs are considered in Section 4.
- 2.2.9 Data on the “internal” costs of the project will be supplied by BAA and will reflect the most up to date estimate available of the cost of the project. As with benefits, costs will be set out in Present Value terms.

2.3 Benefits to the Economy

Nature of Wider Economic Benefits

- 2.3.1 In addition to creating benefits for the users and operator of the airport, additional airport capacity is considered to have impacts on the productivity and growth of the national economy. The government’s “Eddington Report” in 2006 stated that transport investment can have significant impacts on the economy and highlighted the role of international gateways to the UK in this regard. This is discussed in paragraphs 1.27 to 1.31 of Annex H of the DfT report “UK Air Passenger Demand and CO₂ Forecasts”.

- 2.3.2 A recent study by Oxford Economic Forecasting¹⁰ (OEF) (which supported the Progress Report on the Air Transport White Paper) concluded (Executive Summary, pages 5 & 6) that the provision of air transport services:
- enables firms – especially those engaged in international trade or business – to be more efficient and competitive;
 - influences where companies invest and thus can attract foreign direct investment to the UK;
 - supports international trade in general which in turn creates economic benefits; and
 - assists the operation of specific sectors which make heavy use of aviation e.g. financial services, tourism.
- 2.3.3 It is proposed that the wider economic benefits of G2 are assessed in terms of the effects listed in paragraph 2.3.2. Where these effects are measurable they would be assessed in terms of impacts on economic output.
- 2.3.4 The wider economic benefits analysis would be restricted to the G2 Airport Project, and there would be no specific consideration of wider economic benefits associated with the G2 Junctions Project and the G2 Rail Project which are considered to be subsumed in the benefits of the G2 Airport Project.
- 2.3.5 As noted above, economic benefit is considered to involve increase in the productive capacity and output of the UK economy. The effect of the project in creating *employment* is considered in Section 4 under social impacts.

Approach to Estimating Wider Economic Benefits

- 2.3.6 The current DfT economic appraisal does not provide a quantitative or monetary assessment of these wider economic benefits. The proposed approach for assessing each component of impact in the EIR is detailed below.
- 2.3.7 **Productivity.** Improvements in business efficiency and competitiveness increase the productive capacity of economy and so lead to increased economic output. In assessing these effects the EIR would draw on the recent work by Oxford Economic Forecasting. Where possible a quantitative assessment would be made in terms of the effects on economic output at the national level (measured as gross value added (GVA)).
- 2.3.8 **Business location decisions and foreign direct investment.** The EIR would review the literature on the effects of air service provision and investment on business location decisions and undertake a qualitative assessment of the likely effect of the G2 Airport Project on business development and international investment at a regional and national level.
- 2.3.9 **Impacts on key sectors.** The EIR would analyse recent trends and future prospects for those sectors of the economy which are known to be particularly dependent on use of air services (e.g. financial services, tourism) and would provide a qualitative assessment of the effect of the G2 Airport Project on the development of these sectors.

¹⁰ "The Economic Contribution of the Aviation Industry in the UK" Oxford Economic Forecasting, December 2006

- 2.3.10 **International trade.** The EIR would analyse the evidence on the role and importance of airports in international trade. The analysis would quantify the additional cargo tonnage which G2 would allow Stansted to handle, but the wider economic impact of this expansion would be assessed in qualitative terms. The direct benefits to freight users are quantified under user benefits.

2.4 Consultation Questions

- Q5. Have the range of economic costs and benefits been properly identified?**
- Q6. Are there any other sources of information on economic costs and benefits which have been omitted?**
- Q7. Do you have any comments on the methods for assessment or proposals for alternative methods?**
- Q8. Do you have any other comments on economic costs and benefits?**

3 Environmental Impacts

3.1 Introduction

3.1.1 The environmental effects of the G2 Project are assessed in the Stansted G2 Airport Project Environmental Statement¹¹ (ES), the Airport Access from M11 and A120 ES¹² and the Stansted Rail Improvement Project ES¹³.

3.1.2 Having regard to NATA and NATA Refresh, the effects of airport expansion on the environment can be divided into:

- those that arise from new construction and which can be characterised as being “land take” impacts (e.g. landscape, biodiversity); and
- those that arise as a result from increased passenger numbers and aircraft movements (e.g. effects on noise, on air quality and on greenhouse gases).

3.1.3 The environmental impacts to be assessed in the EIR are set out below along with an explanation of the proposed approach to their measurement.

3.2 Noise

Scope of Noise Assessment

3.2.1 Noise effects would be generated by the G2 Airport Project from two sources – air noise and ground noise. The term “air noise” covers noise generated by aircraft in flight or during take off or landing. The term “ground noise” covers noise originating from taxiing aircraft, other ground level activities such as road and rail traffic and construction activities. Ground noise is heard in close proximity to its source – mainly by airport users and immediate neighbours to the airport - whereas air noise is heard across a much larger area. It is proposed that the economic impact of the change in noise resulting from the G2 Airport Project would focus on air noise, although the change in ground noise associated with the G2 Junctions and Rail Projects would be included.

Approach to Estimation of Noise Effects

3.2.2 The Treasury Green Book states that ‘*assessing the impact of noise can be complex, not least because of the subjective nature of many of its effects. Despite this, a number of approaches to quantifying the impact of changes in noise according to the source, the scale and nature of the proposals have been developed. For example, the impact of new transport infrastructure or industrial developments can be quantified according to the number of people/households affected by an increase or decrease of noise levels measured in average decibels (dB(A))*’.

¹¹ “Stansted G2 Airport Project Environmental Statement”, BAA, March 2008

¹² “Airport Access from M11 and A120 Environmental Statement”, Highways Agency, March 2008

¹³ “Stansted Rail Improvement Project Environmental Statement”, BAA, March 2008

- 3.2.3 The proposed approach to measuring the costs of changes in air noise would consider the number of households affected by the change in noise as a result of the G2 Airport Project using the approach set out by Pearce and Pearce¹⁴. This approach derives values by examining expected effects on house prices and is consistent with the recent DfT appraisal of noise disbenefits at Heathrow¹⁵.
- 3.2.4 The number of households affected by a change in noise would be taken from the G2 Airport Project ES.
- 3.2.5 The analysis would value the noise from the G2 Junctions Project using the DfT's webTAG guidance. An assessment of the noise associated with the G2 Rail Project is contained in the Stansted Rail Improvement Project ES and the EIR would draw on this analysis to provide a qualitative assessment.
- 3.2.6 The analysis would calculate the present value of the noise costs from the G2 Airport Project and the G2 Junctions Project. The analysis of the G2 Rail Project would be a qualitative assessment using a seven point scale with the following seven points:
- Major beneficial;
 - Moderate beneficial;
 - Minor beneficial;
 - Neutral;
 - Minor adverse;
 - Moderate adverse; and
 - Major adverse.
- 3.2.7 As the air noise contour extends beyond the Uttlesford boundary, the analysis is proposed to be undertaken at the extended local level.

3.3 Air Quality

Scope of the Air Quality Assessment

- 3.3.1 The scope of the assessment of air quality would be at the local level and would consider the effects of changes in the emissions of NO₂, NO_x, PM₁₀, PM_{2.5}¹⁶, associated with the G2 Project. Volume 4 of the G2 Airport Project ES contains a cumulative assessment of the local air quality effects of the G2 Project as a whole (including the G2 Airport, Junctions and Rail Projects).

¹⁴ "Setting Environmental Taxes for Aircraft: A Case Study of the UK" Brian Pearce and David Pearce, 2000

¹⁵ Paragraphs 1.23 to 1.25, Annex H, "UK Air Passenger Demand and CO2 Forecasts", DfT, 2007

¹⁶ Nitrous Oxide and particulate matter

Approach to Assessing Air Quality Effects

- 3.3.2 Impacts on air quality are generally expressed in terms of either the total tonnage change in emissions of a particular pollutant from a particular source; the likely impact of this change on levels of ambient air quality in the assessment area; or the total number of households likely to be affected by these changes.
- 3.3.3 The proposed assessment of the air quality effects of the G2 Project in the EIR would draw on the air quality assessment which formed Volume 4 of the G2 Airport Project ES. The EIR assessment would quantify the additional tonnes of emissions at the local level, but it would not seek to place a monetary value on these emissions since no accepted basis exists for such an assessment. This would be consistent with current DfT appraisal guidance.
- 3.3.4 It should be noted that some of the air quality emissions data would be included in the calculation of emissions of greenhouse gases which would be valued in monetary terms as part of the effects discussed in Section 3.4.
- 3.3.5 It is proposed that the assessment would be undertaken at the extended local level and would be quantitative and qualitative.

3.4 Greenhouse gases

Scope of the Greenhouse Gases Assessment

- 3.4.1 The change in greenhouse gas emissions associated with the G2 Project would be considered as set out below.

Approach to Estimation

- 3.4.2 The greenhouse gas emissions associated with the G2 Airport Project is shown in Appendix 15 of Volume 1 of the G2 Airport Project ES and covers CO₂, N₂O and CH₄ (methane). The proposed approach to the EIR assessment of greenhouse gas emissions would be to monetise these emissions using the latest guidance from Defra¹⁷ on the shadow price of carbon. The shadow price of carbon reflects the damage costs of climate change caused by each additional tonne of greenhouse gases emitted.
- 3.4.3 The emissions associated with the G2 Junctions and G2 Rail Projects would be quantified and valued using the same Defra guidance.
- 3.4.4 The present value of greenhouse gases emissions would be calculated and the values would be appropriate at the national/global level. As stated in paragraph 2.2.8, it is proposed that the environmental cost of increased greenhouse gas emissions is considered in this section of the EIR rather than as a “dis-benefit” in the assessment of transport user benefits (Section 2.2).

3.5 Landscape

Scope of the Landscape Assessment

- 3.5.1 The landscape assessment of the three components of the G2 Project would be considered as set out below.

¹⁷ “How to use the Shadow Price of Carbon in Policy Appraisal” Defra, December 2007

Approach to Estimation

- 3.5.2 Volume 11 of the G2 Airport Project ES contains an assessment of the landscape and visual effects of the G2 Airport Project using current assessment methodology set out in the Design Manual for Roads and Bridges. Additional guidance was taken from the Guidelines for Landscape and Visual Impact Assessment (GLVIA). The ES¹⁸ provides a qualitative description of the effects using the seven point scale.
- 3.5.3 Current appraisal guidance does not value the landscape effects of transport proposals. The proposed approach to the assessment of landscape within the EIR is to provide a qualitative description of effects and where possible quantify any specific effects such as loss of an area of open countryside or woodland. The assessment would use a seven point score if possible to describe the effects.
- 3.5.4 The assessment of the G2 Junctions Project would draw on webTAG guidance and the appraisal would take account of a number of indicators in coming to an assessment of the impact including the scale of the effect, rarity, importance and substitutability. An overall score would be provided using the seven point scale. The assessment of the G2 Rail Project would draw on the Stansted Rail Improvement ES.
- 3.5.5 The landscape assessment within the EIR will be primarily qualitative and described using the seven point scale defined in paragraph 3.2.6. It is proposed that the assessment would relate to the extended local area.

3.6 Nature Conservation/Biodiversity

Scope of Nature Conservation/Biodiversity

- 3.6.1 The effect on nature conservation of the G2 Project includes both biodiversity and earth heritage features i.e. the flora and fauna, habitats and earth sciences¹⁹.

Approach to Estimation

- 3.6.2 The likely significant effect of the G2 Airport Project on nature conservation features is contained in Volume 12 of the G2 Airport Project. It is based on the webTAG approach, but the assessment also draws upon recently published guidance on Ecological Impact Assessment developed by the IEEM²⁰. The G2 Junctions Project has been appraised using webTAG and the G2 Rail Project has also drawn on IEEM, webTAG and DMRB guidance.
- 3.6.3 The proposed approach to the biodiversity assessment within the EIR would be primarily qualitative and describe the effects using the seven point scale defined in paragraph 3.2.6. It would be based on webTAG which provides a framework for determining the overall significance of impacts, both positive and negative, by combining the sensitivity of the ecological receptor and the magnitude of likely impact and subsequent change from the baseline state.
- 3.6.4 It is proposed that the output of the assessment would be qualitative and the geographic scope would be the extended local level.

¹⁸ "G2 Airport Project Environmental Statement" Section 20, Volume 11, BAA, March 2008

¹⁹ Earth sciences include soils, geomorphology, hydrology and geology

²⁰ "Guidelines for Ecological Impact Assessment in the UK" Institute of Ecology and Environmental Management 2006

3.7 Cultural Heritage

Scope of the Cultural Heritage Assessment

- 3.7.1 The scope of the cultural heritage assessment of the G2 Airport Project covers archaeological remains, historic landscape, historic buildings, historic townscapes and palaeo-environmental remains. These have been grouped into three sub-topics – archaeological remains, historic buildings and historic landscapes. Volume 6 of the G2 Airport Project ES provides the assessment.
- 3.7.2 The scope of the G2 Junctions and Rail Projects is broadly similar and covers buildings of architectural or historical significance, areas such as historic landscapes and sites such as ancient monuments as set out in webTAG.

Approach to Estimation

- 3.7.3 The most up to date and comprehensive best practice guidance for undertaking cultural heritage environmental impact assessments is that contained in DMRB and WebTAG²¹. The G2 Airport Project has used DMRB to guide the assessment contained in the G2 Airport Project ES and WebTAG has been used to summarise the overall effects.
- 3.7.4 DMRB sets out an assessment methodology which defines the significance of effects as being dependent on the value/sensitivity of the cultural heritage receptors and the magnitude of the impacts upon them. This guidance defines impacts and effects very specifically. WebTAG sets out the way in which the three cultural heritage sub-topics can be characterised and assessed to provide an overall assessment of effects.
- 3.7.5 The G2 Junctions Project has been appraised using webTAG and the G2 Rail Project has drawn on DMRB and Highways Agency Interim Advice Notes.
- 3.7.6 The proposed assessment of cultural heritage effects in the EIR would draw on the ES assessments and the webTAG appraisal to provide a qualitative assessment which would be described using the seven point scale. Where possible quantitative evidence would be provided i.e. number of buildings lost. It is proposed that the geographical scope of the topic would be the extended local level and the regional level.

3.8 Water Environment

Scope of the Water Environment Assessment

- 3.8.1 The scope of the G2 Airport Project water assessment covers 'natural waters' such as surface water (channels, flow, flood risk and quality) and groundwater, its availability and water quality; and 'Airport waters', that is, the man made aspects of drainage, water supply, use and discharge. The assessment of the G2 Airport Project on water resources is contained within Volume 16 of the G2 Airport Project ES.
- 3.8.2 The scope of the G2 Junctions and G2 Rail Projects is broadly similar and covers surface water and ground water.

²¹ "Transport Analysis Guidance (TAG): The Heritage of Historic Resources Sub-Objective" TAG Unit 3.3.9 DfT, June 2003

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- 3.8.3 The assessment of the effect of the G2 Airport Project on the water environment contained in Volume 16 of the G2 Airport Project ES used both webTAG and DMRB guidance. It is proposed that the EIR would draw on this material to provide a qualitative assessment using the seven point scale (paragraph 3.2.6).
- 3.8.4 The assessment of the G2 Junctions Project on water within the EIR would draw on the webTAG appraisal to provide a qualitative assessment using the seven point scale. The assessment of the G2 Rail Project on water would draw on the Stansted Rail Improvement ES.
- 3.8.5 The EIR would provide a qualitative assessment which would be described using the seven point scale. It is proposed that the geographical scope of the topic would be the extended local.

3.9 Consultation Questions

- Q9. Have the range of environmental costs and benefits been properly identified?**
- Q10. Are there any other sources of information on environmental costs and benefits which have been omitted?**
- Q11. Do you have any comments on the methods for assessment or proposals for alternative methods?**
- Q12. Do you have any other comments on environmental costs and benefits?**

4 Social Impacts

4.1 Introduction

4.1.1 There is no official guidance on what should be included in an assessment of social costs and benefits of a project and how these costs and benefits should be appraised. In developing the proposed scope of this topic, reference has been made to Defra, DfT and Treasury appraisal guidance. The following four main topics are proposed for inclusion in the analysis of social costs and benefits:

- employment, skills and training;
- safety and crime;
- health; and
- community issues.

4.2 Employment, Skills and Training

Scope of Employment, Skills and Training Assessment

4.2.1 The employment associated with the construction of the total G2 Project would be assessed. The scope of the operational employment, skills and training assessment would be restricted to the G2 Airport Project as the G2 Junctions and G2 Rail Projects have no operational employment effects.

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4.2.2 The operation of the G2 Airport Project would create employment and income opportunities after consideration of the potential loss of employment on land required by the development. This employment would provide opportunities for a range of different people within the local area.

4.2.3 The employment associated with the operation of the G2 Airport Project is quantified in Volume 7 of the G2 Airport Project ES with consideration of the loss of agricultural land and employment in Volume 2 of the G2 Airport Project ES. The number of additional jobs created by the G2 Airport Project would be quantified and the effect on the rural economy of lost agricultural land would be discussed.

4.2.4 The EIR would consider the distribution of these potential effects in terms of who might benefit from the employment opportunities and what skills and training would be in place. For example, would people in priority regeneration areas such as Harlow be able to access the employment?

4.2.5 With the exception of the quantified numbers of jobs and income, it is anticipated that much of this analysis would be a qualitative assessment of the potential impacts.

4.2.6 It is proposed that the focus of this component of the assessment would be the local, extended local and regional areas.

4.3 Safety

Scope

4.3.1 For people living and working in the vicinity of the Airport, the G2 Airport Project may increase the risks that they or their property are exposed to. There are two risks to people and property; people on the ground at risk of an aircraft crash and the risk of damage to property by air vortices generated in the wake of passing aircraft.

4.3.2 In terms of safety, the assessment of the G2 Junctions Project would consider the two webTAG components of road accidents and security. There would be no safety assessment of the G2 Rail Project as it has not been explicitly assessed. However, engineering design passes Network Rail's compliance criteria to stage gate 3²² which implies that the Project is safe.

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4.3.3 The assessment of fatality risk associated with the G2 Airport Project is contained in Volume 13 of the G2 Airport Project ES. The proposed appraisal of safety within the EIR with respect to the G2 Airport Project would draw on the ES and present a quantitative assessment of the potential risks. This would be accompanied by a qualitative discussion and score using the seven point scale.

4.3.4 The EIR would draw on the webTAG appraisal for the G2 Junctions Project and present a qualitative assessment of the impact using the seven point scale.

4.3.5 It is proposed that the analysis of safety matters would be undertaken at the local level.

4.4 Health

Scope

4.4.1 The Health Impact Assessment (HIA) considers health implications of the G2 Project.

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4.4.2 The proposed approach to the assessment of the impact on health in the EIR would draw on the results of the HIA. A qualitative assessment would be provided of the potential impacts on health (both positive and negative) arising from changes in air quality, noise, transport, employment and visual impacts.

4.4.3 The qualitative discussions would seek to identify particular effects on groups in society who may be more vulnerable.

4.4.4 While the area of impact is likely to vary depending on the specific health impact being addressed, it is proposed that the analysis would primarily relate to the extended local area.

²² "Stansted G2 Airport Project: Transport Assessment" Volume 14, Appendix Q BAA, March 2008

4.5 Community

Scope

- 4.5.1 The assessment of community effects would relate only to the G2 Airport Project and consider the impacts on population and housing, community resources, community access, economic well-being and environmental effects. Volume 5 of the G2 Airport Project ES contains a detailed assessment of community effects. The latter two topics are proposed to be excluded from the community assessment in the EIR as economic well-being (employment related) is discussed under employment (Section 4.2) and health (Section 4.3) with the environmental effects discussed in section 3.

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- 4.5.2 The EIR would draw on the community assessment undertaken as part of the ES for the G2 Airport Project and would provide a qualitative description of the potential impacts.
- 4.5.3 The community assessment in the ES is undertaken at the parish level and therefore would be a local assessment in the EIR.

4.6 Consultation Questions

- Q13. Have the range of social costs and benefits been properly identified?**
- Q14. Are there any other sources of information on social costs and benefits which have been omitted?**
- Q15. Do you have any comments on the methods for assessment or proposals for alternative methods?**
- Q16. Do you have any other comments on social costs and benefits**

5 Responses to this Consultation Document

5.1 How to Respond

5.1.1 Responses to the questions in this document should be made in writing or by email to:

BAA Public Affairs Department

G2 Economics

BAA Ltd

Enterprise House

Stansted Airport

CM24 1QW

or

stanstedpublicaffairs@baa.com

5.1.2 The closing date for responses is Thursday 31st July 2008.

5.2 Preparation of the EIR

5.2.1 Following receipt of comments to this consultation document an EIR will be prepared which follows the guidance in the Circular¹. The EIR will be published in accordance with Annex A, paragraph 8 of the Circular and as such it will be available as a public document upon which people can make representations in writing to the Secretary of State. A report on the consultation responses will also be prepared and published.

Appendix A: Organisations to which this Consultation Document has been Sent

List of Organisations

Ancient Monuments Society
 Arriva Trains Cross Country
 Braintree Council
 Brentwood Council
 CABE
 Cambridge City Council
 Cambridgeshire Chambers of Commerce
 Cambridgeshire County Council
 CBI
 Chelmsford Council
 Colchester Borough Council
 Council for British Archaeology
 DEFRA
 DfT Rail
 East Cambridgeshire District Council
 East Herts District Council
 East of England International
 East of England Regional Assembly
 East of England Strategic Health Authority
 East of England Tourism
 EDF Energy
 EEDA
 English Heritage East of England Region
 English Partnerships
 Environment Agency
 Epping Forest Council
 Essex Chamber of Commerce
 Essex County Council
 Essex County Fire and Rescue Service
 Essex Development and Regeneration Agency
 Federation of Small Businesses
 Flying Matters
 Forestry Commission
 Government Office for the East of England
 Greater London Authority
 Harlow Council
 Harlow Renaissance
 Hertfordshire Chamber of Commerce
 Hertfordshire County Council
 Highways Agency
 Institute of Directors (Essex Branch)
 Institute of Directors East of England
 Learning and Skills Council Essex
 London Borough of Enfield
 London Borough of Haringey
 London Borough of Havering
 London Borough of Redbridge
 London First
 National Express – East Anglia National Trust
 Natural England
 Network Rail
 North Hertfordshire District Council
 RSPB
 Saffron Walden & District Friends of the Earth
 Society for the Protection of Ancient Buildings
 South Cambridgeshire Council
 St Edmundsbury Council
 Stansted Airline Consultative Committee
 Stansted Airport Consultative Committee
 Stop Stansted Expansion
 Suffolk Chamber of Commerce
 Suffolk County Council
 T & G Trades Union
 Thames Water
 The Georgian Group
 The Ramblers Association
 Three Valleys Water
 Thurrock Council
 Twentieth Century Society
 Uttlesford District Council
 Victorian Society
 Waltham Forest Borough Council
 West Essex PCT