

DEPARTMENT OF AVIATION

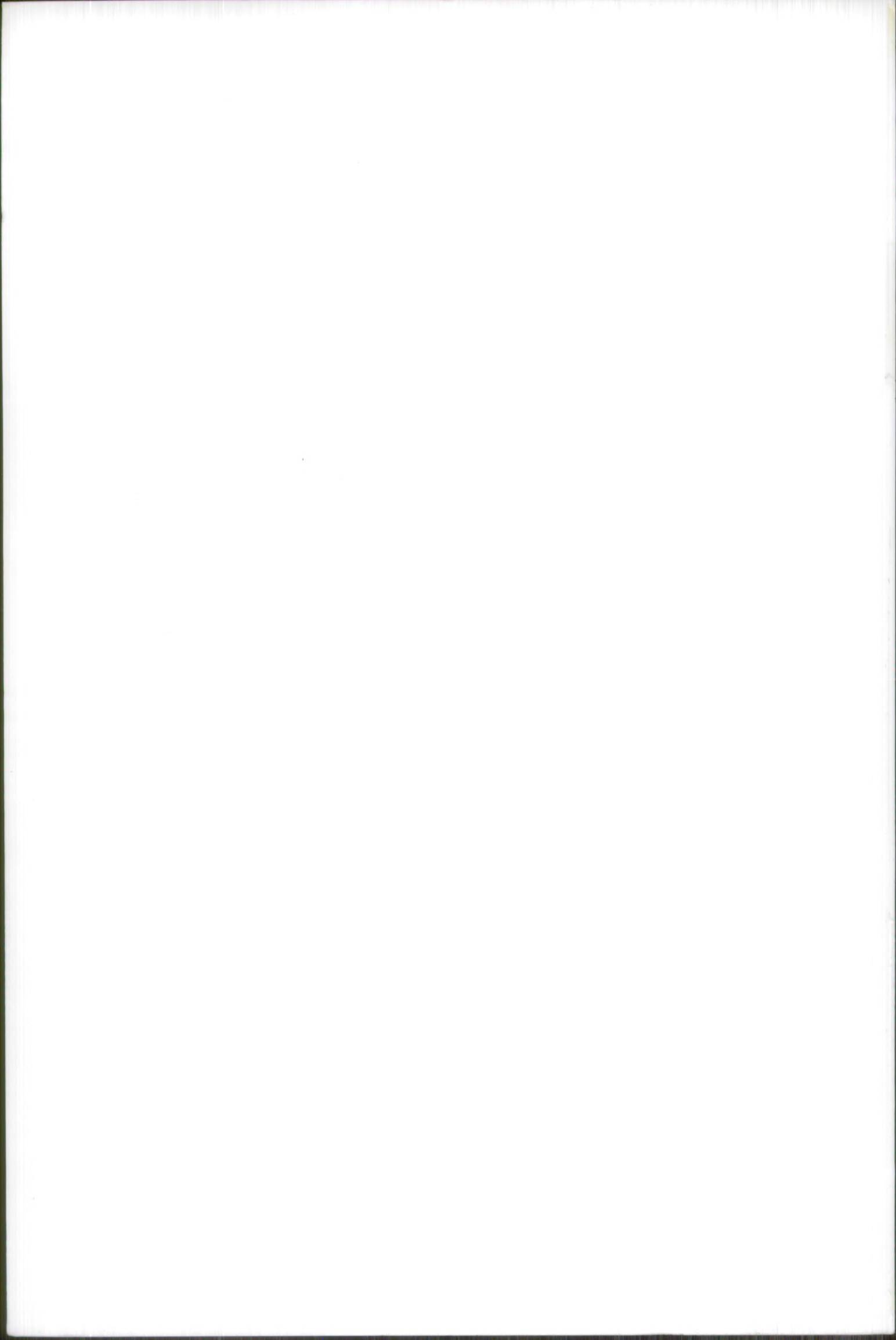
SECOND SYDNEY AIRPORT

SITE SELECTION PROGRAMME

**Supplement to the
Draft Environmental Impact Statement**



KINHILL STEARNS



DEPARTMENT OF AVIATION
SECOND SYDNEY AIRPORT
SITE SELECTION PROGRAMME
SUPPLEMENT
to the
DRAFT ENVIRONMENTAL IMPACT STATEMENT

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FOREWORD TO THE SUPPLEMENT

The Draft Environmental Impact Statement (EIS) on the Second Sydney Airport Site Selection Programme was released for public comment on 17 June 1985. The closing date for the receipt of submissions was 26 August but a number were received after that date. A total of 423 submissions were received by the Department of Aviation up to 6 September.

This Supplement to the Draft EIS responds to the comments made in the public submissions and, together with the Draft, forms the Final EIS.

In accordance with the Environment Protection Administrative Procedures, the Department of Arts, Heritage and Environment will examine the Final EIS within twenty-eight days (or such longer period as may be agreed) of receiving it or any additional information requested by the Minister for Arts, Heritage and Environment. The Minister for Arts, Heritage and Environment shall make any comments, suggestions or recommendations concerning the proposals which are considered necessary or desirable for the protection of the environment. The action Minister (the Minister for Aviation) is obliged, as far as is practicable, to take account of such comments, suggestions and recommendations.

Treatment of submissions

The main body of this supplement constitutes the response by the Department of Aviation to the issues raised in the submissions. For ease of reference, the supplement follows strictly the format of the Draft EIS.

A summary of the public submissions received up to 6 September, listing their authors and the comments made is included as Appendix 1. Each submission has been numbered, as has each comment within each submission, thus providing a two-part code for each comment. For example, comment number 57.006 is the sixth comment in submission number 57. Against the listing of each comment is the section of the Draft EIS to which the comment applies, and therefore the section of this document in which the response is to be found.

Late submissions

Although the ten-week period for public comment was unofficially extended by two weeks thirteen submissions were received by the Department of Aviation after 6 September. It was not possible to include these in the computer listing or the detailed analysis process. However, after the completion of responses to the other submissions they were analysed briefly and are discussed at Appendix 3.

In addition, 240 late proformas were received by the Department of Arts, Heritage and Environment. These have not been included in any listing. However, as they were all of the type represented by the model proforma submission number 8 readers can, if they wish, add 240 to the totals given wherever submission number 8 appears.

Content of submissions

Many more submissions were received relating to Badgerys Creek than to Wilton. This is to be expected considering the disparity in the size of the population near each of the

sites and in fact, per head of local population there were many more submissions from the Wilton area.

Many more submissions were received opposing the siting of the airport than supporting it, particularly in relation to Badgerys Creek.

Issues causing the most concern in the Badgerys Creek area were the effect on property values, the effects of aircraft noise, effects on lifestyle and the lack of compensation for those affected but whose property would not be acquired.

At Wilton the main issues were preservation of the environment, preservation of water quality in the catchment area and the effects on the mining industry.

Many other important issues of less general concern were raised in relation to each site.

No new significant issue was raised which adversely affects the assessment of the proposals.

Response to submissions

Some comments related to areas which had been adequately covered in the Draft EIS and the response needed only to direct the reader to the relevant section. Where a misunderstanding was evident some clarification and amplification of the wording of the Draft EIS, and in some cases additional material, have been included. Many comments are more in the nature of objections to particular elements of the proposals rather than criticisms of the Draft EIS and have simply been recorded as such. All errors brought to light have been corrected in Appendix 2 Corrigenda.

Following analysis, the submissions were reviewed by the Environmental Reference Group which includes representatives of the Commonwealth Department of Arts, Heritage and Environment and the NSW Department of Environment and Planning. This group confirmed the view of the Department of Aviation that no additional field work or analytic work was required to respond adequately to all concerns raised in public submissions.

A meeting was also held with the Department of Defence to consider further the effects of the proposals on Defence facilities.

No issue has arisen from any source which has necessitated any change to the proposal at either site. The proposals will therefore go forward as detailed in the Draft EIS.

It should however be borne in mind that two possibilities exist for future changes to the proposal at Badgerys Creek.

One is the possibility of minor change to the runway alignments at the detailed design stage, as discussed on page 200 of the Draft EIS. This would not affect the acquisition boundary.

The other is the possibility of the acquisition of additional land in the noise-affected areas at some time in the future if such action were to become Government policy. However, this does not form a part of the present proposal.

Conclusion

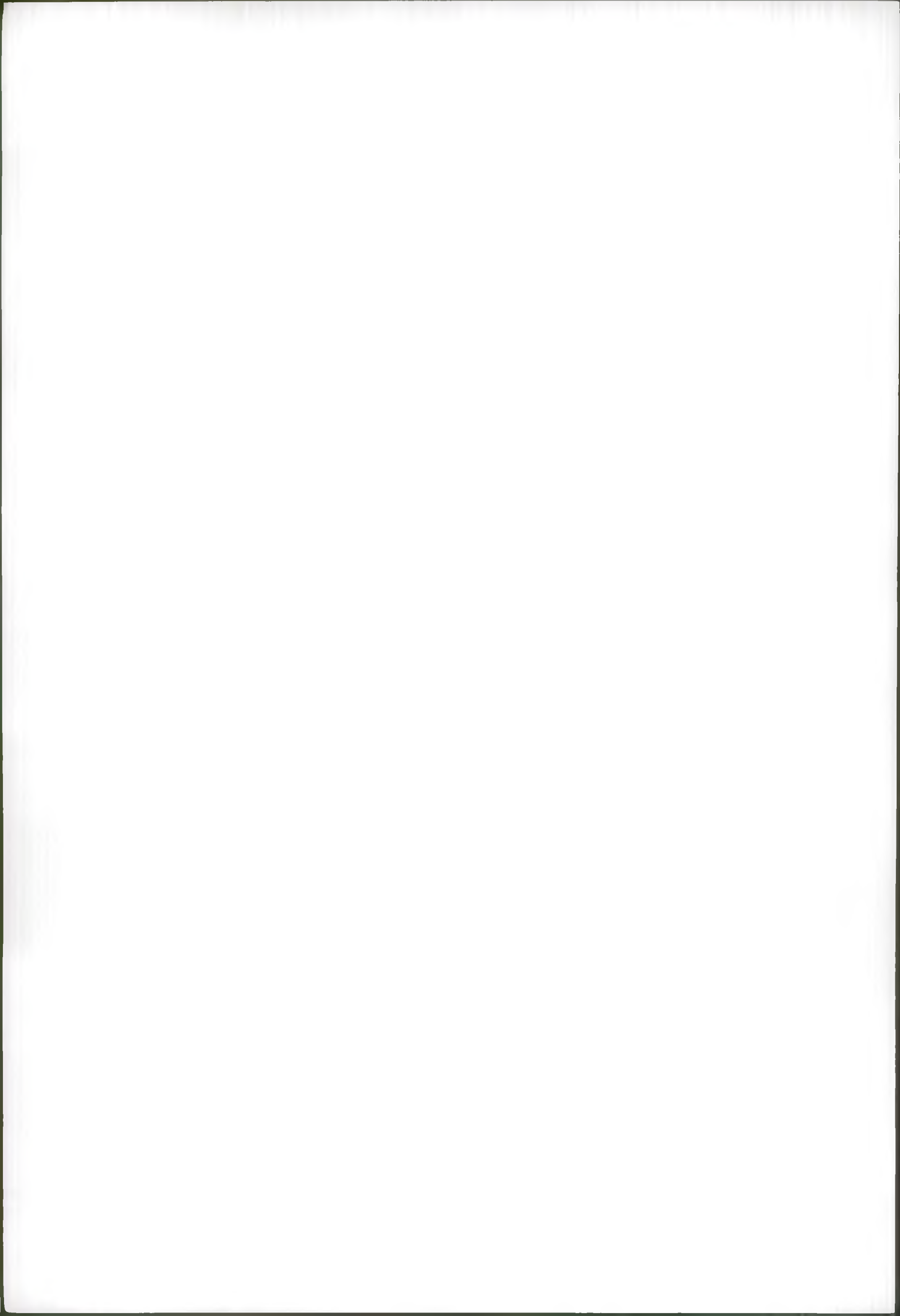
The Department of Aviation considers that the Final EIS, consisting of the Draft EIS and this Supplement, provides an adequate treatment of all issues relating to the Second Sydney Airport Site Selection decision. The Final EIS also gives some indication of the views of those likely to be directly affected as well as those within the wider community who have a strong interest in the decision.

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RESPONSES TO
SUBMISSIONS ON THE
SECOND SYDNEY AIRPORT
SITE SELECTION PROGRAMME
DRAFT ENVIRONMENTAL IMPACT STATEMENT

PREFACE

Twenty-four submissions raised issues of a general nature which can best be responded to in terms of the Preface. The issues raised were:

- . the need for an early decision;
- . the adequacy of the Draft EIS;
- . calls for a public enquiry;
- . need to review study.

Need for an early decision

Ten submissions raised this issue (2.003, 7.004, 16.001, 65.020, 75.002, 199.005, 229.001, 346.011, 368.002 and 450.003). These submission stressed the need for a site decision as early as possible, two claiming that the existing uncertainty had produced worry, stress and other health problems. One submission claimed that even after a site decision is announced residents of the chosen area will still face uncertainty over the timing of development. One submission complimented the Federal and State Governments on their initiative to end the uncertainty.

It is worth noting that, in addition to written submissions on this subject, numerous oral requests have been received stressing the need for an early decision. Officers staffing the Community Access Bus reported that this was one of the most frequently voiced sentiments, particularly in the Badgerys Creek area.

The uncertainty faced by residents and businesses is indeed an important consideration in the site selection programme and one of which the Government is acutely aware. It applied particularly to the Badgerys Creek area where the prospect of an airport has existed for at least 8 years. It is unfortunate that the technical, social and political complexity of the problem has for so long prevented a decision being taken. At the insistence of the Minister for Aviation, the Department is advancing the programme as quickly as possible commensurate with the requirements of the Environment Protection (Impact of Proposals) Act, 1974.

A public information programme was conducted, one of the aims of which was to replace rumour with fact as far as possible and thus reduce unnecessary concern. However, the fact remains that until decisions are announced the uncertainty must remain.

Adequacy of Draft Environmental Impact Statement

Fourteen submissions made general comments on the Draft EIS (7.003, 60.001, 65.001, 222.001, 222.003, 245.001, 256.001, 264.007, 302.002, 305.001, 337.038, 359.008, 390.002 391.001 and 454.001). Ten were critical, the criticisms including that the document:

- . is too long;
- . is inadequate;
- . is incomplete;
- . is inaccurate;
- . is deliberately misleading;
- . does not meet the requirements of the Act.

The other four submissions (including one from a protest organization) complimented the authors, using such words as 'well compiled', 'comprehensive', 'impressive' and 'factual material of high standard'.

This Draft EIS was unusual in two respects. While ostensibly about site selection and acquisition, it also had to cover, as far as this was relevant, the impacts of later development at the chosen site. It thus dealt with hypothetical events a long way in the future and inevitably suffered to some extent from a lack of certainty.

The other unusual feature was that the document had to cover two equally possible proposals rather than one. This led to increased length and a certain amount of repetition.

The authors were well aware of these difficulties and attempted to provide as accurate and comprehensive a coverage as possible within the constraints of reasonable size and cost. The Department of Aviation believes that this objective has been largely met, a view shared by both the Commonwealth Department of Arts, Heritage and Environment and the NSW Department of Environment and Planning.

Call for public inquiry

Three submissions (222.009, 311.001 and 459.013) requested that a public inquiry be held to resolve the issue of the airport site.

The Department of Aviation is of the opinion that all aspects of the question have been well aired in the Draft EIS and in the public discussion which has accompanied it and that nothing is to be gained by public inquiry. Such a move would, very properly, bring strong public criticism of further delay.

Need for review

Goulburn City Council took issue with various criteria used and conclusions reached, by the Consultant and the Department (459.027). In addition it asked what opportunities existed to review the Study, and particularly the ranking of Goulburn; and therefore presumably all potential outlying sites for which Goulburn served as the type.

The Goulburn City Council complained that there was insufficient time given the public to consider questions such as airport role and site selection factors; that in fact the study process failed to satisfy the Minister's joint press statement that the public would be invited to comment. All these matters were included in the Draft EIS in detail thereby affording the public a ten-week period to comment on all aspects of the study process, not just the statement of environmental effects for the short-listed sites.

The decision process being followed is set out in the Preface to the Draft EIS. Unless there was strong, well based and persuasive argument contained in public submissions on the Draft EIS that the study was grossly deficient or arrived at conclusions unsupported by material set out in the Draft EIS, the study conclusions will stand for consideration by Government.

CHAPTER 1

REQUIREMENT TO RESERVE A SITE

1.1 OBJECTIVE OF THE PROPOSAL

No submissions commented on this section of the Draft EIS.

1.2 GROWTH IN AIR TRAFFIC

Twenty-four submissions including seven proformas questioned the validity of the Department of Aviation's forecasts. These are discussed below. However, it is useful to note that most of these doubts were raised by those opposed to a second Sydney airport when questioning the basis of need. As outlined in Section 1.2 of the Draft EIS, there are uncertainties associated with any forecasts. These forecasts are used to demonstrate that there exists a reasonable possibility that air traffic will outgrow the capacity of Kingsford-Smith Airport. The consequences of a range of decisions in uncertain future environments are discussed in Section 1.6.

The points raised on this issue can be grouped into the following categories:

- . lack of confidence in forecasting;
- . projected growth in international and trunk aircraft movements do not reflect historical trends;
- . trend line extrapolation is not a sufficient forecasting method;
- . alternative assumptions should have been adopted.

Lack of confidence in forecasting

Five submissions expressed a lack of confidence in aviation forecasting, one introducing Major Airport Needs of Sydney Study forecasts to demonstrate that all actual aircraft movement levels were now outside the Major Airport Needs of Sydney forecast range (75.001, 233.025, 233.035, 338.032, 359.009 and 457.003).

Whilst these are all legitimate comments, it is doubtful whether any of the submissions would agree that decisions such as to proceed with a second Sydney airport site selection should be made in the absence of forecasts. Considerable uncertainty is attached to all forecasting, the uncertainty increasing with the forecast period and the degree of uncertainty attached to influencing factors. The Department of Aviation remains confident that its forecast range is reasonable for long term planning purposes. One of these submissions accepts that there is a need to reserve a second airport site.

Projected growth in international and trunk aircraft movements do not reflect historical trends

A number of submissions raised doubts about the credibility of forecasts which predict growth in international and domestic trunk aircraft movements, given that these sectors have shown negative or near zero growth over the past ten years (205.002, 264.003, 338.029, 362.003, 389.007 and 391.006).

The carriage of increased numbers of passengers with little or no growth in the number of aircraft movements has been achieved primarily by the introduction of larger aircraft.

The continued deployment of larger aircraft and direct routing is dependent on a complex interaction between city-pair passenger demand, fleet mix, route structure, frequency and commercial judgement. The forecasts used a scheduling model to determine a feasible solution with a constrained minimum cost for the entire network in introducing where possible increased numbers of smaller aircraft. This is reflected in the recently announced order for B737-300 aircraft by TAA to replace its ageing DC-9s and some larger 727s; Ansett has also announced the purchase of A320 (Airbus) aircraft comparable in size to the B727 and the purchase of new B737-300s to carry it into the 1990s. These developments reduce the emphasis on the larger aircraft types.

The limited competition from smaller operators such as East-West Airlines is currently focussed on the smaller aircraft types and this is anticipated to continue in the longer term.

One submission argued that this readjustment by the airlines is no more than a response to low utilization of large aircraft, which will simply be substituted for these smaller aircraft when growth increases again. In the longer term with continued passenger growth larger aircraft are anticipated to be substituted for smaller aircraft and this is embodied in the forecasts.

The forecasts indicated that, on balance, an increase rather than a continuing decrease in trunk (or interstate) aircraft movements is expected.

The zero or low growth in recent international aircraft movements is due primarily to the influence of the B747, with most airlines operating through Sydney moving up to that aircraft. These aircraft had a dramatic effect on international aviation, replacing, in a relatively short time, aircraft types of half to one-third their capacity. Airlines are currently attempting to match aircraft types with their route structures as a wider range of suitable aircraft becomes available. This is reflected in the introduction of smaller aircraft such as the B767ER recently acquired by Qantas and Air New Zealand for their short haul and low density routes while Qantas and Singapore Airlines are introducing the larger B747SUD with the stretched upper deck for long haul high density routes.

The forecast of increasing aircraft movements reflects the view that there will not be another dramatic change in aircraft size, but rather a more gradual growth in average aircraft size as reported in Table 1.4 and outlined on page 39 of the Draft EIS.

With the introduction of some new routes, and frequency increases on some existing routes, there are likely to be increases in international aircraft movements.

Airline activity in Australia is responsive to the general level of economic activity. It is interesting to note that for the year ending 30 June 1985, domestic airline aircraft movements (which do not include general aviation or commuters) grew by 3.5%; and the domestic airline passenger movements in the quarter ending 30 June 1985 exceeded those in the 30 June 1984 quarter by 9.3%.

Trend line extrapolation not a sufficient method of forecasting

This point was made in one submission (337.001).

Although the results are shown on a simple graph (Figure 1.1) in the Draft EIS, the Department of Aviation's forecasts in fact result from multiple regression statistical techniques and are not simple trend lines. This point is relevant in the following discussion.

Alternative assumptions should have been adopted

Submissions on this issue generally discussed one of the arguments set out below. However, two comments (338.089 and 385.001) were more general, briefly discussing some or all of these arguments, even including the control of growth at Kingsford-Smith Airport by introducing peak pricing (see Section 1.3 of the Draft EIS).

- . Growth in general aviation and commuter traffic has been stimulated by:
 - the once only effect of intrastate airlines shedding low growth routes to commuters;
 - effective subsidy through low cost recovery (202.005, 233.026, 264.004 and 391.005);
- . International traffic growth has a historical change in emphasis away from Sydney toward Melbourne;
 - and aircraft movements will be further reduced by triangulation (264.054 and 389.008)
- . Progressive use of larger aircraft is not included in the forecasts (61.001, 233.027, 233.028, 340.007, 389.005);
- . Alternative modes such as high speed rail not taken into account (222.010 and 289.002);
- . Fuel and fare increases will reduce growth further 223.008 (proforma).

The regression analyses used in the forecasting isolate and take account of once only shifts in the pattern of airport use due for example to the transfer from intrastate airlines to commuters of some low density routes. This shift would therefore not incorrectly bias forward projections of commuter movements.

Alternative 'pricing' structures applicable to the use of Kingsford-Smith Airport would affect the forecasts. The extent of such effect is hard to predict and would depend very much on the type and application of pricing change. Several submissions claim that the general aviation and commuter growth foreshadowed in the forecasts is based on historical cost recovery practices, and if altered, these categories would have to pay more to use Kingsford-Smith Airport and their movement levels would be correspondingly less. These submissions quote or employ the Bosch Inquiry findings that only roughly 15% of the costs of general aviation and commuter operations at Kingsford-Smith Airport are recovered. It is also true, however, that Bosch found the method of allocating costs to this sector of the industry questionable, and recommended that this receive special attention. The Bosch findings are now being reviewed.

The Draft EIS makes it clear that the forecasts are based on the assumption that the present socio-economic and aviation industry environments persist, recognizing that significant changes to this environment would necessitate a review of the forecasts. General aviation and commuter operations are anticipated to be sensitive to pricing and any change in pricing policy could defer the time at which a second Sydney airport would be developed. However, protection of the site is required in the short term to assure its availability and remove constraints on development of other potential sites. Development of the selected site would be sensitive to the possibility of these changes and how they might affect the distribution of potential use of either the second Sydney airport or Kingsford-Smith Airport.

Although the Bureau of Transport Economics is quoted as having identified a historical trend of international patronage away from Sydney toward Melbourne, the reference is

to the consequences of Tullamarine opening, not to any change in the relative propensity for international travel to and from the two cities.

Triangulation was a term used for a suggested modification to the portion of international operations which entered Australia at Sydney, proceeded to Melbourne and returned to Sydney before departing from Australia (or vice versa). Triangulation required airlines to enter at Sydney and proceed to Melbourne and then depart from Australia without returning to Sydney.

Triangulation has not occurred to any significant degree due to its being unattractive from a marketing point of view. The more likely development is an increase in terminating flights at both Sydney and Melbourne. This development would be facilitated by the introduction of smaller aircraft such as the B767 and continued passenger growth. The impact of this development on peak period and annual aircraft movements is expected to be minimal.

Progressive use of larger aircraft is included in the forecasts as reported in Table 4.1; and as outlined on page 39, there are limits to the degree to which airlines can simply satisfy growth in passenger demand by continually increasing aircraft size.

The forecasts have examined historical trends and developments in airfares relative to other modes and general economic growth. These factors were projected into the future to determine future aviation demand. The forecasts took account of increasing fuel costs and subsequent changes in fares of competitive modes. Similarly the impact of the changing availability and quality of alternative modes was considered particularly in markets such as the Newcastle/Hunter Valley where rail electrification and road improvements have enhanced the competitive position of these modes with respect to air travel.

1.3 RUNWAY CAPACITY AT KINGSFORD-SMITH AIRPORT

One hundred and eighty-five submissions including 124 proforma discussed issues related to Section 1.3 of the Draft EIS. Included in this group are a number of submissions which, while not specifically mentioning runway capacity at Kingsford-Smith Airport, questioned the need for a second Sydney airport. The main points raised related to:

- . further capacity development at Kingsford-Smith is a better solution to Sydney's airport problems than a second airport;
- . Kingsford-Smith should be extended before development takes place at a second airport;
- . the Draft EIS has not adequately addressed capacity improvement options for Kingsford-Smith Airport, noise around Kingsford-Smith, or how a second airport would relieve Kingsford-Smith of its problems;
- . claims that money would be better spent on other things;
- . claims that the need for a second airport was purely a political not physical need.

Kingsford-Smith Airport a better solution

The greatest number of public submissions discussing, among other things, the capacity of Kingsford-Smith Airport argued that further development of Kingsford-Smith Airport

is a better option than a second airport. A variety of arguments were put, the main ones being:

- further runway development (or airport extension/expansion) was a more cost effective option than second Sydney airport development (1.003, 7.016, 7.017, 64.006, 68.003, 199.001, 202.006, 219.006, 253.003, 261.002, 331.008, 340.001, 340.010, 385.004, 389.014, 391.012, 398.004, 400.005, 452.003, 453.002 and 457.001);
- a belief that an expanded Kingsford-Smith Airport, perhaps with improved air traffic control methods and equipment, would be sufficient to accommodate all long term growth in the Region (7.024, 7.025, 8.004 (proforma), 73.002, 81.009, 108.001, 195.002, 202.006, 207.006, 208.007, 223.009 (proforma), 257.009, 277.003, 288.002, 288.004, 295.009, 300.001, 323.005, 330.002, 334.003, 336.003, 337.003, 342.016, 361.028, 362.002, 368.006, 387.004, 389.015, 389.018, 389.019, 389.020, 391.013, 424.002, 449.002, 452.002 and 453.002);
- concern that alternative airport developments, particularly those considered in previous studies such as Major Airport Needs of Sydney, have not been discussed in detail in the Draft EIS. Some submissions conclude that widely spaced parallel runway development should proceed at Kingsford-Smith, and this would obviate the need for a second airport. Others criticized the lack of proof that a second airport would be required (250.017, 264.001, 328.002, 334.002 and 337.002).

It is important to emphasize the difference between the Government's long-term planning provision of a second airport site, and any commitment to a particular airport development strategy. As discussed in Section 1.3 of the Draft EIS the estimated capacity of Kingsford-Smith Airport with or without a closely spaced parallel runway is insufficient to accommodate forecast demand. If, as expected, capacity is reached, the Government has only two options: provide additional capacity at Kingsford-Smith Airport or exclude traffic growth in excess of capacity. Capacity increase by air traffic control improvements or modification of traffic profiles does not warrant detailed discussion. Air traffic control is already efficient within the prevailing operational standards. Potential changes in standards and air traffic control equipment and procedures are important and are under constant review, but they promise small rather than large changes in airport capacity.

Major capacity increase can only be achieved through the provision of additional runways. The Major Airport Needs of Sydney Study, as with studies before it, considered both closely spaced and widely spaced parallel runway options. The latter provide the greatest increase in capacity, but no study has yet concluded that a widely spaced parallel runway should be constructed at Kingsford-Smith Airport. One submission (7.016) proposed widely spaced runways on which all operations were over Botany Bay. Internationally accepted operating procedures dictate that airports cannot be run with simultaneous take-offs and landings in opposite directions, even on widely spaced parallel runways.

The exclusion of particular categories of traffic would mean that air transport growth in the Region was not being efficiently catered for, especially where there exists no alternative location for this growth to re-establish. The suppression of growth would mean that some groups in the community would be denied their choice of travel in preference to others, distorting the pattern of natural demand. The Regional Airlines Association, for example, oppose a pricing mechanism to regulate demand.

All these remain possibilities for Kingsford-Smith Airport. But good forward planning aims to provide future decision makers with choices and flexibility. The decision to select a site for a second airport represents a decision to provide now this opportunity for future flexibility. The site selection does not mean that any of the options discussed above are excluded. It does mean that when capacity is attained at Kingsford-Smith Airport there remains an alternative to sole reliance on Kingsford-Smith, should this prove socially undesirable.

Many submissions missed this point, attempting to demonstrate why further development at Kingsford-Smith was more cost effective than development of a second airport.

The site selection was judged necessary in the knowledge that except under very low or highly restrained growth, Kingsford-Smith would not have sufficient capacity to accommodate all future growth; and because of considerable doubt about the long term prospects for very extensive developments such as widely spaced parallel runway development or traffic exclusion practices, even though the latter may be necessary in the short term. These are ultimately matters of judgement rather than proof.

Five submissions agreed or accepted that Kingsford-Smith in all probability would not be capable of accommodating all future growth (16.003, 66.009, 308.002, 359.007 and 449.003).

Develop Kingsford-Smith Airport first

A number of submissions stressed or implied that Kingsford-Smith should be developed to its maximum potential before any development of a second airport took place (60.003, 196.007, 233.031, 264.005, 287.002, 294.003, 391.011, 396.019, 433.008, 457.002 and 457.023).

These submissions deliberately or unintentionally implied a preference for a development sequence rather than, as discussed above, a belief that Kingsford-Smith could be developed or modified to accommodate all future growth.

Draft EIS inadequate on Kingsford-Smith Airport

A number of submissions raised a criticism that the effects of aircraft operations at Kingsford-Smith had not been adequately addressed (223.010 (proforma), 253.004, 308.003, 338.031, 389.019, 391.002, 405.004, 432.032 and 459.028).

One or two submissions raised this point in opposition to any further development of Kingsford-Smith. Most, however, implied that the noise problem around Kingsford-Smith was the reason for the second airport site selection. Some of these proposed compensation and special land use reorganization and restriction as preferable to, and more effective in terms of total social costs than, second airport development.

Another point of view, raised by the Wollongong City Council, envisaged development of a second Sydney airport providing benefits in the form of noise relief for residents near Kingsford-Smith Airport.

Most of these submissions missed the point of Section 1.3 which was that the second airport is a necessary long term planning provision against the possibility of shortfall in capacity at Kingsford-Smith. There is no discussion in the Draft EIS of the second Sydney airport being used for noise relief at Kingsford-Smith. In fact the discussion through the relevant sections of the Draft EIS emphasizes the belief that Kingsford-Smith will remain the primary airport and will continue to be used for the foreseeable future to the limits of its capability.

Money better spent on other things

Two submissions (196.009 and 368.005) indicated that other things should have a higher priority for Government funds than airports. Issues mentioned were air and water pollution, social welfare and education.

The allocation of priorities in the spending of Government funds is a matter for Government decision as part of the annual budgetary process. The issues raised in the submissions are important social concerns and do receive large amounts of Government support. However, the Government also has a responsibility for aviation. Any money

spent on the acquisition of a site for a second airport would come from the Aviation vote and would not necessarily affect spending in other areas.

Political not physical need

Four submissions stated or implied that the decision to select and acquire a second airport site was a political rather than an economic or planning decision (1.017, 264.002, 328.026 and 399.004).

In response it can be said that all social and economic behaviour and enterprise both shape, and are undertaken within, the political economy in which economic decisions are taken in cognizance of social and political preferences. This may mean that all Government decisions are therefore political. It nevertheless does not affect the objective argument in favour of sensible long term planning provision for aviation growth in the Sydney region.

1.4 CAPACITY OF GENERAL AVIATION AERODROMES

Thirty submissions were received, including seven proforma submissions, addressing aspects related to Section 1.4 of the Draft EIS. These thirty submissions included thirty-six separate comments on general aviation traffic and facilities in the Sydney region.

The comments raised in the submissions can be categorized into four main issues. These are:

- . removal of general aviation and commuter operations from Kingsford-Smith Airport;
- . use of existing general aviation aerodromes;
- . use of Department of Defence facilities;
- . implications of second Sydney airport on general aviation industry and facilities.

These topics are discussed below.

Many of the issues raised in this section of the Draft EIS Supplement have been considered in the Sydney Region General Aviation Study, produced by consulting engineers Beca Orr Pty Ltd, for the Department of Aviation's NSW Region. The study report is expected to be released in the near future.

Removal of general aviation and commuter operations from Kingsford-Smith Airport

Eighteen of the submissions received, including seven proforma submissions, related to the increased capacity which could be achieved by relocating general aviation and commuter operations from Kingsford-Smith Airport. These submissions made thirteen separate comments (205.003, 223.011 (proforma), 241.004, 338.030, 340.005, 340.006, 342.017, 345.002, 361.029, 362.004, 385.002, 389.006 and 396.020).

These comments could be further categorized into the following issues:

- . increase general aviation and commuter airport and airways charges;
- . redirect general aviation and commuter operations to other airports, thus increasing airport capacity at Kingsford-Smith Airport.

Many of the comments in this category supported the view that general aviation operations receive a disproportionate subsidy compared to other users, which allows them to continue using Kingsford-Smith Airport economically.

The Government is currently reviewing its cost recovery policy following the completion of the Independent Inquiry into Aviation Cost Recovery. The Inquiry questioned the cost

allocation procedures used in the past including the implication that general aviation was heavily subsidized. The Inquiry recommendation that all aviation facilities be fully cost recoverable within ten years has been accepted in principle by the Government. The establishment of a new policy on cost recovery and the initial staged implementation of this policy should be achieved some time in 1986. It is also probable that as aircraft traffic increases in the future, and the airport capacity becomes constrained, a rationalization in airport charges will be undertaken to optimize the use of the available facilities at that time. This issue is discussed in detail in Section 1.3 of the Draft EIS.

It is true that if general aviation and commuter operations were transferred from Kingsford-Smith Airport to other airports, greater passenger volumes could be achieved at Kingsford-Smith Airport. Two other issues must however be considered in conjunction with this argument. If greater passenger flows are achieved, larger ground facilities such as terminal buildings must be established. Kingsford-Smith Airport has a shortage of land available for these facilities, and therefore rationalization of the numbers of small planes using Kingsford-Smith Airport is only one aspect of the overall capacity considerations at Kingsford-Smith Airport. The second issue is the need to maintain viable regional airline services. Many rural communities are serviced by commuter operators who interline with other, particularly interstate, airline services. If these operators were relocated to another airport, the convenience and perhaps the viability of these services could be lost.

Use of existing general aviation airports

Thirteen of the submissions received related to the possible use of existing general aviation airports as an alternative to the establishment of a second Sydney airport, and the possible effects on existing general aviation airports from the second Sydney airport. These submissions made thirteen separate comments (57.005, 108.002, 195.006, 202.008, 295.001, 334.004, 336.004, 337.004, 361.026, 361.042, 385.005, 426.003 and 453.007).

These comments could be further categorized into the following issues:

- . use existing general aviation airports as an alternative to a second Sydney airport;
- . location of existing general aviation airports in the Sydney region and the need for more general aviation airports in the Sydney region;
- . effects of the second Sydney airport proposal on operations at Bankstown.

The question of using existing general aviation airports as an alternative to the establishment of a second Sydney airport is primarily dependent on the type of air traffic that the second Sydney airport will be required to accommodate. The present general aviation airports in the Sydney region (with the exception of Kingsford-Smith Airport) are essentially limited to aircraft which weigh less than 5,700 kg. The aircraft forecast figures detailed in Section 1.2 of the Draft EIS indicate that a second Sydney airport will probably be required to accommodate jet aircraft in the future. Without substantial expansion and upgrading works and possible aircraft noise and land acquisition implications, the present general aviation airports would not be available for large jet aircraft traffic. None of the existing airports met the site selection criteria discussed in Chapter 4 of the Draft EIS.

One submission questioned why many of the general aviation airports in the Sydney region were located in the west and none in the south near Wilton. There are in fact small airfields which service the particular general aviation needs in the southern areas near Wilton. The southern regional general aviation demand is at present being largely met by Camden aerodrome. If Wilton were to be chosen as the second Sydney airport site, Camden would probably remain the principal general aviation facility in the area for the foreseeable future.

A related question raised in another submission was the need for a further general aviation airport to be established in the Sydney region. If current general aviation airports are redeveloped in the future and/or the capacity of Schofields airport is increased by allowing increased use by general aviation operators, it is unlikely that a new general aviation airport in the Sydney region would be needed until well into the next century. This issue is discussed in more detail in the Sydney Region General Aviation Study Report.

The effects of the second Sydney airport proposal on Bankstown were also raised in several of the submissions. The daily traffic flows at Bankstown are currently higher than those at Kingsford-Smith Airport. This is achieved by the use of operating procedures at Bankstown which do not require controlled separation between aircraft. Bankstown also has a parallel runway system which increases traffic flows. If commuter and heavy general aviation operations from Kingsford-Smith Airport were introduced into Bankstown, the overall capacity of the airport would fall dramatically because of the need to introduce controlled separation. This reduction in capacity would produce a cascade effect in which existing users of Bankstown would be forced to relocate to other airports.

Use of Department of Defence aerodromes

Six of the submissions received related to the possible use of Department of Defence airport facilities which exist within the Sydney region. These submissions made six separate comments (108.003, 195.006, 202.008, 348.001, 361.030 and 422.017).

All the comments on this topic referred to the possible use of Department of Defence airports and facilities as an alternative to a second Sydney airport or the effects of increased use of these airports.

Currently, the Department of Defence has advised that, with the exception of Schofields, all their airport facilities within the Sydney region and the Holsworthy Army Base are heavily committed and will not be available in the foreseeable future for any form of civil aircraft use. Furthermore, none of these sites met the selection criteria of Chapter 4. The possible use of Schofields is a matter for negotiation, particularly with respect to the possible noise problem associated with the HMAS Nirimba apprentice training school and the need to use Richmond airport restricted airspace. The use of Schofields for general aviation operations has been considered in detail in the Sydney Region General Aviation Study.

Implications of a second Sydney airport on the general aviation industry and facilities

The submission of the General Aviation Association made four separate comments on the possible implications of a second Sydney airport on the general aviation industry and facilities within the Sydney region (396.003, 396.011, 396.017 and 396.018). These can be reduced to three issues:

- . there is no current demand to develop a second Sydney airport as a general aviation aerodrome;
- . a general aviation aerodrome on a second Sydney airport site would have major cost recovery implications for the general aviation industry;
- . airspace restrictions would have a major impact on general aviation in the Sydney region with the development of a second Sydney airport.

The submission argued that there was no current demand to develop a general aviation aerodrome at the second Sydney airport site, and that the establishment of a close spaced parallel runway at Kingsford-Smith Airport would ensure adequate capacity for the Sydney region until at least 1995. This statement may be correct but if additional

runway capacity is not developed at Kingsford-Smith Airport and a need arises for additional general aviation facilities, this could be met by the development of a general aviation aerodrome at the selected second Sydney airport site. Such a strategy is not however, an essential part of the second Sydney airport planning which at this stage is aimed solely at the selection and acquisition of a site against a probable future need.

The second issue relates to the cost recovery implications for the general aviation industry of the establishment of a general aviation facility on the second Sydney airport site. As mentioned previously the Department is developing a new policy on cost recovery based on the recommendations of the Independent Inquiry into Aviation Cost Recovery. Any decision to develop a general aviation facility on the second Sydney airport site would take into account the cost recovery implications.

The final issue concerned the impacts on general aviation of the proposed airspace associated with the development of a second Sydney airport in the Sydney region. This issue has been dealt with in the response to submissions related to Section 8.6 of the Draft EIS.

1.5 LOSS OF OPPORTUNITY TO RESERVE A SITE

Eight submissions were received relating to Section 1.5 of the Draft EIS. This section of the Draft EIS argues that, because of the outward expansion of the city, consideration must be given in the site selection process to the time at which the opportunity to reserve a second airport site would be forgone.

In this context, three submissions (comments 7.002, 274.117 and 366.005) agreed with the wisdom of acquiring land for a future airport and that finalizing a site would release up to 300 km² of metropolitan land affected by uncertainty surrounding the airport selection process.

The remaining five submissions (340.009, 361.027, 450.005, 452.004 and 453.003) argued that the expansion of Kingsford-Smith or other Sydney based airports was the most cost effective option (see Section 1.3 above for discussion on the issue of the expansion of Kingsford-Smith Airport).

1.6 CONSEQUENCES OF NO ACTION, DEFERRAL OR ABANDONMENT

Four submissions were received which related to the long term effects of a second Sydney airport development on the community and the environment.

Long term effects

Three submissions (253.002, 328.025 and 391.003) were concerned with the long term costs to the community of the development of a second airport.

The aim of the present programme is the selection and acquisition of a site. The need for such action is discussed under Section 1.3. Selection and acquisition would not of itself entail very considerable long term costs (relative to airport development costs generally). The appropriate time for the consideration of such costs would be prior to any decision to commence construction of a second Sydney airport. Detailed investigation would presumably be made at that time of the effects of a range of development strategies. The importance of site acquisition is that it preserves the option of developing a second airport if it is determined that that is the most advantageous strategy to adopt.

One submission (359.003) claimed that insufficient attention has been paid to the environmental impact associated with increasing use of Kingsford-Smith Airport.

Again, such examination is more appropriate to a study of the most desirable development strategies for both Kingsford-Smith and second Sydney airports rather than to a site selection study.

CHAPTER 2

ROLE AND NATURE OF A SECOND AIRPORT

2.1 ROLE OF SECOND AIRPORT

Eighteen submissions commented on the role of the second airport. The comments were divided as follows:

- . claims that second airports do not work;
- . criticisms and suggestions on the role of a second Sydney airport;
- . effect on tourism;
- . effects on residents around Kingsford-Smith Airport.

These are discussed below.

Second airports do not work

Six submissions (205.028, 233.033, 264.006, 319.006, 328.017 and 334.007) claimed that overseas experience shows that second airports are generally underutilized and particularly so if remote from the city they serve.

It is undoubtedly true that some second airports overseas have been less successful in attracting patronage than their planners had hoped. However, Table 2.3 of the Draft Environmental Impact Statement lists nine cities which have two or three major airports in which the second airports carry substantial amounts of traffic. In some cities second airports operate very successfully and are in fact essential to the provision of satisfactory services. To claim that second airports do not work is far too general a statement.

What can be learned from overseas is that some second airports, although not attracting the expected traffic levels, nevertheless make a very useful contribution to the airport system in the metropolitan centre they serve. It is therefore only true to say a second airport is underutilized if its traffic is less than some predetermined traffic levels. Should the airport reach 2 million annual passengers it may, by some criteria, be considered underutilized; nevertheless it would be as well used as Adelaide or Perth is today. What is important is that without a second airport, major metropolitan centres with congested airport facilities have limited prospects of providing a full range of future air transport opportunities.

If long range planning indicates that a second airport is likely to be required eventually, it is essential that the site be chosen and acquired as early as possible so that both airport planning and regional planning can proceed without undue uncertainty.

The role of a second Sydney airport

Eight submissions (229.004, 233.021, 243.003, 274.038, 338.033, 396.002, 433.004 and 449.004) were critical of the lack of specific role definition. One suggested a second Sydney airport would be limited to, or would never grow beyond, a general aviation facility and one went so far as to suggest it could never be more than an emergency field. Many made specific suggestions about what role the airport might play.

The fact is that any second airport would serve a supplementary role to Kingsford-Smith Airport. This has been made clear in ministerial statements affirming that Kingsford-Smith Airport will remain the dominant airport for the foreseeable future. This is also the lesson learned from overseas, where in many instances the second airport is not fulfilling the specific role which was intended of it. The exact nature of its role will be characterized by the type of traffic it accommodates when compared with Kingsford-Smith Airport. The Draft EIS makes this comparison for overseas airports and predicts a likely outcome for Sydney. This indicates that a second airport may have to accommodate the full range of aircraft types. To follow the suggestion that only a small general aviation airport should be reserved would mean prescribing the role of a second Sydney airport whether that was best for Sydney or not. No other choices would be possible.

Two submissions suggested that with a reduced role for a second Sydney airport a smaller site would have been required enabling a location closer to Sydney to be selected.

There are two aspects to this suggestion. Firstly, although (or because) the role cannot be defined with certainty at the present time the Department believes it would be most unwise to exclude the possibility of second Sydney airport ever being used by large long range aircraft. This leads to the requirement for at least one long runway and for large manoeuvring areas with the consequent need for a relatively large site.

Secondly, the suggestion that a smaller site would mean a close site is based, at least in part, on a fallacy. Although it is desirable from a passenger access point of view for a second airport to be close as possible to the central business district it is unlikely that a site for anything larger than a general aviation aerodrome could be found closer to the central business district than Badgerys Creek.

Good planning has dictated the course adopted by the Government: that a site be reserved which is capable of being developed to provide a wide range of roles, all supplementary to Kingsford-Smith Airport.

Tourism

Three submissions (comments 342.015, 374.004 and 432.026) argued that tourism in the region would benefit from an international airport located there while one, comment 361.041, felt better promotion would be of more benefit to tourism than an airport. However, considerations of local significance such as this are not likely to exert a strong influence on the final role of the airport.

Effect on residents near Kingsford-Smith Airport

One submission (461.003) commented on the fact that the second airport's supplementary role promised little relief to Kingsford-Smith Airport residents. It should be stated that a second Sydney airport site selection was not promoted as a plan to reduce air traffic levels at Kingsford-Smith Airport but as provision against the shortfall of capacity at Kingsford-Smith. In doing so, however, it does provide an alternative to long term sole reliance on Kingsford-Smith Airport and therefore an alternative against which to compare any future proposals for Kingsford-Smith.

2.2 SIZE OF SECOND AIRPORT

No submission received commented on this section.

2.3 TRAFFIC SPECIALIZATION

No submissions received commented on this section.

2.4 DISTRIBUTION OF TRAFFIC

Twenty-one submissions including fifteen proformas discussed the distribution of traffic between the two airports. The comments were of three types:

- . the role of Kingsford-Smith Airport;
- . the reluctance of airlines to move to a second Sydney airport;
- . the difficulties of interlining between airports. (This subject is also dealt with under 10.4 and 15.4 Access.)

Role of Kingsford-Smith Airport

Three comments (336.002, 359.005 and 391.007) were related to the role of Kingsford-Smith Airport. One submission claimed that the Draft EIS failed to take into account the role of Kingsford-Smith Airport as a major international airport, one was opposed to any role for Kingsford-Smith Airport which permitted increased use, and one suggested that as there is a low level of cost recovery for general aviation it should not be allowed to operate from Kingsford-Smith Airport.

The Draft EIS states that Kingsford-Smith Airport 'will be maintained at least at its present level of runway capacity' and indicates that it is expected to remain the major international gateway. The question of access to Kingsford-Smith Airport by general aviation is addressed in Section 1.2.

Reluctance of airlines to move

Nine submissions, (223.007 (proforma), 328.012, 362.020, 362.022) highlighted the reluctance of established airlines to duplicate their facilities at a second airport, one claiming that this point was overlooked in the Draft EIS.

This point is recognized in the Draft EIS which states (page 63) that 'the alternative option for the airlines of relocating to a second airport is not realistic in the face of their established market and competitive relationships'. The point being overlooked in these submissions is that in the second Sydney airport airlines which cannot gain access to, or are displaced from, a congested Kingsford-Smith Airport have an alternative location at which to develop. Although this may not be their first preference, it may be preferable to the other alternative of no longer operating through Sydney at all. This has been demonstrated overseas where airlines do operate from second airports and in many cases the same airlines operate at both airports.

Interlining

Comments 1.005 and 271.007 (proforma) are dealt with here because they seemed to imply that international services would be at one airport with domestic at the other and therefore considerable inter-airport traffic would be generated. A number of other submissions also dealt with the interlining question and these are discussed in Sections 10.4 and 15.4 of the Draft EIS.

The likely distribution of traffic is discussed in Section 2.4 of the Draft EIS.

As the airlines are well aware of the reluctance of passengers to transfer between airports it can be expected that schedules would be arranged in order to minimize such transfers. Initially, flights operating from a second Sydney airport would probably be those with a small proportion of transfer passengers. Later, when movement levels had grown, reasonable connections would be possible at a second Sydney airport.

2.5 TIMING AND LOCATION OF DEVELOPMENT OF SECOND SYDNEY AIRPORT

Nine submissions raised the issue of the timing of development of a second Sydney airport. These were grouped under three headings:

- . When will construction commence?
- . How long until it is operating at capacity?
- . Cost recovery.

Construction timing

Six submissions commented on the timing of construction (65.025, 205.029, 319.005, 338.090, 359.002 and 376.011). One submission made the point that although some of the uncertainty surrounding a second Sydney airport will be resolved by selection of a site, for the residents of the chosen area the uncertainty of timing will remain.

One submission requested priority funding for the second Sydney airport to permit an immediate start on construction, one pointed out that the timing of development would be likely to depend on the choice of site, with a more distant and hence less attractive site developed later, and another claimed that if Wilton were chosen the second Sydney airport would never be built.

There has been no Government decision on major airport developments in Sydney. Based on the Department of Aviation's forecasts of demand and capacity and assuming unchanged policies on Kingsford-Smith Airport access and development it appears that a second Sydney airport could be required before the end of the century. Given an immediate start, it could not be operating for major traffic much before 1995. The Draft EIS recognizes that the timing of construction would probably be later for a more distant site.

Growth of traffic at a second Sydney airport

Two submissions (comments 246.012 and 361.019) related to this issue. One submission stated that Wilton would not attract patronage for a long time, a claim supported by the Draft EIS (page 65). The other comment referred to the time it might take before the airport was operating at full capacity.

It is important to recognize the difference between the expected future of the proposal and its possible future for planning purposes. The Draft EIS states (page 64) that the level of traffic at the second Sydney airport would initially be fairly low, possibly between 2 and 5 million passengers per annum. It would also be expected to grow slowly. However, for the purposes of planning the facilities required and hence the amount of land to be acquired and for assessment of the 'worst case' environment impact, a figure of 13 million passengers per annum was chosen.

This does not mean that the Department of Aviation expects the airport necessarily to reach this level of operations. On the contrary, this figure was chosen for the 'worst case' because it was considered most unlikely to be exceeded.

Cost recovery

One submission, comment 433.009, pointed out the difficulty for the airlines if they were to be charged interest on the cost of acquiring the site.

This is a matter for determination by the Government. Cost recovery, as it relates to the general aviation industry is discussed in Section 1.4 of this Supplement.

CHAPTER 3

POSSIBLE SITE LOCATIONS

3.1 PREVIOUS STUDIES

Eleven submissions raised issues which can be divided into the following:

- . claims that the present study ignores the findings of previous work;
- . alleged discrepancies between the sites considered in this and previous studies;
- . a reference to the third London airport.

Findings of previous studies

Seven submissions raised seven comments (236.003, 325.012, 328.001, 340.002, 389.017, 391.004 and 428.002) relating to the results of previous studies.

These submissions claimed that previous studies had recommended development of Kingsford-Smith Airport and that the present programme had ignored this. One submission conceded that the Major Airport Needs of Sydney Study had also recommended the reservation of a site at Badgerys Creek.

Some previous studies have recommended the development of a close spaced parallel runway at Kingsford-Smith Airport. However, most have recognized that this may well be only a stop-gap measure. For example, the Joint Committee Planning Sydney Airport stated in 1973 that 'it would be unlikely that a second airport would be necessary prior to 1990'. In 1979 the Commonwealth members of the Major Airport Needs of Sydney Committee recommended that in addition to the construction of a close spaced runway at Kingsford-Smith Airport 'a contingent site for a curfew-free major airport ... should be protected'.

There are uncertainties associated with the prospect of further development of Kingsford-Smith Airport, and the selection and acquisition of a site for a second airport represents prudent planning which would enable Sydney to preserve the option of constructing a second airport if and when this becomes desirable. It is not inconsistent with the findings of previous studies.

Discrepancies in the sites considered

Four comments (7.009, 362.012, 385.008 and 399.005) related to apparent discrepancies between sites considered in this study and previous studies.

One submission, that of the Horsley Park Protection Co-operative, suggested that no indication had been given that the Badgerys Creek area would be shared with an airport. However, the same submission conceded that for the past eight years the Co-operative has been basically concerned with questions relating to Sydney Airport.

The Badgerys Creek area was one of the options considered during the Major Airport Needs of Sydney Study as the site for a major second airport. In 1977-78 an intensive public information programme was undertaken to ensure that the residents of Sydney were aware of the proposals under consideration.

In fact the possibility of aviation activity in the area has been public knowledge since at least 1968 when the Sydney Region Outline Plan showed a possible future airfield in the area.

One submission asked why Wilton was not considered in earlier studies and one claimed that Wilton had previously been rejected on environmental grounds, implying that it should therefore not have been included in the present programme.

The Wilton site was on List A of the Benefit/Cost Study referred to on page 70 of the Draft EIS. In that study sites were eliminated by a system of pair-wise comparisons and Wilton was eliminated, largely on cost, not environmental grounds, in favour of Holsworthy. In the present study all sites were re-examined and the list for detailed comparison drawn up as stated in the Draft EIS.

Third London airport

One submission comment (233.023) stated that the Draft EIS should have included some discussion of the search for a third London airport.

The third London airport study was examined as a guide to the conduct of this study but it was not considered relevant for the Draft EIS.

3.2 REPORT ON THE DEVELOPMENT OF AN INTERNATIONAL AIRPORT AT SYDNEY (1946)

See Section 3.1 for responses to comments relating to this section of the Draft EIS.

3.3. MAJOR AIRPORT REQUIREMENTS FOR SYDNEY STUDY

See Section 3.1 for responses to comments relating to this section of the Draft EIS.

3.4 BENEFIT/COST STUDY OF ALTERNATIVE AIRPORT PROPOSALS FOR SYDNEY (1969-70)

See Section 3.1 for responses to comments relating to this section of the Draft EIS.

3.5 THE MAJOR AIRPORT NEEDS OF SYDNEY STUDY

See Section 3.1 for responses to comments relating to this section of the Draft EIS.

3.6 SITE SELECTION PROGRAMME

Fourteen submissions raised issues related to the conduct of the study and the criteria by which sites were included for detailed examination. These can be divided into four issues:

- . Criticism of the initial grid used to examine the region;
- . Suggestions of other sites which should have been included in the study;
- . Comments on the 'no national park' criterion and the relationship between national parks and water catchments;
- . Claim of conflict with National Conservation Strategy.

Criticism of grid

The submission from Goulburn City Council made a number of comments (459.018, 459.019, 459.023 and 459.025) regarding the 80 km radius from Sydney, the choice of 9 km as the size of the grid squares and the terrain clearance limitations.

The 80km circle has no particular significance. All areas within this distance and some outside it were examined. The circle was drawn on the map merely to indicate that all the sites listed (except Goulburn) fell within this distance. The Goulburn site was included on the list as representative of all sites outside 80 km.

The programme included an examination of all sites in the Sydney region and, as much valuable information was available from previous studies, the work was facilitated by using the same grid of squares as had been used in both the Benefit/Cost Study (1971-1974) and the Major Airport Needs of Sydney Study (1977-79). A 9 km square is a convenient size for use in seeking sites for a large airport and the fact that potential sites frequently straddle more than one square does not affect the validity of the method.

As noted on Figure 3.2 of the Draft EIS some squares were eliminated on more than one criterion, only the principal one being shown on the map. For example, most of the squares shown as national park could equally have been eliminated for some other reason.

The selection criteria used at this early stage of the study were preliminary only. They were used as guides and not rigidly applied. That is, if a site failed on only one criterion it was not immediately excluded.

Other sites which should have been included

Eight submissions made nine comments (201.004, 202.007, 233.032, 308.001, 324.005, 329.008, 342.019, 342.018 and 361.043) regarding other sites. Holsworthy, Richmond, Schofields, Towra Point, 'off-shore' and Wattamolla were suggested as locations which had not been adequately considered.

Holsworthy was included in the study and the reasons for its elimination are documented in Chapter 6 of the Draft EIS.

Richmond was examined in considerable detail before it was excluded from the list. Establishment of the second Sydney airport there would have required a considerable expansion of the existing RAAF aerodrome and the location was excluded on the grounds of the number of people disturbed, noise, cost and terrain clearance. (Different obstacle clearance criteria apply to civil and military aircraft. Many airline services would be unable to operate from the existing runway at Richmond).

References to Schofields and other general aviation aerodromes are dealt with under Section 1.4 of the Draft EIS.

Prior to the commencement of the Major Airport Needs of Sydney Study the Towra Point area was designated as a Nature Reserve and it was agreed by both the Commonwealth and NSW Governments that it be excluded from further consideration as a possible airport site.

As noted in Section 3.3 of the Draft EIS, a number of off-shore sites near Sydney were studied in the Benefit/Cost Study conducted between 1971 and 1974. These included both deep water and shallow water sites. All were eliminated, largely on the basis of excessive cost. Changes in cost structures during the intervening years have been insufficient to throw doubt on the validity of these findings and consequently, no off-shore sites were included in the present programme.

Wattamolla was excluded as the site is entirely within the Royal National Park; Australia's oldest and most intensively used national park.

The 'no national park' criterion

Nine submissions made eleven comments (69.004, 205.020, 233.009, 329.008, 338.005, 338.072, 340.033, 342.020, 342.022, 361.007 and 385.010) relating to the criteria used in eliminating areas for consideration as an airport site. Most of these submissions claimed that because people have been excluded from the water catchment area, the Wilton site is largely undisturbed, of high ecological value and constitutes a de facto national park. They argue that the 'no national park' criterion should be read to include 'no catchment area'.

This argument overlooks the fact that national parks and water catchment areas are dedicated for quite different and to some extent conflicting purposes. National parks are proclaimed not only for the conservation of natural resources but also for the recreation and enjoyment of the public. In water catchment areas on the other hand, the aim is to preserve the quantity and quality of drinking water available and the conservation of nature is incidental to this purpose. Catchment areas are therefore de facto nature conservation areas but not de facto national parks.

The Draft EIS recognises the high ecological value of the Wilton site and treats this in some detail. Indeed a number of submissions have claimed that it pays too much attention to flora and fauna at the expense of social issues.

The Draft EIS also acknowledges the problem presented by the airport in the maintenance of water quality and the proponent has taken pains to show that this can be overcome.

Two submissions claimed that national parks are areas suitable for the siting of an airport where it would not affect people. An airport would constitute an incompatible land use within a national park and would require revocation of part of the park. Such revocation would require an Act of the NSW Parliament. It was judged unlikely that revocation for airport purposes would be acceptable to Governments or the community in general, and national parks were therefore excluded.

National Conservation Strategy

One submission (comment 338.065) claimed a proposal to site an airport at Wilton would run counter to the National Conservation Strategy, which has been adopted by both the Commonwealth and NSW Governments.

The Strategy recognizes that living resource conservation and sustainable development are interdependent and that some modification of the biosphere is necessary to satisfy human needs and improve the quality of human life. The Draft EIS documents the impacts of the proposal on the biosphere. Whether these impacts are considered excessive in relation to the potential benefits is a matter for Government decision.

3.7 PROGRESSIVE LOSS OF POTENTIAL SECOND AIRPORT SITES

This section of the Draft EIS concluded discussion on the history of the selection of second airport sites in Sydney and illustrated that closer sites were being progressively lost to urban development with the remaining candidate sites being necessarily located at a greater distance from the city centre.

One hundred and twenty submissions (117 of which were proformas) were received with comments relating to this section of the Draft EIS. Comment 8.002 (proforma) accepted

the need for selection of a site for a second Sydney airport. The remaining three comments were:

- . why has development around possible sites been permitted (368.004)?
- . the decision is fifteen years too late (460.005);
- . Wilton would be the world's most remote airport - not viable on international experience (338.038).

With reference to past development being permitted around possible sites it can be imagined that in the absence of a decision on a site there would have been immense practical difficulties inherent in any decision by the NSW Government to limit development around the eighteen metropolitan sites which have been candidates at one time or another in the past sixteen years (see Figure 3.1 in the Draft EIS). Subsequent to the short-listing of Badgerys Creek and Wilton, directions were issued by the NSW Minister for Planning and Environment to ensure that matters contained in the Draft EIS would be taken into account in determining development applications. This is an interim measure and will be reviewed when a decision is made on the site selected for an airport.

Had a decision been taken on a site fifteen years earlier, the uncertainty and controversy associated with subsequent attempts to select a site would have been avoided.

By comparison with international examples Wilton, if selected as the second airport site, would be further from the centre of the city it served. The Draft EIS acknowledges that because of this distance, the choice of Wilton would necessarily imply acceptance of some constraints on its role and manner of development (page 546). In comparison to less distant sites, Wilton's role would be more restricted to serving:

- . those travellers most willing to trade increased access time for lower air fares (mainly leisure travellers);
- . those least disadvantaged by the remote location (mainly visitors to, and residents living in, the south of the city).

It follows from these constraints that the time at which development of a second Sydney airport at Wilton would become viable would be later than for a closer site.

CHAPTER 4

SITE SELECTION METHODOLOGY

4.1 APPROACH TO THE SITE SELECTION TASK

Three submissions made two comments on the methodology used to select Wilton and Badgerys Creek for detailed evaluation and comparison in the Draft EIS. One of these comments (449.005) agreed with the methodology used in selecting the final two sites. Another comment (274.013) was prescriptive, recommending that additional regional planning be undertaken and that new planning schemes for (the) airport surrounds take into account the number of existing buildings and the impact of prohibiting certain types of new buildings, (further discussion on this category of comment can be found in Sections 9.2 and 14.2).

A further submission (comment 340.034) criticized the site selection methodology on the basis that 'even the squares (presumably the 9 km x 9 km grid squares on Figure 3.2, page 74 of the Draft EIS) considered for study exclude this area (Wilton), yet it managed to be included'.

The grid square for Wilton from Figure 3.2 is accurately transposed to Figure 5.9, page 116, at a scale of 1:100,000. The Wilton sites used for short-listing and the more detailed evaluation in Part C of the Draft EIS fall within this grid square. The criteria used for selecting the Wilton grid square initially are clearly stated on page 74 of the Draft EIS.

4.2 AIRCRAFT TYPE MIX AND AIRPORT LAYOUT

One submission (comment 459.014) claimed that the document does not state a minimum area required for a location to be considered as a second airport site. The dimensional criteria for selection of candidate locations are stated on Page 74 of the Draft EIS and approximate land areas are given for different airport layout types in Table 4.2, page 80.

4.3 SELECTION OF AN AIRPORT LAYOUT AND OF A WORST CASE

Comment 202.004 questions the relevance of the site selection criteria in the light of recent low growth rates. Growth in air traffic was not considered in relation to the selection of criteria for evaluation of the ten sites. However, the possibility of a relatively low level of development at the second airport (5 million annual passenger movements) was considered in the site selection methodology (see pages 151 and 152 of the Draft EIS).

Comment 274.012 states that the selection data should have been based on the 20 ANEF and not the 25 ANEF contour. To have done this would have been inconsistent with the Department's land use compatibility advice for areas in the vicinity of Australian airports (see Table C1 page 581 of the Draft EIS). However, the site selection methodology recognized the risk in underestimating noise impacts at the selection stage by:

- evaluating sites under a 'worst case' of 25 million annual passenger movements (see page 82 of the Draft EIS);

introducing a selection criterion (No. 12, page 87 in the Draft EIS) which allowed for greater intensity of residential development within the noise contour than would otherwise be supposed from consideration of existing development and that permitted under current zoning.

Comment 459.031 queried the choice of eleven to twelve million passengers per annum as the limit for Kingsford-Smith Airport.

While it is quite possible that Kingsford-Smith Airport may be developed to handle more passengers than this, for the purposes of a worst case (that is, a maximum likely throughput) for the second airport it is necessary to assume a conservative limit for Kingsford-Smith. Eleven to twelve million passengers per annum was considered a conservative but not unreasonable figure.

4.4 SITE SELECTION FACTORS

Three submissions made comments which were critical of the site selection methodology. These comments questioned aspects of the site selection criteria as follows:

- . the criteria were very, 'questionable' and in particular Wilton should have been excluded on all twenty-five criteria (385.007 and 457.008);
- . the site ranking matrix does not cover all the variables (337.006).

The Draft EIS notes that there is no commonly accepted list of appropriate factors to be considered in airport site evaluation and, while some factors are common to a number of studies, local conditions and perceptions of issues are the principal basis for determining selection criteria (page 84). The Draft EIS explains how the four factors were arrived at, and the basis for selection of the twenty-five sub-factors (pages 86-88).

The submissions are not specific as to which criteria should be deleted or which should be added to the Department of Aviation's list. Comment 385.007 questions the identification of five of the sub-factors as 'more important'. The basis for the selection of these five sub-factors lies in the review of international experience and surveys by the Department (see page 127 and Table 6.21, page 147).

4.5 DATA EVALUATION METHODS

Two submissions were critical of procedural aspects of the site selection methodology. Comment 338.006 stated that the Metropolitan Water Sewerage and Drainage Board was not approached before September 1984. This is incorrect: officers of the Department of Aviation and the Board met in February and March 1984 and representatives of Kinhill Stearns and the Board met on 10 August 1984. Subsequently, the Metropolitan Water Sewerage and Drainage Board provided Kinhill Stearns with cost data for use in the site selection process (see page 118 of the Draft EIS).

Comment 338.071 claims that there was no report and almost no sitework at Wilton before the Minister's announcement. The site selection exercise was undertaken with all specialist reports to hand. The selection exercise involved representatives of the Department, the Consultant and officers of the NSW Government. In their final consideration of the data, within the framework of the methodology described in Chapters 4 and 6 of the Draft EIS, the Department and its Consultant were in full agreement on the short-listing of Badgerys Creek and Wilton. The Consultant's recommendation was conveyed to the Department by memorandum on 23 August 1984. The Consultant's recommendation, as conveyed in the memorandum, is set out on page 154 of the Draft EIS.

Subsequent to the provision of a recommendation the Consultant documented the site selection process and results in detail. This documentation forms Chapters 3, 4, 5 and 6 of the Draft EIS.

The data collection methods used in the site selection process are set out on pages 93 and 94 of the Draft EIS. Field work was undertaken wherever possible and relevant; otherwise desk research was used. Airport planning consultants visited the site throughout July, August and September 1984, and the fauna and flora field studies were commenced at the beginning of August, 1984.

Some environmental studies did not require field inspections at the site ranking stage of the study. These included the anthropological, archaeological, European heritage and agricultural studies. These studies utilized materials such as heritage and archaeological registers, maps and aerial photographs, and contact with appropriate local groups such as the Local Aboriginal Land Councils, heritage groups, the Metropolitan Water Sewerage and Drainage Board and other appropriate contacts.

However, the Draft EIS recognized that the level of detail in data collected at the site selection stage differed from that subsequently collected for the evaluation of Wilton and Badgerys Creek (see last paragraph on page 94 of the Draft EIS).

CHAPTER 5

SITE CHARACTERISTICS

5.1 DESIGN PARAMETERS AND DATA COLLECTION

One submission was received that made three separate comments, (459.015, 459.022 and 459.026), relating to the characteristics of alternative sites discussed in Section 5.1 of the Draft EIS. These comments raised three issues:

- . minimum area for second Sydney airport site;
- . runway layouts;
- . types of cut and fill material.

These issues are discussed below.

Minimum area for second Sydney airport site

One comment (459.015) stated that the Draft EIS does not specify the minimum suitable land area required for a location to be considered as a potential second airport site.

Although a minimum area is not given in Section 5.1, which discusses design parameters, the minimum land area required for the closely spaced parallel runway and widely spaced parallel runway layouts is given in Table 8.3 of the Draft EIS. The notional site boundary and preliminary master plan for environmental assessment at each location was based on the widely spaced parallel runway layout.

Passenger movement capacities and land requirements for other runway layouts considered during the course of the study are also given in Section 4.2 of the Draft EIS.

Runway layouts

Two comments (459.022 and 459.026) queried the process of selecting runway layouts for consideration.

Layouts considered are illustrated in Figure 4.1 of the Draft EIS. The four layouts considered constitute a progression from the simplest, relatively low capacity layout, that is a single runway with a cross wind runway, to the double widely spaced parallel runways with cross wind runways. The last provides about four times the capacity of the single runway layout.

Types of cut-and-fill material

One comment (459.022) suggested that details of the types of cut and fill material at each site should have been given in the Draft EIS.

Calculations of the volume of cut and fill were made for the ranking of each of the ten nominated locations. With the exception of Holsworthy, all sites were able to provide the required quantities for a 'balanced' cut/fill. Some 50 to 70 million cubic metres of borrow would be needed to prepare the Holsworthy site for airport development. No special provision was made for obtaining this material. Further volume and area calculations were made for the two short-listed sites at Wilton and Badgerys Creek, and the information is presented in tabular, cross sectional and site plan form in Tables

10.1.6 and 15.1.6 and Figures 10.1.7 and 15.1.8. The bedrock geology and soils of each short listed site, which would constitute the cut and fill material in each location, are also considered in Sections 10.1 and 15.1 of the Draft EIS. The geology and soils of each of the ten nominated locations is also discussed in Chapter 5 of the Draft EIS.

5.2 CLOSER SITES

No submission commented on this section of the Draft EIS.

5.3 MID DISTANCE SITES

Two submissions were received that related to the assessment of characteristics of the mid-distance sites made in Section 5.3 of the Draft EIS. These submissions made two separate comments, raising two issues relating to the proposed Wilton site:

- timing of subconsultant's visits;
- location of proposed site.

Timing of subconsultant visits

One submission (comment 205.005) stated that no subconsultants had visited the proposed site prior to its shortlisting.

This is false. A number of subconsultants visited the sites throughout July, August and September 1984. Environmental investigations commenced at the beginning of August, 1984 and it was not necessary for all specialists to visit the sites as some environmental studies did not require field inspections. Those studies utilized materials such as heritage and archaeological registers, maps and aerial photographs, and contact with appropriate local groups such as the Local Aboriginal Land Councils, heritage groups, the Metropolitan Water Sewerage and Drainage Board and other appropriate contacts.

Location of proposed site

One submission (274.096) commented that the proposed site which impinges on the Metropolitan Catchment area should not have been preferred over a site within the village of Wilton without study of the differential costs and benefits of the two locations.

The decision to alter the proposed site from that which was shown in the press release dated 18 September 1984, which included the village of Wilton, was based on several factors of which the social dislocation that would result from resumption of the village site was one. Other factors considered included:

- the currently proposed site is topographically more suitable than the site including the village;
- the village site required a larger area due to the probable need for a cross wind runway to satisfy usability criteria at that site whereas the currently proposed site allows a more compact layout and does not require a cross wind runway;
- the currently proposed site potentially sterilizes less good quality coal than would the village site;
- the proposed site does not affect potential areas for future urban development whereas the site encompassing the village of Wilton would have had an adverse effect on large areas suitable for potential future urban development;

- discussions of alternatives with the Metropolitan Water Sewerage and Drainage Board resulted in a statement of conditions which would attach to an airport sited substantially within the catchment. These conditions could be satisfied as outlined in the Draft EIS.

It should also be noted that the site encompassing the village area encroached upon the Metropolitan Catchment although to a lesser extent.

5.4 OUTLYING SITE

No submission commented on this section of the Draft EIS.

CHAPTER 6

SELECTION OF THE SHORT-LISTED SITES

6.1 SUMMARY OF THE SHORT-LISTING PROCESS

No submissions were received relating to Section 6.1 of the Draft EIS.

6.2 SITE ANALYSIS AND GROUPING

Two submissions were received that made two separate comments (385.009 and 337.009) critical of the approach taken in grouping the sites by distance and then evaluating like sites within groups. The first (385.009) questioned 'manageability' as a reason for grouping sites; the second (337.009) suggested that this process involved a selective reduction in the number of competing sites, and that if Wilton or Badgerys Creek was the superior site, then it should come out on top without the need to divide into two groups.

The grouping of sites was necessary because of the greatly differing characteristics of the ten sites and because it was the only means by which more distant sites could be legitimately evaluated. Inspection of the data, as described in Section 6.2 of the Draft EIS led to the conclusion that there were obvious differences between groups of sites and that, as in any comparative exercise, teaming competitors with like capabilities is essential to the achievement of a fair result.

Five of the ten sites were included in the initial list for evaluation even though they had been examined and rejected in earlier studies. These sites were included because it was considered that changes in the intervening years and the continuing public interest and strong promotion by the press and personal representation made it desirable that they be reviewed again (Section 3.6, Draft EIS). These five sites were Somersby, Darkes Forest, Wilton, Warnervale and Goulburn; the four mid-distance sites and one outlying site. These sites had been publicly promoted for a variety of reasons including the stimulus an airport could add to a local economy (eg. Goulburn) and the fewer people likely to be affected by land acquisition and aircraft noise at less populated sites (e.g. Darkes Forest, Wilton). None of the five sites was suggested because it was more convenient as an airport site.

The alternative to grouping sites would have been to consider all together (as the site ranking matrix does) using cost-benefit analysis. However, the essential limitation of any cost-benefit analysis is its inability to value convincingly major planning considerations, for example the value of environmental amenities. Fundamental issues of urban structure and form are not adequately argued in the context of a cost-benefit analysis. Insofar as the decision to establish a second Sydney airport reflects a choice as to the direction and form of Sydney for the year 2,000 and beyond, it requires more than a cost-benefit analysis.

A more specific defect of a cost-benefit analysis is its sensitivity to relatively minor assumptions which then assume apparently enormous importance when multiplied by millions of people over many years. Seemingly minor changes in assumptions on the parameters of access costs can, in most cases, substantially alter the perceived advantages or disadvantages of any option.

In particular, access user costs may swamp all other factors and lead inevitably to the selection of the closest site, as it did in the case of the Major Airport Needs of Sydney Study.

Such an approach would have excluded further serious consideration of the four mid-distance and one outlying site, on the basis that they were unlikely to survive conventional cost-benefit analysis (as demonstrated by the Major Airport Needs of Sydney Study). Such an outcome might have been welcomed by opponents to various mid-distance sites, but not by the proponents of those sites whose concerns are no less legitimate and worthy of serious analysis.

6.3 SITES WITH SEVERE LIABILITIES

Four submissions made a total of twenty separate comments relating to the elimination of Goulburn, Holsworthy and Darkes Forest from the list of ten nominated sites following first site ranking. These comments could be categorized into three main issues:

- . elimination of Goulburn and Holsworthy;
- . high speed access system;
- . benefits of outlying site.

These issues are discussed below.

Elimination of Goulburn and Holsworthy

Four submissions made eleven separate comments (233.022, 311.003, 403.001, 459.001, 459.003, 459.005, 459.006, 459.007, 459.008, 459.009 and 459.032) arguing that the nominated sites of Goulburn and Holsworthy should not have been eliminated from the detailed short-listing analysis. No similar comments were made for Darkes Forest.

Two comments related to the Holsworthy site. One suggested that the second Sydney airport should be located close to Sydney, in a location such as Holsworthy, Richmond or Schofields. The other suggested solutions to the practical difficulties at Holsworthy of airspace impacts and unexploded ordnance, but the suggested solutions are not feasible.

The remaining two submissions commented at length on the elimination of the Goulburn site. Comments by the Goulburn City Council state reasons why Goulburn should have been selected for short-listing. These include its lower environmental costs, less significant noise problem, freedom from transport congestion, expansion potential, lower risk of accidents in a densely populated area, ability to serve other major population centres, and the fact that altering factor weights could result in a more favourable ranking for the Goulburn site.

However, the overwhelming liability of the Goulburn site, the difficulty of access from Sydney, remains of sufficient significance to override all these considerations. The high speed access system, discussed below, is too uncertain a proposal to effectively reduce the disadvantage of poor access.

High speed access system

One submission made eight separate comments (311.001, 311.002, 311.004, 311.005, 311.006, 311.007, 311.008, and 311.010) suggesting that a high speed rail access system between the second Sydney airport and Sydney city centre would be feasible and would remove the access restriction on Goulburn and any other outlying sites.

This option was considered during the initial ranking of the ten nominated sites. However, as stated in Section 6.3, the uncertainties associated with the practical aspects of implementing a high speed transport system, including whether or not a broader social

or economic justification exists for such a system, the availability of funding, and the timing of implementation, were considered to be too great to allow site selection to be made on the basis of this proposal.

Benefits of outlying sites

One submission commented (311.009) that the location of the second Sydney airport at a decentralized growth centre would provide a stimulus to employment and economic activity in that centre. This was recognized in the preparation of the Draft EIS, but this objective was subsidiary to the major objective of the study, the reservation of a site which would effectively serve the aviation needs of Sydney. The outlying sites were not considered to satisfy this major objective because of their access difficulties.

The Goulburn City Council submission (comment 459.033) raised a number of arguments aimed at supporting the view that the Goulburn option was disadvantaged and raised a number of matters of particular concern to the council. These were:

- . inflated access times because of the failure to consider the Dr Wild rapid rail proposal;
- . identification of the optimum site and role of the Goulburn option, and site operational factors particularly wind coverage and site flexibility;
- . capital costs of site preparation and road access.

The Goulburn City Council indicated that Dr Wild's proposal for a high speed rail service between Sydney and Melbourne promotes Goulburn but not Wilton or any intervening site because this proposal envisages no stops between Ingleburn and Goulburn. The Goulburn City Council questions whether the Consultant contacted Dr Wild on this matter. Dr Wild was not contacted since he was overseas at the time, but contact was made with CSIRO who had access both to his proposal and to details of the Trans-rapid Maglev System. The team considered other concepts of high speed travel to the city centre, other than the proposal put forward by the Goulburn City Council. These were impractical, for reasons set out on p 131 of the Draft EIS. Undoubtedly any high speed rail system, if it were built, would service a major airport at Wilton. It is also worth noting that the study team's scepticism about the high speed rail proposals was shared by the Federal Department of Transport, the State Government and the Consultant. It represents a most uncertain basis on which to select an airport site.

The Goulburn City Council goes on to indicate by how much the assessed access time, on which Goulburn is ranked so badly, would decrease if a high speed rail system were introduced. A similar system operating to Wilton or even Badgerys Creek would also yield reductions in access time. In addition this type of proposition overlooks the cost of this level of high speed access both in terms of capital costs and fares. The Goulburn City Council perhaps assumes that since the rail system is to be constructed between Sydney and Melbourne the marginal capital costs and fares to Goulburn would be very low or even zero. Again the same arguments apply to other possible sites.

The Goulburn City Council also raised an argument that the role assigned to a second airport would be minor if Kingsford-Smith Airport remains the dominant business oriented airport; and Goulburn ranks better with a higher level of activity. This comment appears to overlook the fact that the ranking was based on 25 million passengers and 5 million passengers. Goulburn is situated more than 200 kilometres from the market it would have to serve and suffers a major access disadvantage relative to the closer and mid distances sites. The Goulburn City Council submission remains the only submission which seriously challenges this conclusion ignoring the reality of this disadvantage and promoting reliance on a high speed proposal which could only be described as preliminary. It should also be remembered that Goulburn was included as a representative for all possible outlying candidate sites. If the Department and its

Consultant ignored the reality of this access disadvantage, all possible sites within a 200 km radius (and even beyond) would need to be considered since there remains no obvious reason why Bathurst, Orange, Newcastle or other centres would not prove superior to Goulburn.

The Goulburn City Council were also critical of the Department for failing to identify the apparent optimum site in the Goulburn area in terms of costs and wind coverage. This could well be true, since the more detailed study of Badgerys Creek and Wilton produced sites superior to those used in the site ranking. This is in fact what one would expect to result from a detailed investigation; but such detailed investigation is not warranted for sites which are clearly inferior to the short-listed sites. The point above should also be reiterated; if Goulburn had ranked well, it would have first precipitated the search for, and ranking of, all other outlying sites before consideration was given to the detailed examination of any one outlying site. The level of detail afforded the Goulburn site was the same as that afforded all ten candidate sites and is all that is necessary for the short-listing process. Only the Goulburn City Council and the Society Responsible for Social Engineering seem to disagree.

6.4 THE REMAINING CLOSER SITES COMPARED

Two submissions made two separate comments (236.002 and 290.008) relating to the comparison of the remaining closer sites. The issues raised were a suggested upgrading of RAAF Richmond Base to take interstate traffic and to function as a second Sydney airport, and the high level of building activity in the Bringelly area in the last fifteen years which should militate against selection of the Bringelly site.

RAAF Richmond Base suffered several restrictions in the selection process resulting in the list of ten nominated sites. The three major restrictions were that the Base lies too close to the Blue Mountains escarpment for civil operations to occur on the present east-west runway alignment (which would also cause considerable noise nuisance to residents of Richmond and Windsor); that the present airport is too small and the only direction available for its extension is to the south which would impinge both on built-up areas and flood-labile land; and that use of the base as a second Sydney airport would displace its existing user, the Royal Australian Air Force.

In the comparison of the four closer sites in Section 6.4, the scale of disruption that could be occasioned by acquisition of the Bringelly site, together with the generally better ranking of the Badgerys Creek site with which Bringelly shared other characteristics, led to the exclusion of the Bringelly site from further consideration as a location for the proposed second Sydney airport.

6.5 THE REMAINING MID-DISTANCE SITES COMPARED

Three submissions made three separate comments (233.007, 274.110, and 338.003) relating to the relative merits of the proposed Wilton site and the nominated Somersby site.

These comments suggest Wilton's superiority over Somersby was not sufficient to clearly identify Wilton as the preferred site. The Draft EIS acknowledges the difficulty of this choice but the reasons for selecting Wilton are clearly stated in Table 6.19 and Section 6.5 of the Draft EIS.

The most important difference between the nominated Wilton and Somersby sites was the number of people that would be displaced; 860 at Somersby against 310 at Wilton. Greater disruption would also be caused by development at Somersby as a result of a greater area of existing and possible future noise-incompatible land use, and the existence of a well established citrus orcharding industry at the Somersby site.

Essentially, it was considered that engineering solutions were available to mitigate or eliminate the perceived risk to Sydney's water supply in an airport development at the Wilton site, but that opportunities to reduce the disruption impacts at Somersby by relocating that site within the general Somersby area at the more detailed site planning stage were limited.

6.6 SENSITIVITY TESTING

Seven submissions made eleven separate comments relating to the design and outcome of the site ranking procedure outlined in Section 6.6 of the Draft EIS. The comments can be categorized into two main issues:

- . weighting of particular factors;
- . method of selection and weighting of factors.

These issues are discussed below.

Weighting of particular factors

Three submissions made three separate comments (63.001, 200.002 and 338.073) suggesting that particular factors had been wrongly weighted.

Two of these comments criticized the relative weighting of social environmental and natural environmental factors used in the site ranking process of the Draft EIS. One suggested that too little weight was given to the impact of development on people, as opposed to the natural environment; the other suggested precisely the reverse.

The third comment suggested that the major consideration (and hence heaviest factor weighting) should have been the distance of the site from the centre of Sydney's population.

The determination of factor weights is explained in Section 6.6 of the Draft EIS. As conceded in the text, no one set of 'correct' weights can be defined. However, the weights used (the average of the weights nominated by the principal members of the study team), are consistent with the public perception of the order of factor importance, as established by a survey of public attitudes carried out by the Department of Aviation in January 1984. This survey covered a total of 1,350 respondents drawn by a random quota technique from the Sydney metropolitan area and other locations which could be potentially affected by development at the proposed sites.

Method of selection and weighting of factors

Five submissions made eight separate comments (329.007, 337.007, 337.008, 338.070, 457.006, 457.009, 459.001 and 459.002) relating to various aspects of the methodology of factor selection, and assignment of factor weights used in the site ranking process.

The comments questioned the justification for the manner in which sites, factors and factor weights were selected, and criticized the working of the site ranking matrix on the basis of lack of objectivity in the assigning of factor scores and weights, and the exhaustiveness of variables selected for consideration.

The method of selection of sites for evaluation and factors for consideration in that evaluation is fully explained in the Draft EIS in Chapter 3 (Section 3.6 in particular), and Section 4.4 respectively.

Possible sites were selected by a review of sites proposed in earlier studies, and a systematic examination of all land within the Sydney region on a 9 km grid basis. The

criteria used for selection were density of population, national park reservation, topographic suitability, and suitable terrain clearance.

Factors on which sites were to be evaluated were defined through a review of international site selection standards and studies, and of the results of the Department of Aviation's survey of the attitudes of Sydney residents to airport related issues. The factors were defined on the basis of comprehensiveness, exclusiveness, objectivity and appropriateness, and had to represent one or more of five conditions of:

- . a unique or important environmental resource which could be adversely affected by airport development;
- . a critical determinant of airport location;
- . a constraint of sufficient magnitude either to preclude or to severely restrict airport development;
- . an issue likely to arouse public controversy;
- . a legal or statutory obligation of the proponent.

The highly methodical and overt approach to selection both of sites and factors for consideration has resulted in an approach to site evaluation the justification of which is made very clear in the Draft EIS.

There is inevitably a degree of subjectivity in the weighting given to factors and sub-factors of the site selection matrix because the intention of the weighting is to express public perceptions of the relative importance of the factors considered. The degree of severity of impact is reflected in the raw factor score assigned to each factor at each site.

The weightings given, as outlined in Section 6.6 of the Draft EIS, were the average of the weights nominated by the principal members of the study team. That this approach was successful in approximating community opinion is indicated by the fact that the order of importance of factors derived from the factor weights is consistent with the order derived from the views expressed in the survey of a sample of the population of the Sydney metropolitan area carried out by the Department of Aviation in January 1984.

The Goulburn City Council lodged a late submission, comment 459.032, which raised a variety of questions best related to sensitivity of site ranking, as the thrust of the questions were aimed at promoting the Goulburn site.

The points raised include:

- . insufficient weight was given to the noise effects;
- . the criterion used for site flexibility was poor;
- . costs should have included compensation for aircraft noise effects;
- . site selection factors should have included employment, decentralisation and regional development;
- . other aspects of the Goulburn site.

The Goulburn City Council attempts to argue that insufficient weighting was given to noise, for example when compared to the general aviation potential. Not surprisingly Goulburn ranks high on environmental factors such as noise, and low on accessibility factors such as potential to attract a general aviation market. The Goulburn City

Council arguments overlook the sensitivity testing which allowed a wide variety of weights to be applied to all major factors, and therefore to the individual contribution of sub factors.

The summary of results as outlined in Figure 6.3 in the Draft EIS indicates that even under weightings favourable to Goulburn - high environmental weighting and low access weighting - Goulburn is not likely to displace Wilton. The Goulburn City Council's submission is the only public submission received which suggests factor weightings being altered sufficiently to make outlying sites rank well.

The Goulburn City Council also asked what constituted a serious noise problem, and went on to suggest that if Kingsford-Smith Airport with 1945 ha of land area inside the 25 ANEF (a Major Airport Needs of Sydney figure) was considered serious, how could Badgerys Creek with 2511 ha within the 25 ANEF not be rejected. Kingsford-Smith Airport is surrounded by a densely populated urban structure and the appropriate measure of the extent of noise nuisance is, and always has been, number of people affected. In the ranking of sites in semi-rural areas, the area measure was chosen as a substitute for numbers of people affected. For those sites considered in detail, the number of people affected became the criteria.

The ability of a candidate site to accommodate a number of alternative runway orientations was the criteria for site flexibility. The rationale behind the use of this factor was that, all other things being equal, a site with high flexibility would offer more potential for detailed assessment of alternatives than one with only one possible runway alignment. Given that ultimately any adjustments made to the location and orientation of runways on highly ranked sites would be done to minimise costs and impacts, this factor could equally represent the cost of increasing capacity as suggested by the Goulburn City Council submission.

The Goulburn City Council submission argues that the cost of compensation for aircraft noise effects should have been included; such compensation representing acquisition of some affected properties and sound insulation or alternative forms of compensation for others. There are two reasons why this was not done. First there is no basis upon which to do so, since there is no generally accepted measure of the degree to which compensation should be paid if at all; i.e. there are no objective guidelines. Second, the analysis would have to dispense with the surrogate noise effect factors, since to leave them in the analysis after introducing the cost of compensation would consitute double counting. The Department believes its approach to noise in the site ranking was reasonable and few public views have questioned this.

The Goulburn City Council argue that there would be differences between sites in the impact of employment and the contribution of the airport to regional development and decentralisation.

The employment argument embraces two aspects : employment displaced and airport employment impact. The employment displaced is clearly a function and land use (e.g. agricultural activity) displaced which is included in site selection factors. Assuming each site could support the same development potential, the employment impacts would be the same for each site, provided the airport region had the necessary commercial and industrial structure to exploit the flow on employment potential of airport development and operation. Although this was not assessed, it is likely that the most remote sites would not support the same development potential and could not provide the same commercial and industrial structure as the least remote sites. In any case, there is no objective way of quickly assessing whether 10,000 job opportunities at Goulburn is better than the same employment potential Wilton or Badgerys Creek for example.

The same arguments apply to decentralisation and regional development. At least for the closer and mid distances sites there were no indicaitons that urbanisation and

infrastructure demands in the airport region would create problems of sufficient magnitude to discriminate between them on that basis.

The Goulburn City Council's submission also raises a number of questions related to both Wilton and Badgerys Creek on the basis that superior sites (presumably Goulburn) with greater capabilities may have been excluded because of deficiencies in the site selection process. These capabilities include:

- . The capability to virtually eliminate the existing problems of noise, risk to health, risk of aircraft crash in densely populated areas, completely eliminate air traffic congestion and road congestion, capability to provide an alternative to sole reliance on Kingsford-Smith Airport and thereby offer better prospects of continued access to Kingsford-Smith Airport for NSW country residents.

The submission raises questions related to these capabilities. The short answer is that all second Sydney airport sites offer these capabilities, but some better than others. A number of the questions focussed on the capability of providing a cross wind runway, the implication being that this remains a practical possibility for Goulburn but not Badgerys Creek or Wilton. This is not correct.

The Goulburn City Council mistakenly quote 95% usability from Badgerys Creek, quickly concluding that one day in twenty would be unavailable for freight aircraft operating at night, putting pressure on the maintenance of the curfew at Kingsford-Smith Airport. Reference to p 166 of the Draft EIS would reveal a usability of 99.6% of the time at Badgerys Creek for aircraft with crosswind capability of 20 knots, a common capability of commercial aircraft. The 95% usability applies to very small general aviation aircraft unable to operate on crosswind conditions exceeding 10 knots.

6.7 THE CLOSER AND MID-DISTANCE SITES COMPARED

One comment, 325.009, involved a comparison between the closer proposed Badgerys Creek site and the mid-distance proposed Wilton site. This comment suggests that the site ranking had a number of faults, and that Badgerys Creek is the most favourable site by a wide margin.

The comment argues that the difference of 1.4 in the aggregated ranking of the Badgerys Creek and Wilton sites is almost as great as the difference between the proposed Wilton site and Darkes Forest, the eighth ranked proposed site, and that this difference should be considered sufficiently large to remove Wilton from a competitive position.

However, the objective of the study was to identify two or three favoured sites for detailed evaluation. Examination of the characteristics of the ten nominated sites established that sites with a similar geographic relationship to the centre of Sydney shared a number of characteristics, and could therefore be grouped together. In general, sites that were closer to the metropolitan area:

- . were more accessible to potential air travellers;
- . were located in relatively developed or urban environments;
- . would affect more people through site acquisition and noise impacts associated with airport development;
- . involved greater interaction with existing airspace arrangements;
- . involved greater site acquisition cost.

Sites situated at a greater distance:

- . were less accessible to potential air travellers;
- . would affect fewer people through site acquisition and noise impacts associated with airport development;
- . involved lesser interaction with existing airspace arrangements;
- . involved less site acquisition cost.

The distance related characteristics of the ten sites reflect a basic choice to be made between types of sites, and therefore it was appropriate to consider the best ranking site from each of the two most feasible distance categories. That these two sites also emerged as the two best ranking sites from the site ranking exercise conducted without grouping on the basis of distance from Sydney confirms the logic of their selection.

6.8 SITES FOR EVALUATION IN AN ENVIRONMENTAL IMPACT STATEMENT

Ten submissions made twelve separate comments regarding the selection of the two proposed sites at Wilton and Badgerys Creek for evaluation in an environmental impact statement. The comments addressed three main issues:

- . comments on short-listed sites;
- . other alternatives;
- . comments on the process of selection.

These items are discussed below.

Comments on short-listed sites

Four submissions made four separate comments (278.001, 305.002, 361.035 and 459.010) relating to various aspects of the two short-listed sites.

Comments made include that the selection of either proposed site would have the potential for unacceptable interference with military operations, that neither short-listed site provides the beneficial effects to an outlying growth centre that an outlying site such as Goulburn could have provided, that Wilton is unacceptable on environmental grounds, and that Badgerys Creek is unacceptable on the grounds of quality of life and economic costs to residents.

All of these aspects were considered in the evaluation of the ten nominated sites leading to the short-listing of the proposed Badgerys Creek and Wilton sites.

Interference with military operations is considered both under 'Airspace arrangements' and under 'Variable capital costs', which considers the cost of relocation of Commonwealth facilities. Beneficial effects to an outlying centre, together with low environmental and social disruption impacts, are seen as one of the advantages of the nominated Goulburn site, though not of sufficient magnitude to override its severe access problems. Finally, low social disruption costs, and low natural environmental costs associated with the proposed Wilton and Badgerys Creek sites respectively, are seen as the major advantages of each of the short-listed sites, and the reciprocal high environmental costs at Wilton and high social costs at Badgerys Creek are acknowledged in the Draft EIS as the major faults of the two sites.

The consideration of all of these factors is incorporated in the scores received by these sites in the site ranking matrix, Figure 6.2 of the Draft EIS.

Other alternatives

Three submissions made four separate comments (59.001, 201.004, 202.003 and 202.006) suggesting alternative sites or arrangements to the development of a second Sydney airport at one of the two short-listed sites.

Suggestions included the use of Canberra airport as an international airport in lieu of building a second Sydney airport, extending Kingsford-Smith Airport to provide the needed capacity, using RAAF Richmond Base or other of Sydney's existing airport facilities to provide extra capacity, or considering a third site.

Canberra would suffer the same disadvantages of access as the nominated Goulburn site, and can be eliminated from further consideration as a second Sydney airport on the same basis as Goulburn.

The option of increasing the capacity of Kingsford-Smith Airport by constructing an additional parallel runway has been examined, but it is considered that such an increase would do no more than defer the requirement for an additional site in the Sydney Region (Draft EIS Summary).

Factors militating against the use of RAAF Richmond Base have been discussed in this Supplementary report under the heading 6.4, The remaining closer sites compared.

The suggestion of considering a third site for more detailed evaluation was also examined in the Draft EIS. Section 6.8 outlines the possible combinations of site types that would have been considered and suggests the most suitable site representing each type. However, it was concluded that there was no apparent benefit in analysing three sites in detail for presentation in the Draft EIS: a two site comparison would enable all relevant issues to be examined.

Comments on the process of selection

Four submissions made four separate comments (205.004, 233.008, 338.004 and 457.005) relating to the procedure for selection of the two short-listed sites.

Three of these comments suggested that there had been no site report made to the Minister regarding the selection of the two short-listed sites before the Minister's announcement on 18 September 1984 that the number of locations being studied for reservation of a site for a second Sydney airport had been reduced to two: Badgerys Creek and Wilton. The Consultant's recommendation was conveyed to the Department of Aviation by memorandum on 23 August 1984.

The other comment queries the relevance of the short-listing process on the basis that both the Wilton and Badgerys Creek sites have been altered since the site rankings were drawn up and the Minister's announcement made. However, the alterations made in designing the preliminary master plan used for detailed assessment of impacts at each of the two short-listed sites involved simply a re-orientation of runways which did alter the land affected in small areas, but did not involve a relocation of the site. Much of the site area remained the same as that used in the short-listing process and therefore it could not be considered that the short-listing evaluation had been made redundant by later alterations to the precise site boundaries. All subsequent detailed evaluation of impacts was based on the preliminary master plan site boundaries. It should also be noted that the alterations made to the notional site boundaries in both cases reduced adverse impacts on settled areas bordering the two proposed sites.

CHAPTER 7

INTRODUCTION TO THE ASSESSMENT OF THE PROPOSED AIRPORT SITE AT BADGERYS CREEK

7.1 ASSESSMENT PROCESS

No submissions made comments on Section 7.1 of the Draft EIS.

7.2 LOCATION OF THE PROPOSED BADGERYS CREEK SITE AND ITS ENVIRONS

One submission 65.018, commented on Section 7.2 of the Draft EIS. The comment was that, because Badgerys Creek would disappear if airport development were to proceed, it was misleading to state that the proposed airport site is situated between the villages of Luddenham and Badgerys Creek.

The statement in the Draft EIS has been misinterpreted by the author of the submission as it was intended to indicate to the reader the location of the proposed site using known features of the region. The statement does not purport to describe the area at some unknown time in the future.

7.3 STRUCTURE OF THE REPORT ON THE ENVIRONMENTAL ASSESSMENT OF THE BADGERYS CREEK SITE

No submissions made comments relating to this section of the Draft EIS.

CHAPTER 8

DESCRIPTION OF THE PROPOSAL AT BADGERYS CREEK

8.1 PURPOSE OF THE PRELIMINARY MASTER PLAN

No submissions made comments in relation to this section of the Draft EIS.

8.2 THE PROPOSED AIRPORT SITE

One submission (comment 263.003) indicated concern about the boundary of the proposed airport in that it excluded properties adversely affected by noise.

The boundary of the airport was drawn to include only the land needed for airport purposes. Under existing Commonwealth government practice the boundary could not be extended to include properties not directly required for airport purposes. However, there is a Parliamentary Select Committee on Aircraft Noise enquiring into, among other things, the matters raised in the above comment. See also Section 9.2 of this Supplement.

8.3 PRELIMINARY MASTER PLAN ASSUMPTIONS

Ten submissions raised issues relating to the master planning assumptions. These were concerned with:

- . the need for a curfew-free airport;
- . the possible need to expand the airport at a later date;
- . usability of airport.

Curfew-free operation

Comments (65.011, 248.004, 264.031, 264.032, 267.002 (proforma), 328.004, and 330.008) sought an explanation of the need for twenty-four hour operation of the airport or expressed opposition to such operation. Two submissions (243.002 and 433.005) supported the need for curfew-free operations.

Airline operations are restricted by the present inflexible curfew at Kingsford-Smith Airport. This leads to less than optimum utilization of aircraft and increased operating costs. For example, when an incoming aircraft is delayed to such an extent that it may not be able to reach Sydney before the curfew it must be held at another airport and the passengers accommodated overnight. This leads to substantial additional costs for the airline.

A number of airlines have also expressed interest in night operations and on the basis of overseas experience it is expected that if the opportunity existed, a significant market could develop.

In the light of these present and possible future demands it would be short-sighted to select a site for the second airport where the option for curfew-free operation could not be reasonably preserved. Because of the importance of the curfew issue very conservative assumptions were used for the calculation of noise contours with the

number of night flights assumed being considerably higher than is expected to occur (see Section 9.2).

Later expansion

Two submissions (comments 264.015 and 341.016) suggested that the acquisition area of the proposed Badgerys Creek site be extended to preserve the option for future expansion of the airport.

The area of the site was calculated as sufficient to accommodate the 'worst case' of thirteen million passengers per annum. This is sufficiently in excess of the passenger levels actually likely to be achieved as to make the likelihood of further expansion negligible.

Usability

The Goulburn City Council (comment 459.029) claimed that the low wind usability of a second airport at either Badgerys Creek or Wilton would affect its role and particularly its contribution to relieving pressure on Kingsford-Smith Airport.

The Goulburn City Council has apparently misunderstood the discussion on wind usability in Sections 8.3.3 and 13.3.3 of the Draft EIS. It is stated there that the Consultant recommended to the Department that the wind coverage standard be relaxed from 99.8% to 95% for the aeroplanes the airport is intended to serve. The Department has not formally relaxed its 99.8% standard for wind usability, but has recognized that there is room for concessions against this standard for second airports in a region. In fact no major concession was necessary because at both Badgerys Creek and Wilton, wind usability exceeding 99.6% is available for aircraft with cross wind capability of 20 knots - a commonly achieved or exceeded capability for commercial aircraft operating on dry runways.

8.4 PRELIMINARY MASTER PLAN CRITERIA

One submission (comment 459.020) indicated that the Draft EIS did not indicate what procedures were applied to identify possible runway layouts within each 'cell' relating to the ten nominated sites.

Four schematic alternative airport layouts were used and adapted to each of the ten sites (Section 4.2 of Draft EIS). Section 4.3 of the Draft EIS indicates how specific layouts were used for site ranking and sensitivity testing to rank the ten nominated sites. Once the two short-listed sites were nominated, a further review was undertaken of runway layouts to be used for the environmental assessment. Section 8.3 of the Draft EIS gives the reasoning behind the selection of the proposed airport layout used for environmental assessment. Section 8.4 of the Draft EIS indicates the design/dimensional criteria used in the proposed airport layout. This information was considered adequate for the purpose of defining a proposed airport boundary. It should also be noted that the actual layout as depicted in the Draft EIS is preliminary.

8.5 PRELIMINARY MASTER PLAN

Five submissions were received relating to Section 8.5 of the Draft EIS. These four submissions included five separate comments (1.007, 305.007, 429.008 433.002 and 433.003) relating to a range of matters concerning the preliminary master plan.

Two comments were concerned with the alignment of runways. One supported the north-east/south-west runway alignment as it minimizes community noise exposure and

recognizes prevailing wind conditions. The other comment queried the changed runway alignment.

Three alternative runway alignments were examined in relation to the proposed airport at Badgerys Creek. These are shown at Figure 8.2 of the Draft EIS. The principal reason for selecting the north-east/south-west alignment for the preliminary master plan was its lesser noise impact on people in surrounding areas. Additionally, consideration was given to a range of operational factors, mainly airspace requirements and prevailing wind conditions.

The Department of Defence commented on the fact that the siting of nav aids around the proposed airport was not addressed in relation to the Kingswood armament facility.

During the preparation of the Draft EIS the Department of Defence supplied the Department of Aviation with dimensional criteria in relation to the safe siting of nav aids with respect to their facilities at Kingswood.

The Department of Aviation does not propose to locate any nav aids within the dimensional criteria provided by the Department of Defence.

Penrith City Council indicated they were concerned about the prospect of rotating the runway alignment counter-clockwise by up to 8° and would wish to examine detailed layouts before it could fully support the selection of the Badgerys Creek site.

The rotation of the runway alignment counter-clockwise by up to 7° as discussed on page 200 of the Draft EIS would only be undertaken if further reductions could be achieved in minimizing the noise impacts and if topographic and airspace considerations could be further optimized. The Department of Aviation would ensure that liaison is maintained with all councils in the region if the Badgerys Creek site is selected so that they are informed of the Department's continuing programme and plans for development.

One comment indicated the area allowances for the proposed airport would be adequate.

For planning purposes the preliminary master plan layout has made allowances for aircraft gate and apron areas for each of the different categories of aircraft. It has assumed a mix of aircraft based on the maximum forecast capacity and converted this to peak period requirements. This should ensure adequate provisions for groundside aircraft operations.

8.6 AIRSPACE

Eleven submissions raised questions related to airspace if the Badgerys Creek site was chosen. These covered five issues:

- . comments relating to the overall airspace arrangements;
- . loss of training areas in western Sydney;
- . effects on activity at existing aerodromes;
- . reduced safety;
- . effect on Kingswood military area.

Airspace arrangements

Three comments, 360.007, 396.013 and 433.007, related to airspace arrangements.

The General Aviation Association is concerned that the airspace arrangements outlined in the Draft EIS are described as notional and argues that because of the seriousness of the consequences, the site decision should be based on current requirements rather than on a reliance on possible future technological and procedural changes. Qantas sees

future technology enabling Kingsford-Smith Airport and the second Sydney airport to operate at their full potential.

The airspace arrangements described in the Draft EIS are based on current standards and procedures and the analysis shows that it would be quite possible for airline, general aviation and military operations to function satisfactorily with an airport at Badgerys Creek. The airspace diagrams shown in the Draft EIS depict one way in which this might be arranged. It is of course inevitable that the addition of another major airport in the Sydney region would involve some restriction on all current airspace users. Given the long-term nature of the second Sydney airport development, technological advances may render these restrictions less severe than appears from the Draft EIS. The document therefore depicts the 'worst case' which is required to be considered by the Government when taking its decision.

Loss of training area

Five submissions objected to the loss of flying training areas currently located to the west of Sydney (234.003, 324.002, 324.003, 396.004, 396.005, 396.006, 457.014 and 458.005). The General Aviation Association rejected the suggestion that training areas could be relocated south of Camden on the grounds of insufficient area, poor terrain, the cost of travelling the extra distance and the dangers from increased congestion.

There is some truth in all these criticisms and any area south of Camden would undoubtedly be less attractive for training purposes than the areas currently used. However, these disadvantages do not necessarily render the suggested area completely unacceptable. As stated previously, if aviation traffic in Sydney grows to the extent that a second major airport is required it is inevitable that restrictions will be necessary for all airspace users. The details of airspace allocation would be determined by negotiation before the airport commenced operating. Such negotiations would include representatives of sports aviation, general aviation, the airlines, the Department of Defence and the Department of Aviation.

Effects on other aerodromes

Six submissions were concerned with the effects of a Badgerys Creek airport on existing aerodromes (57.006, 234.002, 234.003, 324.001, 360.003, 360.004, 396.008, 396.009, 396.010 and 422.020).

These submissions were concerned with the effects of a Badgerys Creek airport on Hoxton Park, Camden, Bankstown and Schofields, due mainly to the increased difficulty of operating outside controlled airspace.

The effects of a Badgerys Creek airport would be most strongly felt at Hoxton Park and could lead to closure of that aerodrome. However, the loss of adjacent training areas and the increased difficulty of access may eventually bring about closure or relocation of various enterprises now operating at the other aerodromes. The lead time for such changes would be long and it could be expected that with the general increase in traffic of all kinds and the increasing sophistication of general aviation aircraft and technological advances in radars etc., a larger proportion of general aviation aircraft would be routinely operating within controlled airspace than is the case at present. The effect of the changes may therefore not be as severe as appears at the present time.

As regards sports aviation, the Department of Aviation would endeavour as far as possible to ensure that gliding and other activities could continue within a reasonable distance of Sydney for as long as possible.

Reduced safety

Two submissions (328.013, 396.007 and 396.012) expressed concern over the increased probability of mid air collision due to the increased number of aircraft in the area, the proliferation of flight paths and the channelling of non-controlled general aviation into a narrow corridor.

It is the responsibility of the Department of Aviation to provide rules, procedures and surveillance which will permit the expected increase in the quantity and complexity of aviation activity in the Sydney region to operate without a reduction in safety standards. The Department believes that this requirement does not preclude the establishment of a major airport at Badgerys Creek.

It should be noted that even with a major airport at Badgerys Creek the complexity of airspace allocation in the Sydney region would be less than that currently existing around some overseas cities.

Effect on Kingswood military area

The Department of Defence pointed out (comments 305.003 and 305.005) that the Kingswood explosives storage facility could not be partly relocated as suggested on page 174 and called for further consultation with the Department of Aviation.

Further discussion has now been held and the Defence point has been accepted. As stated on page 258, the airport would not greatly affect, nor would it be affected by, the Kingswood facility.

8.7 AIRCRAFT EMERGENCY PROCEDURES

Ten submissions raised issues related to aircraft accidents and/or the emergency dumping of fuel in the Badgerys Creek area. Four concerns were raised in relation to accidents:

- . the risk to people on the ground from an aircraft crashing in a populated area;
- . the lack of emergency facilities in the area to cope with a major accident;
- . the risk of an aircraft crash causing a bushfire;
- . the risk of water pollution from an aircraft crashing into Prospect Reservoir.

Accident in a populated area

Six submissions (7.015, 64.004, 201.003, 295.007, 330.018 and 457.024) commented on the risk of accidents in a populated area.

Aviation is one of the safest forms of transport and Australia's record in this respect is second to none. There are many places in Australia where aircraft regularly make landing approaches and take-offs over heavily built up areas. In some cases these areas are much more densely populated than the Badgerys Creek area is or is ever likely to be. Such aircraft operations are considered routine and are accepted as such by all relevant authorities and by the community at large.

Lack of emergency facilities

Three submissions (65.032, 250.013 and 330.020) were concerned with the lack of emergency facilities.

The fact that existing hospital and other emergency facilities in the area might be considered inadequate has little relevance. Such facilities are provided by the relevant

planning authorities where and when they are needed. The presence of a major airport would no doubt be a consideration in the planning of future facilities.

Bushfire risk

Two submissions (330.017 and 457.025) were concerned with the possibility of bushfires.

The risk of air accident is low and the risk of an accident starting a bushfire in the Badgerys Creek area must be considered very low. As the high bushfire risk area of the Blue Mountains is well away from the airport site the risk of accident in that area from an airport at Badgerys Creek would be no higher than from present operations.

Water pollution

Two submissions (7.027 and 274.040) considered the possibility of an aircraft crashing in Prospect Reservoir.

The likelihood of such an accident is very low. However, as Prospect forms an important part of Sydney's water supply it is necessary to consider what the effects might be.

The Metropolitan Water Sewerage and Drainage Board has well established and documented procedures for the control of contaminants which may be discovered in any part of the system. The release of a small quantity of aircraft fuel into the reservoir could be relatively easily handled as the fuel would float on the surface while the take off point for the water supply is well below the surface. The release of a large quantity of fuel as could happen from the crash of a fully fuelled airliner would however constitute a major emergency and would require the urgent deployment of a large clean up force. It could be necessary during such an operation for Prospect to be temporarily by-passed by the proposed direct Warragamba-Potts Hill pipeline. This system would have some limitations but could cope for a few days.

Two other points are worth making. Firstly, although the risk of such an accident might be slightly higher if an airport were placed at Badgerys Creek, it is not entirely non-existent at the present time. Secondly, if some aircraft fuel did get into the drinking water it could produce an unpleasant taste but it would not be dangerous. There are many other potential sources of pollution of the water supply which could lead to far more serious consequences.

Fuel dumping

Four submissions raised the issue of the emergency dumping of fuel in the Badgerys Creek area, one in relation to its tendency to increase the bushfire hazard and all four in relation to the possibility of water pollution if carried out over Prospect Reservoir (7.014, 274.040, 330.019 and 341.024).

Fuel dumping is the term used to refer to the deliberate discharge of fuel from airborne aircraft. The term is not used to refer to accidental leaking, discharge or venting of fuel. Generally, accidental leakage has insignificant environmental consequences owing to the rarity of the occurrence and the small quantity discharged.

Fuel dumping occurs for two reasons. More often than not it is the result of the development of a fault that requires the aircraft to land at an airport other than its destination, either the airport of departure or an en-route airport.

The allowable maximum take-off weight of an aircraft may be greater than the allowable maximum landing weight. Consequently, if an aircraft is required to land unexpectedly, there will be occasions when the weight of the aircraft is too high for landing and weight must be reduced; this can be done by dumping fuel. On rare occasions

it is considered desirable to dump fuel in order to minimize the risk of fire during an emergency landing.

On the great majority of occasions a choice can be made about where the fuel is dumped, in which case it is done either at high level, over the sea or over uninhabited land. In other than emergency situations the Department of Aviation nominates the location for fuel dumping. A minimum height of 1,800 m is recommended and fuel is directed to be dumped at a location that minimizes the environmental consequences.

From the figures for the last nine years of the number of times fuel was dumped by aircraft associated with Sydney Airport, on average only one in about every 60,000 aircraft movements would be involved in fuel dumping.

The Department of Aviation is not aware of any environmental problems that have been caused in the past by fuel dumping in Australia or overseas. There is no evidence to suggest that the existing procedures covering fuel dumping are inadequate, nor are any problems expected around either Badgerys Creek or Wilton.

CHAPTER 9

THE SOCIO-ECONOMIC ENVIRONMENT AND EFFECTS OF THE PROPOSAL

9.1 ACQUISITION

A large number of submissions were received, including two hundred and thirty-two proforma submissions, relating to aspects covered in Section 9.1 of the Draft EIS. From these submissions eighty separate comments were made on various aspects relating to the possible acquisition of the site at Badgerys Creek.

The comments made in these submissions can be categorized into eight main topics.

These topics are:

- . acquisition cost for the Badgerys Creek site;
- . property and house counts;
- . acquisition procedures and property administration;
- . compensation;
- . planning blight;
- . effects of the Badgerys Creek airport development on the local area;
- . relocation difficulties;
- . acquisition of land for access routes.

Acquisition cost for the Badgerys Creek site

One hundred and thirty-five submissions were received, 117 of which were proforma submissions, relating to the acquisition cost of the Badgerys Creek site, detailed in Section 9.1.1 of the Draft EIS. From these submissions a number of comments were identified as relevant to this topic (7.023, 8.001 (proforma), 63.002, 64.005, 65.027, 68.007, 231.003, 236.005, 237.001, 264.016, 264.019, 279.003, 319.003, 335.006, 336.005, 424.004, 424.005, 424.006, 457.007 and 458.008).

The comments raised in the submissions could be further categorized into the following issues:

- . estimated acquisition figure of \$31.5 million is much too low - more like \$75 million to \$80 million;
- . the figure used was determined from property values depressed over many years due to the possibility of an airport development occurring at Badgerys Creek;
- . the cost of the acquisition of the Badgerys Creek site is not justified.

The figure of \$31.5 million used in Section 9.1.1 of the Draft EIS was produced by the Valuation Branch of the Australian Taxation Office as a budgetary estimate of the realty cost of the properties within the site. This is the normal costing basis by which Governments assess various projects. The prime purpose of using this figure was to establish an order of cost (not including the compensation payments outlined in Paragraph 9.1.1 of the Draft EIS) to be used to give an indication of the level of funding required and a comparison of the level of cost between the Badgerys Creek and Wilton sites. At no stage was the figure intended as a formal valuation figure. Such valuations can only be obtained when a commitment to purchase has been established and the valuers are

permitted to enter the properties for a formal examination of the land and improvements. The budgetary estimate figure was derived from aerial photographs, kerbside inspections and reference to recorded property sales, also without inspection and research.

The final acquisition cost for the site will only be known once all the properties have been purchased. If the acquisition by agreement method is used to acquire the sites, an agreed purchase price must be determined for each property. It may therefore be years before a final figure can be put on the total site cost. If the compulsory acquisition method is used to purchase the site, full valuation figures will be produced for each property, but it may be some time before the total compensation cost has been established.

In developing the estimate figure, the Commonwealth Valuers have considered the blighting influence of the proposed airport development on property values. When formal valuations are required to be made for the purposes of acquisition, considerable research will be necessary to establish whether blight has had an influence on the property values in the site area.

The need for a second major airport is discussed in Chapter 1 of the Draft EIS. Whether or not the cost of acquisition of the Badgerys Creek site is considered too high is a matter for Government decision. In the long term, the price paid will be a small percentage of the full development cost of the airport once the need to build has been established.

Finally, none of the public submissions which questioned the Draft EIS's land acquisition figure of \$31.5 million supported their criticism of the Commonwealth Valuer's figure with an assessment of the site acquisition cost by a qualified valuer.

Property and house counts

Six submissions were received which challenged the accuracy of the house and property counts detailed in Section 9.1.1 of the Draft EIS (81.003, 237.002, 328.016, 376.009, 379.003 and 400.006).

The figures quoted in Section 9.1.1 of the Draft EIS were: number of houses within the boundary - 207; number of properties within the boundary - 241. The property figure was determined from title searches of the area which encompasses the Badgerys Creek site and is believed correct as at February 1985.

Some difficulty was experienced in positively identifying houses from the aerial photographs and in March 1985 a discrepancy existed between the figures of the Department of Aviation and the Badgerys Creek Anti Airport Group. At the Department's suggestion, representatives of both organizations counted houses together and agreed on the figure of 207 houses within the site boundary. It should be stressed that this change did not affect the valuation figure as this was developed by the Taxation Valuers independently of the house counts of the Department of Aviation and the Badgerys Creek Anti Airport Group.

Acquisition process and property administration

Four submissions were received relating to the acquisition process and property administration detailed in Sections 9.1.2 through 9.1.5 of the Draft EIS (264.023, 274.033, 376.007, and 457.029).

The four comments raised the following issues:

- . a large dairy would be affected;

- interest paid on compensation;
- number of people affected;
- ex gratia payments to local councils.

One submission raised the issue that the Leppington Pastoral Company dairy would be adversely affected by the site acquisition process. The proposed methods of acquisition being considered are outlined in the Draft EIS in Sections 9.1.2 and 9.1.3. Each method allows for the dairy to remain operational prior to the commencement of construction on the airport site. The compulsory acquisition option allows for a lease back arrangement to be established after purchase. The acquisition by agreement method would entail purchasing the property from the owner only when the owner was ready to sell or when the land was finally required for development.

A further issue raised was the question of the level of interest the Commonwealth would pay on the compensation figure if a court decision is required to determine the level of payment. The Draft EIS in Section 9.1.2 states that the Lands Acquisition Act 1955 provides, in the compulsory acquisition option, for payment of interest on the compensation amount from the date of acquisition until the date of settlement. The rate of interest is prescribed in the Act and simply put is similar to interest rates payable on Commonwealth securities which vary from time to time. Recently the rate has been in the order of 12% to 14%.

The approximate number of residents affected by the acquisition of the Badgerys Creek site is nominated in Section 9.1.1 of the Draft EIS as 750. Data from the 1981 Census supplied by the Australian Bureau of Statistics give an average figure of 3.6 persons per household for the Badgerys Creek area. This was multiplied by the agreed 207 houses and rounded to obtain the figure of 750.

The final issue identified under this topic was the question of rates payable to Local Government following site acquisition. The usual arrangement in cases of this type is that prior to site development, the acquired properties are offered for lease by the Commonwealth. As part of the leasing agreement, the Commonwealth will, in accordance with normal practice, require the lessee to be responsible for the payment of all Local Government charges attracted by the leased properties. Once airport development is implemented, the normal ex gratia payments scheme currently operated by the Department of Aviation would apply to Local Government charges. This issue is discussed in Section 9.6.6 of the Draft EIS.

Compensation

Seven submissions were received relating to the amount and forms of compensation available to affected property owners. Section 9.1.2 of the Draft EIS details the compensation which is available in accordance with the provisions of the Lands Acquisition Act 1955. From the seven submissions, eleven comments were identified as relevant to the compensation issue (264.017, 264.020, 264.022, 264.023, 319.004, 328.005, 329.006, 337.013, 381.003, 460.007, and 460.008).

The comments made in the submissions can be categorized into two main topics:

- compensation determination and valuation;
- interest payable on compensation.

The compensation process and compensation payable are discussed in Section 9.1.2 of the Draft EIS. This section covers the question of relocation and disturbance expenses which was raised in several of the submissions.

Two submissions also raised doubts about the payment of adequate compensation for business conducted on properties compulsorily acquired. Basically, the approach taken under the compulsory acquisition option is to as place dispossessed owners as nearly as

possible in the same financial position they enjoyed immediately before the acquisition, taking blight into account if appropriate. Normal disturbance and relocation expenses as discussed in Section 9.1.2 are also payable. In addition, compensation may also be negotiated for loss of profits incurred between selling the existing business and establishing a new business elsewhere, and may also include an element for loss of goodwill during this re-establishment period. If a larger business or property is purchased elsewhere by the property owner, the difference in estimated value of a comparable property and the actual price paid would not be compensated.

Compensation to the University of Sydney for the possible displacement of the Fleurs Radio Observatory will be a matter for negotiation once a decision to develop the Badgerys Creek site is taken.

Similar principles to those for business compensation apply to residential property owners. The actual valuation is determined by Commonwealth valuers during the acquisition negotiations. Reasonable costs for private independent valuation and legal advice will be paid by the Commonwealth. All improvements are included in the valuation, and adjustments to the final valuation for the blighting affect of the airport proposal will be made if appropriate. Further compensation payments as discussed in Section 9.1.2 of the Draft EIS are also available to residential property owners.

The points discussed above primarily apply to property or business owners affected by the compulsory acquisition option. When acquisition by agreement is chosen as the method for the acquisition of a site, the negotiated price will be the only compensation available. However, the negotiated price usually includes some allowance for disturbance plus reasonable legal and valuation fees.

Compensation for increased interest charges which may apply to new home or business loans would be considered during the property purchase negotiations and each case would be considered on its merits.

The issue of interest payable on compensation payments has been addressed in the previous comment response, 'Acquisition process and property administration'.

The principles required to be taken into account for the protection of affected owners have been clearly established as a result of previous litigation in Australia and elsewhere.

Planning blight

One hundred and twenty-four submissions, including 112 proforma submissions, were received relating to the depressed land and property values in the area due to the proposed airport development. Planning blight can be considered as the influence a major development proposal has on regional property values and businesses. Section 9.1.4 of the Draft EIS discusses the planning blight issue. From the 124 submissions, a number of comments were identified as relevant to the planning blight issue (7.022, 65.026, 67.004, 68.004, 219.004, 229.007, 267.003 (proforma), 278.003, 328.018, 330.003, 345.011, 366.003, 376.002, 400.003, 402.004, 405.003 and 458.006).

All comments received addressed the effects of planning blight on property values and business investment.

Once negotiations have commenced for the sale of a property to the Commonwealth, a formal valuation of the land plus improvements is undertaken. One aspect of the valuation work is to investigate whether the valuation figure has been influenced by planning blight. If it can be shown that this has occurred the valuation figure is adjusted to compensate the owner for the effect of blight.

The effect of planning blight on business investment within the airport boundary is also a matter for negotiation prior to the acquisition of a property.

Under present Commonwealth legislation, the effects of planning blight on properties outside the airport boundary are not subject to compensation. The Law Reform Commission considered the blight question in its Report No. 14. The Government has deferred its decision on this matter until it has had a chance to consult with other levels of Government.

Effects of the Badgerys Creek airport development on the local area

Twenty-one submissions including three proformas were received relating to various effects the airport development would have on the local area. From these submissions, a number of comments were identified as relevant to this topic (2.002, 4.004, 7.005, 60.002, 60.004, 63.004, 65.016, 65.039, 229.006, 292.002, 314.002, 315.002, 324.004, 338.091, 353.002 (proforma), 354.002, 356.002, 357.002, 367.002, and 460.009).

These comments can be categorized into four issues:

- . general comments;
- . purchase or closure of local facilities;
- . acquisition of land for airport purposes;
- . reduction of local population over time.

Many of the comments were not criticisms of the Draft EIS as such, but a statement of the perceived effect of the airport on the local area. A summary of these comments is as follows:

- . destruction of homes within the site a waste;
- . airport will adversely affect people who have moved to the area within the last seven years;
- . worry affecting health;
- . rights of residents to retain and enjoy their properties;
- . fears of urban blight after the site selection;
- . too many people affected;
- . impossible to relocate;
- . difficulty of finding comparable facilities elsewhere;
- . site affects small industry but not large industry.

The validity of some of these comments is accepted as there are always consequential effects associated with the need to plan airport facilities for an uncertain future demand.

Two submissions were concerned with the acquisition and closure of two public facilities, the Badgerys Creek Primary School and the Luddenham Showground. As the primary school is within the site, it would eventually need to be acquired once a decision to develop the airport was made. It is expected that the school would remain operational until this time and then presumably be closed or relocated to a situation appropriate to the demands of the time. The Luddenham Showground would not be required for the airport development, and therefore would not be acquired by the Commonwealth.

Three submissions expressed the concern that many people would be adversely affected if a decision was taken in the future not to develop the acquired airport site.

Chapter 1 of the Draft EIS discusses the requirement to reserve a second Sydney airport site for the future airport needs of the Sydney region. Acquisition of the site will be undertaken in accordance with the procedures discussed in Section 9.1 of the Draft EIS. Under these provisions, property owners will be offered the opportunity to lease back their properties if acquired by the Commonwealth (whether compulsorily or by agreement), or maintain ownership of their properties if the acquisition by agreement option is chosen. Should a decision be made at a later date not to develop an airport on the site, owners who are leasing their former properties would be given the option of repurchasing their properties at a fair price in accordance with Section 53 of the Lands Acquisition Act 1955. This situation is however highly speculative.

The Wilton Airport Resistance submission suggests that the mobility and mortality of the population at Badgerys Creek would produce a 50% reduction in population over ten years if Badgerys Creek were nominated as the second Sydney airport site. However, if properties are leased back following acquisition, the local population base should be sustained indefinitely.

Relocation difficulties

Six submissions were received relating to relocation difficulties which may be experienced by people affected by site acquisition (283.005, 295.004, 328.022, 380.002, 399.002 and 400.002).

Again, as with the previous topic, all of the comments except one were statements of perceived problems, namely:

- . difficulties associated with relocating businesses, and in particular, the shortage of suitable areas which meet specific physical and climatic criteria. These comments related to businesses such as dog breeding, horse training, poultry farming and plant nurseries;
- . relocation will be hard on aged people;
- . if relocated, acquisition payments would be insufficient to maintain the same standard of living.

Certain aspects of these points have been discussed in the compensation section of this Supplement.

The final comment made relates to the number of people from Badgerys Creek who would need to be relocated due to the proposed airport development. This was discussed in the Draft EIS in Section 9.1.1.

Acquisition of land for access roads

Three submissions each made one comment relating to the further acquisition of land for airport access purposes (65.003, 222.002 and 391.008).

Both comments criticized the Draft EIS for not addressing the impacts of the need to acquire further properties for road and rail access to the airport.

The Draft EIS did not address this matter as it is primarily a State Government matter, and could not be dealt with in the absence of detailed definition of access proposals for the Region. This matter therefore had to be deferred, to be taken up in the Macarthur Regional planning processes now being undertaken.

9.2 NOISE

Ninety submissions, including eight proformas, raised aspects relating to Section 9.2 of the Draft EIS. These aspects can be categorized into the following issues:

- . appointment of an independent consultant to assess aircraft noise effects;
- . the ANEF system;
- . objections to various aspects of aircraft noise effects;
- . effects of alternative runway alignments;
- . compensation for injurious affection;
- . purchase of properties within potentially noise-affected areas.

Appointment of an independent consultant to assess aircraft noise effects

Three submissions (276.001, 328.021 and 329.011) argued that an independent assessment of noise should have been undertaken. In fact, the noise contours were produced by the subconsultant Greiner Engineering, based on assumptions agreed jointly with the Department of Aviation. The ANEF system of generating noise contours is an adaptation of the U.S. Federal Aviation Agency's integrated noise model (version 3.8), the adaptation being based on the results of the work of the National Acoustics Laboratories. The estimation of numbers of people and houses affected was undertaken by Kinhill Stearns using criteria on population percentages moderately or seriously affected from the National Acoustic Laboratories work. It is unlikely that an independent consultant could have introduced any different methodology which commands broad acceptability.

The ANEF system

Two submissions raised points about the ANEF system generally (236.007 and 274.010). The first argued that decibels would be a less misleading measure than ANEF units. The ANEF unit or contour is not widely understood, and this fact alone has precipitated repeated criticism. The use of decibels, however, whilst providing a more widely understood measure of sound intensity, does not take account of such other considerations as frequency of occurrence and time of occurrence.

Most people would consider one aircraft noise event less annoying than ten at the same noise level; and aircraft noise at 3 a.m. to be more annoying than at 3 p.m. The ANEF system is able to take account of these types of variations, and is generally accepted as a more reliable measure of annoyance than the simple decibel measure.

The second submission was that of the State Government, which agreed that the use of the ANEF system was appropriate for this purpose.

Many submissions on noise raised points related to the accuracy of the ANEF contours presented in the Draft EIS.

Fifteen comments implied that the noise affected areas should be considerably larger than depicted in the Draft EIS owing to the low ambient noise levels surrounding Badgerys Creek (1.009, 1.010, 7.019, 65.017, 222.008, 264.024, 274.003, 312.002, 328.008, 329.002, 329.009, 330.006, 341.013, 345.006 and 420.002).

In fact, the noise contours themselves are a function of aircraft operations and have no relationship with ambient noise levels. The objection more accurately relates to the 20 ANEF cut-off for the noise area used for evaluation. The implication is that if 20 ANEF is a reasonable cut-off for urban environments, something less than 20 ANEF would be appropriate for rural and semi-rural environments. It is likely that areas surrounding Badgerys Creek do have lower ambient noise levels than those areas around urban airports like Sydney and Adelaide. Whether this affects reaction to aircraft noise exposure or not is however not clear. The National Acoustics Laboratories findings were used because they represent the most recent and most comprehensive scientifically

established data on Australian reaction to aircraft noise. The National Acoustics Laboratories survey included airports like Tullamarine, Richmond and Perth, which are distinctly more like the Badgerys Creek environment than the urban environments around Sydney or Adelaide airports. No significant differences were observed between reaction at Melbourne, Richmond etc. and the 'urban' airports.

Some submissions were critical of the treatment in the Draft EIS of night time aircraft noise (1.010, 250.010, 264.029, 329.013, 330.007 and 457.012).

The criticisms were that:

- . reaction to night time noise would be worse than predicted by the National Acoustics Laboratories because of lower ambient noise levels around Badgerys Creek;
- . the weighting applied to night operations is too small;
- . the percentage of operations assumed to be night operations is too small.

The weighting applied to night time operations effectively equates one night time operation to four day time operations. This weighting was adopted on the basis of National Acoustics Laboratories findings which indicated that the previously used greater weighting was too high. There has been general acceptance of the night and evening weightings now used in the ANEF system.

The allocation of forecast traffic to evening and night operations to permit the estimation of noise contours is set out in 9.2.5, page 192 of the Draft EIS. This suggests that 30% of all jet movements would occur after 7 p.m., with 10% occurring after 10 p.m. The Department of Aviation maintains that this is a much higher proportion than is likely to occur and is therefore appropriate for the worst case estimate of noise exposure.

One submission (7.006) argued that, rather than being difficult to define, the 20 ANEF contour is so uncertain as to probably include large areas of the city of Fairfield. This exaggeration is rejected. As stated on page 188 of the Draft EIS, the ANEF computation is based on an average day. "If the 20 ANEF contour were calculated day by day, its position would vary considerably according to traffic patterns." In estimating ANEF contours assumptions are made about the average performance of aircraft and pilots. To the extent that in practice actual performance varies from the assumptions made in estimating the contours, there will be variation in the location of the 20 ANEF.

This does not necessarily mean the whole 20 ANEF contour moves uniformly in or out in response to any variations. The actual contour may fatten and shorten for example. The typical variation is relatively small, the National Acoustics Laboratories measuring a variation of less than 3 decibels in actual aircraft noise compared to that corresponding to the level input in the computation of the contour. This variation is certainly not significant when compared to the underlying assumptions of the worst case, and certainly cannot legitimately be extended to cover large areas of Fairfield.

Seven submissions (7.006, 64.001, 196.005, 232.002, 264.027, 274.002 and 345.007) were critical of the fact that the ANEF system failed to take account of topography. One stated that Badgerys Creek was a 'natural amphitheatre'. All implied that the topography around Badgerys Creek would exacerbate the noise effects presented in the Draft EIS. In fact, the topography within the noise areas around Badgerys Creek is essentially flat with an occasional hill or low mountain. These are similar topographical conditions to those around Kingsford-Smith Airport, although the hills around Kingsford-Smith Airport are higher (relative to the airport) than at Badgerys Creek. There is no evidence that this topography distorts community reaction to aircraft noise as presented by National Acoustics Laboratories and these criticisms are consequently rejected.

Eight submissions made nine comments on the question of wind and temperature inversions affecting noise propagation (7.008, 7.018, 67.003, 196.005, 274.006, 329.003, 330.012, 341.018 and 386.004). All imply that these effects must result in a worse or more distorted pattern of noise exposure than that outlined in the Draft EIS.

As discussed on page 188 of the Draft EIS the ANEF computation is based on an average day and temperature, wind, temperature inversions, cloud cover and humidity can all contribute day-to-day variations in the propagation of noise.

The ANEF system of estimating noise exposure contours, in common with similar noise exposure systems employed around the world, does not attempt to make allowances for these sources of variation for two main reasons. Firstly, there is no consistently reliable method of accounting for variations in each of these factors as they vary over time and space.

Secondly, the generation of noise contours is only half of the task of estimating aircraft noise exposure effects. The other half involves assessing how people respond to different noise exposure levels determined by the ANEF contours.

The investigation of reaction is typically undertaken using social surveys, in which respondents are requested to describe their reaction to aircraft noise. Their response is clearly based not on the experience of a particular survey day but on their accumulated experience of living in areas exposed to aircraft noise. Consequently their response is an average rather than instantaneous reaction to aircraft noise.

The ANEF system is therefore an average measure of exposure and response, and it has been consistently confirmed as the best method for Australia for estimating the effects of aircraft noise.

Although all the sources of possible variation listed above are common in varying degrees to all airports around the world, there is no evidence to suggest they significantly affect average response. This was confirmed in the National Acoustics Laboratories survey, where for example, areas close to Sydney airport but outside the 20 ANEF contours were surveyed as control areas. The absence of any particular annoyance due to aircraft noise in control areas served to confirm the reasonable accuracy of the ANEF system, and the absence of significant distortion of the ANEF contours due to factors such as those listed above.

This lack of significant variation can be observed for noise exposure associated with current operations. The noise exposure areas assessed for Badgerys Creek are worst case areas, which are unlikely to be attained let alone exceeded. It is therefore extremely unlikely that the variation which might arise from these effects would result in exposure in excess of that outlined in the Draft EIS. A noise monitoring system set up after the airport became operational would confirm this. As is normal practice at major airports, noise abatement procedures would be developed aimed at minimizing the disturbance due to aircraft noise.

Nine submissions were general criticisms of the adequacy of the ANEF system (65.022, 274.003, 298.002, 312.003, 330.010, 335.003, 341.002, 392.009 and 422.003.) These argued that particular effects were inadequately described. Blacktown City Council pointed out that noise effects at other airports affected one way or another by the Badgerys Creek proposal had not been included. This comment probably relates most to Schofields aerodrome, which itself remains relatively unaffected by the Badgerys Creek proposal. Noise generation by Schofields is much more likely to flow from any relaxation of current use restrictions by the airport owner than by the Badgerys Creek proposal. Other comments either suggested the Draft EIS was deliberately vague on the effects of aircraft noise, or criticized the fact that noise effects evaluation had been restricted to within the 20 ANEF area.

Comment 304.005 argued that simulated operations at Badgerys Creek by small and large aircraft during a temperature inversion should be undertaken to demonstrate noise levels. However, even if this could be arranged, it would not serve the intended purpose. Reactions to single events are not likely to accurately represent reaction to habitual noise exposure, and would probably be affected by the prejudices (for or against) of those attending the simulation.

A number of submissions claimed that the estimates of people potentially affected by noise were incorrect (1.012, 7.026, 287.003, 329.012, 457.027).

These claims seem to be based largely on a misunderstanding of the method used. The estimates were obtained by assuming that all land within the ANEF contours would be subdivided to the maximum extent permitted by present zoning restrictions and that all such subdivisions would be populated to the average degree. Existing subdivisions below the present zoning restrictions were allowed for. The estimate is therefore considerably higher than the present population of the area and could only be an underestimate if it is assumed that the present zoning restrictions will be relaxed in the future: an unlikely occurrence if Badgerys Creek is chosen as the airport site.

One submission (256.006) noted that many of the people listed as potentially noise-affected would have moved into the area subsequent to the announcement of the airport site.

Objections to aircraft noise

A large number of comments simply objected to the potential consequences of aircraft noise (1.006, 1.018, 16.004, 60.005, 65.024, 65.029, 68.006, 69.002, 72.002, 81.001, 81.006, 196.010, 199.002, 199.006, 201.002, 219.002, 236.004, 248.005, 250.011, 252.002, 253.008, 254.002, 277.002, 279.001, 279.002, 282.002, 295.002, 295.003, 304.002, 321.002, 323.003, 328.007, 330.004, 330.009, 330.011, 330.021, 366.002, 366.004, 369.002, 381.002, 387.002, 387.003, 388.002, 397.002, 398.003, 400.004, 402.002, 406.002, 419.002, 426.004, 450.002, and 458.003). Most were unconcerned with the ANEF system in particular but simply commented that aircraft noise would affect their lifestyle. Two commented that aircraft noise would affect tourism and recreation around Badgerys Creek.

A number of others made the specific complaint that many who have moved into the area within the last few years will be affected (1.002, 71.006, 352.002 (proforma), 353.003 (proforma) and 405.002). Clearly it is true that aircraft noise would affect lifestyle. Most of Section 9.2 is dedicated to explaining and assessing the incidence and nature of these effects. No distinctions were made, nor could be made, about the length of residence of those affected.

Four submissions (71.002, 250.003, 328.009 and 380.004) asserted that people affected by aircraft noise would suffer hearing damage and stress related health problems. The Department of Health, in its submission to the House of Representatives Standing Committee on Aircraft Noise stated that the possible effects of aircraft noise on physical and mental health remains an unsolved question but it appears possible that although not a cause, aircraft noise acts on those already stressed. A good deal of specific research is needed before more definite conclusions can be reached. Clearly the effects are neither great nor widespread, or they would be far more evident. Although hearing protection is worn by airport workers exposed to high noise levels over extended periods of time there is no evidence of hearing damage to residents outside the airport boundary.

One submission raised the question of health effects from airport radars. However, there are no known public health risks from this source.

One submission pointed out that there would be no compensation for any such consequences.

Two comments (71.004 and 81.004) asserted that few houses are designed to withstand the vibration from overflying aircraft. This is incorrect. The vibration from aircraft is quite low and for houses, except those very close to the runway ends perhaps, the effects have been described as no worse than those generated by a person jumping from a chair onto the floor.

Two submissions raised the question of interference with TV reception from overflying aircraft and airport radars. Because of the greater distance from the TV transmitters the effects of reflected signals from aircraft would be less than is currently experienced around Kingsford-Smith Airport. Airport radars should have no effect. The Parliamentary Select Committee on Aircraft Noise is aware of this problem of TV flicker around airports, and is considering what action can be taken. Its report is due to be presented to Parliament before the end of this year.

Comment 1.006 requested information on the approximate height of aircraft flying over Truman Road, Horsley Park. The answer is roughly 500m above the ground for landing aircraft and something in excess of that for aircraft taking off over Truman Road.

A number of submissions raised questions relating to the effects of noise on schools, hospitals and nursing homes (1.008, 1.014, 7.011, 7.012, 63.006, 64.002, 64.003, 67.005, 71.005, 199.004, 244.005, 252.003, and 274.116).

Horsley Park Public School, Marion School and Anowah School are all outside the 20 ANEF zone and more than 7 km from the proposed runway and should therefore not be seriously inconvenienced by aircraft noise. Luddenham Public School, although closer to the airport, is outside the 20 ANEF contour and well away from the normal flight paths. Again little inconvenience is anticipated. Wetherill Park College is more than 4 km outside the 20 ANEF zone.

Fairfield Hospital is more than 5 km outside the 20 ANEF contour and about 14 km from the runway. The Department considers a hospital in this location entirely compatible with the airport.

The nearest known retirement village or nursing home is at Austral, about 8 km from the airport and not in line with the runways. Liverpool City Council has advised that no planning approval has been granted for any similar establishment in the vicinity of the airport.

The submission of CSIRO (244.003) claimed that aircraft noise could interfere with the breeding of small animals at the Badgerys Creek Research Station. As part of this property is within the 30 ANEF zone this is a possibility and it may be necessary to relocate this activity, either to the western part of the property or to another site.

Two submissions (274.004 and 457.017) raised the question of construction noise. One argued that the effects would be worse at Badgerys Creek than Wilton. The other comment (by the State Government) implied that more detail was needed on construction noise. However, the information set out in Section 9.2.9, page 204 of the Draft EIS, is considered sufficient for a site selection process. More detailed construction noise estimates including the time and duration of the noise is more appropriate to the construction phase than to site selection.

The State Government also argued that noise from access roads and railways should have been quantified (274.008). This conflicts with the agreement reached with the access and environmental working groups, which included State representatives, that these aspects could only be meaningfully addressed when access routes were determined in the Macarthur Regional Environment Plan.

One submission (389.016) claimed that Kingsford-Smith Airport residents do not complain about aircraft noise, because they enjoy the benefits of housing rendered cheaper by

aircraft noise effects. Residents adjacent to Kingsford-Smith Airport do object to aircraft noise, and those objections are outlined in the National Acoustics Laboratories study; and there is no evidence that their house prices are depressed relative to similar properties in areas not affected by aircraft noise exposure.

Effects of alternative runway alignments

Comment 1.013 claimed that anti-clockwise rotation of the runways would reduce noise exposure in Horsley Park. The State Government's submission stated (comments 274.109 and 274.120) that the rejected alternative north/south runway alignment would affect the University of Sydney's teaching facility at Cobbitty and the Nepean College of Advanced Education. There is no disagreement with these statements.

Injurious affection compensation

Eighteen submissions on the subject of injurious affection compensation were received (2.001, 4.001, 16.006, 53.004, 69.005, 81.002, 219.003, 219.005, 229.002, 236.006, 274.014, 274.126, 278.002, 283.004, 283.007, 287.004, 337.015, 367.006, 368.007, 376.005, 376.010 and 379.006).

As stated on page 204 of the Draft EIS, under the present Commonwealth acquisition legislation (Lands Acquisition Act 1955) no compensation is available for injurious affection such as noise, effect on lifestyle, family heritage etc. where no land is taken. Compensation in the case of property severance is covered in Section 9.1.4 of the Draft EIS.

The Law Reform Commission considered the injurious affection question in detail and recommended in its report No. 14 that the current legislation should be changed to make this aspect of compensation to property owners more equitable. The Government has deferred its decision on this matter until it has had a chance to consult with other levels of Government and until the Parliamentary Standing Committee on Aircraft Noise has released its report and recommendations.

Purchase of properties within potentially noise-affected areas

Fourteen submissions were received relating to the purchase of properties within the potentially noise-affected areas (7.010, 221.001, 231.002, 235.002, 263.002, 264.018, 276.002, 276.004, 303.001, 308.004, 322.002, 345.012, 370.002, 371.001, 420.003).

The comments made on this topic were of two types: a requirement to acquire all properties within the 25 ANEF noise contour and requests to acquire individual noise-affected properties, including one within the 40 ANEF.

The potential aircraft noise problem associated with the establishment of a second Sydney airport could adversely affect the value of properties and influence peoples' lifestyle in areas of high noise levels. However, at present, no established policy exists on whether the Commonwealth will purchase land in addition to that required for airport purposes. It is pertinent to note that legal advice tendered in 1985 to the Parliamentary Select Committee on Aircraft Noise indicated that the Commonwealth Lands Acquisition Act 1955 would allow the Commonwealth to acquire land around and adjacent to airports for noise buffer zone purposes. However, even if this advice was adopted by Government, there is no current policy on how such a decision would be implemented. For example, to what ANEF contour would such a noise buffer zone acquisition be extended? Would voluntary or compulsory acquisition apply? Would this measure only be introduced if State land use controls were likely to be amended? Should controls apply to owners of properties adjacent to the airport boundaries whose properties are within the high noise zone?

In establishing its policy on this matter, the Government would no doubt be guided by the findings of the Parliamentary Select Committee on Aircraft Noise. Until it is known which findings of this Committee are adopted by Government, they cannot be applied to the properties affected by the second Sydney airport proposal.

It is expected that the report of the findings of the Parliamentary Select Committee on Aircraft Noise will be tabled in Parliament later this year.

9.3 ARCHAEOLOGY

Two submissions were received that discussed archaeological aspects of the Badgerys Creek site. These submissions raised two separate issues:

- . the extent of the area surveyed for Aboriginal sites;
- . the recording of archaeological sites and the preservation of any finds in museums.

These issues are discussed below.

Extent of area of survey

One submission (264.026) commented on the extent of the area studied for both Aboriginal and European sites of significance.

The comment suggests that the significance of the land to the Aboriginal people was considered only within the site area. Sections 9.3.1 and 9.3.2 of the Draft EIS discuss the archaeological investigation of the proposed site and its environs. As outlined in Section 9.3.1 archaeological value was considered on a regional as well as a local basis, by means of a review of previous studies that have been undertaken, and discussion with Gandangara Local Aboriginal Land Council and twenty-nine Aboriginal residents of the area, and the Draft EIS notes seventeen sites within a 10 km radius of Badgerys Creek. Original survey work was, however, confined to the site itself and the method of selection of sampling locations and results of the survey are given in Section 9.3.2. Section 9.3.3 points out that further investigation would be required to assess associated effects arising from induced development or from the location of new road or rail access routes. These investigations would occur when the final site had been selected and the locations of these facilities determined.

European heritage value likewise was assessed by field survey only within the proposed site boundary, but heritage registers were inspected for any significant sites within the 25 ANEF corridor, and archival research and discussion with heritage groups and local people was conducted to locate any potentially sensitive sites both around and within the proposed site. Assessment of European heritage is discussed in Section 9.5 of the Draft EIS. As for Aboriginal heritage value, further assessment at the stage of planning of associated facilities would be required to assess any effects arising from induced development or the location of new road or rail access routes.

Recording and display of artefacts

Two submissions (264.034 and 457.020) commented on the possible display of any artefacts located on the proposed site.

All Aboriginal sites in New South Wales are protected by the National Parks and Wildlife Service under the National Parks and Wildlife Act, 1974. Permission must be sought from the Service before any site can be destroyed, and the advice of the Service and the Gandangara Local Aboriginal Land Council regarding preservation of any site or artefacts and display of any artefacts would be sought by the Department of Aviation. The Department of Aviation at present proposes to undertake no further archaeological work, in view of the relatively low sensitivity of the proposed site. However, should any

additional information concerning the archaeological sensitivity of the site and areas likely to be affected by airport development become available prior to commencement of construction the Department would review the need to appoint a qualified archaeologist to monitor the development during ground disturbance.

9.4 CONCERNS OF ABORIGINAL PEOPLE

Two submissions discussed the concerns of Aboriginal people. These submission made two separate comments, which considered the following issues:

- . extension of archaeological survey outside the site boundary;
- . liaison with Aboriginal communities.

These issues are discussed below.

Extension of archaeological survey

One submission (422.004) suggested that sites of archaeological significance outside the boundary of the proposed site should be surveyed as well as those within. A similar concern about the possibility of environmental impact on sites of archaeological and anthropological significance to Aboriginal people outside the proposed site boundaries was expressed by a number of the Aboriginal residents interviewed by the Anthropological Consultant.

Section 9.4.2 of the Draft EIS repeats the acknowledgement and undertaking given in Section 9.3.3 that further investigation would be required to assess associated effects arising from induced development or from the location of new road or rail access routes. Liaison with the Gandangara Local Aboriginal Land Council and the National Parks and Wildlife Service would continue during the course of these additional investigations if Badgerys Creek were the selected site.

Liaison with Aboriginal communities

The submission (274.018) relating to the involvement of Aboriginal communities in the archaeological and anthropological investigation of the proposed Badgerys Creek site simply involved an expression of support for the views of the Gandangara Local Aboriginal Land Council. These views are stated fully in Section 14.4.3 of the Draft EIS and should the proposed site at Badgerys Creek be selected for airport development consultation with the Land Council would continue so that the views of the Council could be taken into consideration.

9.5 EUROPEAN HERITAGE

Nine submissions were received that made ten separate comments on aspects of the Draft EIS relating to European heritage value of the Badgerys Creek area. The comments could be categorized into two main issues:

- . the historical value of the area;
- . graveyards and churches within the proposed site.

These issues are discussed below.

Historical value of the area

Seven submissions made seven separate comments (1.014, 7.013, 65.023, 67.002, 264.035, 337.022 and 451.004) relating to the historical value of the Badgerys Creek area.

Two comments simply raised the point that Badgerys Creek is a historical area and development of the proposed airport would affect the area's historical resources.

The Draft EIS recognizes the historical nature of the Badgerys Creek area, and outlines its history from first European settlement in the early nineteenth century. An archaeological survey of the proposed site was conducted during the preparation of the Draft EIS but only one feature within the 25 ANEF contour was determined to be of heritage value. This was Vicary's Winery and its associated house, vineyard and outbuildings, which has both architectural and historical merit. It also has some regional significance as an example of a particular industry that was once important to the locality but has since been relocated.

A slab shed and woolshed on the proposed site are the only physical evidence of significance originating in the mid to late nineteenth century. Most of the standing historical structures are of only local importance and of minimal heritage value, although it is possible that there may be some archaeological material below the surface of the site, which would be of national interest and heritage value if it dated from the first half of the nineteenth century.

Should the proposed Badgerys Creek site be selected the Department of Aviation would, before construction commenced, appoint a qualified archaeologist to investigate and recommend any recording or other conservation measures which might be appropriate for Vicary's Winery, and also to monitor the development during ground disturbance.

Two submissions were concerned specifically with possible detrimental effects on Horsley homestead, which is located in Horsley Park, between the 20 ANEF and 25 ANEF contours. The homestead lies 10.6km from the end of the nearest runway in the preliminary master plan used in determining the noise contours and at this distance aircraft landing would be roughly 500 m above the ground and aircraft taking off would be somewhat higher. Vibration effects would be extremely low at this distance. So would any fallout effects, which would make an insignificant contribution to corrosive action on masonry when compared with the effects of regional air quality generally.

Two submissions indicated that more prominence should be given to European heritage values. The weighting given (Figure 6.2, Draft EIS) was fourth among those for environmental factors, following population displaced, existing noise incompatible land use, and future noise incompatible land use. The weighting was heavier than that given to flora and fauna, mineral resources, agriculture, flood risk and water and air quality. In addition one other submission suggested 'overkill' on European heritage effects, which would indicate that the weighting may be regarded as too heavy.

Graveyards and churches within the proposed site

Four submissions made four separate comments (65.002, 81.005, 283.002 and 376.006) regarding the existence of churches within the proposed site. The comments voice concern that the churches may have to be demolished and graveyards relocated. Should the proposed Badgerys Creek site be selected for airport development, the Department of Aviation would consult with the churches concerned and the Department of Environment and Planning Heritage Branch to determine the best method of commemorating and/or relocating these facilities. It may be possible to retain these small graveyards within the airport boundary.

9.6 ECONOMIC EFFECTS

Twenty submissions were received querying aspects of the economic effects of the proposed second Sydney airport. These submissions made forty-one separate comments, which could be further categorized into five main issues:

- time lag in employment effects;

- . number of jobs created;
- . regional economic effects and effects on local facilities;
- . economic analysis of the Draft EIS.

These issues are discussed below.

Time lag in employment effects

Three submissions made three separate comments (65.010, 264.009 and 345.013) regarding the time that would elapse between acquisition of the proposed site and generation of any employment.

These comments point out that site acquisition would create no jobs and that there may be a considerable time lag before the construction and operation stages which would generate employment.

This is acknowledged in the Draft EIS. Section 9.6.4 describes the effect of site acquisition as a possible displacement of some existing economic activity, although the leasing arrangements proposed should ensure that any such loss would be minimal. Sections 9.6.5 and 9.6.6 describe the employment and economic generating effects that would be anticipated at construction and operation stages, but point out the difficulty of accurately specifying the effects of construction at a date not yet determined. During the lag period between acquisition and construction, the Commonwealth proposes to manage land acquired for productive use, as far as possible. The Commonwealth's preferred course of action would be to lease land back to original owners, or where this arrangement was not feasible, to lease through the invitation of public tenders. This arrangement should maintain the present economic role and employment generation of the site area at a level almost equivalent to that now existing.

Number of jobs created

Eleven submissions made fourteen separate comments (4.003, 7.020, 65.009, 199.003, 264.011, 264.013, 274.027, 290.010, 328.015, 341.003, 341.006, 341.007, 391.009 and 422.005) relating to the number of jobs that would be created by airport development, should the proposed Badgerys Creek site be selected.

A slight majority of these comments queried the estimated maximum employment levels expected to be generated by airport development. The method of estimation is detailed in the Draft EIS, including any assumptions made about level of operation of the proposed airport and assumptions relating to the regional economy. It is also stated that the estimates made for airport associated and induced employment, and multiplier or flow-on employment are maximum levels. This is a result of the use of the same 'worst-case' for analysis of economic effects as had been used for evaluation of all other environmental factors in preparing the Draft EIS.

Most of the remaining comments relating to job creation pointed out that employment gains through airport construction and operation may be offset to some extent by employment losses in the local area resulting from site acquisition, and in the Kingsford-Smith area through the possible relocation of some airport associated activity. As outlined in Section 9.1 of the Draft EIS, the Commonwealth proposes to manage the acquired site area for existing productive use as far as is possible, thereby maintaining close to the present levels of employment generated by this land. However, Section 9.6.4 of the Draft EIS acknowledges that there may be some loss of production on the land acquired and that any such loss would be accompanied by negative flow-on effects in the local region.

Possible loss of employment at Kingsford-Smith Airport is not specifically discussed in the Draft EIS. This is because a second airport is seen as supplementing the capacity of Kingsford-Smith Airport rather than being in competition. Section 2.4 of the Draft EIS

considers the role of Kingsford-Smith Airport in the presence of a second Sydney airport. The conclusion reached is that Kingsford-Smith Airport would remain the dominant, business oriented airport, remaining the focus for business and intrastate commuter traffic. It is also expected that Kingsford-Smith Airport would remain the principal airport of the established major airlines as a result primarily of the fact that the option for these airlines of relocating to a second airport is not realistic in the face of their established markets and competitive relationships. A secondary reason is that each has substantial investments in facilities at Kingsford-Smith Airport. It is also regarded as unlikely that airline associated activities would relocate their operations, as outlined in Section 9.6.6. Therefore loss of employment in the Kingsford-Smith sub-region as a result of establishing a second Sydney airport is considered unlikely.

The remaining comments about to employment aspects of the proposed second Sydney airport related to a perceived reduction in employment generated by the airport resulting from technological advances.

Section 9.6.6 considers the extent to which productivity improvements may reduce direct employment generated by the proposed airport. It is stated that the estimated ratio of 540 airline employees per million passengers could represent two situations:

- . no improvement in airline productivity and limited maintenance activity;
- . significant improvement in productivity but a high level of maintenance activity.

Regional economic effects and effects on local facilities

A number of submissions made separate comments (7.021, 16.002, 65.028, 71.007, 73.003, 196.008, 250.008, 250.009, 264.043, 274.029, 274.032, 312.006, 328.024, 337.017, 337.021, 341.015, 422.007 and 422.015) relating to economic and employment effects in the Badgerys Creek sub-region and to effects the proposed airport development might have on local facilities and services.

Three comments responded positively to siting of the proposed airport at Badgerys Creek, suggesting that the economic and employment generating effects of the proposed airport would benefit the region. There is little doubt that economic and employment benefits would occur.

Two more comments suggested strategies to maximize local benefit from the economic generating effects of the proposed airport. Strategies included encouragement for local location of a freight forwarding industry and aircraft servicing, repair and catering industries in the early stages of airport and local and regional planning.

A number of comments discuss the extent to which airport generated employment could be expected to benefit the sub-region, postulating that skilled labour would be likely to be drawn from outside the region and that economic benefits might not flow on to local businesses. Sections 9.6.5 and 9.6.6 discuss these aspects of economic and employment generation, and the application of the multipliers derived from the Kingsford-Smith sub-region to the Badgerys Creek sub-region. It is acknowledged that the multipliers must be discounted when applied to the Badgerys Creek sub-region to reflect the simpler economic structure and higher leakages of expenditure that would apply to the Badgerys Creek case. These factors are taken into account in projecting direct, airport associated and airport induced employment in the Badgerys Creek sub-region.

Four comments suggest costs to the local region through loss of rate income from land acquired by the Commonwealth, and through provision of additional services and maintenance of facilities. The Draft EIS discusses the possible rate loss to Council during the site acquisition stage in Section 9.6.4, and at the operational stage in Section 9.6.6. At the acquisition stage, the Commonwealth undertakes to make ex gratia payments to the Council in lieu of rates, and at the operational stage, ex gratia payments would be made on those sections of land within the airport that are revenue earning.

The provision of infrastructural services such as water, electricity, sewerage, telecommunications, waste disposal and fuels is discussed in Section 10.5 Infrastructure and Energy Consumption. The provision of these services would be the subject of future discussion between the Department of Aviation and the departments involved. The major area of Council responsibility lies in provision and upkeep of the local road system which would primarily be affected by the routing of new major roads as discussed in Section 10.4 of the Draft EIS. Primary responsibility for the construction and routing of major roads to the proposed airport would lie with the Department of Main Roads, and effects on the local road network would be the subject of discussion between the Department of Main Roads, Liverpool City Council and the Department of Aviation.

Economic analysis of the Draft EIS

Four submissions made seven separate comments (422.019, 341.014, 264.037, 264.008, 264.039, 264.041 and 457.028) criticizing aspects of the economic analysis made in the Draft EIS.

One comment suggests that the Draft EIS failed to consider effects such as the regional loss of employment that could be occasioned by airport development. The only areas of loss would be loss of on-site agricultural employment that might result at site acquisition and development stages, and loss of regional agricultural employment resulting from change of land use in the region. These aspects are discussed in Sections 9.6.4 and Sections 9.7.4 of the Draft EIS. It should be noted that jobs created by airport development would exceed jobs lost, and that sectoral changes in employment distribution are most likely to occur in the region as a result of continuing urbanization with or without airport development.

Three comments query the application of multipliers derived from the Kingsford-Smith sub-region to the Badgerys Creek sub-region. This has been discussed above under the heading 'Regional economic effects and effects on local facilities', and is dealt with in Sections 9.6.2 and 9.6.4 to 9.6.6 of the Draft EIS.

One comment queries the definition of the Badgerys Creek sub-region given in the Draft EIS, suggesting that parts of the Fairfield and Blacktown local government areas should have been included. As outlined in Section 9.6 of the Draft EIS the sub-region was defined for study purposes on the basis of convenient administrative boundaries of districts immediately adjacent to the proposed site. Fairfield and Blacktown local government areas may have characteristics common to the cities of Liverpool and Penrith, and would therefore be likely to share at least some of the effects of airport development should the proposed Badgerys Creek site be selected.

The remaining comment states that the use of the 'worst case' for a economic analysis has in fact led to 'best case' employment and economic analysis. This is discussed above under the heading 'Number of jobs created'. The Draft EIS states throughout the analysis of employment and economic effects that estimates generated are maximum levels.

9.7 AGRICULTURE

Twenty-one submissions were received concerning aspects of Section 9.7 of the Draft EIS. These submissions included thirty separate comments on the loss of agricultural land and production.

The comments made in the submissions can be categorized as follows:

- . loss of prime agricultural land within the airport site;
- . loss of agricultural production;
- . broader impact on agriculture.

These issues are discussed below.

Loss of prime agricultural land within the airport site

Nine of the submissions received expressed concern at the loss of agricultural land. There were eleven separate comments (68.005, 68.008, 253.005, 253.006, 274.021, 290.004, 295.005, 328.010, 329.005, 345.005 and 457.015).

Concern was expressed at the loss of prime agricultural land, especially land so well situated with regard to markets, trotting tracks, broiler processing and with particular physical characteristics such as frost freedom and level terrain. Associated with the above was concern about the consequent loss of agricultural production and the need for adequate compensation for affected landholders.

It is the policy of the NSW Department of Agriculture that prime agricultural land (80% of the site area is so classified) be retained for agriculture. However, this has not prevented the gradual loss of agricultural land in the western Sydney area to other uses such as urban development, rural residential and small hobby farms in response to economic pressures.

The land affected by the proposed airport development, though very well located for various activities, is not unique and land use in the area would change over time under the pressure of market forces. This process of change has been demonstrated time and time again as farms on the fringe of cities are sub-divided for housing and industrial development. Farmers are induced to sell out due to economic pressure and the prospect of substantial capital gain and subsequently either leave the land altogether or move elsewhere to renew their farming activities. If they leave the industry, their place would very often be taken by other producers in other districts.

Land would increase in value owing to urban pressures, unless its use is restricted by planning controls and eventually, even with intensification, farming activities of almost any kind would become uneconomic. Rural residential and small hobby farm use would then be a logical usage as increased ownership and other overhead costs outweigh location, freight, processing and marketing advantages. This has been confirmed in studies carried out for the Macarthur Regional Environmental Study currently in preparation.

The effect of airport construction at Badgerys Creek would be to reduce the availability of suitable sites for the existing activities and speed up the process of change. The precise effects would however be very dependent on the timing of airport construction, that is, on the extent to which change had occurred before construction. Mere acquisition of the site for airport purposes should have little effect and some agricultural activities could continue to exist adjacent to the airport within the noise affected area even after it becomes operational.

Dairying has been in decline for many years in the Sydney region and there is now an additional threat of industry deregulation with competition from efficient New Zealand and Victorian producers. Over the years dairies have either relocated or obtained replacement production from dairies in other districts operating on cheaper land. Similarly vegetable production is also likely to decline as a Regional Environmental Study survey showed that only 25% of producers' children expected to continue the farm business. Likewise 70% of poultry producers indicated they would sell if they received a good price and 60% of these would leave the industry permanently.

Loss of agricultural production

Nine of the submissions received expressed concern at the loss of agricultural production. There were ten separate comments raised (1.015, 3.002, 65.006, 274.022, 274.025, 330.016, 338.088, 376.008, 451.003 and 460.006).

All but one of the comments considered that the Draft EIS underestimated the value of agricultural production from the Badgerys Creek site. Only the Wilton Airport Resistance Committee claimed that it had been overestimated. Their submission suggested that of the \$5 million gross value of production lost (\$0.6 million net) some \$2.5 million would be replaced from within the local region, a further \$2.4 million elsewhere in the Sydney region and \$0.1 million outside the region.

The NSW Department of Agriculture contends that the total loss of agricultural production would be \$10 million due to the development and urbanization of other areas as a result of the loss of potential homesites within the 20-25 ANEF contour.

Studies undertaken for the Macarthur Regional Environmental Study suggest that the Australian Bureau of Statistics estimates of value of smallholder production of tomatoes and other vegetable crops are underestimated by a factor of 2.5. This could increase gross value of vegetable production within the airport site by \$450,000.

The construction of an airport would probably only hasten the rate of change in the character of the region. As was pointed out previously, dairying and vegetable production are already in decline owing to economic and social factors. The majority of poultry producers would also leave the region and the industry at a price. Dairy and vegetable production can be replaced by production from other areas. Poultry production is infrastructure dependent but it can also be transferred to other districts where land is cheaper and pollution of less concern. It is appreciated that there would be transport disadvantages for broiler producers and less opportunity for direct marketing activity by vegetable and cut flower producers.

Thus it is likely that there would be little if any loss of production overall as any agricultural production lost from the airport site and adjacent areas can be replaced by increased production from other districts. The net value of production after deducting costs of production from the affected area, while obviously important to the producers in the area, is insignificant on a state and national basis and can be replaced.

The other main point raised concerned the impact of noise, particularly on poultry, dairy and horse enterprises adjacent to the airport site within the 25 ANEF contour. Studies have been carried out overseas and to a limited extent in Australia but local experience at Richmond suggests that stock do adapt and that production losses are more likely to occur when stock first come on to property affected by aircraft noise. It seems that such effects are temporary and production returns to normal levels in most situations.

Broader impact on agriculture

Eight submissions received expressed concern at the likely broader impact of the proposed development. There were nine separate comments (65.007, 237.003, 244.004, 264.046, 274.023, 274.118, 290.005, 345.005 and 422.021).

The majority of comments on the broader impact of the airport were concerned with the effect of noise on livestock production which might possibly occur as far from the site as the 20 ANEF contour. Concern was also expressed regarding induced development pressures in other districts and the impact on the CSIRO and McGarvie Smith Research Centres.

It is clear that the shifting of agricultural activities to other areas will increase the demand for land and services in those areas though it is difficult to quantify such additional costs. The type of agriculture carried out on noise affected properties may change but change is normal and agriculture in some form will continue. Certain forms of agriculture may be inhibited but the land would not be sterilized as could be the case if a larger area was included in the airport site. The research activities of both CSIRO and University of Sydney research stations may also be affected and these stations have

a wide industry impact. However, the stations can be relocated and the effect would therefore be an economic cost rather than a loss of research effort to the industry.

It should also be noted that neither poultry production nor trotting training requires the use of prime agricultural land. Broiler producers need to be close to the processors and trotting owners need to have level training track sites reasonably close to race tracks. There are many trotters in country NSW who travel much longer distances to compete.

Land use is dynamic, not static, and would change as circumstances change. This means that agricultural land would be lost to other uses over time, but Australia is not short of good land and production can be intensified on land in other regions. The development of an airport would mean the complete loss of some agricultural land, but it would also mean that land outside the boundary but within the 25 ANEF noise contour would, owing to associated land use controls inhibiting urban development, remain in agriculture as the most logical use. Without an airport, all the land within and without the site may eventually be lost to agriculture.

9.8 REGIONAL PLANNING AND DEVELOPMENT

A number of submissions were received making fifty-two separate comments relating to Section 9.8 of the Draft EIS. The comments can be categorized into five main issues:

- . restriction of land use;
- . disruption of rural character of the area;
- . disruption of community facilities and public institutions;
- . urban growth needs of Sydney;
- . disruption of urban areas.

These issues are discussed below.

Restriction of land use

Five submissions made six separate comments (65.019, 345.008, 345.009, 396.001, 433.006 and 459.016) relating to restriction of land uses and land sterilization, and compensation for these effects.

The submissions question whether land within the 20 ANEF contour would be sterilized, what zoning restrictions would apply should the proposed Badgerys Creek site be selected, whether consideration is being given to the acquisition of an airport 'buffer' area, and who would bear the cost for restrictions in land use.

Section 9.8.5 of the Draft EIS deals with the effects of site acquisition and airport operation on land use and zoning in the Badgerys Creek area. As stated in this section, the Department of Environment and Planning has put in place interim planning measures in order to restrict noise-sensitive uses in potentially noise affected areas. Essentially, these measures restrict any change of use that may be incompatible with airport development. These measures do not sterilize any land, as many of the land uses now permitted are compatible with the worst case noise levels. Further zoning controls that may be applied at the construction stage would be determined by the Department of Environment and Planning at that time.

The acquisition of an airport 'buffer' area is not currently being considered as a component of airport planning.

Compensation for any effects of site acquisition and airport construction and operation on surrounding residents would be a matter for negotiation between residents and the Commonwealth.

One comment criticized Figure 9.8.2 for giving the misleading impression that all properties surrounding the site are of 40 ha minimum size.

This figure shows the zoning of the area although some properties have been sub-divided into smaller blocks. All work which involved counting properties took account of the actual numbers of properties.

Disruption of rural character of the area

A number of submissions made comments (65.021, 66.010, 68.002, 248.001, 282.001, 295.008, 314.003, 321.004, 345.014, 398.002, 399.003 and 422.022) expressing concern at the disruption of the quiet rural lifestyle of Badgerys Creek and the rural industry of the area that would occur should the proposed site be selected.

The present rural atmosphere of the Badgerys Creek area is likely to alter with or without airport development, depending upon the development guidelines laid down in the Macarthur Regional Environmental Study currently in preparation by the Department of Environment and Planning and the Draft Regional Environmental Plan that will follow. The extent to which airport development, should the proposed Badgerys Creek site be selected, would influence the character of the locality apart from in the immediate site surrounds would also depend to a large extent on the land use zonings devised by the Department of Environment and Planning to complement airport development. Construction of the airport would, however, as outlined in Section 9.8.4 of the Draft EIS, encourage residential development by reason of the airport's employment opportunities and associated infrastructure improvements, and would also encourage some commercial and industrial development.

Disruption of community facilities and public institutions

A number of submissions made comments (53.001, 53.002, 53.003, 244.002, 250.012, 274.124, 274.125, 290.006, 295.006, 305.004, 305.005, 457.022 and 458.004) relating to the effect airport development might have on the operation of facilities within the Badgerys Creek area.

These comments discussed: the possibility that the Fleurs Radio Observatory would become inoperable should an airport facility with radar and communications equipment commence operations in the area; the location of an airport at the proposed Badgerys Creek site possibly requiring the relocation of Kingswood Ammunition Storage and Maintenance Facility; and general concern at the possible adverse effects on research and technical facilities.

Section 9.8.5 of the Draft EIS deals with the effects that airport operation, should it be sited at the proposed Badgerys Creek site, could have on facilities in the area. It is acknowledged that the Fleurs Radio Observatory would be rendered inoperable by the presence of an airport, but the Kingswood Ammunition Storage and Maintenance Facility is not expected to be substantially affected by airport operations. Possible effects on other facilities are given.

Urban growth needs of Sydney

A number of submissions made comments (274.016, 274.024, 319.002, 328.003, 328.019, 329.004, 422.006, 422.024, 432.003, 432.034 and 432.038) relating to the possible requirement for land at Badgerys Creek for urban expansion. The comments pointed out that should the proposed Badgerys Creek site be selected for airport development, a large area of land would no longer be available for future urban use.

Sections 9.8.2 and 9.8.3 of the Draft EIS discuss the anticipated future urban development of Sydney in the medium and long term.

The Macarthur Region, within which both the Badgerys Creek and Wilton proposed sites lie, has been identified as an area suitable to meet Sydney's future requirements for further urban land. The allocation of particular land areas within the region for urban and other uses will not be determined until the Regional Environmental Plan for the Macarthur Region, scheduled for preparation by the Department of Environment and Planning, is complete. The Department is considering implications of the two shortlisted airport sites in terms of regional issues as well as the long term urban space needs of Sydney in its current preparation of the Regional Environmental Study which precedes the Regional Environmental Plan.

Disruption of urban areas

Seven submissions made twelve separate comments (203.001, 203.002, 235.003, 250.001, 250.002, 250.004, 250.005, 250.006, 252.004, 422.014, 432.036 and 458.002) relating to the disruptive effects of noise and zoning requirements in urban areas in the vicinity of the proposed site, including the comment that the Badgerys Creek area is far too heavily populated for airport development (see also 9.2 and 17.1).

The extent and severity of noise nuisance has been dealt with in Section 9.2 of the Supplement to the Draft EIS which considers submissions relating to noise. Zoning and building control requirements would depend largely upon the provisions of the Macarthur Region Draft Regional Environmental Plan and of local councils. Section 9.2. of the Draft EIS acknowledges that a substantial population would be affected by location of the airport at the proposed Badgerys Creek site, but it should be noted, as shown in Table 9.2.10 of the Draft EIS, that the future maximum population within the 20 ANEF contour around Badgerys Creek is much lower than existing populations within 20 ANEF contours around four major Australian airports.

CHAPTER 10

THE PHYSICAL ENVIRONMENT AND EFFECTS OF THE PROPOSAL

10.1 GEOLOGY, SOILS AND PHYSIOGRAPHY

Four submissions were received relating to Section 10.1 of the Draft EIS. These four submissions raised five separate comments which could be categorized into three main issues:

- . sterilization of clay/shale resources;
- . the quality of coal;
- . land reshaping.

Sterilization of clay shale resources

Three comments, 337.024, 422.010, and 458.007, were concerned with the sterilization of possible clay/shale resources at the proposed Badgerys Creek should that site be selected.

One of the submissions suggested that the resource would be a significant barrier to airport development. The other two comments did not express any opinion as to the significance of the resource but were concerned about its potential sterilization should the proposed Badgerys Creek site be selected for airport development.

The Draft EIS discusses the potential occurrence of economically significant clay/shale deposits within the proposed site area. The extent and precise location of economic deposits is yet to be confirmed.

The Department of Mineral Resources is currently investigating the resource in the area to confirm the potential for resource extraction. Should the proposed site at Badgerys Creek be selected, the Department of Aviation would consult with the Department of Mineral Resources to establish the feasibility of extracting any economic resource prior to airport construction, or allowing partial extraction from the site during airport construction and operation.

The quality of coal

One submission, comment 274.039, related specifically to the coal resource that is known to underlie the Badgerys Creek site. The comment made is that the coal does not present a major obstacle to development of the airport, which accords with the conclusion of the Draft EIS, which states that the depth of the resource in relation to other coal resources and known reserves makes it unlikely to be mined within the next fifty years.

Land reshaping

One submission, comment 422.013, requests more detailed consideration of the scale and likely nature of reshaping of landscape than is given in the Draft EIS. The extent of land reshaping necessary, volume of cut-and-fill that would be required, and a site plan indicating areas of clearing, levelling and fill both in cross section and plan form is given in Section 10.1.3 of the Draft EIS. In addition, Sections 10.6.3 and 10.6.4 of the Draft

EIS consider the broad guidelines for building form, planting and screening that would be utilized in detailed design. Guidelines for screening and rehabilitation during construction are also discussed in Section 10.6.4. The Department of Aviation would ensure that detailed landscape planning was carried out at the detailed design stage.

The scale of reshaping that would occur is set in context by the description of local and regional landscape features given in Section 10.6.1 of the Draft EIS.

10.2 DRAINAGE AND WATER QUALITY

Thirteen submissions were received on drainage and water quality aspects of Section 10.2 of the Draft EIS. The comments can be categorized into the following main issues as addressed below:

- . effects on water quality;
- . effects on hydrology.

Water quality

The submissions on water quality effects have been divided into aspects of:

- . tank and farm dam water quality (16.005, 65.033, 229.003 and 345.010);
- . pollution of reservoirs (1.016, 290.003, 301.003 and 341.001);
- . range of general water quality issues including groundwater contamination, non-compliance with regulations, pollution of South Creek and the Hawkesbury-Nepean system, non-addressing of water quality issues, level of detail, and costing of protection (196.006, 222.006, 222.011, 274.045, 274.050, 274.053, 274.055, 274.057, 337.026 and 422.023).

Tank and farm dam water quality

Under normal conditions airport operations would only contribute a small percentage of overall airborne contaminants in the region. It is expected that the 'rainout' of the contaminants to enter tanks and farm dams would be minimal. Emergency fuel dumping could, under extreme conditions, lead to some contamination of tanks or farm dams but the likelihood of these procedures occurring is very small. When they do, fuel is usually dumped over non-sensitive areas and at an elevation which would ensure the fuel is vaporized before it reaches the ground (see Section 8.7).

Pollution of reservoirs

Comments relating to pollution of reservoirs were concerned with general pollution from normal aircraft operation and also with emergency fuel dumping. As with the tank and farm dam water quality (see above) normal aircraft operation would have only very minimal effect on the water quality. The diffusion of aircraft emissions in the atmosphere is such that the concentration of chemical products from atmospheric reactions involving those emissions which would be found in rainfall or fallout would be very small.

In 1982, the then Department of Transport arranged for an analysis of water samples taken from household water tanks in areas under flight paths close to Adelaide Airport following complaints about pollution of water by unburnt aviation fuel. The analysis, undertaken by Australian Mineral Development Laboratories, showed that there were no detectable pollutants in the water samples which could be identified as being of aviation origin. It can reasonably be concluded that normal aircraft operations do not lead to pollution of water supplies.

General water quality issues

The overall planning, design, construction and operation phases of the airport would take proper account of water management so that State requirements were met and the environment protected. The Draft EIS has adopted a conceptual water management plan and identified aspects such as the probable need for nutrient removal from sewage effluent. More detailed investigation and design would develop the concept further to ensure appropriate environmental protection. It should also be noted that a properly managed extensive development such as an airport is more likely to lead to appropriate water quality control than a pattern of agricultural (or rural) land use under multiple ownership.

Hydrology

One submission made three separate comments (274.119, 274.041 and 274.043) relating to aspects of site drainage design and the potential for flooding. The Draft EIS presented a concept drainage plan to indicate the type and magnitude of potential effects and to demonstrate how potential adverse effects could be appropriately managed. During detailed planning and design appropriate objectives and design criteria would be established with State authorities and incorporated into any airport development. Key factors would include maintenance of, if not an improvement in, the existing pattern of flood flows downstream of the site.

10.3 AIR QUALITY

There were twenty-six submissions containing forty-five separate comments that addressed the question of air quality. The matters raised fall into the following subject areas:

- . effects of air pollution on people and on plants and animals;
- . effects of meteorological conditions on air quality;
- . effects of motor vehicles on air quality;
- . amelioration measures, monitoring programmes and safeguards;
- . dust levels during airport construction;
- . fog effects on airport operations.

Effects of air pollution on people and on plants and animals

Fifteen submissions made eighteen comments (65.005, 69.003, 71.003, 196.004, 244.007, 244.067, 301.002, 304.003, 321.003, 323.002, 330.005, 330.014, 330.015, 337.028, 337.034, 380.003, 402.003 and 426.007), relating to the effects of air pollution on people, plants and animals. The Draft EIS indicates that the second Sydney airport would contribute to pollution levels in the Sydney basin. The level of contribution, determined in Table 10.3.4 of the Draft, is by itself insufficient to raise overall pollution levels above acceptable standards. Overall emissions of hydrocarbons and carbon monoxide have fallen over recent years and are predicted to continue to fall. Currently monitored levels of carbon monoxide do not exceed United States Environmental Protection Agency and World Health Organisation standards. Hydrocarbons are major contributors to photochemical smog, whose major constituent ozone does occasionally exceed National Health and Medical Research Council standards. However, with the continued predicted fall in the level of hydrocarbon emissions, the number of occasions on which these standards are exceeded is expected to diminish even further. That is, if the reduction of ozone production is in fact attributable to the fall off of hydrocarbon emissions and not to meteorological causes.

In the case of nitrogen oxides, levels are predicted to increase and the second Sydney airport's contribution is higher than for any other constituent. Apart from nitrogen oxides being a pollutant *per se*, they are also significant as an essential contributor in the production of photochemical smog. The State Pollution Control Commission is drawing

up regulations to reduce hydrocarbons since photochemical smog needs both reagents for its production. If this policy proves successful the significance of nitrogen oxides as contributors will also decline.

Thus in all respects, with the occasional exception of nitrogen oxides, contributions of the second Sydney airport to pollution loads in Sydney's atmosphere would not be sufficient to cause pollution levels to exceed the accepted standards set out in Table 10.3.1 of the Draft EIS. These standards have been determined in the light of international findings on the adverse effects of air pollution on health and can be extended to include animals as well as humans. However, they do not apply to plants or materials and more research is necessary to determine these relationships.

With regard to particulates in the atmosphere, aircraft engines have steadily been improved as evidenced by the lack of prominent smoke trails from modern engines. Thus it is considered that particulate generation from the second Sydney airport would be negligible.

In the case of lead emissions, fuel for all non-piston aircraft is unleaded and thus emission levels are considered to be very low against a predicted rapid lowering of these emissions generally with the introduction of unleaded fuel for motor vehicles in 1985.

Effect of meteorological conditions on air quality

Nine submissions made fourteen comments (196.003, 218.002, 248.002, 254.003, 274.060, 337.030, 341.017, 341.019, 341.020, 369.003, 386.001, 386.003, 386.006 and 386.008) relating to the effects of meteorological conditions on air quality. Comments concerning this subject area can be divided into those related to meteorological effects and those related to meteorological data.

Regarding meteorological effects, concerns were raised that air pollutants would be trapped by temperature inversions which are frequent around Badgerys Creek and this would cause high pollution levels to occur.

Inversions at Badgerys Creek are likely to be more frequent, stronger and deeper than at Mascot and air pollutants attributable to the airport would be trapped in the inversion layer. Air pollution levels in the local airshed are likely to be greater during the night and morning when inversions are well developed. In the afternoons, mainly during the warmer months, pollutants such as ozone are advected to the Badgerys Creek area from Sydney by sea breezes. At such times airport related pollutants, although additive to prevailing pollution levels would not be significant.

Local night and morning air flows are likely to spread the airport related emissions into the Hawkesbury Valley and possibly the Liverpool and Parramatta Valleys as well. The percentage increase in pollution levels due to the airport is likely to be higher in these areas at this time than the percentage levels expressed in the Draft EIS for the Sydney basin as a whole.

Those localities lying at some altitude, such as Blue Mountain townships and to a lesser degree Silverdale, are generally well ventilated and are often above Cumberland Plain ground inversions. They are therefore unlikely to experience air pollutants trapped by those inversions.

The Bureau of Meteorology queried some of the meteorological data and concepts. These queries and responses are listed below:

- . Wind characteristics for Badgerys Creek (Draft EIS Figure 10.3.2) show only the 9 a.m. wind and do not indicate winds for other times of the day or the data source;
- . The true nature of the mixing layer is not explained.

The data presented were supplied by the Bureau of Meteorology and advice at the time was that p.m. data for Badgerys Creek were not available.

The Draft EIS refers to transport both up and down (page 294 of the Draft EIS) of pollutants in the mixing layer in lapse conditions and provides what is considered to be a clear explanation of the processes at work.

Effects of motor vehicles on air quality

Three submissions made four comments (65.005, 274.062, 337.010 and 337.032) regarding the effects of motor vehicles on air quality. Submissions on this subject claimed that the Draft EIS omitted motor vehicle effects on Sydney's air pollution levels and that total emission levels derived from motor vehicle emission trends are meaningless.

The Draft EIS argues that although vehicle kilometres adjacent to Badgerys Creek would increase due to the airport, their emissions would not necessarily be additional to air pollutant levels occurring in the absence of a second airport. The Draft EIS on page 299 says 'the airport would not necessarily add significantly to either figure (total vehicles and average vehicle kilometres in the year 2000), any more than would major new regional shopping centres, recreation centres, and other such major traffic generating projects built between now and 2000.' Thus in Table 10.3.4 in the Draft EIS the estimated net addition to annual emissions comes from non-vehicular emissions, i.e. aircraft and airport related services.

The contribution of motor vehicle emissions to Sydney's pollutant levels is complicated by the wide distribution of motor vehicles. Airport related vehicle movements would distribute throughout Sydney although about 50% would be within 40 km of the airport.

The other matter raised, concerned the total emission levels for the year 2000. This submission stated that year 2000 figures have been calculated using 1980 figures without extrapolation and that they are not referenced to a standard and are therefore meaningless.

The figures come from a paper discussing future trends in emissions, there being no official pollution forecasts. In order to arrive at total emission figures for 2000 the assumption was made that relative contributions from all sources remained the same as in 1980. With figures for forecast motor vehicle emissions to 2000 available it was then possible to forecast total emission levels. Other assumptions were made as stated on page 296 of the Draft EIS.

Regarding the lack of information on how the year 2000 figures can relate to accepted standards these figures were derived from proportional changes in motor vehicle emissions, 1976 to 2000. These proportional changes can also relate to concentrations shown for each pollutant in the Table 10.3.1 in the Draft EIS so that it is possible to extrapolate concentrations to the year 2000 levels and compare these levels to established standards as shown in the table.

Amelioration measures, monitoring programmes and safeguards

Three submissions (comments 218.003, 337.036 and 341.010) expressed concern about monitoring programmes.

Airport related motor vehicles and airport ground vehicles would, like all motor vehicles, be subject to the State Pollution Control Commission's vigorous programme designed to reduce motor vehicle pollutants. The Commission constantly monitors air pollution levels to ensure that its policies are taking effect.

Section 10.3.6 of the Draft EIS indicates the reasons why standards for jet engine emissions are standardized and why Australia cannot impose more stringent controls.

Dust levels during airport construction

Three submissions (comments 65.031, 65.035, 274.046, 274.062 and 337.012) were concerned about dust levels during airport construction. The Draft EIS indicates in Section 10.3.6 how such levels would be ameliorated. Watering dust prone areas is a common practice in other operations such as sand and gravel extraction, and has proved effective.

Fog effects on airport operation

Five submissions (229.005, 328.014, 451.002 and 460.003) were concerned about the effects of fog on airport operation.

The number of fog days for Badgerys Creek favourably compares with fourteen days per year for Kingsford-Smith Airport and thirteen to fifteen days per year for Wilton and are equal or superior to other short-listed sites for which data were available.

10.4 ACCESS

Twenty submissions were received relating to this section of the Draft EIS. From these, thirty-nine separate comments were identified addressing four main issues:

- . the acquisition of additional land for access purposes;
- . effects on local areas;
- . travel distance, time and cost;
- . rail access.

Land acquisition

Three submissions (345.004, 422.002 and 457.016) were concerned with the amount, location and cost of additional land which might be needed for road and rail access corridors.

Some additional land would be required for airport access purposes. However, the precise location of such areas cannot be determined at the present time as the detailed design of the roadworks necessary is not appropriate to the present stage of planning. Such work would be undertaken by the NSW Government when the timing and scale of the second Sydney airport development was known.

The access work would be carried out in stages and would largely be associated with road widenings. The main north-south access road shown diagrammatically in Fig. 8.3 could be largely constructed through areas that are non-residential.

Effects on local areas

Eleven submissions were received relating to the effects of airport roads and traffic on local areas (57.001, 57.003, 65.004, 65.030, 65.038, 66.001, 66.003, 66.005, 237.004, 248.003, 250.014, 250.015, 274.069, 274.071, 274.074, 274.121, 308.005, 328.023, 341.008, 341.012, 341.021, 341.022 and 422.009).

The issues raised mainly related to increased traffic congestion and air pollution and the need to upgrade the local road system.

The impact of airport development is discussed in Section 10.4.4 of the Draft EIS. To minimize the effects of increased traffic flows on the local area, airport traffic would be directed away from roads whose primary function was to service residential areas. Selected routes would be upgraded and widened to provide adequate capacity for airport traffic in addition to their base load. With changed road conditions in the area it is

possible that some particular journeys may take longer than at present, but in general terms, the upgrading of roads is likely to have a beneficial effect on local travel times. This point was commented on by the State Government in relation to access to the Nepean College of Advanced Education.

One submission asked why Smithfield Road was not mentioned as an airport access route. The Draft EIS listed the major routes, but some other streets could also be expected to carry some airport traffic. Smithfield Road is one of these.

The question of transfer facilities between the two major airports was raised in the context of passengers, freight and fuel and the implications for the proposed South-Western Freeway east of King Georges Road. This latter was also raised by the State Government in the broader context of airport traffic generally.

As stated in the Draft EIS (Section 10.4.3) it is expected that only about 1% of the air passengers would require to transfer between airports and this would be insufficient to justify any special provision. (This is also discussed under Chapter 2.)

Similarly a freight transfer is unlikely to be required. Air freight operators would not wish to include a relatively long land transfer in any service they offered and would therefore seek to ensure that any transfers which were necessary could be carried out at one airport.

A possible exception to this is international freight. If international traffic remained largely at Kingsford-Smith Airport and Badgerys Creek developed as a major domestic freight hub, some form of fast direct link, perhaps by rail, might be required. However, this is very speculative and a long way in the future.

Except in the early stages of airport development, aviation fuel would most likely be transported by pipeline or by rail.

The question of the extension of the South-Western Freeway is a matter for later consideration when and if the airport traffic becomes significant in that area. It is unlikely that airport traffic would ever, on its own, justify the extension of the Freeway.

As indicated in Table 10.3.3 of the Draft EIS, vehicle emissions constitute by far the largest proportion of all airport related air emissions. The question of air quality is discussed in detail in Section 10.3.

Distance, time and cost

Eleven submissions raised the matter of the difficulty of travelling to Badgerys Creek, four claiming that the distances and/or times quoted in the Draft EIS were underestimated (1.004, 63.003, 65.015, 81.008, 250.016, 274.071, 274.106, 328.006, 330.013, 362.025, 367.004 and 422.008).

The Draft EIS recognizes that the distance from the city it serves is one of the most important factors to be considered in the siting of an airport. Other things being equal, an airport at Badgerys Creek would therefore be at a disadvantage compared to Kingsford-Smith Airport. It is largely for this reason that the Draft EIS accepts that Kingsford-Smith will always remain Sydney's primary airport. However, the object of the Draft EIS is to facilitate a comparison, not between Badgerys Creek and Kingsford-Smith, but between Badgerys Creek and Wilton and access distance thus becomes one of the major advantages of Badgerys Creek.

The road distances and times quoted are based on the output of the State Transport Study Group's Sydney road network model for 2015. This is the most authoritative source of information available on future road travel times in the Sydney area. The distance to Badgerys Creek is given as 48 km and this is also confirmed by the most recent edition of Gregory's Street Directory.

Rail distances and times were estimated by the State Rail Authority.

Two submissions criticized the lack of information in the Draft EIS on the origin and destination of airport users and the user population profile.

As outlined in the Draft EIS (page 311) a distribution of passenger origins/destinations was estimated based on the present distribution (as revealed by Department of Aviation surveys) and the forecast Sydney population distribution for the year 2011 (supplied by the NSW Department of Environment and Planning). As the actual future distribution would be heavily dependent on the airport role, sensitivity tests were conducted with alternative distributions.

Rail access

Six submissions raised issues related to the provision of rail service to an airport at Badgerys Creek (66.007, 274.066, 274.067, 274.068, 274.069, 328.020, 341.023, 359.006, 359.011 and 422.008). Three of these supported the provision of a rail service while the State Government claimed there would be insufficient demand to justify such provision. One claimed that a rail service was needed between the city and Kingsford-Smith Airport.

Section 10.4.5 of the Draft EIS provides estimates of rail patronage and it is accepted that, particularly in the early years of the airport's operation, a rail service may not be economic on its own. It is possible, however, that it could be seen as desirable on environmental grounds or as an alternative to major road upgrading. This would be more likely if an airport link could be developed in conjunction with some other rail development, as is the case at Wilton. This now seems less likely, however, for Badgerys Creek as the State Government's submission notes that the Werrington-Glenlee freight railway which was previously under consideration has been deemed not necessary in the foreseeable future.

Any decision to provide a rail service to an airport at Badgerys Creek would need to take into account both the airport-related factors and the effects on the Metropolitan Railway system as a whole.

The State submission disputes the claim that additional potential capacity exists on the Main Western Line between Strathfield and Sydney but accepts that this does not materially affect the comparison between Badgerys Creek and Wilton. However, these considerations led the State Rail Authority to prefer the Glenfield route to the St Marys route for any railway constructed to Badgerys Creek.

One submission claimed that the cost of the railway had been underestimated. The cost estimates were based on unit costs provided by the State Rail Authority and are considered sufficiently accurate for the purposes of site comparison. More detailed costing would of course be necessary if railway construction were being seriously contemplated.

The provision of a rail service between the city and Kingsford-Smith Airport does not form part of the subject of this EIS.

10.5 INFRASTRUCTURE AND ENERGY CONSUMPTION

Twelve submissions were received querying aspects relating to Section 10.5 of the Draft EIS. These ten submissions included twelve separate comments dealing with a range of issues which can be categorized as follows:

- . transport of fuel
- . water supply

- . services
- . sewage and waste disposal.

These issues are discussed below.

Transport of fuel

Three submissions relating to the transport of fuel were received. These submissions made four separate comments (256.002, 256.004, 328.011 and 359.012).

Three of the comments were that the Draft EIS did not indicate the mode of transport of fuel, specifically jet fuel, while the fourth comment suggested it could be transported by pipeline to the site at a cost of about \$10 million.

Section 10.5.6 of the Draft EIS indicates what might be the likely requirements for energy and fuel consumption. While the mode of transport of jet fuel is not specifically mentioned the Draft EIS indicates that diesel and petrol could be transported to the site by road. Because of the relatively large quantity of jet fuel that would be consumed when the airport reaches its ultimate capacity it would be undesirable to transport that by road. A pipeline facility could possibly provide the best and most environmentally acceptable solution. In the interim small quantities could be transported by road.

If Badgerys Creek were selected, the Department of Aviation would investigate the safest and most environmentally acceptable means of transporting jet fuel to the site. Whatever means were finally selected for the transport and storage of jet fuel, the Department of Aviation would ensure that the provisions of the Dangerous Goods Act, 1975, were complied with.

Water supply

Four submissions raised comments relating to the supply of mains water to the proposed site (3.002, 65.037, 335.007 and 379.004).

Two of the comments indicated that the Draft EIS was incorrect in stating that the site is not serviced by a reticulated water supply. One comment was concerned about the expense that residents would have to bear in connecting to mains water supply, while the other indicated that mains water supply was available at Badgerys Creek.

It should be noted that while some properties may be connected to mains water supply the general area is not serviced by a reticulated water supply system which could be readily upgraded to service any possible future airport and related development. Section 10.5.2 of the Draft EIS indicates that the Metropolitan Water Sewerage and Drainage Board does not have any immediate plans to provide a reticulated water supply to the area and that to provide for future development would require a new water supply system. The sequence and processing of these new facilities would be a matter for discussions between the Department of Aviation and relevant government authorities prior to the development of an airport. The question of residents bearing the expense of connecting to mains water is one for the NSW Government and the Metropolitan Water Sewerage and Drainage Board to determine.

Services

Four submissions raised general points relating to services (274.019, 279.004, 337.019 and 341.009). One comment was concerned that there was no commitment from the Commonwealth Government on the funding of additional services. This would be a matter of detailed consideration between both the Commonwealth and NSW governments once a decision was made to proceed with development of an airport at the proposed site.

Another comment was concern about a decision to acquire the Badgerys Creek site, indicating that the construction of some planned infrastructure works would have to be brought forward and others modified. This would be a matter for more detailed consideration if a decision is made to acquire the Badgerys Creek site.

One submission indicated that electrical power and underground fuel lines should be used to eliminate the use of auxiliary power units and tankers, thereby reducing noise levels. This would be a matter for the Department of Aviation to determine once detailed planning and development of the airport commenced.

Sewage disposal

Two submissions made comment on the disposal of treated sewage (222.004, 222.007 and 274.051).

One submission commented that disposal of treated sewage to the Nepean River was not environmentally acceptable while the other suggested that disposal by land irrigation would be preferable to discharging into surface streams.

Section 10.5.3 of the Draft EIS indicates that land disposal by irrigation would be considered if the water pollution control plant were located within the airport site and served only the airport development. An off-site plant serving a larger catchment would require large areas of pasture/crop land to receive treated effluent all year round if land disposal by irrigation was to be possible. This might not be feasible in the context of future development within the area.

One submission was concerned about the disposal of quarantined waste. Quarantined waste would be incinerated and would not be discharged to the sewer system if there was any likelihood of disease. The Metropolitan Water Sewerage and Drainage Board has strict regulations governing the acceptance of effluents and undertakes a water/effluent quality monitoring programme to ensure these standards are maintained. Waste generated by future airport development would be disposed of in accordance with the requirements of the Metropolitan Waste Disposal Authority.

10.6 LANDSCAPE AND VISUAL QUALITY

Five submissions were received that commented on Section 10.6 of the Draft EIS. The five separate comments made in the submissions were concerned about the assessment of landscape quality and can be categorized into two main issues:

- . the impact the airport would have on the rural character of the area;
- . the assessment of landscape quality of the proposed site.

These issues are discussed below.

Impact on rural character

Two comments (264.049 and 353.004) expressed concern about the impact airport construction would have on the rural character of the area should the proposed Badgerys Creek site be selected. Both considered that the impact would be detrimental.

The Draft EIS acknowledges (Section 10.6.4) that construction of the airport would irreversibly alter the landscape and visual character of the proposed site. It also outlines measures to reduce the visual impact of the construction and operational phases of the proposed airport on the surrounding rural areas. These measures include vegetation screening, landscaping, rehabilitation at the construction stage and careful building design. Other impacts on rural character would include changes in land use, noise, and the effects of an increased level of activity in the region generally. These impacts are

discussed in Chapter 9 of the Draft EIS. The Department of Environment and Planning is also undertaking a Regional Environmental Study of the Macarthur Region. This study among other things would examine the future urban and rural development potential of the region.

Assessment of landscape quality

One submission (65.008) queried the assessment of landscape quality given in the Draft EIS, considering that the visual quality of the Badgerys Creek area had been underestimated. The landscape quality of the proposed site was assessed according to the method used by the NSW Department of Environment and Planning. It is a modified version of that used by the United States Department of Agriculture's Forest Service and as such is amongst the most accepted and systematic methods available. Assessment is based on accepted community preferences of the visual quality of landform features, with allowance made for their spatial arrangement and other factors (see Section 10.6 of the Draft EIS). The Draft EIS acknowledges that individual perceptions may differ from the community preferences used in the assessment, but the major advantage of the landscape assessment method is its systematic approach which would ensure that the same relative degree of assessment of visual quality would occur at all sites assessed.

CHAPTER 11

THE BIOLOGICAL ENVIRONMENT AND EFFECTS OF THE PROPOSAL

11.1 FLORA

Three submissions commented on aspects of the Draft EIS relating to flora. The two comments raised the following separate issues:

- . rare species of shrubs at Bents Basin;
- . indirect impacts on vegetation surrounding the airport.

These issues are discussed below.

Rare species of shrubs at Bents Basin

One submission (376.004) commented that there is a rare species of shrub at Bents Basin. This has not been investigated but Bents Basin lies approximately 7 km from the end of the nearest runway as shown in the preliminary master plan in Section 8.3 of the Draft EIS, and 5.9 km from the nearest point on the proposed site boundary. At this distance, emissions of incompletely burnt fuel should have a negligible effect on vegetation. Bents Basin lies between the 20 and 25 ANEF contours and is currently zoned non-urban 'd', County Open Space. This zoning is compatible with this ANEF range, so the Basin should not be adversely affected if the Badgerys Creek site is selected.

Indirect impacts on vegetation surrounding the airport

Two submissions (81.007 and 422.011) suggested further investigation of the likely indirect impacts of airport construction and operation at the proposed site on the vegetation in the vicinity of the site.

Section 11.1.2 of the Draft EIS deals with the effects of direct clearing of vegetation, and with the indirect effect of possible pollution, siltation, and altered flow regimes on the vegetation fringing Badgerys Creek. Ameliorative measures that would be implemented, including drainage controls during airport construction and operation, landscape planting with species now growing on the site, and measures to preserve and replant the one rare species occurring on the site, *Pultenaea parviflora*, are also outlined. The only indirect effects on vegetation not considered in Section 11.1 are the possible effect of aircraft emissions during take-off and landing, and the possible effect of emergency fuel dumping over wide areas. These effects are fully discussed in Section 16.1 of the Draft EIS. The conclusion is that effects of fuel dumping are minimal as such emergency procedures are rarely implemented, and fuel is then dumped at high altitudes so that most if not all would have vaporized before it reached the ground. Emissions during take-off and landing may damage vegetation near the ends of the runways. It should be noted that most of the vegetation of the Badgerys Creek site is already highly disturbed, and there are no rare or endangered stands of native vegetation near the approach and take-off areas of the proposed airport that would be affected by aircraft emissions.

11.2 FAUNA

Five submissions commented on aspects of the Draft EIS relating to the fauna of the proposed Badgerys Creek site. The five comments made could be classified into three main issues:

- . concern at destruction of fauna;
- . impact on fauna beyond the site boundary;
- . omissions from the fauna survey.

These issues are discussed below.

Concern at destruction of fauna

One submission (376.003) expressed a general concern that construction of the proposed airport would destroy the fauna of the area.

Section 11.2.2 of the Draft EIS assesses the impact that construction of the proposed airport would have on the fauna of the area. In terms of the conservation of native fauna in the region the proposed site is of relatively low value, but the Draft EIS acknowledges that on a local level many of the animals that would be displaced during construction would probably not be successful in colonizing other territories. Species with a more nomadic lifestyle such as the magpie, Australian raven and some of the waterbirds should be far more successful in relocating. Impact on species on the site would be diminished during construction and operation by limiting the amount of clearing at each stage of construction; by preserving the fringing vegetation along Badgerys Creek as much as possible; by replanting the site with selected native species to provide small bird habitat; and by controlling drainage to Badgerys and South Creeks through the water management policy described in Section 10.2 of the Draft EIS.

Impact on fauna beyond the site boundary

Two submissions (264.052 and 422.012) commented that effects on fauna could extend beyond the proposed site boundaries.

Section 11.2.2 of the Draft EIS acknowledges that this may occur through two main mechanisms:

- . fauna displaced from the site seeking new habitats;
- . changes to the wildlife habitats along Badgerys Creek and South Creek due to possible changes in hydrology and water quality in the two creeks.

In addition, Section 11.1.2 of the Draft EIS recognizes the effects arising from induced development or the location of new road or rail access routes.

Competition for new territories would mean probably some loss in total animal numbers in the local area. There should be no loss in terms of species diversity, however, as the habitats of the proposed site are not uncommon in the surrounding area. The creekline habitats would be protected by careful drainage control, as outlined in Section 10.2 of the Draft EIS.

Impact on fauna from induced development or the location of new road or rail access routes would require further investigation once the locations for these facilities were determined.

Omissions from the fauna survey

Two submissions (65.036 and 274.085) considered that the fauna survey conducted at the proposed site had some shortcomings.

One comment was that certain species of fauna known to occur in the area had not been detected. It is inevitable in any fauna survey that during the survey period some species will not be active in the locality or will simply not be sighted or trapped. These species can then only be listed as known from earlier studies, where their occurrence has been recorded previously or from local knowledge.

On the basis of the local knowledge revealed in this submission the following have been added to the list of fauna:

Table 11.1 Additional fauna sighted in Badgerys Creek area

Scientific name	Common name
Birds	
<u>Pelecanus conspicillatus</u>	Pelican
<u>Poephila bichenovii</u>	Double bar finches
<u>Poephila guttata</u>	Zebra finch
Reptiles	
<u>Chelodina longicollis</u>	Long-necked tortoise
<u>Pseudechis porphyriacus</u>	Red-bellied black snake
<u>Tiliqua scincoides</u>	Blue-tonged lizard

The second comment noted that no aquatic fauna survey had been undertaken as part of the evaluation of the Badgerys Creek and Wilton sites. The Department of Aviation acknowledges the omission of a survey of aquatic fauna. However, in view of the methods proposed by the Department to maintain water quality and stream flow regimes in receiving waters, the omission of an aquatic fauna survey is not seen as materially affecting either the environmental evaluation or the final selection of a site.

CHAPTER 12

INTRODUCTION TO THE ASSESSMENT OF THE PROPOSED AIRPORT SITE AT WILTON

12.1 ASSESSMENT PROCESS

One submission (comment 293.001) was received relating to Section 12.1 of the Draft EIS. Concern was expressed that no study had been undertaken regarding environmental impacts of development outside the airport boundary.

The Draft EIS has indicated that, where off-site development is expected, an assessment of the associated effects would require further investigation once the details of the off-site development were known. In addition, the Department of Environment and Planning is currently undertaking a regional environmental study of the region. This study is examining the choices for future urban development, including regional planning issues associated with airport site selection.

Any future development would also need to comply with the Commonwealth and New South Wales environmental legislation requirements.

12.2 LOCATION OF THE PROPOSED WILTON SITE AND ENVIRONS

No submissions made comments in relation to this section of the Draft EIS.

12.3 RECENT BUSHFIRE

Three submissions were received which commented on Section 12.3 of the Draft EIS. The comments (245.010, 257.006 and 427.001) indicated concern about the incidence and potential effects of a major bushfire on the proposed airport.

The Metropolitan Water Sewerage and Drainage Board has had a policy of low intensity burning in the catchment for many years to reduce fuel loads in the forest areas so as to reduce the risk of major high intensity wild fires.

During airport construction accidental fires, for instance from the burning of wind-rowed logs, or the operation of earth-moving equipment, or from carelessness on the part of construction workers, could spread to surrounding bushland. Easier public access, particularly during construction activities, could also lead to more fires, whether deliberately lit or accidental. Once the airport was operational, the need might arise for more frequent hazard-reduction burning. Over a long period a regime of more frequent fires, from whatever cause, would simplify the plant communities.

During airport construction, the Department of Aviation would institute measures such as staff education and strict maintenance of equipment in order to minimize the danger of accidental fires. Any deliberate alteration to the existing fire regime would as far as possible be consistent with the preservation of the surrounding vegetation, and would be accompanied by a comprehensive assessment of long-term effects. Precautions would be taken against unauthorized public access: the site would be fenced at the start of construction work with a 2 m chainmesh fence and strict site security would be maintained. Construction of access roads would be limited to permit essential access only.

**12.4 STRUCTURE OF THE REPORT ON THE ENVIRONMENTAL ASSESSMENT OF
THE WILTON SITE**

No submission made comments relating to this section of the Draft EIS.

CHAPTER 13

DESCRIPTION OF THE PROPOSAL AT WILTON

13.1 PURPOSE OF THE PRELIMINARY MASTER PLAN

No submissions made comments relating to this section of the Draft EIS.

13.2 THE PROPOSED AIRPORT SITE

No submissions made comments relating to this section of the Draft EIS.

13.3 PRELIMINARY MASTER PLAN ASSUMPTIONS

Four submissions raised issues relating to the master planning assumptions.

They were concerned with:

- the need for a curfew-free airport;
- the possible need to expand the airport at a later date;
- usability of second airport.

Curfew-free operation

Two submissions (243.002 and 264.032) raised the question of curfew-free operation. One sought an explanation of the need for twenty-four hour operation of the airport; the other supported the need for curfew-free operations.

International airline scheduling is restricted by the present inflexible curfew at Kingsford-Smith Airport. This leads to less than optimum utilization of aircraft and increased operating costs. In addition, when an incoming aircraft is delayed to such an extent that it may not be able to reach Sydney before the curfew it must be held at another airport and the passengers accommodated overnight. This leads to substantial additional costs for the airline.

A number of airlines have also expressed interest in night operations and on the basis of overseas experience it is expected that if the opportunity existed, a significant market would develop.

In the light of these present and possible future demands it would appear very unwise and short-sighted to select a site for the second airport where the option for curfew-free operation could not be reasonably preserved. Because of the importance of the curfew issue very conservative assumptions were used for the calculation of noise contours with the number of night flights assumed being considerably higher than is expected to occur. (See Section 9.2)

Wind usability

The Goulburn City Council (459.030) claimed that the low wind usability of a second airport at either Badgerys Creek or Wilton would affect its role and particularly its contribution to relieving pressure on Kingsford-Smith.

The Council has apparently misunderstood the discussion on wind usability in Section 8.3.3 and 13.3.3 of the Draft EIS. It is stated there that the Consultant recommended to the Department of Aviation that the wind coverage standard be relaxed from 99.8% to 95% for the aeroplanes the airport is intended to serve. The Department has not formally relaxed its 99.8% standard for wind usability but has recognised that there is room for concessions against this standard for second airports in a region. In fact no major concession was necessary because at both Badgerys Creek and Wilton wind usability exceeding 99.6% is available for aircraft with cross wind capability of 20 knots — a commonly achieved or exceeded capability for commercial aircraft operating on dry runways.

One submission (362.018) claimed that the usability of an airport at Wilton would suffer because of the presence of smoke from the frequent bushfires.

A reduction of 0.1% in the airport's usability would require the airport to be closed by smoke for 9 hours per year: a fairly unlikely occurrence.

13.4 PRELIMINARY MASTER PLAN CRITERIA

One submission (459.021) claimed that the Draft EIS did not indicate what procedures were applied to identify possible airport runway layouts within each 'cell' relating to the ten nominated sites.

Four schematic alternative airport layouts were used and adapted to each of the ten sites (Section 4.2 of Draft EIS). Section 4.3 of the Draft EIS shows how specific layouts were used for site ranking and sensitivity testing to rank the ten nominated sites. Once the two short-listed sites were nominated a further review was undertaken of runway layouts to be used for the environmental assessment. Section 13.3 of the Draft EIS gives the reasoning behind the selection of the airport layout used for environmental assessment. Section 13.4 of the Draft EIS indicates the design/dimensional criteria used in the proposed airport layout. This information was considered adequate for the purposes of defining a proposed airport boundary. It should also be noted that the actual airport layout as depicted in the Draft EIS is preliminary.

13.5 PRELIMINARY MASTER PLAN

Five submissions were received relating to aspects of Section 13.5 of the Draft EIS. These five submissions made six separate comments, which can be categorized into the following issues:

- . fuel storage
- . availability of land for coal mine facilities
- . runway alignment alternatives.

These issues are discussed below.

Fuel storage

Four of the submissions were concerned about details relating to the storage of fuel. Comments 205.001, 207.007, 233.034 and 338.024 indicated more details should be provided regarding fuel storage and some were concerned about safety measures particularly in regard to possible ignition by bushfire.

There are stringent design and handling requirements relating to the storage, transport and transfer of aviation fuel. The code of practice to be complied with is set out in:

- Airport Construction Manual
Volume II (B) - Design and Development (Standards and practices), Part 9 - Fuelling facilities;
- Commonwealth of Australia - Air Navigation Orders Part 20, Section 20.9: Air service operations - Precautions in refuelling, engine and radar ground operations (Issue 5 October 1967 as amended).

In addition the transport and storage of fuel would comply with the provisions of the Dangerous Goods Act, 1975, and Australian Standard A51940-SAA Flammable and Combustible Liquids Code.

The fuel storage facility in the preliminary master plan has been located outside the Metropolitan Catchment in an area adjacent to the main access road and rail spur. This would facilitate either road or rail transport of the fuel to the site if either method were selected.

Availability of land for coal mine facilities

One comment (331.004) was that the final airport design should ensure suitable land was still available for the Bellambi Coal Company Pty Limited for the proposed pit top facilities.

The acquisition of land owned by the Bellambi Coal Company Pty Limited for the proposed airport site would preclude that company from proceeding with its proposals to develop a new pit-head complex at its currently preferred location. The company may have difficulty in finding a suitable alternative site for these facilities in view of the limited availability of land that is outside the Metropolitan Catchment but still relatively close to the South Bulli mining operations. A number of alternative sites have been suggested for these facilities. They are discussed in Section 15.1 of this Supplement.

If the Wilton site were selected the Department of Aviation would inform the Department of Mineral Resources and the Joint Coal Board in order to allow further consideration of the issue of future extraction of underlying coal. Discussion would be held with the Bellambi Coal Company Pty Limited to consider the effects of acquisition of the company's land and to determine the feasibility of finding alternative land suitable for the pit-head.

Runway alignment alternatives

One comment (338.064) indicated that the north/south primary runway alignment would only be feasible at considerable cost.

For the short-listing phase of the study, a north/south primary runway orientation was used. Subsequent to the short listing of Wilton, two additional alignments were examined. These were a north-west/south-east alignment and an east/west alignment. The east/west alignment was finally selected as the preferred orientation of primary runways at the Wilton site. The principal reasons for selecting the east/west alignment were:

- it avoided the need to acquire land within the village of Wilton (thereby reducing the social impact);
- it did not affect large areas of land suitable for potential urban development.

13.6 WILTON AIRSPACE

Eight submissions were concerned with aspects of airspace associated with a second Sydney airport at Wilton. The following issues were raised:

- . effects on activity of existing aerodromes;
- . suggested amendments to airspace design;
- . safety.

Effects on activity at existing aerodromes

Seven submissions addressed the effects on activities at existing aerodromes (234.004, 340.020, 360.001, 360.005, 360.006, 375.007, 390.015, 396.015, 396.016 and 432.006).

Camden Aero Club commented that Bankstown and Camden aerodromes would be able to retain their present role while two other submissions considered aspects of present facilities would be affected in some way. One suggested that a second Sydney airport at Wilton would affect existing aerodrome facilities and airspace of Bankstown, Camden and Wedderburn; the other that Wilton would cause the closure of parachuting in the area. Wollongong Council claimed that Wilton would not interfere with other airspace.

The requirement for parachuting to relocate if the Wilton airport proposal is developed is discussed in Section 13.6 of the Draft EIS.

It is agreed that Bankstown and Camden would be able to retain their present roles albeit with some effect on operations. Some small effects are unavoidable with the inclusion of a second major airport and its associated restricted airspace in the Sydney Region. The main effects on the introduction of Wilton controlled airspace would be a reduction in the ease of access to the south coast and in the size of training areas south-west of Camden.

Wilton's effect on the Sydney Region's airspace is significantly less than that of Badgerys Creek.

The Southern Cross Gliding Club stated that the club would not wish to move its operations to a site more than two hours drive from Sydney and suggested Fleurs and Schofields as possible bases in the event of Camden becoming untenable following construction of an airport at Wilton.

It is too early at this stage to decide on a site for the future relocation of gliding activities. However, should relocation become necessary, the Club's suggestion would be considered.

Suggested amendments to airspace design

One submission (360.001) recommended amendments to the airspace requirements to reduce the effects of a second Sydney airport at Wilton on the Sydney Region. The General Aviation Association suggested modifying Holsworthy restricted airspace to allow better access to the south coast. The Southern Cross Gliding Club suggested a modification to controlled airspace around Wilton airport from circular to more rectangular which would reduce interference with gliding activities at Camden.

The airspace diagrams in the Draft EIS are notional in character and simply indicate that it would be feasible to operate a major airport at either of the sites. Detailed design of airspace is not appropriate at this stage because of the many uncertainties involved in looking so far into the future. Airspace allocation is not in any case the sole prerogative of the Department of Aviation but is undertaken in consultation with the Department of Defence and other airspace users. If the Wilton site were selected the Department of Aviation would attempt to minimize the requirement for controlled airspace consistent with its responsibility for the safe operation of controlled aviation. It would however be necessary for the Wedderburn and Wilton aerodromes to cease operations.

Safety

Two submissions (349.004 and 432.020) claimed that the Wilton site would be an appropriate place for an airport because flight paths are available in all directions over largely unpopulated areas.

13.7 AIRCRAFT EMERGENCY PROCEDURES

Six submissions raised issues relating to aircraft accidents and/or the emergency dumping of fuel in the Wilton area.

Aircraft accidents

Five submissions (257.005, 338.078, 342.003, 361.003 and 455.006) expressed concern about possible pollution of the water supply from the release of fuel in the event of an aircraft accident in or near one of the dams.

Aviation is one of the safest forms of transport and Australia's record in this respect is second to none. The likelihood of an aircraft accident in or near the dams is therefore low. However, as the catchment area forms an important part of Sydney's water supply system it is necessary to consider what the consequences might be.

The Metropolitan Water Sewerage and Drainage Board has well established and documented procedures for the control of contaminants which may be discovered in any part of the system. The release of a small quantity of aircraft fuel into the water could be relatively easily handled as the fuel would float on the surface while the take off points for the water supply are well below the surface.

The release of a large quantity of fuel, as could happen from the crash of a fully fuelled airliner, would, however, constitute a major emergency and would require closure of the dam concerned while the clean-up operation was in progress. There remains the remote possibility of a fuel spill into the Cataract River between Cataract Dam and the Broughtons Pass Weir. In this event it would not be possible with the present arrangements to isolate the Campbelltown area from the polluted supply. If it were thought that the risk of such an accident was sufficiently high it would be necessary to consider the installation of a system which permitted direct supply of the upper canal from the Pheasants Nest Weir. That is, a system which allowed the Broughtons Pass Weir to be by-passed.

Two other points are worth making. Firstly, although the risk of an accident involving one of the dams might be slightly higher if an airport were placed at Wilton it is not non-existent at the present time. Secondly, if some aircraft fuel did get into the drinking water it could produce an unpleasant taste but it would not be dangerous. There are many other potential sources of pollution of the water supply which could lead to more serious consequences.

One submission raised the fact that the Wilton area lacks hospital facilities to cope with a major disaster.

The presence of a major airport would no doubt be a consideration in the planning of such facilities in the future.

Fuel dumping

Four submissions (264.051, 342.003, 361.004, 455.006 and 455.009) were concerned with pollution of the water supply as a consequence of the emergency dumping of fuel by aircraft. One also claimed that dumping over the ocean would have an adverse impact on marine life.

Fuel dumping is the term used to refer to the deliberate discharge of fuel from an airborne aircraft. The term is not used to refer to the accidental leaking, discharge or venting of fuel. Generally, accidental leakage has insignificant environmental consequences owing to the rarity of the occurrence and the small quantity discharged.

Fuel dumping occurs for two reasons. More often than not it is the result of the development of a fault that requires the aircraft to land at an airport other than its destination, either the airport of departure or an en-route airport. The allowable maximum take-off weight of an aircraft may be greater than the allowable maximum landing weight. Consequently, if an aircraft is required to land unexpectedly, there will be occasions when the weight of the aircraft is too high for landing and weight must be reduced. This can be done by dumping fuel. On rare occasions it is considered desirable to dump fuel in order to minimize the risk of fire during an emergency landing.

On the great majority of occasions a choice can be made about where the fuel is dumped, in which case it is done either at high level, over the sea or over uninhabited land. In other than emergency situations the Department of Aviation nominates the location for the fuel dumping. A minimum height of 1,800 m is recommended and fuel is directed to be dumped at a location that minimizes the environmental consequences.

From the figures for the last nine years of the number of times fuel was dumped by aircraft associated with Sydney Airport, on average only one in about every 60,000 aircraft movements would be involved in fuel dumping.

The Department of Aviation is not aware of any environmental problems that have been caused in the past by fuel dumping in Australia or overseas. There is no evidence to suggest that the existing procedures covering fuel dumping are inadequate, nor are any problems expected around either Badgerys Creek or Wilton.

CHAPTER 14

THE SOCIO-ECONOMIC ENVIRONMENT AND EFFECTS OF THE PROPOSAL

14.1 ACQUISITION

Eleven submissions were received relating to aspects covered in Section 14.1 of the Draft EIS. From these submissions, fourteen comments were made on various aspects relating to the possible acquisition of a site at Wilton.

The comments made in these submissions can be categorized into four main issues:

- . acquisition cost for the Wilton site;
- . compensation;
- . planning blight;
- . acquisition process and property administration.

Acquisition costs for the Wilton site

Seven submissions (202.015, 246.001, 349.006, 389.002, 390.003, 428.004 and 432.021) were received relating to the acquisition cost of the Wilton site, detailed in Section 9.1 of the Draft EIS.

All the submissions questioned the adequacy of the land acquisition figure of \$1.8 million quoted in Section 14.1.1 of the Draft EIS. Two of the submissions considered the figure to be an overestimation of the property value for the Wilton site and four of the submissions considered it to be an undervaluation.

The figure used in Section 14.1.1 of the Draft EIS was produced by the Valuation Branch of the Australian Taxation Office as a budgetary estimate of the realty cost of the properties and land within the site. This is the normal costing basis by which Governments assess various projects. The prime purpose of using this figure was to establish an order of cost (not including the compensation payments outlined in paragraph 14.1.1 of the Draft EIS) to be used to give an indication of the level of funding required and a comparison of the level of cost between the Badgerys Creek and Wilton sites. At no stage was the figure intended as a formal valuation figure. Such valuations can only be obtained when a commitment to purchase has been established and the valuers are permitted to enter the properties for a formal examination of the land and improvements. The budgetary estimate figure was derived from aerial photographs, kerbside inspections and reference to recorded property sales, also without inspection.

The \$1.8 million figure was stated in Section 9.1.1 of the Draft EIS as an estimation of the market valuation of private land and improvements on the proposed Wilton site. This statement was not strictly correct as the Commonwealth valuers in their estimate did make a valuation allowance for the procurement of Metropolitan Water Sewerage and Drainage Board land and this is included in the \$1.8 million total. However, it must be emphasized that this figure is an estimate at this stage. Should the Wilton site be selected, the final acquisition cost will only be known once all the properties have been purchased by or transferred to the Commonwealth. Should the acquisition by agreement method be used to acquire the site, an agreed purchase price must be determined for each property. Should the compulsory acquisition method be used to purchase the site, full valuation figures would be produced for each property, but it may be some time

before the total compensation cost could be established. The final figure would also of course depend on the terms and conditions of the transfer or sale of the Metropolitan Water Sewerage and Drainage Board land negotiated between the Commonwealth and the State Governments.

In developing the estimate figure, the Commonwealth valuers considered the blighting influence of the proposed airport development on property values. When formal valuations are required to be made for the purposes of acquisition, research will be necessary to establish whether blight has had an influence on the property values in the site area.

None of the submissions which suggested that the site acquisition figure did not represent the true value of the properties and land at Wilton has substantiated its claims with a property valuation of the site produced by an independent qualified valuer.

Compensation

Three submissions (274.077, 337.039 and 432.050) were received relating to the compensation applicable to land and property owners within the Wilton site should it be selected for airport development.

The comments related to:

- . compensation from the Commonwealth to the State Government for the loss of Crown land at Wilton;
- . compensation and relocation costs applicable to displaced property owners.

The matter of Crown land transfer and compensation payable between the Commonwealth and State Governments would be a matter for negotiation between the appropriate Departments within these Governments and would be made in accordance with the conditions established in the Commonwealth/State Land Exchange Agreement, 1979.

The compensation payable to property owners affected by either compulsory acquisition or acquisition by agreement is detailed in Sections 14.1.2 and 14.1.3 of the Draft EIS. The actual compensation payable cannot be fully established until a negotiated sale or a court determination has been finalized.

Planning blight

Two submissions (264.021 and 338.026) were received relating to the depressed land and property values in the area due to the proposed airport development. Planning blight can be considered as the influence a major development proposal has on regional property values and businesses. Section 9.1.4 of the Draft EIS discusses the planning blight issue.

Once negotiations have commenced for the sale of a property to the Commonwealth, a formal valuation of the land plus improvements is undertaken. One aspect of the valuation work is to investigate whether the valuation figure determined has been influenced by planning blight. If it can be shown that this has occurred the valuation figure would be adjusted to compensate the owner for blight.

The effect of planning blight on business investment within the airport boundary is also a matter for negotiation prior to the acquisition of a property.

Under present Commonwealth legislation, the effects of planning blight on properties outside the airport boundary are not subject to compensation. The Law Reform Commission considered the blight question in its report No. 14, but the Government has deferred its decision on this matter until it has consulted with other levels of Government.

Acquisition process and property administration

Two submissions were received relating to the acquisition process and property administration following site acquisition. Two comments were made addressing the requirement for the Commonwealth to make ex gratia payments to Councils in lieu of lost rates and the need for a quick acquisition process (274.034 and 432.022).

The first submission asked about rates payable to Local Government following site acquisition. The usual arrangement in cases of this type is that prior to site development, the acquired properties are offered for lease by the Commonwealth. As part of the leasing agreement, the Commonwealth would, in accordance with normal practice, require the lessee to be responsible for the payment of all Local Government charges attracted by the leased properties. Once the airport development is implemented, the normal ex gratia payments scheme currently operated by the Department of Aviation would apply to Local Government charges. This issue is discussed in Section 14.6.6 of the Draft EIS.

The second submission requested that a quick acquisition process be implemented once a decision to purchase a second Sydney airport site was made. If the compulsory acquisition option is chosen, then the acquisition process should be finalized within months of the announcement of the purchase of a site — subject to the time taken for any compensation litigation. The acquisition by agreement option, as the name suggests, may take many years to complete but will ensure that people sell their properties only when they wish to vacate the site. The method of acquisition chosen will be a matter for Government decision in conjunction with the decision on which of the two sites is to be acquired for the second Sydney airport.

14.2 NOISE

A number of submissions raised aspects relating to Section 14.2 of the Draft EIS. These aspects can be generally categorized into issues relating to:

- . the ANEF system;
- . objections to various aspects of noise;
- . assessment of effects;
- . soundproofing and compensation;
- . other noise.

The ANEF system

Many submissions on noise raised points related to the accuracy of the ANEF contours presented in the Draft EIS, although one comment (274.011) agreed with the use of the ANEF system for estimating aircraft noise.

Five comments implied that the noise affected areas should be considerably larger than depicted in the Draft EIS owing to the low ambient noise levels surrounding Wilton (246.002, 264.025, 274.005, 338.021 and 342.021).

In fact, the noise contours themselves are a function of aircraft operations and have no relationship with ambient noise levels. The objection more accurately relates to 20 ANEF cut-off for the noise area used for evaluation. The implication is that if 20 ANEF is a reasonable cut-off for urban environments, something less than 20 ANEF would be appropriate for rural and semi-rural environments. It is likely that areas surrounding Wilton do have lower ambient noise levels than those areas around urban airports like Sydney and Adelaide. Whether this affects reaction to aircraft noise exposure or not is, however, not clear. The National Acoustics Laboratory findings were used because they represent the most recent and most comprehensive scientifically established data on Australian reaction to aircraft noise. The National Acoustics Laboratory survey included

airports like Tullamarine, Richmond and Perth, which are distinctly more like the Wilton environment than the urban environments around Sydney or Adelaide airports. No significant differences were observed between reactions at Melbourne, Richmond etc. and the 'urban' airports.

The State Government agrees (274.011) that the ANEF system is the appropriate method of assessing noise exposure effects.

Two comments were critical of the treatment in the Draft EIS of night time aircraft noise (264.030 and 385.012). The general criticisms were that:

- . the weighting applied to night operations is too small;
- . the percentage of operations assumed to be night operations is too small.

The weighting applied to night time operations effectively equates one night time operation to four day time operations. This weighting was adopted on the basis of National Acoustics Laboratory findings which indicated that the previously used greater weighting was too high. There has been general acceptance of the night and evening weightings now used in the ANEF system.

The allocation of forecast traffic to evening and night operations to permit the estimation of noise contours is set out in Section 9.2.5 (page 192) of the Draft EIS. This suggests that 30% of all jet movements would occur after 7 p.m., with 10% occurring after 10 p.m. The Department of Aviation maintains that this remains a higher proportion than is likely to occur and is therefore appropriate for the worst case estimate of noise exposure.

Two comments (195.003 and 264.028) were critical of the fact that the ANEF system failed to take account of topography. They implied that the topography around Wilton would exacerbate the noise effects presented in the Draft EIS but did not explain how. Although the terrain surrounding the Wilton site is characterized by gullies and ravines through which rivers and streams flow, the general form of the land is undulating. It does not exhibit the abrupt variations in height such as are typical of the Illawarra escarpment, nor mountainous terrain which might contain noise effects. The ANEF system does not take account of topography, but, even if it did, it is not immediately clear how the noise contours would differ at Wilton compared with other Australian airports.

Two submissions raised the question of temperature inversions affecting noise propagation (274.007 and 386.005).

As discussed in Section 14.2 of the Draft EIS, the ANEF computation is based on an average day, and temperature, wind, temperature inversions, cloud cover and humidity can all contribute to day-to-day variations in the propagation of noise.

The ANEF system of estimating noise exposure contours, in common with similar noise exposure systems employed around the world, does not attempt to make allowances for these sources of variation for two main reasons. First, there is no consistently reliable method to take account of variations in each of these factors as they vary over time and space.

Second, the generation of noise contours is only half of the task of estimating aircraft noise exposure effects. The other half involves assessing how people respond to different noise exposure levels determined by the ANEF contours.

The investigation of reaction is typically undertaken using social surveys, in which respondents are requested to describe their reaction to aircraft noise. Their response is clearly based not on the experience of a particular survey day, but on their accumulated experience of living in areas exposed to aircraft noise. Consequently, their response is an average rather than instantaneous reaction to aircraft noise.

The ANEF system is therefore an average measure of exposure and response and it has been consistently confirmed as the best method for Australia for estimating the effects of aircraft noise.

Although all the sources of possible variation listed above are common in varying degrees to all airports around the world, there is no evidence to suggest they significantly affect average response. This was confirmed in the National Acoustics Laboratory survey, where, for example, areas close to Sydney airport but outside the 20 ANEF contours were surveyed as control areas. The absence of any particular annoyance due to aircraft noise in control areas served to confirm the reasonable accuracy of the ANEF system.

This lack of significant variation can be observed for noise exposure associated with current operations. The noise exposure areas assessed for Wilton are worst case areas, which are unlikely to be attained let alone exceeded. It is therefore extremely unlikely for the variation which might arise from these effects to result in exposure in excess of that outlined in the Draft EIS. A noise monitoring system set up after the airport became operational would confirm that the noise generated was within the levels predicted.

Objections to various aspects of noise

A number of comments simply objected to the potential aircraft noise (11.004, 244.009, 270.002, 299.002, 300.003, 361.018, 394.003 and 394.006).

Most were unconcerned with the ANEF system in particular and simply commented that aircraft noise would affect their lifestyle.

Clearly, it is true that aircraft noise would affect lifestyle. Most of Section 14.2 is dedicated to explaining and assessing the incidence and nature of these effects.

One submission (246.023) raised the question of interference with TV reception from overflying aircraft and airport radars. Because of the greater distance from the TV transmitters, the effects of reflected signals from aircraft would be less than is currently experienced around Kingsford-Smith Airport. Airport radars should have no effect. The Parliamentary Select Committee on Aircraft Noise is aware of the problem of TV flicker around airports, and is considering what action can be taken. Its report is due to be presented to Parliament before the end of this year.

Wollongong City Council, Wollongong Chamber of Commerce and the Building Workers Industrial Union, however, did not believe there would be significant noise effects at Wilton (349.003, 394.006, 432.013, 432.031 and 432.037).

Comment 425.003 argued that simulated operations at Wilton by a B747 aircraft should be undertaken to demonstrate noise levels. However, even if this could be arranged, it would not serve the intended purpose. Reactions to single events are not likely to accurately represent reaction to habitual noise exposure, and would probably be affected by the prejudices (for or against) of those witnessing the simulation.

Assessment of effects

A number of submissions raised several criticisms of the way in which the ANEF system was presented and used in the assessment of aircraft noise effects set out in the Draft EIS (244.009, 246.003-246.006, 270.003, 338.020, 338.022, 338.069, 432.013 and 432.037).

The criticisms were that:

- the Draft EIS implicitly treated the 20 ANEF contour as an impervious sound barrier by failing to take account of noise effects on those outside the 20 ANEF;

- . the National Acoustics Laboratory surveys underlying community reaction to aircraft noise were inadequate;
- . the Draft EIS failed to justify the recommended land use table.

Whilst it is true that the comparison of noise effects was restricted to 20 ANEF, there was no conscious attempt in the Draft EIS to disguise the fact that aircraft noise effects do occur outside the 20 ANEF as indicated in Figure 14.2.2. The choice of 20 ANEF as a cut-off for evaluation simply reflects the National Acoustics Laboratory's conclusion that for land use planning purposes there should be a finite limit for consideration of land use measures and that above 20 ANEF represents areas of 'excessive aircraft noise' (page 381). The general criticism that the National Acoustics Laboratory surveys were inadequate refer to their inadequacy for application to quiet rural areas. This is responded to above in comments on low ambient noise levels.

The Draft EIS did not attempt to justify the recommended land use table which the Department of Aviation makes available to land use authorities for application in aircraft noise affected areas. The Department believes this to be good practical advice, but there is nothing to prevent land use authorities adopting a different practice.

The same submission was critical of treatment of noise effects (246.007 and 246.008). The claim is that the Draft EIS deliberately plays down noise relative to other effects by ignoring the fact that a lower level of operations would still generate substantial noise impacts, but promotes the employment benefits, for example, that would accompany the 13 million passenger per annum maximum development.

This is highly selective criticism. The worst case was used in all assessments of effects as required by the guidelines. However, although halving the annual operations may reduce the ANEF contours by 3 ANEF, it remains true that very few people are contained within them. There are other effects such as level of development and possible impact on flora and fauna which are much more sensitive to such changes in use of the airport. In any event, one could not have the 'worst case' noise effect without the 'best case' employment effect.

Several comments were about noise effects outside the 20 ANEF contour (208.002, 240.006, 245.009, 297.002, 338.023). These comments protested about noise over Bargo, Yanderra and North Wollongong. One raised the prospect of noise nuisance to public facilities around Wilton, Campbelltown and Wollongong; another argued that quiet enjoyment of the Royal National Park would be compromised by operations from Wilton.

There is little response which can be added to what already is in the Draft EIS regarding these general observations except to say that, although aircraft noise may be heard outside the 20 ANEF areas, it quickly ceases to be a nuisance to the majority of people the further outside the 20 ANEF they are.

Soundproofing and compensation

Seven submissions were received relating to the need for the Commonwealth to pay for noise compensation and house soundproofing in high aircraft noise areas (11.005, 195.001, 274.015, 337.016, 340.032, 385.012 and 390.026). As stated in Section 14.2.8 of the Draft EIS, under the present Commonwealth acquisition legislation (Lands Acquisition Act 1955), no compensation is available for injurious affection such as may be caused by aircraft noise.

The Law Reform Commission considered the injurious affection question in detail and recommended in its Report No. 14 that the current legislation should be changed to make this aspect of compensation to property owners more equitable. The Government has deferred its decision on this matter until it has consulted with other levels of Government and until the Parliamentary Standing Committee on Aircraft Noise has released its report and recommendations.

Furthermore, the Parliamentary Standing Committee on Aircraft Noise is also considering the related issues of the acquisition of noise affected properties in the vicinity of airports and the insulation of housing within high noise zones. Government policy on these issues may be subject to the recommendations contained in the Noise Inquiry Report, scheduled for release later this year.

Other noise

The State Government submission stated that noise from access roads and railway should have been quantified (274.009). This contrasts with the agreement reached with the access and environmental working groups, which included State Government representatives, that these aspects could only be meaningfully addressed when access routes were determined in the Macarthur Regional Environment Plan.

14.3 ARCHAEOLOGY

Five submissions were received that commented on the archaeological section of the Draft EIS. These made eight separate comments that could be categorised into two issues:

- . comments on the method and extent of the archaeological survey;
- . threat to sites of significance.

These issues are discussed below.

Comments on the archaeological survey

Three submissions commented on the method and extent of the archaeological survey conducted during preparation of the Draft EIS. Five comments were made (327.001, 327.002, 327.004, 338.061 and 385.013) noting that the value of the Wilton area in archaeological terms is increased by its geographical and geological features and the proximity of a tribal boundary, suggesting shortcomings in the predicted nature and frequency of sites in the Draft EIS, and the need for further investigation in areas of associated disturbance such as infrastructure routes.

The archaeological survey involved three components: a review of previous investigations relevant to the area, an identification of likely locations for sites based on patterns of distribution noted in earlier studies of the Sydney region and on features of landform and geology, and a field search of likely places to locate existing sites. In general, the field survey confirmed the predictions made on the basis of earlier studies and features of landform and geology, with the exception of entrenched creek lines in sandstone, where a complete survey revealed far lower archaeological value than had been predicted.

The existence of a tribal boundary in the vicinity of the site, although not crossing it, is noted in the Draft EIS in Section 14.4. Section 14.4.2 also acknowledges the need for further investigation to assess effects arising from induced development or the location of new road or rail access routes, this investigation to be carried out once the locations for these facilities were determined.

Threat to sites of significance

Three submissions (205.022, 264.033 and 327.003) were concerned about the possible disturbance of both the Allens Creek sites recorded by Haglund in 1982 and other possible sites in the area.

The occurrence of two of the Allens Creek sites within the notional site boundary is acknowledged in the Draft EIS. No other sites within the notional airport site boundary could be identified either through field survey or through the series of interviews held with members of both the Tharawal and Illawarra Local Aboriginal Land Councils.

Section 14.3.3 of the Draft EIS contains an undertaking that should it be determined after further detailed design that the Allens Creek art sites might be affected by airport development, the Department of Aviation would consult with the local Aboriginal land council and the National Parks and Wildlife Service to determine recording, preservation and excavation work that should be undertaken. In addition, the Draft EIS states that should any further information concerning the archaeological sensitivity of the site become available before construction, the Department of Aviation would review the need to appoint a qualified archaeologist to monitor the development during ground disturbance.

14.4 CONCERNS OF ABORIGINAL PEOPLE

Five submissions were received relating to the concerns of Aboriginal people with respect to the proposed Wilton airport site. These submissions made seven separate comments, which could be categorized into three issues:

- . liaison with Aboriginal communities;
- . significance of the land to Aboriginal people;
- . attitude of the Tharawal Land Council.

These issues are discussed below.

Liaison with Aboriginal communities

Three submissions made five comments (205.023, 205.024, 205.025, 274.081 and 338.085) related to the process of liaison with Aboriginal communities. Four of these comments, from two submissions, criticized aspects of the liaison process; the time allowed for contacts with the Land Councils and the interpretation of the Land Councils' attitude as conditional approval.

The Draft EIS acknowledges in Section 14.4.3 that the time available for preparation of the Draft EIS was insufficient to enable full negotiating processes to be followed. This was mainly the result of the scheduling of South Coast Regional Land Council meetings and the cancellation of a scheduled Illawarra Land Council meeting. One meeting of the Western Metropolitan Regional Land Council and one of the Tharawal Local Aboriginal Land Council were, however, successfully attended by the Anthropological Consultant. Liaison officers appointed by each of the Land Councils supplied the Consultant with lists of Land Council members for interview. Forty-one members of the two Land Councils were interviewed by the liaison officers to determine their views on airport development and to compile information on the proposed site area and surrounds.

The interpretation of the Land Councils' attitude as conditional approval arose from the fact that the majority of Aboriginals contacted stated that they had no objection to the proposed acquisition and airport development provided that it did not cause any direct or indirect damage to sites of significance.

Should the Wilton site be selected for airport development, these initial contacts with the Tharawal and Illawarra Land Councils, and the National Parks and Wildlife Service, would be used to set up a consultative process with the Department of Aviation aimed at resolving conflicts between the interests of Aboriginal people and airport development.

The fifth comment relating to liaison with Aboriginal communities constituted an expression of support for the views of Tharawal Land Council. These views are quoted fully in the Draft EIS at Section 14.4.3, and discussion between the Department of Aviation, Tharawal Land Council and the National Parks and Wildlife Service would take account of these views if the Wilton site is selected for acquisition and development.

Significance of the land to Aboriginal people

One submission (362.027) indicated that the Metropolitan Water, Sewerage and Drainage Board's water catchment land at Wilton is significant to Aboriginal people. This is confirmed in the Draft EIS through the comments of members of the Tharawal Local Aboriginal Land Council, the comments of officers of the NSW National Parks and Wildlife Service, and through the large number of Aboriginal sites which have been recorded by the National Parks and Wildlife Service in the area generally. In addition, two rock shelters containing drawings and two containing possible stone artefacts are located within the proposed site boundary. It should be noted, however, that the two art sites within the proposed site boundary are not well preserved compared to other art sites that have been located in the district, and they are continuing to deteriorate, so that their scientific, aesthetic and heritage significance decreases with time. Their significance is also decreased by the existence of a large number of Aboriginal sites recorded by the National Parks and Wildlife Service in areas beyond the proposed airport site. The Cataract River and gorge are particularly significant areas as the locations where many Tharawal people died in their confrontations with Europeans, and as sacred sites.

It is in recognition of the archaeological sensitivity of the proposed site that the Department of Aviation proposes to undertake further consultation with the Tharawal Land Council and National Parks and Wildlife Service should the proposed Wilton site be selected for airport development.

Attitude of Tharawal Land Council

One submission (432.015) indicated that Tharawal Local Aboriginal Land Council is not opposed to development of the proposed Wilton site. This accords with the statement of attitude by the majority of Aboriginals contacted. The Tharawal Land Council's submission to the Department of Aviation presents a list of considerations which would become the subject of discussion between the Department and the Council should the proposed Wilton site be selected for development.

14.5 EUROPEAN HERITAGE

Two submissions were received that made two separate comments relating to Section 14.5 of the Draft EIS.

One submission (264.036) suggested that the weighting given to European heritage value at both Wilton and Badgerys Creek proposed sites seemed very low.

European heritage value has been ranked fourth in terms of factor weights, following population displaced and existing and future noise incompatible land use. The weighting given is heavier than that given for flora, fauna, mineral resources, agriculture, flood risk, water quality and air quality. European heritage value of the proposed Wilton site is, however, assessed as minimal, so that the overall weighted score for this factor at this site is very low. This low score reflects the low historical significance of the proposed site rather than a low weighting factor.

The second comment (362.009) states that the Draft EIS does not state the significance of the catchment area to the National Estate. Section 14.5.3 of the Draft EIS states that the proposed site and immediately adjacent areas are of minimal heritage significance due to the absence of major nineteenth century development in the area and of any sites or buildings of heritage value. Sections 14.3 and 14.4 of the Draft EIS however, acknowledge the value of the catchment area, and in particular the wider catchment area beyond the proposed site, to the Aboriginal people, and Sections 16.1 and 16.2 outline its value in ecological terms. It should be noted, however, that the proposed site excises only a small area at the boundary of the Metropolitan Catchment.

14.6 ECONOMIC EFFECTS

There were a significant number of comments made about the economic effects of the proposed airport at the site acquisition, construction and operation stages. These comments can be categorized into four issues:

- . method of estimation of employment;
- . number of jobs created;
- . effects on sub-regional economy;
- . time lag in job creation.

These issues are discussed below.

Method of estimation of employment

Five submissions made seven separate comments (246.011, 264.040, 264.042, 274.028, 340.008, 389.009, 389.013) relating to the method of estimating employment that could be generated in the Wilton area should the Wilton site be selected for development.

Some comments related to the multipliers applied to the Wilton sub-region. One suggested that the multipliers were inaccurate, and two that they were applied to the Wilton area largely unchanged from the Kingsford-Smith sub-region economic benefits study, from which they were derived. The first of these criticisms has some substance. The multipliers estimated for the Wilton case cannot be thoroughly accurate due to the uncertainties surrounding the precise role of the second Sydney airport and to the uncertain characteristics of the future local economy to which they would be applied. However, the figures given represent the best estimate possible given the present level of knowledge. These limitations are acknowledged in Section 14.6.5 of the Draft EIS. The suggestion of two of these comments that the multipliers derived from Kingsford-Smith sub-region have been applied largely unaltered to the Wilton sub-region is, however, false. Sections 14.6.5 and 14.6.6 discuss the application of the construction sector employment multipliers and the ratios of employees to air traffic derived from the Kingsford-Smith sub-region to the Wilton sub-region. In both cases the figures were considerably discounted: in the first case to reflect the high leakages of expenditure from the sub-region, and in the second to reflect uncertainties in the balance between domestic and international traffic, location of headquarters of airlines and the possibility of productivity improvements in the airline industry.

Others pointed out aspects of the second Sydney airport that might reduce its employment generating capacity. These were that the employment level of general aviation and commuter activities would be smaller than for major airlines, and that the second Sydney airport would be likely to be smaller than Kingsford-Smith Airport so that estimates of direct employment should be reduced proportionately. These factors have been taken into account in the estimation of direct employment at the operational stage given in Section 14.6.6.

One comment relating to the method of estimation of employment queries whether both sites would have equal employment generating characteristics. The Draft EIS does not assume that this would be the case. In Sections 9.6 and 14.6 which deal with economic effects at the two sites allowance has been made for the characteristics of the local economy at each site. These characteristics affect flow-on employment particularly. The economic multipliers applied to the two sites and presented in Tables 9.6.5 and 14.6.5 therefore differ, and the justification for the differences between the two sites is given in Sections 9.6.5, 9.6.6, 14.6.5 and 14.6.6 of the Draft EIS.

Number of jobs created

Eleven submissions made seventeen separate comments (208.005, 246.009, 246.013, 246.014, 264.012, 264.014, 264.038, 332.007, 338.019, 362.021, 385.014, 385.016, 389.010,

389.012, 391.010 390.012, and 456.002) relating to the number of jobs that would be created by airport development, should the proposed Wilton site be selected.

A small majority of these comments queried the estimated maximum employment levels expected to be generated by airport development or criticized the Draft EIS for considering estimated maximum employment levels. The method of estimation is detailed in the Draft EIS, including the assumptions made about level of operation of the proposed airport and assumptions relating to the regional economy. It is also stated that the estimates made for airport associated and induced employment, and multiplier or flow-on employment are maximum levels. This is a result of the use of the same 'worst-case' scenario for analysis of economic effects as had been used for evaluation of all other environmental factors in preparing the Draft EIS.

Most of the remaining comments relating to job creation pointed out that employment gains through airport construction and operation may be offset to some extent by employment losses resulting in the local area from conflict with mining activity, and in the Kingsford-Smith area through the possible relocation of some airport associated activity. As outlined in Section 14.6.4 of the Draft EIS, the Commonwealth proposes to manage the acquired site surface area for existing and productive use as far as is possible, thereby maintaining close to the present levels of employment generated by the land. However, Section 14.6.4 of the Draft EIS acknowledges that there may be some loss of production on the land acquired and that any such loss would be accompanied by negative flow-on effects in the local region.

In the Wilton area, agricultural activity is a less important employer than are mining and manufacturing activities. Submissions from the Bellambi Coal Company Pty Limited, into whose lease area the proposed airport site extends, indicate that the possible sterilization of reserves in the South Bulli holding could jeopardize the continuing operation of the company, which employs about 600 people. However, the company considers that it would be possible to design a mine plan to permit the extraction of the resource beneath the airport. This is discussed more fully in Section 15.1 of the Supplement to the Draft EIS, and would be the subject of discussion between the Department of Aviation, the NSW Department of Mineral Resources, the Joint Coal Board and the Bellambi Coal Company Pty Limited. Should such extraction proceed, employment in the mining sector would not be affected.

One comment suggested that jobs would be lost around Kingsford-Smith Airport if some airport and airport associated industry were to relocate to the second Sydney airport site.

Possible loss of employment at Kingsford-Smith Airport is not specifically discussed in the Draft EIS. This is because a second airport is seen as supplementing the capacity of Kingsford-Smith Airport rather than being in competition. Section 2.4 of the Draft EIS considers the role of Kingsford-Smith Airport in the presence of a second Sydney airport. The conclusion reached is that Kingsford-Smith Airport would remain the dominant, business oriented airport, remaining the focus for business and intrastate commuter traffic. It is also expected that Kingsford-Smith Airport would remain the principal airport of the established major airlines as a result primarily of the fact that the option for these airlines of relocating to a second airport is not realistic in the face of their established markets and competitive relationships. A secondary reason is that each has substantial investments in facilities at Kingsford-Smith Airport. It is also regarded as unlikely that airline associated activities would relocate their operations, as outlined in Section 14.6.6. Therefore loss of employment in the Kingsford-Smith sub-region as a result of establishing a second Sydney airport is considered unlikely.

Effects on the sub-regional economy

Thirteen submissions made a total of nineteen separate comments (58.002, 243.010, 243.011, 243.015, 274.030, 274.031, 331.007, 332.002, 349.007, 361.023, 374.005, 374.006, 389.011, 390.023, 394.002, 426.006, 432.004, 432.016 and 432.025) relating to economic

and employment effects that the selection of the proposed Wilton site may have in the sub-region.

The majority of these comments responded positively to siting of the proposed airport at Wilton, suggesting that the economic and employment generating effects of the airport would benefit the region, which currently has a relatively high rate of unemployment. The proposed airport is seen as a possible stimulus to tourism in the region and as a means of diversifying the regional economy. There is little doubt that economic and employment benefits would occur.

Several comments discuss the extent to which airport-generated employment could be expected to benefit the sub-region, postulating that skilled labour would be likely to be drawn from outside the region and that economic benefits might not flow on to local businesses. Sections 14.6.5 and 14.6.6 discuss these aspects of economic and employment generation, and the application of the multipliers derived from the Kingsford-Smith sub-region to the Wilton sub-region. It is acknowledged that the multipliers must be discounted when applied to the Wilton sub-region to reflect the higher leakages of expenditure that would apply to the Wilton case. These factors are taken into account in projecting direct, airport associated and airport induced employment in the Wilton sub-region.

Several comments suggested strategies to maximize local benefit from the economic generating effects of the proposed airport. Strategies included a suggestion that government contracts should specify a minimum proportion of local labour to be employed in airport construction, and encouragement for nearby location of a freight forwarding industry and aircraft servicing, repair and catering industries in the early stages of airport and local and regional planning.

One comment relating to effects on the sub-regional economy stated that selection of the proposed Wilton site would result in a capital drain from the area. This may result in the short term through the suspension of capital works and improvements on properties likely to be affected by airport development. In the longer term, the result of site acquisition and airport development is likely to be capital inflow into the sub-region, as investment in airport associated and induced industries occurs.

Time lag in job creation

Five submissions made five separate comments (205.008, 264.010, 334.006, 342.013 and 361.025) regarding the time that would elapse between acquisition of the proposed site and generation of any employment.

These comments point out that site acquisition would create no jobs and that there may be a considerable time lag before the construction and operation stages which would generate employment.

This is acknowledged in the Draft EIS. Section 14.6.4 describes the effect of site acquisition as a possible displacement of some existing economic activity, and Sections 14.6.5 and 14.6.6 describe the employment and economic generating effects that would be anticipated at construction and operation stages, but point out the difficulty of accurately specifying the effects of construction at a date not yet determined. During the lag period between acquisition and construction, the Commonwealth proposes to manage acquired land for productive use, as far as possible. The Commonwealth's preferred course of action would be to lease land back to original owners, or where this arrangement was not feasible, to lease through the invitation of public tenders. This arrangement should maintain the present economic role and employment generation of the site surface area at a level almost equivalent to that presently existing. It should also be noted that the site area only has a direct effect on a small number of existing businesses as a large portion of its falls within the Metropolitan Catchment.

As discussed above and in Section 15.1 of the Supplement to the Draft EIS, maintaining employment in the coal mining industry throughout the site acquisition stage and beyond airport development would be the aim of discussions between the Department of Aviation, the NSW Department of Mineral Resources, the Joint Coal Board and the Bellambi Coal Company Pty Limited if the site were selected.

14.7 AGRICULTURE

Only two submissions were received concerning aspects of Section 14.7 of the Draft EIS. These submissions include two separate comments on the broader impact of the proposed airport development (264.047 and 385.017).

The issues raised were negative and concerned with the wider impact of the project. One concerned the noise impact on poultry farms within the 25 ANEF contour at Bargo. The 25 ANEF contour does not encompass the Bargo area so the comment is not relevant. The other suggested that all land within the 25 ANEF contour should be acquired as it would be sterilized by airport development. This would not be the case though clearly a change in agricultural land use might occur.

14.8 REGIONAL PLANNING AND DEVELOPMENT

There were a considerable number of submissions, approximately half of which were proforma submissions, relating to Section 14.8 of the Draft EIS. These submissions raised points which can be categorized into five main issues:

- . effects of population growth and associated activity;
- . further regional planning;
- . impact on wider population;
- . compatibility with Hawkesbury/Nepean Valley Study;
- . regional benefits.

These issues are discussed below.

Effects of population growth and associated activity

A number of submissions made a total of thirteen separate comments (205.012, 223.005 (proforma), 243.008, 243.009, 270.005 (proforma), 271.005 (proforma), 312.004, 321.005, 340.027, 358.002, 337.018, 431.006, 459.017) relating to the social effects that may result from the selection and development of the proposed Wilton site.

Twenty-six of these submissions (including all the proforma submissions) expressed concern at the disruption that would occur to the rural lifestyle of the area (and in some cases to the natural environment) through the attraction of a substantial residential population and commercial and industrial activities to the area should the proposed Wilton site be selected for acquisition and subsequent airport development.

Sections 14.8.3 and 14.8.4 of the Draft EIS examine the effects of airport development that would encourage urban development in the Wilton sub-region. A maximum of 22,000 jobs is expected to be attributable to the second Sydney airport, and of these only approximately 13,800 jobs, (made up of 10,500 employed by airlines, administration and airport commercial services; 1,000 by airport associated and airport induced activities; and about 2,300 flow-on jobs) could be in the economic sub-region around Wilton (including Campbelltown and Wollongong).

No projection is made of the estimated sub-regional population that may be generated by these jobs because population fluctuations would be far more dependent upon regional planning measures than upon employment opportunities. The deciding factor in regional

population distribution would be the Macarthur Sub-Region Draft Regional Environmental Plan which will be prepared by the Department of Environment and Planning following the completion of the Regional Environmental Study which is in preparation. The Macarthur South Sub-Region, which contains the proposed Wilton site, is one of four regions identified by the Urban Development Committee as suitable to meet Sydney's requirement for further urban development in the medium term, following the first priority North-West Sector. The second Sydney airport, if located at the proposed Wilton site, may encourage earlier urban development near the airport, but it is quite feasible that this development would already have occurred before the commencement of airport construction. It would almost certainly have occurred before the airport reached its ultimate development with the associated employment levels referred to above.

Two submissions that commented on the social effects of acquisition expressed concern that development of the airport at the proposed Wilton site would encourage 'urban sprawl' to proceed toward Wilton. As outlined above in relation to population growth, locations for urbanization would be determined far more by regional planning instruments that are in preparation rather than the location of the second Sydney airport site.

The final comment within this category related to 'blight' effects that could occur if the proposed Wilton site were selected. There is no doubt that interim planning measures would be applied during this period with the aim of controlling development in potential noise affected areas. However, this would not sterilize land, since many of the existing permitted land uses are compatible with the worst case noise levels. There may be some effect in terms of improvements being postponed or abandoned, and there may be an effect of reductions of options of land use within noise affected areas.

Selection and acquisition of the proposed Wilton site would, however, release some 200-300 km² of land within the Cumberland Plain from the necessity of similar restraints to potential urban development.

Further regional planning

Five submissions made eight separate comments (255.007, 274.017, 332.006, 338.025, 432.033, 432.035, 432.039 and 432.043) relating to further planning required for associated developments and transport links, influences on the regional economy, and the urban space needs of Sydney.

One comment referred to the need for further planning to co-ordinate changes that may occur in the regional economy and to derive most benefit from the employment and industrial opportunities that may arise should development proceed at the proposed Wilton site. One comment referred to planning modifications required to provide access corridors for transport links to the proposed airport. Four comments considered the urban space needs of Sydney and the possible alternative roles of the Wilton area should the proposed site not be selected for airport development. Two further comments stressed the need for environmental protection measures to be given considerable weight in planning for transport links to the proposed airport and in planning for regional development generally.

Planning issues such as these would be discussed in the Regional Environmental Study for the Macarthur Sub-Region currently being prepared by the Department of Environment and Planning, which will consider implications of airport development at either short-listed site as one aspect of a regional scenario.

Should the proposed Wilton site be selected for airport development, planning involving the Department of Aviation, Local Councils and the state and regional offices of the Department of Environment and Planning would continue, in order to consider particular aspects relating to airport development, including corridors for airport transport links,

regional economic and employment changes, urban expansion and environmental issues. However, it should be noted that the proposed site does not directly affect large areas of lands which could be used for future urban development.

Impact on wider population

Eight submissions made nine separate comments (11.003, 66.011, 244.008, 256.007, 257.007, 342.004, 342.007, 361.040 and 432.040) relating to possible impacts on a population beyond the local population of the Wilton area should the proposed Wilton site be selected for airport development. The majority of these submissions suggested impacts through deleterious effects on the resource and urban buffer values of the natural and rural environments of the region. CSIRO submitted that their entomological research activities in the vicinity of the proposed site, which are of both national and international value, would be affected by airport development, but probably not to the extent that they would have to be discontinued. The last submission in this category stated that the Draft EIS did not consider the noise nuisance that would be felt by people moving into potentially noise affected areas before development commenced.

The most important point relating to impacts on the natural and rural environments of the area is that these impacts are likely to occur, as outlined in Section 14.8.2 of the Draft EIS, as a result of the identification of the Macarthur South locality as suitable for medium term urban development, with or without airport development. Planning for either contingency would aim to minimize unnecessary alteration to natural areas and to protect the resource values of the catchment area, in order to best serve both the regional population and the population of Sydney as a whole.

Compatibility with the Hawkesbury-Nepean Valley Study

One submission (comment 255.004) queried whether the concept of siting an airport at the proposed Wilton site could be compatible with the State Government's concern for the Hawkesbury-Nepean river system exemplified by their preparation of a report on the Hawkesbury-Nepean valley in 1983. It is not anticipated that acquisition and subsequent development of a second Sydney airport at the proposed Wilton site in the headwaters of the Nepean River system would be of major significance to this study, subject to environmentally sensitive development of the proposed site.

Regional benefits

Three submissions made three separate comments (274.123, 374.003 and 432.024) suggesting benefits that may accrue to the region as a result of airport development, should the proposed Wilton site be selected, and positive aspects of the region that would support airport development.

The benefits that were suggested were that the proposed airport would be particularly conveniently placed to serve Wollongong and the south-west of Sydney and that the airport would benefit the Macarthur Institute of Higher Education. Wollongong City Council pointed out that the region offers most of the resources and infrastructure required for airport development such as available residential land, transport routes and workforce.

It is acknowledged that these benefits are likely to occur in the region as a whole, along with others such as impetus for commercial and industrial development and employment generation.

CHAPTER 15

THE PHYSICAL ENVIRONMENT AND EFFECTS OF THE PROPOSAL

15.1 GEOLOGY, SOILS AND PHYSIOGRAPHY

Thirty-eight submissions were received, including nine proforma submissions, querying aspects relating to Section 15.1 of the Draft EIS. These thirty-eight submissions included seventy-three separate comments mainly relating to the coal resources underlying the proposed airport site.

The comments raised in the submissions can be categorized into five main issues. They are issues relating to:

- . social implications of coal sterilization;
- . feasibility of extracting the resource from beneath the proposed airport site;
- . economic implications to the coal industry, particularly the Bellambi Coal Company;
- . geophysical constraints at the site: in particular, seismic activity, subsidence and site preparation;
- . siltation and soil erosion.

These issues are discussed below.

Social implications of coal sterilization

Twenty-seven of the submissions received, eight of which were proforma submissions, related to the social implications of the sterilization of coal resources that would occur were the Wilton site selected. These submissions made twenty-one separate comments (205.014, 243.014, 271.008 (proforma), 274.084, 277.006, 325.008, 332.003, 337.023, 339.001, 340.018, 361.031, 362.013, 390.011, 393.004, 394.007, 425.004, 428.007, 431.004, 455.002, 456.001, and 456.003).

The comments made in the submissions could be further categorized into the following issues:

- . the possible loss of a valuable and not unlimited resource;
- . the threat to coal industry employment if the resource is not mined.

Of the twenty-seven submissions raising these issues, three felt that the potential problems could be avoided or overcome, eleven were concerned about potential detrimental effects, and four expressed no attitude as to whether development of an airport at the proposed site would have positive or negative implications in terms of the issues they raised.

Section 15.1.1 of the Draft EIS details the quantity and types of coal resources occurring in the proposed site. This information was provided by the Department of Mineral Resources. The importance of the resource in producing coking coal for the domestic steel industry and for export, and the potential use of the Wongawilli seam to provide steaming coal or a component of a coal blend is acknowledged. The loss of these

resources, or a part of them, would be considered by the Government in the process of selecting its final site. Total in-situ coal resources within the proposed site (including a 35° angle of draw) are 84.4 million tonnes. Of this 53.6 million tonnes are regarded as recoverable. Due to the location of the airport additional tonnages would be sterilized between the 35° marginal zone and the colliery holding boundary. It is proposed to extract the coal using longwall mining techniques. A number of longwall blocks between the marginal zone and the colliery boundary would contain insufficient tonnages of coal to be regarded as economically recoverable. In-situ and recoverable coal resources underlying the proposed site are as set out in Table 15.1.1.

Table 15.1.1 In-situ and recoverable coal resources

Seam	West Bellambi		East Bargo	
	In-situ	Recoverable (million tonnes)	In-situ	Recoverable
Bulli	18.0	11.3	13.7	8.0
Balgownie	10.6	6.9	4.7	2.7
Wongawilli	25.9	17.1	11.5	7.6
Total	54.5	35.3	29.9	18.3

Although the value of potentially sterilized saleable coal resources is of real but unquantifiable value to the Bellambi Coal Company, the value to New South Wales would be up to \$100 million (net present value).

A number of submissions contested the assessment of quality of the Balgownie seam given in the Draft EIS. Advice from the Department of Mineral Resources indicates that the quality of the Balgownie seam in the vicinity of the proposed site is lower than elsewhere and uneconomic under parts of the site.

It must be stressed that the Balgownie seam would not constitute a viable mining proposition at this time. The inclusion of this seam within the resource assessment relates to the fact that it is not possible to predict the mining constraints and coal quality parameters that will govern the viability of such an operation within the first half of the next century.

The unemployment rate in the Wilton sub-region (local government areas of Campbelltown, Wollondilly and Wollongong) is relatively high when compared with those of the Kingsford-Smith sub-region and the Sydney region, and mining and manufacturing are more important employers. If future mining in the region is affected by the proposed airport between 300 and 400 mining jobs could be threatened.

Location of the proposed airport at Wilton would generate between 500 and 900 jobs associated with the airport and up to 100 jobs induced by it. These jobs would, however, probably be concentrated in the manufacturing and trade sectors rather than mining (see Section 14.6). Should the Wilton site be selected, there is likely to be some negative effect on mining employment in the local region but, as indicated in Section 15.1.1 of the Draft EIS, the Department of Aviation would hold discussions with the Department of Mineral Resources, Joint Coal Board and Bellambi Coal Company. These discussions would be aimed at allowing extraction of coal to proceed either before airport construction or following construction, using methods and mine plan designed to avoid subsidence effects on airport facilities. If partial extraction were feasible, then loss of mining employment would be small.

Feasibility of extracting the resource from beneath the proposed site

Eight submissions were received concerning the feasibility of extracting the resource from beneath the proposed site. These submissions made fourteen comments (205.009, 274.087, 274.088, 274.090, 331.003, 342.025, 346.001, 374.008, 374.009, 385.015, 432.002, 432.044, 432.045 and 432.047).

The thirteen comments raised in the submissions could be further categorized into the following issues:

- . resolution of timing conflicts between airport development and mining;
- . extent of avoidance of sterilization that may be possible;
- . feasibility of overcoming subsidence difficulties;
- . discussion of the quality of the resource and therefore the feasibility of economically extracting it.

Mining of the region prior to construction of an airport facility would require a drift/shaft connection in the west of the leasehold and the development of a complete underground mine. Consequently, new mine capital investment would be required to create a production capacity over and above the current South Bulli operation and it is unlikely that this could be justified economically given the marginal economics of the present West Bellambi concepts. It is also unlikely that coking coal markets would be available for the extra volume in the foreseeable future. The alternative of redeploying existing equipment westward would result in major development expense and a serious coal quality problem.

The coal quality problem would be alleviated to a certain extent by the new coal preparation plant. Upgrading of the existing coastal washery facility is not feasible because of the environmental problems that this plant creates within the residential areas north of Wollongong and the length and subsequent maintenance costs of the current underground conveyor system.

The recovery of the coal within the Bulli seam underlying the proposed site would necessitate the following scheduling of operations:

- . four years to commissioning of the surface facilities and drift from the commitment date; and
- . approximately fifteen to twenty years to extract the Bulli seam on a two longwall basis.

This assumes that coal within the East Bargo authorization, affected by the proposed airport, was mined from West Bellambi. It would also be necessary for the company to make a commitment to the West Bellambi mine facility within the next twelve months.

The indefinite, but very considerable time scale for working the Balgownie and Wongawilli seams also would require consideration to achieve the concept of total extraction.

Bellambi Coal Company Pty Limited has developed a mine plan for all its existing colliery holding and the mine has been planned accordingly, so the construction of this airport would impact upon the company's mine development.

It would be possible to mine the coal after the airport is constructed without causing necessary sterilization of resources. To achieve this it would be necessary to design all facilities, with the possible exception of the runways, to withstand subsidence.

If protection was required around the runways and taxiways the tonnage of sterilized, recoverable Bulli seam coal would be reduced from 11.8 million tonnes to approximately 3.6 million tonnes within the West Bellambi lease. If protection was required surrounding the runways only, the sterilized tonnage would be reduced to approximately 2.5 million tonnes. These tonnages are based on a $26\frac{1}{2}^{\circ}$ angle of draw surrounding the structures requiring the protection and assuming that first workings will be permitted beneath the runways and other facilities.

The submission of the NSW Premier's Department suggested that the tonnage of sterilized recoverable coal would be reduced even further if one primary runway was located parallel to and directly over the main West Bellambi development headings. With this concept the majority of the sterilized coal would be accounted for in the barrier and chain pillars which must remain to provide stability and protection for the main mine headings. This would have the additional effect of relocating an additional proportion of the secondary runway over the unmineable portion of the East Bargo authorization.

Unfortunately such a relocation of the runways would be very difficult due to the topography of the various gorges bordering the site and would also greatly increase the potentially noise-affected area between Bargo and Tahmoor.

In respect of the South Bulli mine (West Bellambi), the orientation of the runways in a north-south direction may also help to minimize sterilization. However, this too is not considered desirable as it would adversely affect the village of Wilton and substantially increase the area of potential noise affected land uses. A north-south orientation of main runways would also probably require a cross-wind runway in the east-west direction to ensure the airport met Department of Aviation usability criteria. Hence such a change in direction would increase the adverse impacts of the airport in the surrounding area and not improve the potential for coal extraction.

Assuming the Bulli seam was extracted first, followed by the Balgownie and Wongawilli seams, the maximum subsidence parameters would be as shown in Table 15.1.2 (supplied with the submission of the Premier's Department).

Table 15.1.2 Subsidence parameters

Seam	Maximum subsidence (m)	Maximum tensile strain (mm/m)	Maximum compressive strain (mm/m)
Bulli	0.850	1.27	1.00
Balgownie	0.850	1.21	0.95
Wongawilli	1.925	2.63	2.07
Total	3.625	5.11	4.02

This table applies to the coal resources underlying the West Bellambi lease. It is noted that within the East Bargo area the Balgownie seam is uneconomic and the subsidence and strain parameters for this seam must be subtracted from the total.

Surface structures associated with the airport should be designed to withstand ground movements relating to the extraction of the underlying coal resources. The reasons for this include the minimization of sterilized coal resources and the fact that the majority of the site is located within a proclaimed mine subsidence district.

Subsidence investigations in the Southern Coalfield have revealed that surface subsidence movements beyond a $26\frac{1}{2}^{\circ}$ angle of draw are insufficient to cause damage. As the runways cannot tolerate differential movements they would need to be protected by coal pillars. The protection to runways could thus be based on an angle of draw of $26\frac{1}{2}^{\circ}$.

Taxiways and other facilities including the control tower and terminal buildings probably could be designed to accommodate subsidence. If taxiways required protection then more coal would have to be sterilized.

In order to minimize disruption to the existing mine plan first workings should be permitted under the runways and taxiways. Subsidence movement due to these headings under a minimum of 400 m of cover are considered to be negligible.

The three seams affected by the airport development are the Bulli, Balgownie and Wongawilli seams.

The variation in thickness of the working section is as follows:

	West Bellambi	East Bargo
Bulli seam	1.6 m - 2.2 m	1.2 m - 2.0 m
Balgownie seam	1.0 m - 1.1 m	1.0 m - 1.1 m
Wongawilli seam	2.2 m - 2.6 m	2.1 m - 2.8 m

Within the West Bellambi area there is a deterioration in coking coal quality compared to the eastern half of the South Bulli Colliery holding. The Bellambi Coal Company is of the opinion that the coal can be economically extracted, producing a multi-stream and blended product. It is envisaged that coal from the Bulli seam would be washed to produce a coking and a thermal coal fraction. The Balgownie seam would be washed to produce either a single product thermal coal or a coking/thermal multiple product. The coking coal fraction of the Balgownie seam could be blended with the Bulli seam to enhance the coking properties of the latter. The Wongawilli seam could be washed to prepare a single product thermal coal.

The coal seams within the southern half of the East Bargo area have been intruded and the coal has been cindered. Evaluation of the regional drilling that has been undertaken indicates that the majority of the intruded and/or cindered seams lie outside the proposed airport site. However, the north-western sector of the site has been excluded from the resource assessment of the Bulli and Wongawilli seams because the seam is either too thin or the washed coal ash exceeds acceptable limits. The majority of the Balgownie seam has been excluded for the same reasons. The quality of the coal within the East Bargo sector must be regarded as marginal to sub-economic under current market criteria.

Three of the eight submissions expressed confidence that extraction could proceed without enormous resource loss, while five considered that difficulties associated with coal extraction would be a major disadvantage of the proposed Wilton site.

If Wilton is the selected site, the Department of Aviation, Department of Mineral Resources, Joint Coal Board and Bellambi Coal Company would need to discuss in detail the resolution of these issues.

The Bellambi Coal Company Pty Limited holds Coal Lease No. 132 over the eastern third of the Wilton airport site. This lease does not confer any rights regarding the extraction of the underlying resources between the surface and a depth of 152.4 m. The Premier's

Department submission recommended that if the resumption of land for the purpose of constructing an airport proceeds, ownership should be restricted to the surface so as not to conflict with the extraction of the underlying coal resources within Coal Lease No. 132 or the East Bargo area, the Company's title to the coal and any developments (i.e. drifts and/or shafts) which may have to be constructed to gain access to the coal. This would be a matter for later consideration by the two governments.

Economic implications for the coal industry, particularly the Bellambi Coal Company

Nine submissions were concerned with the economic implications for the coal industry if the proposed airport site at Wilton were selected. These submissions raised twenty separate comments (202.012, 208.003, 274.086, 274.091, 331.001, 331.002, 338.028, 338.087, 346.002, 346.003, 346.004, 346.005, 346.006, 346.007, 346.008, 346.009, 362.014, 431.005 and 432.046).

The main thrust of the comments concerned the following issues:

- . the adverse effect on the Bellambi Coal Company's proposed new pit top facilities and its ability to economically mine its coal resource;
- . the potential loss of access to other coal resources in the area;
- . the contention that the coal reserve in the Balgownie seam within the proposed site is economic (not as the EIS has indicated).

These issues have been raised in the Draft EIS and if the Wilton site were selected the Department of Aviation would undertake to hold discussions with the NSW Department of Mineral Resources, the Joint Coal Board and the Bellambi Coal Company Pty Limited to discuss the effects of the acquisition of the Company's land and to determine the feasibility of future coal extraction within the proposed airport site.

The development of an airport at the proposed Wilton site would have a considerable impact on the western development of the Bellambi Coal Company Pty Limited's colliery holding.

In excess of 11 million tonnes of recoverable Bulli seam reserves would be sterilized if no mining is allowed under the proposed site. In accordance with the current extraction schedule it is anticipated that extraction of the Bulli seam would not commence until after the turn of the century.

The principal effect of the proposed airport would be to jeopardize the future of the West Bellambi project by consuming a large proportion of the available flat land existing outside the Metropolitan Water Sewerage and Drainage Board's catchment. This land has been purchased by the company and is designated for the mine surface facilities. The only available non-catchment land lies to the north of the proposed airport. The Bellambi Coal Company has suggested three possible alternative sites for the surface facilities (Figure 15.1.1).

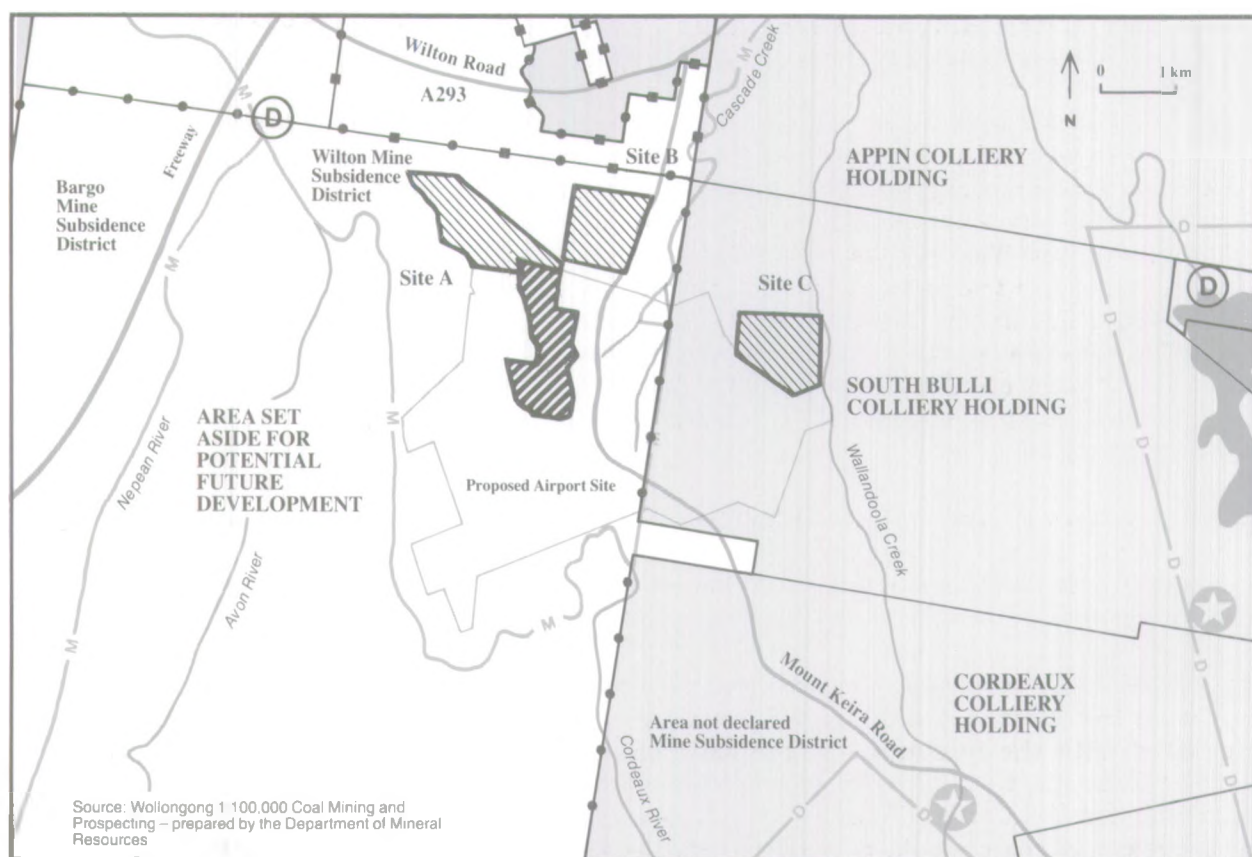
Site A: Immediately north of the north-west corner of the airport area and south-east of Thornton's Hill.

Site B: Immediately north of the central part of the airport area and south of Lisa Road.

Site C: Within the north-west corner of the West Bellambi lease area.

Site A is preferred by the company since:

- . it lies closest to the Maldon-Dombarton railway line;



- | | |
|---|---|
| —●— Coal prospecting areas
(Including exploration permit tender areas
and coal development areas) | —M— Mine Subsidence Districts
(Mine Subsidence Compensation Act, 1961) |
| —■— Proposed coal mining areas
(Including coal lease tender areas) | —D— Dam Notification Areas
(Section 17A Coal Mining Act, 1973) |
| □ Colliery holdings | ★ Underground coal mine pit top site |
| ▨ Bellambi Coal Company Pty
Limited holdings | ⓓ Prescribed dam (Dams Safety Act,
1978) |
| | ▨ Possible site for relocating proposed
new surface facilities |

**Figure 15.1.1
COLLIERY HOLDINGS
AND
MINE SUBSIDENCE
DISTRICTS**

- it is environmentally severed from the township of Wilton;
- it presents the most favourable construction site;
- it is not located within the catchment area;
- it is underlain by coal resources within the East Bargo area which are classified as uneconomic.

Site B contains considerable rural/residential subdivision.

Site C would sterilize more coal reserves, present environmental problems with respect to the catchment area and is distant from the railway line.

It might be necessary, if Site A were chosen, to relocate the proposed drift connecting the Bulli seam workings to the surface facilities. The original proposal sited the drift portal on the eastern side of the surface facilities and at a 1 in 4 gradient entered the Bulli seam at the western boundary of the colliery holding. If the airport development were to proceed the company propose that the drift be situated to intersect the seam in

the vicinity of the current development workings and surface within the Metropolitan Water Sewerage and Drainage Board catchment area.

Configuration of the drift would be affected by Wallandoola Creek which runs through a fairly steep gorge in this area. For the drift to surface east of the creek a substantial transport route crossing will be required. To surface west of the creek will require a long drift and may intrude into aircraft approach safety clearance zones. Thus a drift surfacing east of Wallandoola Creek is dictated. From the drift portal it is envisaged that coal would be transported across the creek within an enclosed conveyor system to a truck loading facility on the north-eastern side of the proposed airport. The transport of the coal across the Wallandoola Creek would necessitate the construction of a suspension bridge to support the conveyor system. The coal would then be transported by road to the raw coal stockpile located adjacent to the coal preparation plant outside the catchment area.

The recoverable coal resources within the Balgownie and Wongawilli seams are 24 million tonnes. At present it is not planned to extract these resources until mining within the Bulli seam has been completed. However, this would depend to a certain extent on future market conditions.

Apart from the potential sterilization of coal resources, the principal effect of the airport on the West Bellambi development would be the increase in capitalization costs associated with the relocation of the drift and surface facilities. Preliminary estimates put this figure in the order of \$2 million. They may not include the additional cost of purchasing land outside the catchment area and the airport site. The resultant effect of this increase in costs would be to increase the pay-back period necessary to achieve the return on the investment.

Geophysical constraints at the proposed site

A number of submissions, eight of which were proforma submissions, were concerned with particular geophysical constraints at the proposed site which would affect the development of an airport. These submissions raised seventeen separate comments (271.009, 274.089, 338.046, 338.047, 340.015, 340.016, 340.017, 342.026, 361.020, 362.015, 390.009, 431.005, 432.017, 432.019, 432.023, 432.048 and 432.049).

Of the seventeen comments raised, twelve indicated that the geophysical conditions relating to the site would be adverse to airport development if Wilton were the selected site. The comments indicated the following reasons:

- . possible subsidence;
- . seismic stability;
- . extensive amount of excavation works required.

Five of the comments indicated that the development of an airport would not pose any undue difficulties and indicated that;

- . coal washery reject and slag could be used as a suitable material for fill for airport development;
- . mining beneath the site, while presenting certain problems, could be resolved by adopting special mining techniques which would reduce the risk of subsidence and resultant effects on airport structures and facilities.

The Draft EIS indicates that part of the proposed site is within the Wilton Mine subsidence district (Figure 15.1.2 Draft EIS). This is declared under the Mine Subsidence Compensation (Amendment) Act, 1983, and the Mine Subsidence Compensation Act, 1961. These Acts require all surface facilities to be constructed in accordance with design criteria approved by the Mine Subsidence Board.

The Draft EIS also acknowledges that Wilton is in a Zone 1 area based on the Standards Association of Australia's earthquake hazard classification maps. The Earthquake Code AS2121 for Zone 1 requires certain parameters to be taken into account when designing ductile and non-ductile structures. If Wilton were the selected site the Department of Aviation would comply with these requirements.

In relation to site preparation works Wilton ranked third and sixth compared to all other sites considered during the site ranking phase. Further consideration could be given to final site levels if Wilton were the selected site and if appropriate coal washery reject or slag could be used as fill to reduce the need for site excavation.

Siltation and soil erosion

Three submissions were concerned with problems relating to siltation and soil erosion. These submissions raised four separate comments (245.004, 340.014, 385.020 and 385.022).

The comments were primarily concerned with the removal of vegetation, changes in soil moisture and the likelihood of resultant erosion and siltation.

The Draft EIS recognizes the site contains soils which are potentially highly erodible. Consequently, the Department of Aviation would, if Wilton were the selected site, enter into an agreement with the Metropolitan Water Sewerage and Drainage Board (Appendix H of Draft EIS) which would establish conditions under which construction of the airport would occur. As part of these conditions the Department would be required to construct, stabilize and maintain a fully functional drainage system around the perimeter of the site prior to any other earthworks being undertaken. In addition to this requirement other specialized erosion and sedimentation control measures would be adopted. These would be determined in consultation with the NSW Soil Conservation Service.

15.2 DRAINAGE AND WATER QUALITY

Forty-seven submissions including twenty-two proforma submissions, of which there were three separate types, were received commenting on aspects relating to Section 15.2 of the Draft EIS. These submissions included 113 separate comments mainly relating to the effects of airport development and operation on the catchment and on water quality.

The comments raised in the submissions can be categorized into the following main issues as detailed below.

- . effects on the Upper Nepean water supply;
- . effects on other than water supply system, and particularly on the Nepean system;
- . technical and economic feasibility of water management techniques.

Effects on Upper Nepean water supply

A large number of the submissions received, twenty-two of which were proforma submissions, related to the effects on the Upper Nepean catchments of Sydney's and Wollongong's water supply. These submissions raised seventy-seven separate comments (11.002, 76.001, 76.002, 76.003, 195.004, 202.010, 202.011, 205.016, 205.017, 205.018, 208.004, 220.002, 223.002 (proforma), 230.001, 233.010, 233.011, 233.013, 240.003, 243.013, 245.002, 255.002, 255.008, 271.002 (proforma), 273.002 (proforma), 274.048, 274.054, 274.083, 274.097, 274.101, 274.102, 288.003, 292.005, 294.002, 296.002, 297.003, 302.001, 325.002, 325.003, 325.004, 331.005, 338.009, 338.037, 338.042, 338.043, 338.067, 338.074, 340.011, 340.021, 340.023, 340.025, 342.002, 342.028, 358.001, 361.002, 362.007, 362.010, 362.011, 385.003, 385.021, 385.023, 385.028, 389.003, 390.004, 390.006, 390.016, 390.018, 393.002, 393.003, 394.005, 423.002, 425.002, 428.003, 431.003, 432.008, 432.009, 453.004 and 457.021).

The comments raised in the submissions could be further categorized into the following issues:

- . retention of catchment area and government policy;
- . threat to the water supply from construction and operation activities;
- . threat to the water supply from emergency operations;
- . associated operations not adequately considered.

Retention of catchment area and government policy

Submissions relating to policy issues stated or implied that water catchment areas were of high importance, that there should be no development within existing catchments and that a reduction in catchment area was not acceptable. A variation of this is that catchment use for major developments would set a bad precedent. Other less specific comments noted that the airport 'should not be located in the water catchment area'.

The Draft EIS explicitly recognizes the importance of the Upper Nepean system. The site development as shown in the Draft EIS would involve acquiring about 1245 ha of the Metropolitan Catchment. However, only about 875 ha of this would be excised from the Catchment. The Metropolitan Water Sewerage and Drainage Board has estimated the value of lost water at \$23,600 per annum. The airport does not excise any land from areas behind the main catchment storage dams.

One submission wrongly noted that the site was within the Woronora Catchment Area.

Threat to the water supply from construction and operation activities

A common misunderstanding apparent in many submissions is that there would be direct drainage of polluted water to the water supply of Sydney. The Draft EIS noted that the site drainage would be modified by a major system of perimeter drains and dams so that even under a maximum possible rainfall event all surface drainage would be diverted away from the water supply system. While the airport would also be legally excised from the water catchment area there would be close co-operation between Commonwealth and State authorities to ensure that all airport-related activities were appropriate considering the proximity of the airport and the catchment.

A few submissions noted the possibility of groundwater contamination, with inference of subsequent contamination of Sydney's water supply, by movement either to the Cordeaux and Cataract Rivers or via Allens Creek to groundwater and into the Nepean Tunnel. Initially it must be recognised that the water management system adopted would have as its major objective protection of the water supply. In relation to groundwater, the location and design of facilities such as first flush retention storages and effluent irrigation areas (if any) would be such as to minimise the possibility of contaminants entering the water supply system. Even if small amounts of contaminants were in contact with the soil, the soil normally acts as a very efficient treatment system degrading and absorbing the contaminants and preventing their long-distance movement with groundwater. However, it is possible under certain conditions for some water to enter the Nepean Tunnel from the Allens Creek catchment via groundwater movement and through fine joints in the rock. In addition to the extensive water management at the airport site and the purifying effects of passage through the soils any groundwater entering the tunnel would represent only a very small proportion of the treated water flowing along Allens Creek. In the unlikely event of any contaminants being present, they would be very greatly diluted by the water feeding from Pheasant's Nest Weir.

Emergency operations

Some submissions were concerned at the possible threat to the water supply arising from emergency operations, particularly crashes or dumping of fuel. The Draft EIS acknowledges the possibility of such incidents. The Department of Aviation works closely with State authorities to develop airport and aircraft operating procedures to minimize the risks of such events affecting the catchment area and hence quality of the water supply. In addition, procedures would be developed so that, in the unlikely event

of an incident's occurring to contaminate the catchment and water, the concentrations of all contaminants would be reduced to acceptable levels by the time the water was consumed (see also Section 13.7).

Associated operations not adequately considered

Several submissions noted that the implications on the water supply of, for example, re-routing Mount Keira Road and the 330 kV transmission line were not addressed in the Draft EIS. The Draft EIS recognized that detailed assessments of the effects of airport related developments such as roads and realignment of transmission lines would be in accordance with State legislative requirements and would be undertaken prior to their construction.

Effects on other than water supply system

Eleven submissions addressed aspects related to effects on other than the water supply system. The submissions raised twenty separate comments (76.004, 196.002, 220.003, 233.014, 255.003, 274.042, 274.044, 274.049, 274.098, 292.001, 292.002, 292.003, 292.006, 338.010, 338.041, 338.066, 340.013, 362.008, 385.018 and 385.019).

The responses to the comments are considered below in terms of:

- . water quality downstream in the Nepean-Hawkesbury system;
- . changes to hydrology.

Water quality downstream in the Nepean-Hawkesbury system

As noted in the Draft EIS the water management plan for the area is directed to ensuring that acceptable water quality is maintained in the creeks and rivers. Advice was also sought from the State Pollution Control Commission as to the appropriateness of the water management concept discussed in the Draft EIS. It should also be noted that the details of the system would require approval of the Commission under the Clean Waters Act should development of the Wilton site proceed.

The initial planning for the airport recognizes the importance of water management and this would be carried through to the detailed design, construction and operation phases. This would mean that an effective integrated system would be developed. This contrasts with problems inherent in imposing water quality controls on existing operations or on a pattern of land use with many individual landowners or occupiers.

Changes to hydrology

The airport development concept would increase the surface catchment draining to Allens Creek, and the developed area would have greater than existing run-off for most storm events. The concept drainage design has incorporated flow controls so that maximum flows in Allens Creek would not be greatly increased by airport development. Should the airport be developed at Wilton the Department of Aviation would liaise with State authorities to determine the appropriate design objectives and criteria to ensure that the post-development hydrology was acceptable.

Technical and economic feasibility of water management techniques

Thirteen submissions commented on water management techniques, raising twenty-one comments (205.019, 233.012, 245.005, 245.006, 255.001, 274.056, 274.058, 292.007, 332.004, 337.025, 338.008, 338.044, 338.052, 338.054, 338.056, 339.003, 340.022, 390.017, 390.019, 432.030 and 432.042).

The comments are addressed below in terms of:

- . insufficient detail concerning water management controls;
- . possibilities of appropriate controls;
- . the cost of water management controls.

Insufficient details concerning water management controls

The details relating to water management controls contained in the Draft EIS are appropriate to this stage. When detailed planning and design of the airport is undertaken the Department of Aviation would be in a position to provide additional information on the proposed water management systems. These systems would take account of the existing State Government requirements. The Draft EIS identifies major issues such as the need to divert airport run-off away from the water supply catchment and the probable need for nutrient removal from sewage treatment plant effluent. These concepts would be developed further and designed in detail if the airport was to be sited at Wilton.

Possibility of appropriate controls

There are technical methods for ensuring that all pollutants are removed from stormwater drainage, sewage and similar wastes. However, total removal is not necessary to protect the beneficial uses to be made of the water from the stream and river systems. At the time of detailed planning and design the Department would, in conjunction with State authorities, determine the appropriate criteria for water management. This would include a combination of well proven techniques such as:

- . containment and removal off-site of certain liquid wastes such as spent oils and solvents;
- . on- or off-site treatment of sewage and compatible wastes in a full sewage treatment plant, probably including nutrient removal, prior to discharge to land or to the river system;
- . containment and treatment of 'first-flush' and other potentially contaminated stormwater run-off.

The cost of water management controls

Several comments were made on the high cost that would be associated with water management at Wilton. The Draft EIS acknowledges the cost of water management and this was incorporated into the cost comparison undertaken during the site ranking. Based on the cost of drainage and flood control works carried out for the new Brisbane Airport it is expected that the cost of the drainage system as outlined in the Draft EIS would be less than the difference in the land acquisition costs for the Badgerys Creek and Wilton sites.

15.3 AIR QUALITY

Eighteen submissions made thirty-nine comments on air quality or meteorological matters. These can be divided into the following subject areas:

- . Pollution levels and their effects;
- . Factors affecting pollutant distribution;
- . Meteorological factors;
- . Motor vehicle emissions.

Pollution levels and their effects

Nine submissions made fourteen comments (241.003, 270.004, 274.047, 274.063, 299.003, 313.003, 337.029, 337.035, 337.040, 338.053, 361.014, 361.017, 361.033 and 432.007) and relating to pollution levels and their effects.

The Draft EIS states that the second Sydney airport would contribute to pollution levels in the Sydney basin. However, the level of contribution determined in Table 15.3.4 of the Draft is by itself insufficient to raise overall pollution levels above acceptable standards. Overall emissions of hydrocarbons and carbon monoxide have fallen over

recent years and are predicted to continue to fall. Currently monitored levels of carbon monoxide do not exceed United States Environmental Protection Agency and World Health Organisation standards. Hydrocarbons are major contributors to of photochemical smog, whose major constituent ozone does occasionally exceed National Health and Medical Research Council standards. However, with the continued predicted fall in the level of hydrocarbon emissions the number of occasions on which these standards are exceeded is expected to diminish even further. That is, if the reduction of ozone production is in fact attributable to the fall off of hydrocarbon emissions and not to meteorological causes.

In the case of nitrogen oxides, levels are predicted to increase and the second Sydney airport's contribution is higher than for any other constituent. Apart from nitrogen oxides being a pollutant per se, they are also significant as an essential contributor in the production of photochemical smog. The State Pollution Control Commission is drawing up regulations to reduce hydrocarbons since photochemical smog needs both reagents for its production. If this policy proves successful the significance of nitrogen oxides as contributors will also decline. Thus in all respects, with the occasional exception of nitrogen oxides, the contribution of the second Sydney airport to pollution loads in Sydney's atmosphere is not sufficient to cause pollution levels to exceed the accepted standards set out in Table 15.3.1 of the Draft EIS. These standards have been determined in the light of international findings on the adverse effects of air pollution on health and can be extended to include animals as well as humans. However, they do not apply to plants or materials and more research is necessary to determine these relationships.

With regard to particulates in the atmosphere, aircraft engines have steadily been improved as evidenced by the lack of prominent smoke trails from modern engines. Thus it is considered that particulate generation from the second Sydney airport would be negligible.

In the case of lead emissions, fuel for all non-piston aircraft is unleaded and thus emission levels are considered to be very low against a predicted rapid lowering of these emissions generally with the introduction of unleaded fuel for motor vehicles in 1985.

It needs to be restated that emission levels predicted from the second Sydney airport are for the worst case which is unlikely to be reached in the foreseeable future.

One submission claimed that removal of the forest on the Wilton site would adversely affect air quality. There is no evidence to suggest that comparatively small cleared areas, compared to the forested surrounding country, deleteriously affect air quality. After construction extensive replanting would occur in non-operational areas and either grass or a sealed surface would occupy the remaining open areas. None of these measures would by themselves cause reductions in air quality.

Another submission claimed that at present Wilton's air quality is higher than that of Badgerys Creek. In terms of local pollution sources the areas are similar in that there are no significant local sources. However, as a reception area for photochemical smog advected by sea breezes in the warmer months, Badgerys Creek has a greater susceptibility than Wilton due to Wilton's greater distance from the source areas near the city.

Figures for the second Sydney airport's contribution to Sydney's emissions are basin wide and do not refer to the local area of Wilton.

Regarding dust levels during airport construction, the Draft EIS indicates at paragraph 15.3.6 on page 482 how such levels could be ameliorated. Watering dust prone areas is a common practice in other operations such as sand and gravel extraction and has proved effective.

Factors affecting pollutant distribution

Nine submissions made ten comments (233.001, 245.003, 246.016, 274.061, 290.009, 337.031, 338.011, 342.023, 342.024, and 385.024) relating to factors affecting pollutant distribution.

Submissions claimed that an airport at Wilton would increase pollution at Wollongong and seawards, Campbelltown and locally. Distribution of emissions is as described at 15.3.5 on page 481 of the Draft EIS. It can be seen from this paragraph that when air drainage flows are established, emissions advect towards the north. Most emissions seaward of the Illawarra scarp are likely to be from aircraft at an altitude above the mixing layer thereby preventing pollutants from reaching the surface.

Emissions from an airport at Wilton would be more significant for the local area than for the Sydney region as a whole, especially when temperature inversions exist to prevent dispersal.

Because of its topographical location, the Wilton site has better dispersion characteristics than does Badgerys Creek.

Meteorological factors

Ten submissions made a total of fourteen comments (233.002, 246.017, 246.019, 338.012, 338.062, 338.063, 362.016, 386.002, 386.007, 386.009, 390.007, 390.008, 432.027 and 455.008) relating to meteorological factors.

Submissions covering this subject area covered the following points:

- . meteorological data were incorrect;
- . wind velocities would increase when the trees were removed from the site;
- . Wilton has high frequency of fogs;
- . Wilton has incidence of hail, lightning and wind shear;
- . Wilton has unfavourable wind patterns.

The wind data were obtained from the Bureau of Meteorology's anemometer at Picton. Additional data used to determine runway usability were obtained from a temporary anemometer station at St Marys towers operated by Macquarie University.

Regarding the relationship of wind velocities to cleared land, one of the criteria for a properly sited anemometer as determined by the Bureau of Meteorology is for there to be no obstructions that could hamper the free flow of the wind. Thus wind data obtained are in fact representative of a cleared area and not a forested one. Thus, although wind velocities near the ground would increase once the site was cleared of trees, this increase is known and is acceptable for airport operations.

Radiation fog frequency as supplied by the Bureau of Meteorology for the plateau site is eight to ten fogs per year, most of which would dissipate by 10 a.m. Low lying stratus cloud may add an additional five fogs per year. This compares with fourteen days for Sydney airport and between twelve and twenty-five days per year for Badgerys Creek. The Wilton figure of fifteen to twenty days per year stated on page 129 of the Draft EIS is the figure supplied by the Bureau of Meteorology for the lower level site adjacent to the Wilton township.

The fog frequency figure for Wilton is the lowest for any of the sites considered for which fog data were available.

Regarding the incidence of wind shear the presence of river gorges nearby is likely to cause some wind shear and turbulence effects but these are judged as not significant.

Available data indicate that the frequency of thunderstorms is insufficient to inhibit airport operations to any significant extent.

Motor vehicle emissions

Two submissions made four comments (274.063, 337.011, 337.027 and 337.033) relating to motor vehicle emission.

Submissions on this subject claimed that the Draft EIS omitted motor vehicle effects on Sydney's air pollution levels and that total emission levels derived from motor vehicle emission trends are meaningless.

The Draft EIS argues that although vehicle kilometres adjacent to Wilton would increase largely due to the airport, their emissions would not necessarily be additional to air pollutant levels occurring in the absence of a second airport. The Draft EIS on page 480 says 'the airport would not necessarily add significantly to either figure (total vehicles and average vehicle kilometres in the year 2000) any more than would major new regional shopping centres, recreation centres, and other such major traffic generating projects built between now and 2000.' Thus, in Table 15.3.4 in the Draft EIS the estimated net addition to annual emissions comes from non-vehicular emissions, i.e. aircraft and airport related services.

The contribution of motor vehicle emissions to Sydney's pollutant levels is complicated by the wide distribution of motor vehicles. Airport related vehicle movements would distribute throughout Sydney although about 50% would be within 40 km of the airport.

The other matter raised concerned the total emission levels for the year 2000. This submission stated that year 2000 figures have been calculated by using 1980 figures without extrapolation and that they are not referenced to a standard and are therefore meaningless.

The figures come from a paper discussing future trends in emissions, there being no official pollution forecasts. In order to arrive at total emission figures for 2000 the assumption was made that relative contributions from all sources remained the same as in 1980. With figures for forecast motor vehicle emissions to 2000 available it was then possible to forecast total emission levels. Other assumptions were made as stated on pages 476 and 477 of the Draft EIS.

Regarding the lack of information on how the year 2000 figures can relate to accepted standards, these figures were derived from proportional changes in motor vehicle emissions, 1976 to 2000. These proportional changes can also relate to concentrations shown for each pollutant in Table 15.3.1 in the Draft EIS so that it is possible to extrapolate concentrations to the year 2000 levels and compare these levels to established standards as shown in the Table.

15.4 ACCESS

Thirty-eight submissions, including eight proformas, were received addressing aspects relating to Section 15.4 of the Draft EIS. From these a large number of separate comments were identified relating to access time, distance and cost to Wilton. The comments can be categorized into seven main issues relating to:

- . accessibility of the Wilton site;
- . effects of access proposal on local areas;
- . rail access;
- . origins and destinations of airport users;
- . capital costs;
- . construction traffic;
- . high speed access.

Accessibility of Wilton

Nineteen submissions were received relating to the time, distance and cost of travel to Wilton. Fourteen of these (205.013, 205.026, 205.027, 220.004, 223.006, 257.004, 271.006 (proforma), 274.072, 277.004, 297.004, 313.006, 338.034, 338.050, 340.012, 362.023, 390.014 and 455.007) were concerned that the distance was too great for the site to be a viable option. Two also claimed that the Draft EIS underestimated the distance and time. The other submissions in this group (65.014, 330.022, 349.002, 349.005, 394.004, 432.018 and 432.028) believed that the accessibility of Wilton was acceptable, one claiming that the travel times quoted were exaggerated.

The additional time, distance and cost of travel to an airport at Wilton would undoubtedly make it less attractive to the travelling public and the airlines than a similar airport at Badgerys Creek. This point is acknowledged in the Draft EIS which states (page 65) that the timing of traffic growth would depend on the location of the airport. However, increasing congestion at Kingsford-Smith Airport and the expansion of Sydney's population towards the south-west could be expected to improve Wilton's acceptability over time.

All road travel times quoted in the Draft EIS are based on the output of the State Transport Study Group's Sydney road network model for 2015. This is the most authoritative source of information available on future road travel times in the Sydney area.

Rail travel times were estimated by the State Rail Authority.

Effects on local areas

Five submissions were concerned about the effects of airport traffic and airport road construction on local areas (57.002, 245.008, 246.021, 339.002, 340.004 and 340.029). The issues raised included the social and environmental effects of the access road between the airport and the F5 Freeway, the effects on coal traffic and the effects of airport traffic on suburbs as far away as Bankstown.

An indication of the likely access route from the South-West Freeway is given on page 361 of the Draft EIS (Figure 13.3). A precise route for this road has not yet been determined as this is beyond the scope of the present planning work which is directed towards the selection of an airport site. Detailed identification of routes for airport access roads would be the responsibility of the NSW Government following selection of the site by the Commonwealth. However, the access road would seek to avoid the township of Wilton which would therefore not be subject to large volumes of airport traffic.

Any upgrading and re-alignment of Mount Keira Road should have a beneficial effect on local traffic including coal transport.

The section of Mount Keira Road which has recently been upgraded would be mostly unaffected by the airport proposal. Future work on the road would require close co-operation between State and Federal authorities to determine the most appropriate timetable and to ensure that the requirements of all users were adequately met.

Rail considerations

Seven submissions (66.008, 331.006, 340.019, 362.026, 385.025, 390.013 and 432.029) commented on the provision of a passenger railway between the city and the airport. Three claimed such a link was necessary to the success of the airport while four felt it would not be viable.

The Draft EIS provides (page 498) estimates of patronage by rail. It is accepted that, particularly in the early years of the airport's operation, a rail service may not be economic on its own. However, it may be necessary to the successful operation of the airport and could possibly be justified as a part of the total airport system. Depending on the route chosen, the airport railway could also play an important role in the development of new suburban areas.

Four submissions discussed the need for public transport transfers between Wilton and Kingsford-Smith Airport and/or the need for a rail link between the airports for the carriage of freight and fuel. One submission, that of the NSW Government, stated that there would be insufficient patronage to justify a passenger rail service (57.004, 66.002, 66.004, 274.075 and 430.008.) This issue is also addressed under Chapter 2.

The Department of Aviation agrees with the NSW Government that a passenger rail service between the airports would be unnecessary. The Draft EIS states (page 500) that only about 1% of passengers would be expected to require such a service.

Similarly a freight transfer is unlikely to be required. Air freight operators would not wish to include a relatively long land transfer in any service they offered and would therefore seek to ensure that any transfers which were necessary could be carried out at one airport.

A possible exception to this is international freight. If international traffic remained largely at Kingsford-Smith Airport and Wilton developed as a major domestic freight hub, some form of fast direct link, perhaps by rail, may be required. However, this is very speculative and a long way in the future.

The transport of aviation fuel to the airport, except in its early development phase, would most likely be by rail direct from an oil refinery.

Australian Iron & Steel Pty Ltd (339.004) was concerned that railway planning for the airport should preserve the option for a future rail link to the Tower Colliery. No conflict is seen between the two proposals, the only interaction being the need for grade separation between the colliery railway and the airport access road.

One submission (65.013) enquired the original purpose of the Maldon-Dombarton railway. This railway, which is at present under construction, is intended to transport coal and grain to Port Kembla.

Location of airport users

Two submissions (274.108 and 362.025) criticized the lack of information in the Draft EIS on the origin and destination of airport users and the user population profile.

As outlined in the Draft EIS (page 492) a distribution of passenger origins and destinations was estimated based on the present distribution (as revealed by Department of Aviation surveys) and the forecast Sydney population distribution for the year 2011 (supplied by the NSW Department of Environment and Planning). As the actual distribution would be heavily role-dependent, sensitivity tests were conducted with alternative distributions.

Access costs

Six submissions raised the issue of the cost of providing access infrastructure for an airport at Wilton (66.006, 274.072, 274.073, 274.111, 338.048, 340.003, 342.027 and 389.004). The main theme of these submissions was that the cost of providing access to Wilton would be much higher than for Badgerys Creek.

This is not borne out by the Draft EIS which shows (page 545) that the capital costs for the two airports would be of the same order. (User costs would of course greatly favour Badgerys Creek.)

The State Government raised the issue of the attribution of rail costs but this is a matter for later consideration by the two governments.

Two submissions were concerned with the implications of airport traffic for the South-West Freeway east of King Georges Road. This too is a matter for later consideration when and if airport traffic becomes significant in that area. It is unlikely that airport traffic alone would ever justify construction of this road.

Construction traffic

One submission (246.020) criticized the lack of attention to the needs and effects of construction traffic.

This would be considered at the time construction was due to begin and the scale of the first stage of development was known. If the effect on local traffic and/or Wilton township was likely to be significant it might be necessary to consider the upgrading and re-alignment of Mount Keira Road before airport construction proper commenced.

High speed access

Two submissions (243.006 and 312.005) claimed that a high speed transport link would be either desirable or essential.

The issue of a high speed link is addressed on page 504 of the Draft EIS where it is pointed out that for the relatively low level of patronage expected, any system involving high capital costs would be even harder to justify than the conventional rail system envisaged in the proposal. Eventually, if use of the airport grew sufficiently, such a system might be required. Alternatively, if a high speed system was built between, say, Sydney and Canberra, it might well be routed via an airport at Wilton.

15.5 INFRASTRUCTURE AND ENERGY CONSUMPTION

Twelve submissions were received making twenty-five separate comments on aspects relating to Section 15.5 of the Draft EIS. The comments dealt with a range of issues which can be grouped as follows:

- . transport of fuel;
- . upgrading of services;
- . relocation of services;
- . sewage and waste disposal;
- . airport services.

These are discussed below.

Transport of fuel

Five submissions (256.003, 256.005, 274.082, 340.028, 359.010 and 390.024) made reference to the issue of fuel transport.

Three were concerned with the difficulty of supplying fuel and the additional cost due to transport. Two of the comments indicated the Draft EIS did not specify the mode of transport of fuel, specifically jet fuel, while two other comments suggested jet fuel could be conveniently transported by either pipeline (at an estimated cost of \$19 million) or by rail.

Section 15.5.7 of the Draft EIS indicates what might be the likely requirements for energy and fuel consumption. The mode of transport of jet fuel is not specifically mentioned in the Draft EIS although it is expected that diesel and petrol could be transported either by road or rail from Sydney or Wollongong.

Because of the large volume of jet fuel which would be required when the airport reached ultimate capacity it would be undesirable to transport it all by road. Because the Maldon-Dombarton railway line passes adjacent to the site it would be convenient to consider rail as a means of transporting jet fuel to the site. Alternatively a pipeline could be considered. In the interim smaller amounts of jet fuel could be transported by road.

If Wilton were selected, the Department of Aviation would investigate the safest and most environmentally acceptable means of transporting jet fuel to the site. Whatever means were finally selected for the transport and storage of jet fuel, the Department of Aviation would ensure that the provisions of the Dangerous Goods Act, 1975, were complied with.

Upgrading of services

Two submissions made four comments (340.024, 340.026, 390.021 and 390.022) relating to the upgrading of services.

Two of the comments were concerned with the need to upgrade water supply services and sewage facilities. Costs were also a concern raised in one of these comments. The other two comments were concerned with the need to upgrade telephone facilities and one submission was concerned that if priority was given to facilities to service the airport, local surrounding towns would have a lower priority for improvement.

The Draft EIS recognizes the need to upgrade both water and sewage facilities (Section 15.5.3 and 15.5.4). If Wilton were the selected site, the Department of Aviation would undertake discussions with the relevant NSW government authorities prior to airport development to ensure the optimal provision of services.

Section 15.5.5 of the Draft EIS also recognized the need to upgrade telecommunication facilities. However, the matter of priority is one for Telecom Australia to determine in consultation with other authorities.

Relocation of services

Seven submissions made ten comments (205.010, 208.006, 245.007, 274.081, 274.082, 338.045, 338.049, 338.081, 361.032 and 432.041) on matters relating to the relocation of services. Five comments were concerned with either relocating the transmission line or gas pipeline, two of the comments were concerned with the cost of relocating existing infrastructure (road/transmission line) and one was concerned about the need for further forest clearing in the water catchment area to meet airport associated needs.

Comments about relocating the transmission line or gas pipeline were mainly concerned with the likely environmental effects on the catchment due to the relocation of those facilities. It is anticipated that the existing gas pipeline would be placed in an easement beside the re-routed Mount Keira Road (Section 15.5.2 of Draft EIS). It would therefore not further encroach on the water catchment beyond the realignment of the road. All but about a 1 km section of the proposed re-routed road would occur within the proposed site.

Between 12 and 15 km of new construction would be required to divert the transmission line around the proposed airport. Section 15.5 of the Draft EIS recognizes that the assessment of effects associated with specific infrastructure proposals would require

further investigation once the sites or routes were determined. The construction of these facilities would be required to comply with the NSW environmental legislation.

Other facilities, for example telecommunication facilities, could be located within road easements.

Costs associated with the relocation of existing infrastructure were estimated for the purposes of site ranking. The estimated costs of relocating existing infrastructure for Wilton was about \$4.2 million. This cost was estimated for the site ranking and it was the fourth lowest of ten sites being ranked. In terms of overall cost Wilton was ranked second in terms of the present value of savings relative to the most expensive site (Appendix B of Draft EIS). It was estimated to be \$156 million cheaper than the most expensive site. The cost of relocating the transmission line is estimated at about \$2 million, not \$5 million as indicated by one submission.

There are no other planned airport associated facilities which would require further clearing within the water catchment. Off-site clearance of vegetation within the water catchment would not be undertaken unless it was necessary for aircraft safety in order to maintain flight clearance levels. If such circumstances arose clearance would be limited to tree lopping if feasible. Other airport associated facilities would be part of the overall regional development of the area currently being planned by the NSW government. This is being undertaken in areas outside the water catchment.

All works carried out outside the airport boundary would take account of the environmental sensitivity of the area. One submission suggested the environmental principles evolved for the Maldon - Port Kembla railway should be used as a guide.

Sewage and waste disposal

Four submissions made six comments (222.005, 274.052, 338.051, 338.055, 338.079 and 390.020) about sewage and waste disposal.

Four of the comments were concerned about the disposal of quarantined wastes and the possible effect on water supply. One comment was concerned about the cost of waste disposal and one comment indicated that land disposal of sewage by irrigation would be preferable to it being discharged to surface streams.

Quarantined wastes would be incinerated and would not be discharged to the sewer system if there was any likelihood of disease. The Metropolitan Water Sewerage and Drainage Board has strict regulations governing the acceptance of effluents and undertakes a water/effluent quality monitoring programme to ensure these standards are maintained. Waste generated by future airport development would be disposed of in accordance with the requirements of the Metropolitan Waste Disposal Authority.

Section 15.5.4 of the Draft EIS indicates that an alternative or supplementary method for disposing of treated effluent would be to use it as needed for irrigation rather than discharging it to the surface stream system. This method would be considered particularly if the water pollution control plant were located within the airport site and serviced only the airport development.

Airport services

One submission made a comment (337.020) indicating that electrical power and underground fuel lines should be used on the airport aprons to eliminate the use of aircraft auxiliary power units and tankers, thereby reducing noise levels. This would be a matter for the Department of Aviation to determine once detailed planning and development of the airport was commenced.

15.6 LANDSCAPE AND VISUAL QUALITY

Three submissions were received that referred to the assessment of landscape quality within the proposed airport site. The comments could be categorized in two issues:

- . the landscape quality of the proposed site;
- . the impact of airport development.

These issues are discussed below.

Landscape quality of the proposed site

Two submissions (197.002 and 385.027) maintained that the assessment of landscape quality, specifically the visual quality of the landscape, had been underestimated in the Draft EIS.

The method used to evaluate landscape quality for the purposes of site selection is that used by the NSW Department of Environment and Planning, and has been modified from that used by the United States Department of Agriculture's Forest Service. The landscape is assessed on the basis of accepted community perceptions of the visual quality of the landform features present, and it is acknowledged that individual perceptions may differ. The systematic nature of the assessment method should, however, ensure that the same relative degree of assessment of visual quality would occur at all sites assessed.

Impact of airport development

One submission (264.048) indicated that the effect of construction and operation of an airport at the proposed site would be greater than the Draft EIS suggested.

The visual impact of the proposed airport facility during its construction and operational phases is dealt with in section 15.6.4 of the Draft EIS. It is acknowledged that the visual character of the proposed site would be totally altered should construction of the airport proceed at the Wilton site. Screening of works and buildings, and rehabilitation and landscaping of disturbed areas would be utilised to reduce visual impact as much as possible.

CHAPTER 16

THE BIOLOGICAL ENVIRONMENT AND EFFECTS OF THE PROPOSAL

16.1 FLORA

Forty-three submissions, of which fifteen were proforma submissions, commented on aspects of the Draft EIS relating to the flora of the proposed Wilton airport site. These submissions made fifty-four separate comments, which could be categorized in the following six issues:

- . concern at vegetation clearing;
- . high ecological value of the area;
- . introduction of exotic species;
- . indirect effects on flora;
- . bushfire risk;
- . comments on flora survey.

These issues are discussed below.

Concern at vegetation clearing

Fifteen submissions made seventeen separate comments (205.021, 208.008, 240.002, 240.005, 274.026, 300.004, 313.004, 342.008, 361.015, 361.016, 362.005, 385.029, 390.005, 393.005, 453.005, 455.003 and 457.019) indicating concern at the prospect of clearing of native vegetation from the proposed site, from approach paths and emergency access routes and from the routes of the relocated Mount Keira Road and relocated infrastructure.

The Draft EIS acknowledges the value of the vegetation found on the site, both in terms of the presence of six species classified as rare and in terms of the general conservation status of these vegetation associations in the Sydney region. It is also acknowledged, (Section 16.1.2 of the Draft EIS), that little can be done to reduce the direct impact of airport development on the flora of the proposed site, and that the destruction of the vegetation associations occurring on the proposed site would constitute a significant loss.

In the same section, ameliorative measures to help reduce the direct effects on surrounding vegetation are outlined. These measures would be implemented should the proposed Wilton site be selected for airport development. They include restriction of off-site clearing to areas absolutely necessary for safety of aircraft, the selection of species for revegetation of the site so as to minimize the risk of exotic species invading surrounding areas, the replanting of embankments above surrounding bushland with selected local species, and continuing monitoring programmes to assess the performance of the revegetation programme and the occurrence of weed infestation and floristic changes in surrounding areas.

High ecological value of the area

A large number of submissions, including proforma submissions, were received emphasizing the ecological value of the proposed site. These made twenty separate comments (202.002, 205.015, 223.003 (proforma), 230.002, 255.005, 271.003 (proforma),

274.103, 274.112, 325.007, 332.005, 338.039, 338.082, 338.083, 342.006, 351.003, 358.003, 361.008, 390.025, 428.005 and 432.010).

These comments range from a general statement that the area is ecologically valuable to several detailed comments dealing with the high floral diversity of the site, the presence of rare species and poorly conserved communities, the situation of the site as a portion of an extensive bushland area including the Royal National Park to the north, and the particularly high vegetation conservation and faunal habitat value of the native vegetation of the proposed site due to the very low level of disturbance that has resulted from its protection as water catchment.

All of these with the exception of the corridor role of the catchment area are acknowledged in Section 16.1 of the Draft EIS. This section outlines the plant communities present and their distribution and significance, the species present and their conservation status, and the management policies of the past in relation to their effect on the present condition of the various plant communities. The corridor role of the water catchment, although not specifically discussed in the Draft EIS, would not be affected should the proposed Wilton site be selected, since its development would excise only a very small portion of catchment area at its western boundary. The main corridor for faunal movement lies to the east of the proposed Wilton site. (See Figure 14.8.2 in the Draft EIS.)

One submission suggested that a public relations exercise accompany the development of Wilton, in the interests of promoting precautions to be taken to minimize environmental effects. If Wilton is selected, the Department of Aviation would consider the merits of this suggestion.

Introduction of exotic species

Two submissions (338.057 and 342.009) were concerned about the risk that exotic species might invade the native vegetation of the surrounding catchment area should the proposed Wilton site be selected for airport development.

This possibility is dealt with in Section 16.1.2 of the Draft EIS, which states that during airport operation, stormwater discharged into Allens Creek might carry propagules of plants introduced to the airport site. Although a system of retention basins would be incorporated into the drainage scheme, this may not provide effective protection against such introduction. Introduction of exotic species would remain a risk of airport operation, but this risk would be reduced by use of native species in the rehabilitation of disturbed areas.

Indirect effects on flora

Nine submissions (202.013, 230.005, 264.050, 292.004, 323.004, 338.080, 342.029, 361.034 and 427.005) were concerned with the possible indirect effects of airport development at the proposed site on the flora of the proposed site and surrounds.

One comment was concerned with the effects of altering drainage patterns on the site, indicating that this may have an adverse effect on downslope vegetation and vegetation along drainage lines. This is discussed in Section 16.1.2 of the Draft EIS, which acknowledges that such effects may result in impacts on vegetation of the Cordeaux River, Allens Creek, and in extreme events, (including failure of the structures intended for drainage diversion and erosion control during construction), of other watercourses draining the site. The site drainage scheme would incorporate a system of retention basins that should ensure that streamflow rates in Allens Creek remain fairly similar to those experienced at present, and as far as possible tributary gorges to the Cordeaux River would be left unaffected. Effects of the perimeter canal on the soil moisture regime available to vegetation downslope would however, be more difficult to control. This is also stated in Section 16.1.2 of the Draft EIS.

Other comments on indirect effects on vegetation included the effect of emergency fuel dumping over wide areas of vegetation in the catchment area and of the emission of partially burnt or unburnt fuel on vegetation near the ends of runways. Both of these effects are discussed in Section 16.1.2 of the Draft EIS. Emergency fuel dumping poses only a very slight risk to vegetation. Such incidents are infrequent and if fuel is to be dumped it is usually at as high a level as possible, allowing most of it to vaporize before it reaches the ground. Effects on riverine vegetation near the ends of runways from emissions during takeoff and landing would, however, be more likely to occur.

Bushfire risk

Two submissions made four separate comments (338.027, 338.059, 338.083 and 455.005) relating to bushfire risk at the proposed site. The comments related to increased fire risk that would result from airport construction and operation. The Draft EIS acknowledges the possibility of increased incidence of fire through accidental releases during construction, easier public access to the surrounding bushland, and through escapes from hazard-reduction burning once the airport was operational. Methods that would be used to reduce this risk, including staff education, strict maintenance of equipment, carefully planned hazard-reduction burning and restricted public access, are also outlined. The hazard-reduction burning programme would be designed as far as possible to be consistent with the preservation of the surrounding vegetation.

Comments on flora survey

Three submissions commented on the adequacy of the flora survey (207.002, 351.002 and 385.030). One commented that the botanical section of the Draft EIS was very thorough, the other two comments suggested inadequacies such as inadequate coverage of rare and endangered species, inadequate description of flora survey methodology and incomplete field survey.

A full description of the flora survey methodology is given in Section 16.1 of the Draft EIS. The flora survey involved inspection of aerial photographs and geological and topographic maps to draw up a field reconnaissance schedule generating a species list and complete mapping of vegetation communities over the proposed site. Over 350 species were identified during the survey of the site. The conservation status of both communities and individual species were investigated, and other samples of similar vegetation in the surrounding region were inspected for occurrence of significant species and associations.

16.2 FAUNA

A total of forty-six submissions, of which fifteen were proforma submissions, were received commenting on aspects of the Draft EIS relating to the fauna of the proposed Wilton site. These made sixty-five separate comments relating to the following issues:

- . damaging effect on fauna;
- . high ecological value of the site;
- . concern for particular species;
- . criticism of fauna section of the Draft EIS;
- . problem of bird strike;
- . risk of invasion by exotic and feral fauna.

Damaging effect on fauna

A number of submissions (223.004 (proforma), 230.006, 271.004 (proforma), 290.007, 300.005, 313.005, 338.015, 338.077, 385.032 and 453.006) indicated in general terms that construction of the proposed airport would have a damaging effect on the region's fauna.

Five expressed concern while one suggested that animals displaced from the site could rehabilitate themselves in ample bushland elsewhere.

The Draft EIS acknowledges that fauna would be adversely affected by construction of the proposed airport, both in terms of overall conservation status of a number of species classed as fauna of special concern, or uncommon or threatened species; and in terms of destruction of habitat of both threatened and common species. The fauna study also concludes that although animals that would be displaced should airport construction proceed may be able to colonize other suitable areas that exist outside the site boundary, it could be assumed that there would be a local fall in the numbers of many of the species at present found within the proposed site. This fall in numbers would be most significant where the species were classed as being in low or declining numbers.

Section 16.2.2 of the Draft EIS discusses measures which would be used to reduce the impact of airport construction and operation on the fauna of the site and its surrounds as much as possible. Measures include limiting the amount of clearing to that required at each stage of construction; restricting off-site clearance to that necessary for aircraft safety; searching the proposed site for koalas and removing any found to favourable locations outside the area; landscaping with native shrubs to attract small native bird species that are not likely to constitute a hazard to aircraft; fencing the site to prevent herbivores straying onto runways, taxiways etc.; and retaining good quality water flows with a flow regime as near as possible to that presently existing in Allens Creek and other creeks draining the site through the water management policy described in Section 15.2 of the Draft EIS.

High ecological value of the site

Fifteen submissions made sixteen separate comments (207.001, 230.003, 240.004, 255.006, 274.104, 274.109, 277.005, 296.003, 338.040, 342.005, 362.006, 393.006, 428.006, 431.002, 432.011 and 455.004) emphasizing the ecological value of the proposed site.

The comments centred on the undisturbed nature of much of the proposed site, and its consequent value as wildlife habitat. Some comments compared the state of preservation of the Metropolitan Water Sewerage and Drainage Board area to that of a national park, and others declared that disruption of an area of such ecological value ran counter to the National Conservation Strategy.

Section 16.2.1 of the Draft EIS acknowledges the scientific and ecological value of the proposed Wilton site. The vegetation is described as diverse and relatively undisturbed, with the exception of some understorey depletion due to periodic burning by the Metropolitan Water Sewerage and Drainage Board. Diversity of fauna is high, and seven bird species and one mammal (the koala) found on the site are regarded as being threatened. The proposed site satisfies all criteria for high ecological value, and although the ameliorative measures outlined in the previous section would be implemented by the Department of Aviation, the ecological value of the proposed site area would be greatly reduced and some impacts would be felt in the surrounding area.

Concern for particular species

Seven submissions made fifteen separate comments (233.003, 233.004, 233.005, 233.006, 246.022, 293.004, 325.006, 338.005, 338.016, 338.017, 358.004, 361.010, 361.011, 361.012 and 361.013) relating to the impact of the airport on particular species within the proposed site area.

Eight comments related to the koala, expressing concern at the effects that relocation may have on this species should the proposed Wilton site be selected for airport development. The Draft EIS acknowledges (Section 16.2.2) that disturbance of noise and bright lights may affect herbivores, including koalas, in the immediate vicinity of the site, to the extent of displacing these animals. In the case of koalas, however, it is

proposed to search the site area and relocate any found prior to airport construction. The advice of the National Parks and Wildlife Service would be sought in order to conduct this relocation programme in the most successful manner possible.

Other comments related to effects on the platypus (which may occur in pools of streams draining the proposed site, but for which no signs or evidence were located during the faunal survey), wombats and other burrowing species which may burrow under the site fence and intrude on runways and taxiways, bats whose sonar may be upset by airport noise, and endangered bird and other species whose habitats would be depleted by airport construction should the proposed Wilton site be selected.

In the case of the platypus and the wombat and other burrowing animals, careful design of the site drainage system and fence, respectively, should be able to keep impacts on these species to a low level. The advice of the National Parks and Wildlife Service would be sought on amelioration measures aimed specifically at the other species of concern.

Criticism of the fauna section of the Draft EIS

Nine submissions made fourteen separate comments (202.014, 207.003, 207.004, 233.015, 233.016, 264.053, 274.076, 292.009, 292.010, 338.013, 338.018, 338.084, 361.009 and 385.031) suggesting shortcomings in the fauna section of the Draft EIS.

Several of these criticisms related to species not detected in the site survey. It is common for some species occurring at a location not to be sighted or trapped during any period of faunal survey so that the omission of this species from the list of species recorded is not surprising in itself. In addition, the Draft EIS notes in Section 16.2.1. that the diversity of reptiles located during the survey was relatively low, due to the cool conditions prevailing during the spring sampling period. On the basis of local knowledge revealed in a number of submissions, the species named in Table 16.1 have been added to the list of probable fauna.

A number of other comments pointed out that impacts on fauna would be likely to extend beyond the site boundary. The Draft EIS identifies four main ways in which these could occur. They may arise through competition for territory in neighbouring areas by animals displaced from the site during construction; increased dust, noise and light levels during construction and operation; the possibility of collisions between aircraft and avifauna; and the risk of altered water regimes and quality in Allens Creek and other small watercourses draining the site.

The first of these hazards cannot be effectively overcome, except in cases such as the koala, where a capture and relocation programme would ensure that individuals displaced from the proposed site would be released in suitable habitat elsewhere. Dust nuisance would cease when construction was complete, but animals affected by noise and light are likely to permanently vacate the immediate site surrounds.

The Department of Aviation would implement whatever measures may be needed to minimize the hazard of bird strike. However, this will mean discouraging any avifauna likely to be a hazard to aircraft from frequenting the airport site, which may alter the species and probably numbers of birds present in the immediate site area. Control of site drainage through the water management policy described in Section 15.2 would be aimed specifically at maintaining water quality and, as nearly as possible, the present flow pattern of Allens Creek. This should ensure that both aquatic and terrestrial fauna dependent upon the creek would not be unduly disrupted. Reduction of flow in other small watercourses whose catchments would be interrupted by the perimeter canal may be a more significant impact.

Other comments suggested that particular faunal groups (bats and aquatic fauna) had not been considered in the Draft EIS, or that coverage of other groups (birds, out of season wildlife, and rare and endangered species) had not been considered adequately. The

Department acknowledges the omission of a survey of aquatic fauna and of bats. However, in view of the methods proposed by the Department to maintain water quality and stream flow regimes in receiving waters, the omission of an aquatic fauna survey is not seen as materially affecting either the environmental evaluation or the final selection of a site. Should the proposed Wilton site be selected for airport development, the Department of Aviation would seek the advice of the National Parks and Wildlife Service on measures which could be taken to reduce the impact of construction and operation on any species of concern including any rare or endangered species of bats likely to occur in the site area. Full consideration was given to the conservation status of all species located on the proposed site, and seven bird species and one mammal were identified as threatened species.

Table 16.1 Additional fauna sighted in the Wilton area

Scientific name	Common name
Reptiles	
<u>Hoplocephalus bungaroides</u> *	Broad-headed snake
Birds	
<u>Calyptorhynchus lathamii</u>	Glossy black cockatoo
<u>Colluricincla harmonica</u>	Grey shrike-thrush
<u>Cracticus nigrogularis</u>	Pied butcher-bird
<u>Cuculus variolosus</u>	Brush cuckoo
<u>Cygnus atratus</u>	Black swan
<u>Entomyzon cyanotis</u>	Blue-faced honeyeater
<u>Eurystomus orientalis</u>	Dollar-bird
<u>Falcunculus frontatus</u>	Eastern shrike-tit
<u>Gerygone olivacea</u>	White-throated warbler
<u>Hieraaetus morphnoides</u>	Little eagle
<u>Hirundapus caudacutus</u> **	Spine-tailed swift
<u>Lalage sueurii</u>	White-winged triller
<u>Lichenostomus penicillatus</u>	White-plumed honeyeater
<u>Myiagra inquieta</u>	Restless flycatcher
<u>Myiagra rubecula</u>	Leaden flycatcher
<u>Pelecanus conspicillatus</u>	Pelican
<u>Petroica rosea</u>	Rose robin
<u>Phalacrocorax melanoleucos</u>	Little pied cormorant
<u>Phalacrocorax sulcirostris</u>	Little black cormorant
<u>Phaps histrionica</u>	Bronze-wing pigeon
<u>Phylidonyris nigra</u>	White-cheeked honeyeater
<u>Scythrops novaehollandiae</u>	Channel-billed cuckoo
<u>Tyto tenebricosa</u> ⁺	Sooty owl
Bats	
<u>Nyctophilus sp</u> ++	Jacksons long-eared bat

* Listed as endangered within NSW and Australia

** A migratory bird and therefore included in the agreement between the governments of Japan and Australia for the protection of migratory birds and their habitat.

⁺ Listed as endangered in NSW.

++ Identification to generic name only was possible. It would appear that an error may have been made in the common name of this animal which prevents identification to species level.

Bird strike problem

Seven submissions made ten separate comments (195.005, 233.017, 233.018, 292.011, 293.003, 293.002, 338.014, 338.060, 340.031 and 362.017) relating to the possibility that birds may constitute an important hazard to aircraft at the proposed Wilton site.

Four of these comments asserted that bird strike may be a major problem at the proposed Wilton site because of the attractiveness of the surrounding bushland to birds. However, the Department of Aviation has found in other operations that forest surrounds are in fact preferable to grasslands from the point of view of bird hazard to airport operations. This is because the types of birds that frequent forest areas tend to be smaller, less inclined to form large flocks and are unlikely to fly at altitudes where they would interfere with aircraft. Large water birds and grassland birds are a greater hazard to airport operations.

Three comments requested clarification of methods of bird control, two suggesting that defoliants may be used and that such use would be incompatible with water catchment management. The Department of Aviation has not in the past used defoliants for purposes of bird control, and does not intend to do so at any second Sydney airport site selected. The Department is also not aware of such use at airports elsewhere in the world. Methods used by the Department for airport bird control involve minimizing the attractiveness of the site to birds through efficient and effective drainage, regular mowing and slashing of grassed areas to control weed and seed production, care in the choice of plants used in landscaping and the design of landscaping works as outlined in Section 16.2.2, and the use of deterrents such as dummy hawks, cracker shells and where necessary shooting birds to frighten them away from sensitive areas.

One submission specifically suggested a hazard from flocks of cockatoos. The Department accepts that birds such as cockatoos may be associated with forest areas such as that surrounding the proposed site, but their occurrence at the proposed Wilton site is no more likely than at the proposed Badgerys Creek site or the occurrence of flocks of seagulls at Kingsford-Smith Airport. The Department does not anticipate conflict between aircraft operations and flocks of cockatoos. Further study of bird populations at both proposed sites may be necessary, however, for a fuller understanding of the potential hazard posed and the design of control measures.

Exotic and feral fauna

Two submissions (338.058 and 342.010) were concerned with the possible introduction of exotic and feral fauna to the bushland surrounding the site as a result of airport construction and operation. The only likely mechanism through which this could occur would be through increased public access to the bushland along emergency access routes that may be necessary for airport safety. Public access to these routes would be denied, as it is now under the management of the Metropolitan Water Sewerage and Drainage Board, and as the airport site itself would be fenced early in the construction stage, the risk of such introduction would be minimal.

CHAPTER 17

COMPARISON OF THE BADGERYS CREEK AND WILTON SITES

17.1 FORM OF THE COMPARISON

Four hundred and twenty-three submissions were received in response to the ten-week exhibition period of the Draft EIS. These submissions were from private individuals, community groups, companies and government organizations. Of the total number of submissions, 265 were of a proforma nature. Although the submissions do not necessarily represent a statistical cross section of the Sydney population, an analysis of opposition or support for the sites was undertaken.

The analysis was made using two methodologies. The comments listed in Appendix 1 with a Draft EIS reference of 17.1 include only those submissions that made an explicit statement of attitude in favour of or opposition to one or both of the proposed sites. About one-third of the submissions received made an explicit comment of this nature. Table 17.1, however, presents a tally of the attitudes of all submissions received, based on the overall sentiment expressed in each submission, whether or not an explicit statement of attitude was made. Table 17.1 therefore represents the best indication of the weight of attitudes to the two sites expressed in submissions received on the Draft EIS.

Table 17.1 Comparison of sites and analysis of submissions

Form of support	% of submissions
Opposes Badgerys Creek site	74
Favours Badgerys Creek site	3
Opposes Wilton site	13
Favours Wilton site	5
Neutral	5

For purposes of comparison, the number of residents that would be displaced by site acquisition at each of the two short-listed sites, and the future maximum number of people within the 20 ANEF contour, assuming the continuation of existing zoning controls, is presented in Table 17.2. The information contained in this table is drawn from Table 17.1 of the Draft EIS.

Table 17.2 Affected populations of the short-listed sites

	Badgerys Creek	Wilton
Residents displaced by site acquisition	750	<10
Future max. number of people within 20 ANEF contour	1,951	130

17.2 THE COMPARISON TABLE

Forty-three submissions made ninety separate comments comparing the proposed Wilton and Badgerys Creek sites.

The most commonly made comparison related to the accessibility of the two short-listed sites (1.011, 233.020, 233.024, 233.029, 233.030, 243.005, 274.070, 294.004, 325.011, 334.005, 342.011, 342.032, 342.033, 361.036, 375.003, 426.005, 428.008, and 432.014). These comments overwhelmingly favoured the proposed Badgerys Creek site. Most pointed out the shorter travel times required to reach an airport at Badgerys Creek as opposed to Wilton, and suggested that this may be an important factor in determining the airport's viability. However, a small number of comments relating to access pointed out that the proposed Wilton site may be better situated to provide access to the south-west of Sydney, to Wollongong and other centres such as Canberra and Goulburn, or suggested that adequate access to the proposed Wilton site could be provided.

The next most common comparison made related to regional planning and development issues affecting the two proposed sites (4.002, 7.007, 237.006, 243.004, 244.001, 248.006, 250.018, 253.007, 274.115, 314.004, 335.008, 367.005, 374.011, 375.002, 379.002, 424.003, 457.011 and 460.002). These comments overwhelmingly favoured the proposed Wilton site. The majority related to the relatively greater number of people that would be affected by airport development at Badgerys Creek, as a result of alterations to the area's existing semi-rural character and the greater number of residents in the area as compared to the Wilton area. A smaller number of submissions referred to the alienation of productive agricultural land or future urban expansion area that could result from airport development at the proposed Badgerys Creek site, or to institutional uses that might be affected.

Disruption as a result of land acquisition was the next most common form of comparison. These comments (62.001, 237.005, 248.006, 252.001, 274.114, 374.002, 375.006 and 460.004) also favoured the proposed Wilton site. The two points raised were that the Wilton site would be cheaper to acquire and that fewer people would be displaced by acquisition of the land required at this site.

Other comparisons made in more than 5% of comments (246.015, 246.018, 257.002, 264.045, 274.094, 274.095, 274.064, 274.065, 338.035, 338.068, 338.086, 341.004, 342.030, 361.037, 362.024, 375.004, 432.012, 457.018 and 461.004) compared the two sites on the following factors: geology and physiography (value of mineral resources and topographical constraints on construction) which generally favoured the Badgerys Creek site; air quality factors which favoured Wilton slightly; cost factors which favoured Badgerys Creek; effects of aircraft noise which favoured Wilton (374.010 and 460.010); and noise considerations which favoured both sites equally.

Other aspects on which a number of comments (205.001, 233.019, 250.019, 257.003, 264.044, 264.055, 274.113, 274.036, 274.037, 274.059, 325.010, 337.005, 338.036, 338.076, 338.092, 341.005, 342.030, 361.024, 361.038, 373.002, 373.003, 373.004, 373.005, 374.005, 374.012, 375.005, 385.026, 396.014 and 432.005) were made included: airspace arrangements which were generally felt to favour the Wilton site; higher archaeological values at the Wilton site which favoured development at Badgerys Creek; higher natural environment values at the Wilton site which favoured development at Badgerys Creek; easier infrastructure provision at Badgerys Creek; maintenance of water quality which favoured development at Badgerys Creek; loss of agricultural land which favoured development at Wilton; existence of emergency facilities which favoured Badgerys Creek; comments on economic effects which applied equally to both sites; relative ease of expansion at Wilton and relative viability of the two sites. The aspects on which comparisons were made, the proportion of comments raising these aspects, and the site favoured by the majority of comments on each aspect are summarized in Table 17.3.

Table 17.3 Comparison of short-listed sites

Subject of comparison	% of comments	Site generally favoured
Access	20	Badgerys Creek
Regional planning and development	19	Wilton
Land acquisition	9	Wilton
Geology, soils and physiography	7	Badgerys Creek
Air quality	6	Wilton
Cost factors	6	Badgerys Creek
Noise	6	Neither favoured
Airspace arrangements	<5	Wilton
Archaeology	<5	Badgerys Creek
Infrastructure and energy consumption	<5	Badgerys Creek
Drainage and water quality	<5	Badgerys Creek
Agriculture	<5	Wilton
Aircraft emergency procedures	<5	Badgerys Creek
Economic effects	<5	Neither favoured
Other	<2	NA

CHAPTER 18

PUBLIC INFORMATION PROGRAMME

18.1 SCOPE OF THE PROGRAMME

Five submissions were received which suggested that the Community Access Programme was inadequate (205.006, 335.004, 337.014, 337.037, 382.003 and 461.006).

The major issues raised could be categorized as follows:

- . the Community Access Programme was not a full public participation programme;
- . there was a lack of publicity for the programme;
- . there was a lack of provision for disadvantaged groups who find it difficult to put views in writing to contribute effectively to the programme.

In general the Community Access Programme allowed a high level of involvement by the community, especially groups in more remote areas and people of restricted mobility. The success of this exercise can in part be measured by the significant numbers of submissions which have been received. There was a high level of publicity in local media and efforts were made to ensure that anyone sufficiently interested had access to information, either by way of mailing lists, information displayed in post offices, shopping centres, local councils and libraries, or by the second Sydney airport Community Access Bus, which could also be contacted by phone. The submission from the Wilton Airport Resistance group notes in its preamble, 'The Department's attitude in seeking to have as much information made available as possible has gone a long way to ensuring that the public would be convinced that it has made a reasonable attempt at choosing a site in a manner which can be justified.' It is apparent that even amongst opposition groups there is a recognition that the Department of Aviation has made a genuine attempt to involve the community in the site selection process.

18.2 COMMUNITY ACCESS CENTRE

One submission (461.005) criticized the extent to which the Community Access Centre was publicized.

The view was expressed that a leaflet providing information on the second Sydney airport Programme and giving phone contacts for more information should have been sent to residents.

This in fact was done following the opening of the Access Centre in the city in July 1984. The same information was also sent to a mailing list of about 1,000 organizations, newspapers, radio stations and individuals. A 'hotline' was established at the Access Centre and its number was on the leaflet.

18.3 LOCAL DISPLAYS

Four submissions (63.005, 65.034, 335.005 and 379.005) claimed bias in the photographic display material available at the Access Centre and in the Community Access Bus.

The main element of this criticism claimed misrepresentation of the nature of the Badgerys Creek area and the numbers of houses in the area.

In fact the main photographic display elements used in the Access Centre, Community Access Bus and publications (including the Draft EIS) were aerial photographs of both sites taken during 1984 which showed every structure visible from the air within and just outside site boundaries. Other photographs displayed were representative of the essentially rural character of the site. No attempt was made to hide the fact that there are over 200 dwellings on the site.

18.4 BRIEFINGS AND MEETINGS

Two submissions raised the question of consultations over the second Sydney airport Programme, or sought further consultations (305.008, 305.009 and 459.011).

The Department of Defence requested further consultations on implications of both proposals. Further consultations have since been held with that Department.

The view was expressed that the Goulburn option included in the preliminary investigation would have benefited from more consultation with Goulburn Council. This is with reference particularly to the preliminary evaluation stage, at the conclusion of which the Goulburn option was amongst those eliminated from further consideration.

Before the announcement of the two short-listed sites, direct consultations were held with Goulburn Council and through the agency of the NSW Local Government and Shires Association with Councils generally. At that time, Goulburn Council was the only such local government authority consulted individually. During consultations it was stressed that any representations should be made to the Department of Aviation as soon as possible to permit these to be taken into account before short-listing. The tight timetable of the second Sydney airport programme was also stressed. Goulburn Council's representations were not received before it was necessary to select two sites for detailed evaluation. The content of subsequent Goulburn representations would nevertheless not have altered the decisions that were taken at that time.

18.5 INFORMATION ON PROGRESS

One submission (382.002) expressed the view that the media misrepresented the character of the Badgerys Creek site. More specifically it was claimed that insufficient houses appeared in media coverage.

This claim is similar to the claim that the Department of Aviation has been selective in representing the area photographically (see comments in relation to Section 18.3). As media coverage is independent of the Department's own photographic efforts, it appears unlikely that there was any conscious bias in portraying the area. Single pictures including any significant numbers of houses are very difficult to achieve in the area.

18.6 SURVEYS OF COMMUNITY ATTITUDES

Three submissions contained references to the level of support or opposition to second Sydney airport proposals (243.012, 257.008 and 312.007).

Two submissions claimed that support for a second Sydney airport is high while the other two claimed that it is not high.

The evidence available to the Department of Aviation, based on a telephone survey and public response to the operations of the Community Access Bus, indicates that general

community support for a second Sydney airport is high. While support within areas immediately affected (e.g. Wilton or Badgerys Creek) is not high, support within the surrounding regions is high according to opinions offered to officers manning the Community Access Bus. The survey conducted into this question in 1984 resulted in seven out of ten respondents endorsing the need for a second Sydney airport.

18.7 LETTERS TO THE MINISTER

No comments were received in relation to this section.

18.8 MAJOR SUBMISSIONS

Two submissions (338.001 and 459.012) requested that earlier material should be reconsidered in the context of evaluation responses to the Draft EIS. One of these requests relates to material provided in support of the Goulburn option and the other to material supplied in opposition to the Wilton site being selected.

In respect of Goulburn, material supplied earlier has been evaluated and no departure from the current course of the second Sydney airport Site Selection Programme is considered merited.

In respect of material earlier supplied by Wilton Airport Resistance, it is pointed out that the summary of this material was incorporated into the Draft EIS, so that as wide an audience as possible could have the opportunity of considering it. The material was also evaluated by the Department of Aviation, and the points it raised are in the main already covered by various sections of the Draft EIS. Any outstanding issues are being covered in the response of which this forms a part.

18.9 RESPONSE OF THE DEPARTMENT OF AVIATION

A number of submissions commented on the operations of the Community Access Bus, which visited advertised sites in the affected areas.

The criticisms made can be divided into three groups:

- . the accessibility and hours of operation of the Community Access Bus;
- . bias or unhelpfulness on part of officers staffing Community Access Bus;
- . need for additional staffing by the Department of Local Government and Administrative Services;
- . contradictory information supplied.

These issues are discussed below.

Accessibility and hours of the Community Access Bus

Five submissions (230.004, 231.001, 283.003, 313.007 and 368.003) about the accessibility of the Community Access Bus were received.

Criticisms were that the bus was not available at times when working commuters could visit it, did not stay in some locations long enough, or was inaccessible to people in some areas.

The Community Access Bus was staffed by senior officers associated with the second Sydney airport site selection programme and was accessible by a widely advertised telephone link. It operated throughout the exhibition period for five days a week, and on one occasion for six days. During ten weeks, over 3,000 people visited the bus. The schedule, reproduced in Table 18.1, was devised in consultation with local MPs, local councils, community groups and interested individuals. The Community Access Bus operated from 10.00 a.m. each morning until late each afternoon. On request, it remained in operation for several late night shopping nights. These evenings were not well attended and one (in Picton) attracted no visitors at all despite promises by members of opposition groups that some fifty commuters from Wilton and surrounds would be visiting the bus on that night.

It was further suggested that the Community Access Bus service was inadequate in that it provided no facility to register complaints or opinions. This was not the case as the bus was set up as a mobile library and visitors were encouraged to sit at desks and either read, discuss or take notes on the Draft EIS. Enquirers were also told that formal submissions could be lodged at the Community Access Bus for forwarding to the appropriate authority. It was pointed out, however, that an oral opinion would not carry as much weight as a written one, and therefore submissions were encouraged.

It was also alleged that no information was available from the Community Access Bus to assist those living just outside airport boundaries.

Officers assisted enquirers to the best of their ability. Where questions arose beyond the expertise of an officer, phone calls were made to Department of Aviation Central Office or to the Department of Local Government and Administrative Services or enquirers were given a phone number to ring themselves.

Table 18.1 Community access bus schedule

	Date		Location
Week 1	17-19 June 20-21 June	Badgerys Creek Luddenham	- adjacent to P.O. Badgerys Creek - adjacent to P.O. Luddenham
Week 2	24-26 June 27-28 June	Wilton Picton	- adjacent to P.O. Wilton - adjacent to Council Chambers, Menangle Rd
Week 3	1-2 July 3-5 July	Camden Campbelltown	- adjacent to Council Chambers, John St - Macarthur Shopping Square entrance near florist shop
Week 4	8-9 July 10-12 July 13 July	Blacktown Penrith Blaxland	- railway station mall, Main St - Penrith Shopping Square outside Grace Bros' main door - Hope St near Station St
Week 5	15 July 16 July 17 July 18 July 19 July	Wollongong Fairfield Cabramatta Wetherill Park Horsley Park	- outside Crown Centre, Crown St - Civic Centre quadrangle Spencer St - mall, corner of John St and Railway Parade - Stocklands Shopping Centre, main entrance - adjacent to park, corner Arundel Rd and Horsley Rd
Week 6	22 July 23-25 July 26 July	Douglas Park Liverpool Mittagong	- adjacent to P.O. - adjacent to P.O. Macquarie St - Southern Highlands Tourist Office, Hume H'way
Week 7	29 July 30 July 31 July 1 August 2 August	Tahmoor Bargo Thirlmere Wollongong Appin	- shopping centre, Old Hume Highway - shopping centre, Old Hume Highway - Oaks St, opposite P.O. - outside Crown Centre, Crown St - adjacent to playing fields Appin Rd
Week 8	5 August 6 August (a.m.) 6 August (p.m.) 7 August 8 August 9 August	St Clair Bringelly Rossmore Kemps Creek Austral Mt Druitt	- adjacent to shopping centre, Endeavour Ave - community hall, Greendale Rd - opposite P.O. Bringelly Rd - adjacent to fire station Elizabeth Drive - adjacent to P.O. Edmonson Ave - Mt Druitt Shopping Square, main entrance
Week 9	12-13 August 14-16 August	Picton Wilton	locations are the same as for weeks 1 and 2
Week 10	19-20 August 21-23 August	Luddenham Badgerys Creek	

Bias or unhelpfulness from Community Access Bus staff

Three submissions (63.007, 205.007 and 207.005) complained of bias or unhelpfulness from Community Access Bus staff.

The basic criticisms were that officers on the bus did not assist people in expressing their views by providing a proforma or questionnaire (especially for those of limited writing skills), would not or could not answer questions, or were biased in their attitude to airport proposals.

The purpose of the Community Access Bus was to disseminate information. As it would not have been possible to obtain a representative sample of respondents, no attempt was made to survey public opinion. A previous questionnaire, issued from the Access Centre, attracted some criticism on the basis that questions were leading or answers could be falsified. People were therefore encouraged instead to express their own views.

Not all questions were capable of being answered on the spot by the Community Access Bus staff. In these circumstances, the offer was made to provide the information at a later date. In some cases, the information was obtained by phone while the person waited. In other cases the phone on the bus was used by the enquirer to speak to the relevant expert elsewhere.

A number of enquirers expressed their appreciation of the service provided.

Need for Department of Local Government and Administrative Services to staff Community Access Bus

One submission (283.006) raised the need for appropriate Department of Local Government and Administrative Services officers to staff the Community Access Bus to provide advice on property matters.

The bus carried Department of Local Government and Administrative Services information on property matters. In addition, second Sydney airport brochures listed contact telephone numbers for reverse-charge calls to Department of Local Government and Administrative Services officers. It was also possible to call the Department from the Community Access Bus.

Contradictory information supplied

Wilton Airport Resistance Committee submitted (338.002) that the Department of Aviation had provided two sets of figures which contained slight differences, and requested the Department to publish the correct figures in the Supplement. Such discrepancies can occur for a number of reasons, for example between preliminary and final statistics. The Department will at any time furnish published statistics to Wilton Airport Resistance Committee or anyone else on request. It is the user's responsibility to check how the particular statistics being used are defined.

APPENDICES

APPENDIX A CONDUCT OF THE STUDY AND GUIDELINES FOR ENVIRONMENTAL IMPACT STATEMENT PREPARATION

Eight submissions were received which raised matters relating to Appendix A of the Draft EIS. These submissions included fifteen separate comments relating mainly to the scope and content of the Draft EIS.

The comments made in the submissions can be categorized into two main groups:

- . those requesting more detailed investigation of a range of factors associated with the development of an airport;
- . those which indicated the Draft EIS had not taken account of certain issues.

These are discussed in more detail below.

Request for more detailed investigation

The submission by Penrith City Council made seven comments (429.001 to 429.007) requesting additional investigation if Badgerys Creek were the selected site. Penrith City Council made six comments relating to a range of factors pertaining to the Badgerys Creek site which Council considered were not adequately addressed in the Draft EIS. These included:

- . noise;
- . drainage;
- . employment;
- . zoning;
- . construction phase;
- . access.

In addition to these factors, Council requested that the Department of Aviation investigate more fully the aspect of planning blight.

Penrith City Council requested that, if the Badgerys Creek site were selected, any future environmental impact statement relating to the development of the site would be based on a detailed airport layout and should adequately address the above issues.

If the Badgerys Creek site were selected then the Department of Aviation would continue to liaise with Councils likely to be directly affected by the future development of an airport.

The comments made by Penrith City Council concerning the adequacy of information regarding issues pertaining to the Badgerys Creek site should be viewed in the context of the study objective. It must be remembered that the Draft EIS does not propose to be a detailed statement of impacts for the development of a particular site although it does cover a wide range of impacts associated with the possible development of the site. The primary purpose of the Draft EIS is to present an environmental assessment for the purposes of selecting and defining a site for a second Sydney airport.

The guidelines from the Department of Arts, Heritage and Environment for the preparation of the Draft EIS state in part:

The Draft Environmental Impact Statement will discuss in detail the impacts associated with the selection and acquisition process and will cover as far as possible the impacts of possible developments at the various sites. However, as there is no commitment at this stage to any development at the selected site, this discussion can only be in broad terms with regard to airport design. However, as noise is a key issue in the environmental assessment of the proposal it would be essential for the Draft Environmental Impact Statement to show the location and alignment of the runways and to provide ANEF contours for consideration in relation to adjacent and anticipated urban development.

The Draft Environmental Impact Statement should also include an analysis of access requirements in relation to anticipated metropolitan urban development. As the role of the second Sydney airport may not be determined at the time of the preparation of the Draft Environmental Impact Statement, the assessment will need to be based on the 'worst possible case' for each site under consideration.

The document should include sufficient information and technical data to enable interested parties to examine the basis of the environmental implications of decisions. Relevant maps should also be included but their preparation and reproduction should be such as to minimize, as far as convenient, the cost of printing the Draft Environmental Impact Statement, and of making it available to the public.

The following guidelines indicate the aspects which should be considered in the preparation of the Draft Environmental Impact Statement. Each aspect should be dealt with only to the extent considered appropriate to the development under consideration, with a view to concentration on the more significant impacts. It is also essential that close contact be maintained with this Department during the preparation of the Draft Environmental Impact Statement. The Department of Arts, Heritage and Environment will in turn facilitate the necessary liaison with the NSW Department of Environment and Planning with respect to the State's requirements on the form and content of the Draft Environmental Impact Statement. These guidelines are not necessarily exhaustive. (Pages 568-69)

In order to achieve the above, three reference groups were established to oversee the conduct of the study.

The Environmental Reference Group comprised representatives of the Commonwealth departments of Aviation, and Arts, Heritage and Environment, and the NSW Department of Environment and Planning. This group provided guidance in the interpretation of the Environmental Impact Statement guidelines and advice on the structure of the Draft Environmental Impact Statement and reviewed the Draft Environmental Impact Statement text prior to publication.

The Land Use Working Group comprised representatives of the Department of Aviation and the NSW Department of Environment and Planning. This group provided guidance on the application of the NSW Government's regional planning policies and specific planning controls which will be gazetted to coincide with the announcement of the selected site.

The Access Working Group comprised representatives of the Commonwealth departments of Aviation and Transport, and the NSW departments of Main Roads and Environment and Planning, the State Transport Study Group, the Urban Transit Authority and the State Rail Authority. This group provided guidance on appropriate study procedures and on NSW transport policies and plans, and provided data.

Certain issues not considered

Seven submissions made eight comments (246.010, 335.002, 359.004, 384.002, 456.004, 457.013, 461.001 and 461.002) on a range of aspects which it was considered should have been covered in the Draft EIS.

One submission (335.002) commented that the Draft EIS did not address the issues required by order under sub-section 6(1) of the Environment Protection (Impact of Proposals) Act 1974-1975. This section of the Act relates to approved procedures and refers to the Administrative Procedures of the Act.

Section 4 of the Administrative Procedures deal with matters to be considered by environmental impact statements. Appendix A of the Draft EIS sets out the matters to be covered in the Draft EIS. These matters were determined in accordance with the Administrative Procedures.

Discussion on the specific matters raised in the submission are included in the Draft EIS. The discussion relating to resumption of land outside the acquisition area is limited because under present Commonwealth regulation only that land which is required for a Commonwealth facility can be acquired. The acquisition of land for road and rail access would be a matter for the NSW State government and would be dealt with under appropriate state legislation (see Sections 9.2 and 10.4 of the Draft EIS).

Two comments (384.002 and 461.002) indicated that the Draft EIS did not consider the environmental effect of the proposed airport on the surrounding region.

The guidelines for the preparation of the Draft EIS required that potential impacts on the environment be assessed in relation to all facets of the proposed development at the local, regional and, if appropriate, state or national levels. Impacts should be considered for the acquisition, construction and operational phases with emphasis being given to the major impacts.

Off-site impacts were considered particularly in relation to noise and agriculture. Matters relating to the planning of the requirements for industrial, residential and commercial development are the domain of the State and are being dealt with in accordance with State government planning procedures.

One comment (456.004) indicated that the Draft EIS did not contain sufficient information of the potential impact on the exploitability of coal reserves in relation to the Wilton site particularly so far as it affects employment opportunities.

The Draft EIS recognizes there is potential to sterilize coal (Section 15.1). However, the proposed site at Wilton was preferred to other possible sites within the Wilton area partly because it minimized the potential for coal sterilization. The Draft EIS also recognized that the acquisition of land owned by Bellambi Coal Company Pty Limited would preclude the company from proceeding with its current proposals and that the company might have difficulty in finding another suitable site for those facilities.

Additional information to that which was initially provided by the Department of Mineral Resources and the Bellambi Coal Company Pty Limited is included in Section 15.1 of this Supplement.

Three comments (359.004, 457.013 and 461.001) referred to the development of a second airport. One comment was concerned that a master plan was not provided for Kingsford-Smith Airport, one was concerned that no assurance was given that the preliminary master plan would not change in the future and the other comment raised the point that the Draft EIS did not address the development of a second airport.

The objective of the Draft EIS was to provide a basis for the selection and acquisition of a location that would be suitable for possible future development as Sydney's second major airport. On this basis there was no need to develop a master plan for Kingsford-Smith Airport as part of the Draft EIS. The Commonwealth and State government believe it is prudent planning to set aside a location for a second major airport in the Sydney Region to provide for the Region's future air traffic. The Draft EIS did not address the issue of airport development in detail as the Commonwealth commitment at this stage is to the acquisition of a site, not the development of an airport.

The Department of Aviation would continue to assess the need for the actual development of a second major airport in Sydney and initiate the appropriate action when necessary. Section 1.1 of the Draft EIS indicates the possible timing in relation to the requirement for additional runway capacity. However, as the time horizons involved are distant it is not possible to give any commitment that aspects of the airport development will not change. For this reason the master plans in the Draft EIS are called preliminary. However, the extent of any change is likely to be minimal and would be directed towards further minimizing noise effects and the optimizing of airspace and topographic considerations.

One submission (246.010) commented that the Draft EIS was inadequate and omitted to consider various matters in relation to the cost of acquisition, noise, employment, air quality, access, fauna and television reception. The comments made in relation to these matters are dealt with under the respective sections of this Supplement.

The submission also claimed the information presented was insufficient, contained misleading or biased data or arrived at incorrect conclusions. However failed to substantiate these assertions. Nor did it raise any matters which affect the basic assessment of environmental effects in relation to the sites or the comparison of environmental effects which would change the possible preference of one site over the other.

APPENDIX B ASSESSMENT AND COMPARISON OF CAPITAL COSTS FOR ALL SITES

Sixteen submissions made twenty-two separate comments relating to the assessment and comparison of the capital costs of second Sydney airport development at each of the ten nominated sites. The comments can be further categorized into three main issues:

- . costs not considered;
- . cost comparisons of sites;
- . criticism of costing methodology.

These issues are discussed below.

Costs not considered

Eleven submissions made eleven separate comments (241.002, 274.105, 290.006, 305.006, 325.005, 338.075, 342.014, 345.003, 361.021, 362.019 and 422.016) suggesting that cost items were not estimated or had not been considered adequately.

Cost items referred to as not having been considered include airport construction costs; costs of relocation of government establishments; costs of water retention, diversion and treatment works; costs of supplying water and sewerage to development peripheral to airport; costs of cut-and-fill; costs of Metropolitan Water Sewerage and Drainage Board supervision; and operating costs that vary between sites.

Most of these items have been considered, and the estimation of their costs has been given in Table B.1, in Appendix B of the Draft EIS. The first item, airport construction costs, does not, however, appear in the listing. This item may be divided into two

components: site preparation costs, which will vary considerably between sites, and construction of superstructure, which will be closely comparable for all sites. Therefore, for the purposes of site cost comparison, only site preparation costs have been considered. Costs of cut-and-fill at each site, also suggested as an omission from the cost comparison process, forms the major item considered under site preparation costs.

Access-related costs include the costs of land and facilities for access. The relocation of Commonwealth facilities is included although State facilities are not (however, the cost of relocating facilities is not expected to be a major factor in selection of the final site). Costs for water supply and water and sewerage treatment works are included under costs for new infrastructure but these do not, as one comment suggested, include costs of supply and treatment to development peripheral to the airport, as this area would not be the responsibility of the Department of Aviation but the relevant supply authority. The estimate for protection of water quality at the proposed Wilton site should allow for components of both drainage control and water treatment. The cost of Metropolitan Water Sewerage and Drainage Board supervision, though not included in Appendix B of the Draft EIS, used for cost-ranking in the short-listing process, is included in Appendix H, the draft schedule of conditions applied by the Board to the construction, operation and maintenance of an airport at Wilton, and has been taken into account in the evaluation of the proposed Wilton site following short-listing. This is, in any event, a minor cost.

One submission suggested that the cost of relocating the receiver station should be included for Badgerys Creek. The cost of relocating the Overseas Telecommunications Commission receiver station was not included in the costs for Badgerys Creek on the assumption that the station would probably have to be relocated eventually with or without the development of an airport. If the development of an airport were to bring forward the time of this relocation the selection of Badgerys Creek would entail an additional capital cost dependent on the extent of this effect.

The final item referred to was operating costs that vary between sites, identified specifically in one comment as costs resulting from the distance of the second Sydney airport from the city centre. The question of operating costs dependent upon distance to the site involves three components: travel time, passenger travel preferences, and the function of the second Sydney airport relative to Kingsford-Smith Airport. Travel times to all sites were estimated during the site selection programme, but the speculative nature of future passenger preferences and the function of the second Sydney airport prevent the conversion of these distances to operating costs. The distances of all sites from Sydney are given in Chapter 5 of the Draft EIS.

Four comments refer to the costs of particular facilities. The Department of Defence suggests a cost of \$250 million for relocation of the RAAF/RAN facility at Kingswood which might be affected by development at Badgerys Creek, and three comments suggest that the costs of water treatment and collection at Wilton should be dealt with in more detail. A generous estimate of the cost of water treatment works at Wilton is included in the estimate for 'new infrastructure', and it is anticipated that portions of this amount would apply to both water treatment and water containment works. Should the cost of the combined works exceed the amount allowed, it is probable that due to the far lower site acquisition costs at the proposed Wilton site, the cost of acquisition and water containment works for Wilton would still be lower than that for Badgerys Creek. (Note: For the final sites, the capital cost differences of airport construction, including acquisition, are not expected to be great.)

Cost comparisons of sites

Four submissions made four separate comments (274.078, 304.004, 361.022, and 390.010) comparing the proposed sites at Wilton and Badgerys Creek and other nominated locations on the basis of various cost factors.

The first of these suggests that there are cheaper sites available than Badgerys Creek. This is not disputed. Badgerys Creek ranks as only the sixth cheapest site in terms of capital costs as shown in Appendix H. However, capital cost is only one of four factors evaluated in ranking the nominated sites for short-listing. The scores assigned to Badgerys Creek on other factors are given in Figure 6.2 of the Draft EIS.

The other four comments making cost comparisons between sites refer to the proposed Wilton site. The Wilton site is stated to be more expensive than other sites in the areas of cut-and-fill (reflected in a fairly high site preparation cost); access (Wilton has in fact the second lowest access related cost of all of the nominated sites); and site drainage works, which would be more expensive at Wilton due to the high level of control necessary for catchment protection.

Despite some areas of capital cost in which the proposed Wilton site is more expensive than other sites, in total capital cost it still ranks as the second cheapest site. It should be noted, however, that site ranking for short-listing depended on four factors: environment, access, airport operations and variable capital cost. On the aggregated ranking of these four factors, the proposed Wilton site ranked second while the Badgerys Creek proposed site ranked first.

Criticism of costing methodology

Six submissions made seven comments (274.107, 305.004, 342.012, 385.011, 457.004, 457.026 and 459.004) critical of the costing method used in the short-listing process.

One of these comments suggested that no cost/benefit study had been carried out for the second Sydney airport. Although the formal structure of a cost/benefit analysis was not used, the site ranking matrix utilized contains many of the components of cost/benefit analysis, allowing evaluation to occur in monetary terms where a monetary value is readily defined but also allowing non-monetary evaluation where this is more appropriate. The site ranking matrix therefore provided an effective method of evaluating both monetary and non-monetary costs and benefits of the ten nominated sites.

One comment suggested that acquisition costs for the Wilton site were misrepresented in the Draft EIS due to other factors such as the cost of acquisition of access corridors and the costs of development on the site. These cost components are considered under access related costs and site preparation costs respectively. The acquisition costs given in Appendix B were based on unit costs and usage in June 1985.

Two comments criticized the costs given for the two short-listed sites and suggested that a more detailed costing for these sites should have been presented. At the stage of detailed consideration of the two short-listed sites, further attention was paid to the costs of agricultural production lost from the site, costing of road and rail works required for site access, and details of earthworks required for site preparation, although this information is given in terms of volume rather than of cost. Land acquisition costs cannot be finally determined until the conclusion of negotiations with landholders. For all other costs, the costs used in the short-listing process were considered sufficient for the purposes of preparation of the Draft EIS. More detailed cost estimation will be made at the stage of detailed design.

The Department of Defence noted that, if Badgerys Creek were chosen the Bringelly Remote Receiver Station would need relocation before airport construction commenced rather than mid way through construction as assumed in the exercise. The change makes little difference to the figures.

APPENDIX H DRAFT SCHEDULE OF CONDITIONS, PROVIDED BY THE METROPOLITAN WATER SEWERAGE AND DRAINAGE BOARD, APPLICABLE TO THE CONSTRUCTION, OPERATION AND MAINTENANCE OF AN AIRPORT AT WILTON

Five submissions made six separate comments relating to the application of conditions to construction of the second Sydney airport at the proposed Wilton site. These comments could be further categorized into three main issues:

- . adequacy of protection measures;
- . location of the facility within the catchment area;
- . value of water resource.

These issues are discussed below.

Adequacy of protection measures

Three submissions (250.007, 292.008 and 338.007) related to protection measures that would be applied during construction and operation of the proposed airport should the Wilton site be selected for airport development.

Four comments sought confirmation that effective run-off and pollution control measures would be applied. They wanted more than 'assurances' and suggestions that the application of stringent measures would be sufficient. Two comments referred to the measures applied to the Maldon-Dombarton rail link. The sedimentation and pollution control measures required by the Metropolitan Water Sewerage and Drainage Board, and included in Appendix H, constitute very stringent control measures requiring not only the construction of a complete run-off containment system and progressive rehabilitation works, but also allowing the Board complete supervisory power over the method and staging of all works, parking of plant and stockpiling of materials prior to the completion of the perimeter canal system, and over all works, plant and materials outside the perimeter canal system following its completion. In addition, the Department of Aviation is required to comply with any restrictions or requirements imposed by the Board relating to ground surface disturbance, scrub or tree cutting and removal, clearing, burning off and any other activities affecting the catchment area. These measures would be enforced by the Board.

The fifth comment in this category noted that no schedule of conditions from the Metropolitan Water Sewerage and Drainage Board similar to that applicable to the proposed Wilton site is included for Badgerys Creek. This is because the proposed Badgerys Creek site does not lie within a Metropolitan Water Supply catchment area, as does the Wilton site, nor does it drain into any classified waterways. However, as stated in Section 10.2.3 of the Draft EIS, any effluent or run-off discharged from the Badgerys Creek site would need to conform with the requirements set out in Clause 16 of the Clean Waters Act, 1970, which prohibits the pollution of any waters.

Location of the facility within the catchment area

One submission made two separate comments (361.005 and 361.006) suggesting that location of the second Sydney airport within a water catchment area is contrary to the policy of the Metropolitan Water Sewerage and Drainage Board, and might set a precedent which would encourage other authorities to attempt to use the catchment area.

Planning and design of the second Sydney airport at the proposed Wilton site has been carried out in consultation with the Metropolitan Water Sewerage and Drainage Board, and stringent controls have been imposed by the Board to ensure that the functioning of the Sydney water supply system would not be compromised should this site be selected. In addition, the Department of Aviation has undertaken to comply with any further

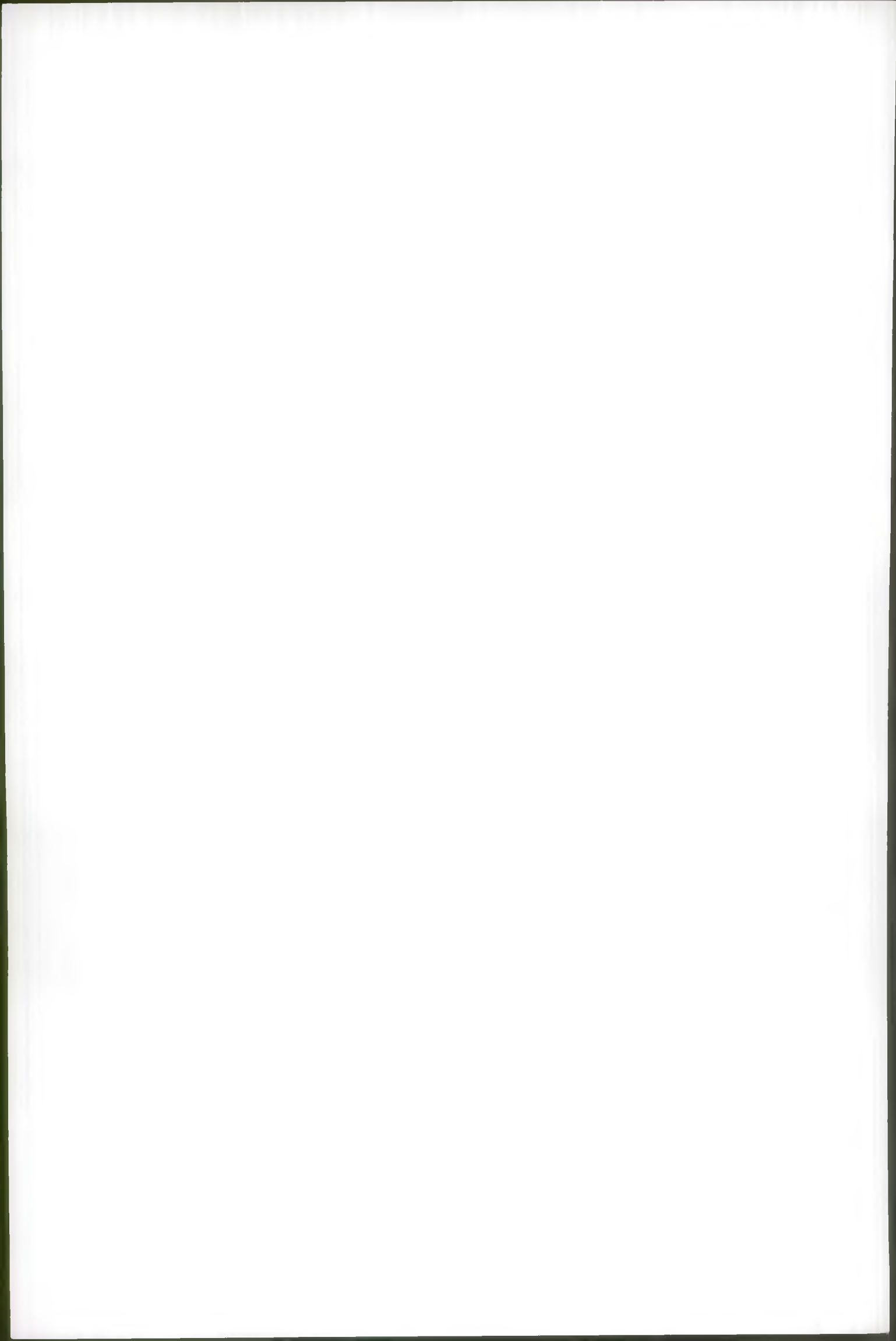
directions from the Board aimed at protection of the Sydney water supply. Such requirements act as a considerable disincentive to other authorities which may consider location in the area, as well as accomplishing their primary purpose of catchment protection.

The second point is that the proposed location of the second Sydney airport within the catchment area cannot in any sense be considered a precedent when a number of developments, including several roads, the Moomba-Sydney natural gas pipeline, a 330 kV transmission line, a low voltage transmission line with several branches, and the Maldon-Dombarton railway line, already pass through the catchment area. The mining of coal from beneath the catchment is another use which has been established in the Metropolitan Catchment area for some time.

Value of the water resource

One submission (274.079) commented that the Draft EIS failed to consider the opportunity costs to the community if part of the water catchment area is rendered useless by the second Sydney airport site.

The Metropolitan Water Sewerage and Drainage Board has estimated the monetary cost of water lost to the Board as \$23,600 per annum, for which annually reviewed compensation should be paid to the Board. The proposed airport site occupies an area of 1,440 ha, of which about 1,245 ha lies within the Metropolitan Catchment. In terms of the total catchment area this is an insignificant amount of land, and the loss of water resource available from this land surface is not considered to significantly affect the function of the catchment area in supplying the water required by the population of Sydney.



APPENDICES TO THE SUPPLEMENT

APPENDIX 1 — SUMMARY OF PUBLIC SUBMISSIONS

This section contains a list of all submissions received by the Department of Aviation up to 6 September, presented alphabetically by author. The list is divided into a number of columns which identify:

- . the author(s) of the submission;
- . the address of the author(s) (suburb or locality only);
- . the submission and comment number, consisting of two parts. The whole number refers to the submission and the decimal to the comment within the submission. For example, comment number 57.006 is the sixth comment in submission number fifty-seven;
- . the summary of comments made in each submission;
- . the number of the Draft EIS section which most closely relates to the comment made in the submission;
- . the Supplement page reference where the Department of Aviation has responded to the comment. The page numbering of the Supplement follows consecutively on that of the Draft EIS, starting at page 621.

A certain amount of subjective judgement is inevitable in the analysis of the submissions and their division into comments. Some quite short submissions raised a number of issues and a comment in such case may relate to a single sentence. In other cases a comment may represent the summary of pages of discussion on a single issue. As some submissions were repetitive or returned to an issue previously dealt with, the comment numbers do not always strictly follow the order of the submission. In each case, however, an attempt has been made to ensure that the point of the argument has been reflected in the comment summary and has been responded to. Where a particular comment relates to more than one section of the Draft EIS the comment has been repeated and given a separate number for each section.

Where a number of submissions were received from the same author these have been considered together and given one number, the comment numbers proceeding through the several submissions in the order in which they were received by the Department of Aviation. However, since submissions were numbered as they were received, sometimes several submissions from the same author were given separate numbers; when submission numbers were checked against authors' names, those authors with more than one number were allocated a single number to include all their submissions. As a consequence, some numbers were not allocated to any submission; these appear as blank numbers at the end of the list.

Where a number of submissions have been received from the same address but with different signatures they have been considered as separate submissions.

More than half of the submissions were of the type termed proforma. That is, a number of submissions were received with identical wording but different signatures. Each proforma has been treated as a separate submission whether it was a photocopy of a

printed document or handwritten. Eight different proformas were received, with the number of copies of each ranging from three to 117. One of each type received has been termed the 'model' and its comments are listed in Appendix 1 in the normal fashion. Later copies of the same type are listed by author, but for the summary of comments the reader is referred to the model.

In each section of the Supplement the number of submissions (including proforma) relevant to that section is given. The submission numbers are listed but in the case of proformas only the model number is quoted.

Where the same person has sent an original submission and a proforma these have been given a single submission number. Similarly where the same person has submitted more than one proforma type these have been given one number and the reader referred to the relevant models for comments.

Where identical submissions have been lodged with various recipients, such as the Department of Arts, Heritage and Environment, the Department of Aviation, the Minister for Aviation, and so on, these have been considered as one submission.

In one instance the report of one consultant was included as part of their submission by three separate groups. These are treated in Appendix 1 in the same fashion as a proforma submission. That is, the report is summarised under the listing for one group only, in this case that of the Hawkesbury/Nepean/Georges Rivers Anti-Airport Committee (264). Under the other listings, readers are referred to this entry for the summary of comments.

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
Adams, G & S	Luddenham	235.001	Prefers Wilton for second Sydney airport	17.1	756
Adams, G & S		235.002	If Badgerys Creek selected, only fair solution would be to resume all properties within the 25 ANEF contours, and above	9.2	674
Adams, G & S		235.003	Badgerys Creek site is far too heavily populated for airport development	9.8	688
Affected Families around Badgerys Creek Airport	Greendale	345.001	Opposed to airport at Badgerys Creek	17.1	756
Affected Families around Badgerys Creek Airport		345.002	Removal of General Aviation and commuters from Kingsford-Smith Airport, combined with effects of larger aircraft, would remove need for second Sydney airport	1.4	630
Affected Families around Badgerys Creek Airport		345.003	Costs of airport construction and costs of land and facilities for access, should be considered in Draft EIS as well as acquisition costs	APPENDIX B	767
Affected Families around Badgerys Creek Airport		345.004	How much further land would be acquired, other than the acquisition site?	10.4	696
Affected Families around Badgerys Creek Airport		345.005	Nineteen hundred hectares of productive agricultural land would be sterilized, and noise would affect viability of neighbouring livestock enterprises	9.7	685
Affected Families around Badgerys Creek Airport		345.006	The noise contours are inaccurate, as no consideration of the low ambient noise level of Badgerys Creek is included - night levels in rural areas need to be studied	9.2	674
Affected Families around Badgerys Creek Airport		345.007	Nepean River Valley might be noise-trap, causing sounds to resonate	9.2	674
Affected Families around Badgerys Creek Airport		345.008	What would happen if the site were only reserved and never built on, with respect to zoning restrictions, compensation?	9.8	688
Affected Families around Badgerys Creek Airport		345.009	Would land within 20 ANEF contour be sterilized? Who would bear cost?	9.8	688

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
Affected Families around Badgerys Creek Airport		345.010	Residents using tank water have no guarantee that only a small quantity of pollutants would reach the ground	10.2	692
Affected Families around Badgerys Creek Airport		345.011	Social effects of planning blight on Badgerys Creek citizens should be seriously considered	9.1	668
Affected Families around Badgerys Creek Airport		345.012	The acquisition programme should extend to the 20 ANEF contour, and compensation should take in further areas beyond this	9.2	674
Affected Families around Badgerys Creek Airport		345.013	Draft EIS employment figures not relevant - acquisition of site creates no jobs and there would be an indefinite time-lag before construction	9.6	682
Affected Families around Badgerys Creek Airport		345.014	Rural character of Badgerys Creek area highly valued by residents, in terms both of social links and natural environment	9.8	688
Agland, Kane	Bargo	299.001	Objects to an airport at Wilton	17.1	756
Agland, Kane		299.002	Objects to an airport at Wilton because of noise	14.2	715
Agland, Kane		299.003	Objects to an airport at Wilton because of air pollution and environmental considerations	15.3	739
Agland, Kerry	Bargo	300.001	Considers that development of Kingsford-Smith Airport is the direction to go	1.3	627
Agland, Kerry		300.002	Opposes airport at Wilton	17.1	756
Agland, Kerry		300.003	Protests against noise pollution	14.2	715
Agland, Kerry		300.004	Airport at Wilton would have damaging effect on flora	16.1	749
Agland, Kerry		300.005	Airport at Wilton would have damaging effect on fauna	16.2	751
Agland, R	Bargo	313.001	Opposes airport at Wilton	17.1	756
Agland, R		313.002	Noise pollution would be unacceptable	14.2	715
Agland, R		313.003	Air pollution would be unacceptable	15.3	739
Agland, R		313.004	Too much flora would be destroyed	16.1	749
Agland, R		313.005	Too much fauna would be destroyed	16.2	751
Agland, R		313.006	Access to airport would be too difficult	15.4	742
Agland, R		313.007	Community Access Bus did not visit Bargo for long enough	18.9	761
Anderson, E	Horsley Park	15.000	For summary of comments, see submission no. B, Lave, L	*	*
Anderson, L	Horsley Park	22.000	For summary of comments, see submission nos B, Lave, L and 267, Clark, J	*	*
Andrich, R	Cecil Park	352.001	Opposes airport at Badgerys Creek	17.1	756
Andrich, R		352.002	Airport would affect large numbers of people in and around Cecil Park, Horsley Park, Mount Vernon and St Johns Park area, who have moved there in the last seven years	9.2	674
Anonymous (name & address supplied)		11.001	Opposed to airport at Wilton	17.1	756
Anonymous (name & address supplied)		11.002	Would pollute water supply, whatever measures were taken	15.2	736
Anonymous (name & address supplied)		11.003	Would change the whole environment west of Wollongong	14.8	725
Anonymous (name & address supplied)		11.004	Concerned about noise pollution	14.2	715
Anonymous (name & address supplied)		11.005	Concerned at loss of value of house	14.2	715
Anonymous (name & address supplied)		296.001	Opposed to airport at Wilton	17.1	756
Anonymous (name & address supplied)		296.002	Airport could have disastrous effects on quality of Sydney's water supply	15.2	736
Anonymous (name & address supplied)		296.003	Concerned for possible loss of valuable wildlife habitat close to city	16.2	751
Arnold, DB	Glenbrook	398.001	Objects to airport at Badgerys Creek	17.1	756
Arnold, DB		398.002	Would disrupt peace and tranquillity of lower Blue Mountains	9.8	688
Arnold, DB		398.003	An airport at Badgerys Creek operating twenty-four hours a day would disturb 200,000 people - the expected population of the Penrith-St Marys-Lower Mountains area by the year 2000	9.2	674
Arnold, DB		398.004	The obvious answer is to extend Kingsford-Smith Airport	1.3	627
Arnold, SM	Glenbrook	323.001	Opposed to airport at Badgerys Creek	17.1	756

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
Arnold, SM		323.002	Atmosphere would be polluted by increased ground as well as air traffic	10.3	693
Arnold, SM		323.003	Objects to increase in noise and is concerned at lack of curfew. Residents value tranquility of area	9.2	674
Arnold, SM		323.004	In an emergency, fuel might be dumped in national park-land and on waterways, even on homes	16.1	749
Arnold, SM		323.005	A plane crashing into Warragamba Dam would be a major disaster	1.3	627
Artyun, R	Bossley Park	101.000	For summary of comments, see submission no. 267, Clark, J	*	*
Attard, E	Horsley Park	157.000	For summary of comments, see submission no. 8, Lave, L	*	*
Attard, J	Horsley Park	51.000	For summary of comments, see submission no. 8, Lave, L	*	*
Attard, S	Cecil Park	45.000	For summary of comments, see submission no. 8, Lave, L	*	*
Austin, K	Badgerys Creek	215.000	For summary of comments, see submission no. 267, Clark, J	*	*
Australian Iron & Steel Pty Ltd	Port Kembla	339.001	Draft EIS does not adequately cover subject of coal sterilization at Wilton site, and ways of minimizing this	15.1	728
Australian Iron & Steel Pty Ltd		339.002	Road modifications required around airport must also permit continued haulage of coal from Appin and Tower Collieries to O'Brien's Drift	15.4	742
Australian Iron & Steel Pty Ltd		339.003	Airport design must accommodate existing effluent disposal system of colliery	15.2	736
Australian Iron & Steel Pty Ltd		339.004	Rail system servicing airport should take into account a possible rail connection between planned future collieries and the Maldon-Dombarton railway	15.4	742
Ayres, L	Bargo	197.001	Opposed to siting airport at Wilton	17.1	756
Ayres, L		197.002	Opposed to siting airport at Wilton because of effects on beautiful countryside, especially around Pheasants Nest and Bargo	15.6	748
Badgerys Creek Anti-Airport Action Group	Badgerys Creek	62.001	Grounds for selection should be which of the two sites affects smaller number of people	17.2	757
Badgerys Creek Anti-Airport Action Group/Don Fox Planning		62.002	For additional comments, see submission no. 264, Hawkesbury/Nepean/Georges Rivers Anti Airport Committee	*	*
Ball, M	Bringelly	376.001	Opposes airport at Badgerys Creek	17.1	756
Ball, M		376.002	Reduction in value of land	9.1	668
Ball, M		376.003	Airport would destroy fauna of area	11.2	703
Ball, M		376.004	Rare species of shrubs at Bents Basin	11.1	702
Ball, M		376.005	Adequate compensation should be made for disturbance	9.2	674
Ball, M		376.006	How are graves and churches in the immediate area going to be moved?	9.5	681
Ball, M		376.007	Biggest dairy in New South Wales is in centre of site	9.1	668
Ball, M		376.008	Biggest dairy in New South Wales is in centre of site	9.7	685
Ball, M		376.009	Draft EIS gives inaccurate count of houses affected	9.1	668
Ball, M		376.010	No compensation for houses outside site	9.2	674
Ball, M		376.011	When would airport be built?	2.5	638
Balla, JR	Wilton	207.001	Ecological value underplayed at Wilton, as area is of high scientific interest	16.2	751
Balla, JR		207.002	Inadequate description of flora as regards rare and endangered species - flora survey methodology not adequately covered	16.1	749
Balla, JR		207.003	Fauna survey inadequate - no mention of broad-headed snake, Hoplocephalus bungaroides. Koalas are also frequently sighted	16.2	751
Balla, JR		207.004	No consideration given in Draft EIS to the effect on the ecology of removal of nesting sites	16.2	751
Balla, JR		207.005	Officers in Community Access Bus biased, no help given with submissions	18.9	761
Balla, JR		207.006	Capacity at Kingsford-Smith Airport could be increased by redirecting General Aviation and commuter traffic elsewhere	1.3	627
Balla, JR		207.007	Details required on fuel storage	13.5	708
Bankstown City Council	Bankstown	57.001	Concerned at effect on local area of road and rail network required for airport	10.4	696
Bankstown City Council		57.002	Concerned at effect on local area of road and rail network required for airport	15.4	742
Bankstown City Council		57.003	Draws attention to possible need to upgrade public transport	10.4	696
Bankstown City Council		57.004	Draws attention to possible need to upgrade public transport	15.4	742
Bankstown City Council		57.005	Concerned at possible effects on Bankstown Airport	1.4	630

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
Bankstown City Council		57.006	Concerned at possible effects on Bankstown Airport	8.6	663
Bargo-Picton Branch, Aust Labor Party	Bargo	377.001	Supports airport at Wilton	17.1	756
Baric, M	St Johns Park	392.000	For summary of comments, see submission no. 267, Clark, J	*	*
Barnsley, B	Bringelly	321.001	Opposed to airport at either Badgerys Creek or Wilton	17.1	756
Barnsley, B		321.002	Intolerable noise levels	9.2	674
Barnsley, B		321.003	Intolerable air pollution	10.3	693
Barnsley, B		321.004	Residents of Badgerys Creek have located there specifically for quiet, rural lifestyle. Second Sydney airport would destroy this	9.8	688
Barnsley, B		321.005	Residents of Wilton have located there specifically for quiet, rural lifestyle. Second Sydney airport would destroy this	14.8	725
Barone, CJ	Horsley Park	1.001	Opposed to airport at Badgerys Creek as it would affect too many people	17.1	756
Barone, CJ		1.002	Large number of homes recently built in Horsley Park extremely affected	9.2	674
Barone, CJ		1.003	Extra runway at Kingsford-Smith Airport would be more cost efficient	1.3	627
Barone, CJ		1.004	Access to Badgerys Creek more costly than to Kingsford-Smith Airport	10.4	696
Barone, CJ		1.005	If Badgerys Creek were made an international airport, how would passengers commute to domestic airport?	2.4	637
Barone, CJ		1.006	Height of aircraft when flying over Truman Road, Horsley Park?	9.2	674
Barone, CJ		1.007	Why was the runway alignment at Badgerys Creek changed?	8.5	662
Barone, CJ		1.008	New flight path would be directly over two primary schools at Horsley Park	9.2	674
Barone, CJ		1.009	Requests more accurate ANEF contours, taking into consideration lower ambient noise levels around Badgerys Creek	9.2	674
Barone, CJ		1.010	What are the noise levels within ANEF contours at night, when ambient noise is less?	9.2	674
Barone, CJ		1.011	Only point favouring Badgerys Creek over Wilton is shorter travel time, and technical progress would soon overcome this	17.2	757
Barone, CJ		1.012	Figure for people affected by 20 ANEF contour not 1,951 as stated in Draft EIS but 2,600 in Horsley Park and Cecil Park areas alone	9.2	674
Barone, CJ		1.013	If runways rotated 10 degrees anticlockwise, noise would affect fewer people at Horsley Park.	9.2	674
Barone, CJ		1.014	Concerned about the protection of European heritage	9.5	681
Barone, CJ		1.015	Loss of produce is \$8.3 million for 3,300 ha of agricultural land at Badgerys Creek	9.7	685
Barone, CJ		1.016	Flight path would be over Prospect Reservoir and so would pollute drinking water	10.2	692
Barone, CJ		1.017	Political motivation, as stated on page 53, influenced the briefing of the Consultants and the writing of the Draft EIS	1.3	627
Barone, CJ		1.018	Lifestyle would be affected	9.2	674
Barone, Dr SJ (Ald.)	Wakely	304.001	Against airport at Badgerys Creek	17.1	756
Barone, Dr SJ (Ald.)		304.002	Would create noise pollution	9.2	674
Barone, Dr SJ (Ald.)		304.003	Would create air pollution	10.3	693
Barone, Dr SJ (Ald.)		304.004	Cheaper sites available	APPENDIX B	767
Barone, Dr SJ (Ald.)		304.005	Suggests that simulated flights by both small and large planes should be flown over neighbouring suburbs during days when a temperature inversion condition exists	9.2	674
Barry, D & A	Horsley Park	43.000	For summary of comments, see submission no. 8, Lave, L	*	*
Bassett, K	Badgerys Creek	108.000	For summary of comments made, in addition to those below, see submission no. 267, Clark, J	*	*
Bassett, K	Badgerys Creek	108.001	Existing facilities should be reorganized for best possible usage. Additional runway and upgraded control facilities at Kingsford-Smith Airport a better solution than second Sydney airport	1.3	627
Bassett, K		108.002	Commuter and other aircraft could operate from Bankstown, and training activity could be moved to make room	1.4	630
Bassett, K		108.003	Increased use should be made of Schofields, and if necessary apprentices should be moved out	1.4	630
Basso, A	Horsley Park	408.000	For summary of comments, see submission no. 267, Clark, J	*	*
Basso, C	Bossley Park	307.000	For summary of comments, see submission no. 267, Clark, J	*	*

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
Basso, L	Bossley Park	119.000	For summary of comments, see submission no. 267, Clark, K	*	*
Basso, M	Horsley Park	406.001	Opposes airport at Badgerys Creek	17.1	756
Basso, M		406.002	Would affect lifestyle	9.2	674
Basso, P	Wetherill Park	212.000	For summary of comments, see submission no. 267, Clark, J	*	*
Basso, P	Bossley Park	417.000	For summary of comments, see submission no. 267, Clark, J	*	*
Basso, S	Wetherill Park	213.000	For summary of comments, see submission no. 267, Clark, J	*	*
Beardwell, Dr R	Wilton	294.001	Very concerned at possible selection of Wilton site	17.1	756
Beardwell, Dr R		294.002	Draft EIS underestimates potential problems associated with pollution of water supply to Sydney if airport sited at Wilton	15.2	736
Beardwell, Dr R		294.003	An extension of services at Kingsford-Smith Airport should be adequate until turn of century	1.3	627
Beardwell, Dr R		294.004	Distance to Wilton a considerable disadvantage	17.2	757
Bell, I & M	Wilton	246.001	Quoted acquisition cost of Wilton site grossly understates true land value	14.1	713
Bell, I & M		246.002	Draft EIS inaccurately estimates numbers of people at Wilton and Badgerys Creek that would be affected by noise	14.2	715
Bell, I & M		246.003	Draft EIS ignores people mildly affected, and those living outside 20 ANEF contour but still feeling effects of noise	14.2	715
Bell, I & M		246.004	Draft EIS gives misleading impression that 20 ANEF contour is an impervious sound barrier	14.2	715
Bell, I & M		246.005	Surveys of community reaction to noise inadequate	14.2	715
Bell, I & M		246.006	Draft EIS fails to justify fully, assignment of certain land uses to certain noise contours	14.2	715
Bell, I & M		246.007	A low level of airport operation would still have a significant noise impact	14.2	715
Bell, I & M		246.008	Draft EIS deliberately plays down noise pollution while playing up employment potential of airport	14.2	715
Bell, I & M		246.009	Estimates of maximum level of employment inaccurate	14.6	722
Bell, I & M		246.010	Draft EIS inadequate and omitted to consider issues in relation APPENDIX A to cost of acquisition, noise, employment, air quality, access, fauna, and television reception.		764
Bell, I & M		246.011	Multipliers largely unaltered from those applicable to Kingsford-Smith Airport	14.6	722
Bell, I & M		246.012	Draft EIS does not consider how long it might take before airport operating at full capacity	2.5	638
Bell, I & M		246.013	Recommends Final EIS deal in more balanced way with topic of employment	14.6	721
Bell, I & M		246.014	Draft EIS does not consider minimum employment levels that might result from second Sydney airport	14.6	722
Bell, I & M		246.015	Increase in air pollution would be greater in Wilton sub-region than for Sydney as a whole	17.2	757
Bell, I & M		246.016	Aircraft movement would increase pollution at Wollongong	15.3	739
Bell, I & M		246.017	Observation period for air drainage patterns too short	15.3	739
Bell, I & M		246.018	Draft EIS incorrect in stating that airport at Badgerys Creek would degrade Sydney's air quality more than airport at Wilton	17.2	757
Bell, I & M		246.019	Descriptions of wind characteristics (at Wilton) in Draft EIS are wrong	15.3	739
Bell, I & M		246.020	No allowance made for traffic associated with airport construction for Wilton site	15.4	742
Bell, I & M		246.021	Final EIS should recommend new access road and reconsider impact on Picton Road and Wilton Road	15.4	742
Bell, I & M		246.022	Present and future status of koala should be more thoroughly examined, and more consideration given to method of successfully moving Wilton colony	16.2	751
Bell, I & M		246.023	Draft EIS fails to examine interference to TV reception arising from airport	14.2	715
Bellambi Coal Co/Combined Mining Unions South Bulli Colliery	Bondi Junction	346.001	Mining of coal under airport site would not be practical	15.1	728
Bellambi Coal Co/Combined Mining Unions South Bulli Colliery		346.002	Wilton airport would have adverse impacts on future operations of West Bellambi project	15.1	728
Bellambi Coal Co/Combined Mining Unions South Bulli Colliery		346.003	To be competitive in the future, Bellambi needs to establish a new wash plant and surface facilities at West Bellambi - in the middle of second Sydney airport site	15.1	728

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Bellambi Coal Co/Combined Mining Unions South Bulli Colliery		346.004	Airport would sterilize 14% of reserves of coal in lease area	15.1	728
Bellambi Coal Co/Combined Mining Unions South Bulli Colliery		346.005	Would significantly affect the economics of West Bellambi project - reduce the life of total Bulli seam resources by 16%, and reduce accessible western reserves by 18%	15.1	728
Bellambi Coal Co/Combined Mining Unions South Bulli Colliery		346.006	Would necessitate acquisition of new mine-surface site area	15.1	728
Bellambi Coal Co/Combined Mining Unions South Bulli Colliery		346.007	Disagrees with the comments in Draft EIS on viability of Balgownie seam	15.1	728
Bellambi Coal Co/Combined Mining Unions South Bulli Colliery		346.008	Company has already purchased site for off-catchment coal preparation plant	15.1	728
Bellambi Coal Co/Combined Mining Unions South Bulli Colliery		346.009	Additional resources, to the west of the South Bulli Lease, would also be sterilized. Site would be lost with second Sydney airport development	15.1	728
Bellambi Coal Co/Combined Mining Unions South Bulli Colliery		346.010	Opposed to airport at Wilton unless certain compensatory measures are provided	17.1	756
Bellambi Coal Co/Combined Mining Unions South Bulli Colliery		346.011	Requests rapid decision on location if company not to be seriously disadvantaged	PREFACE	622
Belshaw, LA & V	Kemps Creek	141.000	For summary of comments, see submission no. 8, Lave, L	*	*
Bergamin, D & J	Horsley Park	25.000	For summary of comments, see submission no. 8, Lave, L	*	*
Bird, N	Wallacia	452.001	Opposed to airport at Badgerys Creek	17.1	756
Bird, N		452.002	Kingsford-Smith Airport adequate for Sydney's needs	1.3	627
Bird, N		452.003	Well established use and excellent city access make expansion of Kingsford-Smith Airport most cost-effective option	1.3	627
Bird, N		452.004	Well established use and excellent city access make expansion of Kingsford-Smith Airport most cost-effective option	1.5	633
Blacktown City Council	Blacktown	422.001	Supports locating airport at Badgerys Creek	17.1	756
Blacktown City Council		422.002	Indirect costs arising from acquisition outside boundary, for road purposes and so on, should be addressed	10.4	696
Blacktown City Council		422.003	Issue of indirect noise impacts needs to be considered, and change in noise patterns at other aerodromes likely to be upgraded, if airport were developed at Badgerys Creek	9.2	674
Blacktown City Council		422.004	Potential sites of archaeological worth outside site boundary should be surveyed	9.4	681
Blacktown City Council		422.005	Net increase in employment in Sydney region appears overstated	9.6	682
Blacktown City Council		422.006	Local councils must play integral part in future regional planning. Department of Planning and Environment should consider future development of North-West Sector with respect to public investment	9.8	688
Blacktown City Council		422.007	Short-term needs of those employed for airport construction should be considered	9.6	682
Blacktown City Council		422.008	Acquisition and construction costs for an inter-urban rail link between airport and city would be exorbitant	10.4	696
Blacktown City Council		422.009	Commitment from Commonwealth to assist in upgrading existing road and rail systems is essential	10.4	696
Blacktown City Council		422.010	Draft EIS does not adequately address extent of mineral sterilization	10.1	691
Blacktown City Council		422.011	Further investigation of likely indirect impacts on vegetation in airport surrounds is required	11.1	702
Blacktown City Council		422.012	Further investigation of likely indirect impacts on wildlife in airport surrounds is required	11.2	703
Blacktown City Council		422.013	Scale and likely nature of reshaping of landscape should be addressed	10.1	691
Blacktown City Council		422.014	City of Blacktown presently falls outside 20 ANEF contour, but later variations to airport or further urban growth could mean need to rezone, and to introduce stringent building requirements	9.8	688

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Blacktown City Council		422.015	Proposed airport would significantly contribute to provision of local employment in region	9.6	682
Blacktown City Council		422.016	Likely cost estimates would need to include relocation of sensitive government establishments	APPENDIX B	767
Blacktown City Council		422.017	Upgrading of Schofields aerodrome may be financially advantageous for Blacktown	1.4	630
Blacktown City Council		422.018	Proximity and ease of access to Sydney region is advantageous for second airport	10.4	696
Blacktown City Council		422.019	Draft EIS fails to address the indirect factors such as regional loss of employment	9.6	682
Blacktown City Council		422.020	Draft EIS fails to address the indirect factors such as effects of siting on operations of other regional airports in terms of noise, traffic, etc.	8.6	663
Blacktown City Council		422.021	Relocation of agricultural activities could cause particular financial hardship	9.7	685
Blacktown City Council		422.022	There might be further loss of agricultural land inside the site area, as an indirect effect of associated development attracted by the airport	9.8	688
Blacktown City Council		422.023	Draft EIS should address cost of minimizing water pollution in South Creek	10.2	692
Blacktown City Council		422.024	The broad-scale transport issues need to be addressed in a regional environmental plan for the whole Sydney region	9.8	688
Blashone, J	St Johns Park	448.000	For summary of comments, see submission no. 267, Clark, J	*	*
Blue Mountains Anti Airport Committee	Glenbrook	330.001	Opposed to airport at Badgerys Creek	17.1	756
Blue Mountains Anti Airport Committee		330.002	Vast majority of Blue Mountains residents find Kingsford-Smith Airport is adequate for their travel purposes, and do not wish for an airport closer to them	1.3	627
Blue Mountains Anti Airport Committee		330.003	Land and housing values affected by airport at Badgerys Creek - no prospect of compensation	9.1	668
Blue Mountains Anti Airport Committee		330.004	Noise would adversely affect elderly and retired, and families	9.2	674
Blue Mountains Anti Airport Committee		330.005	Air pollution would adversely affect residents	10.3	693
Blue Mountains Anti Airport Committee		330.006	Noise pollution understated in Draft EIS - National Acoustics Laboratory survey does not reflect quiet environment of communities like those in the Blue Mountains	9.2	674
Blue Mountains Anti Airport Committee		330.007	Draft EIS gives insufficient weighting to night-time noise annoyance - would cause loss of sleep and trauma	9.2	674
Blue Mountains Anti Airport Committee		330.008	Draft EIS does not show why a twenty-four hour airport is needed	8.3	661
Blue Mountains Anti Airport Committee		330.009	Noise would cause extreme annoyance to residents of Lapstone, Glenbrook, Blaxland East and Mount Riverview	9.2	674
Blue Mountains Anti Airport Committee		330.010	Draft EIS does not consider noise levels below 20 ANEF which still cause annoyance, particularly at night	9.2	674
Blue Mountains Anti Airport Committee		330.011	Warragamba township would be affected by noise of aircraft taking off into westerly wind	9.2	674
Blue Mountains Anti Airport Committee		330.012	Inversion layer would intensify noise	9.2	674
Blue Mountains Anti Airport Committee		330.013	Proximity of airport to Sydney is irrelevant, given its suggested role	10.4	696
Blue Mountains Anti Airport Committee		330.014	Air quality would be affected by aircraft pollution, causing health problems	10.3	693
Blue Mountains Anti Airport Committee		330.015	Pollution would also affect fauna in National Park	10.3	693
Blue Mountains Anti Airport Committee		330.016	Pollution would reduce poultry production	9.7	685
Blue Mountains Anti Airport Committee		330.017	Aircraft crash would create bushfire hazard - endangering life and fauna	8.7	665
Blue Mountains Anti Airport Committee		330.018	Fog and thunderstorms would make Badgerys Creek site prone to accidents, and consequences more serious when aircraft cannot ditch into sea	8.7	665
Blue Mountains Anti Airport Committee		330.019	Emergency fuel dumping in vicinity of Badgerys Creek would create pollution and bushfire hazard	8.7	665

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Blue Mountains Anti Airport Committee		330.020	Blue Mountains district lacks emergency facilities and infrastructure, should aircraft crash occur	8.7	665
Blue Mountains Anti Airport Committee		330.021	Navigational aids would cause interference with TV reception	9.2	674
Blue Mountains Anti Airport Committee		330.022	Proximity of airport to Sydney is irrelevant, given its suggested role	15.4	742
Bonning, PR & CL	Kemps Creek	161.000	For summary of comments, see submission no. 8, Lave, L	*	*
Borg, DY	Horsley Park	146.000	For summary of comments, see submission no. 8, Lave, L	*	*
Borg, M	Address not supplied	109.000	For summary of comments, see submission no. 267, Clark, J	*	*
Borsato, B	Wallacia	366.001	Opposes airport at Badgerys Creek	17.1	756
Borsato, B		366.002	Large number of people seriously affected	9.2	674
Borsato, B		366.003	Value of homes would drop	9.1	668
Borsato, B		366.004	Noise pollution a major concern	9.2	674
Borsato, B		366.005	Not against need for second Sydney airport	1.5	633
Bortallozzo, N	Horsley Park	42.000	For summary of comments, see submission no. 8, Lave, L	*	*
Boskovich, PS	Luddenham	237.001	Cost of acquisition at Badgerys Creek underestimated	9.1	668
Boskovich, PS		237.002	Number of homes to be acquired at Badgerys Creek underestimated	9.1	668
Boskovich, PS		237.003	Relocation would mean loss of vocation for market gardeners and farmers	9.7	685
Boskovich, PS		237.004	Airport would bring increased traffic congestion	10.4	696
Boskovich, PS		237.005	Wilton would affect fewer people	17.2	757
Boskovich, PS		237.006	Decision for Badgerys Creek would be unjust and undemocratic	17.2	757
Botany Bay Sub-Region Community Advisory Committee	Rockdale	359.001	In favour of second airport in Sydney region	17.1	756
Botany Bay Sub-Region Community Advisory Committee		359.002	Airport should be given priority funding for construction	2.5	638
Botany Bay Sub-Region Community Advisory Committee		359.003	Draft EIS gives insufficient attention to environmental impact of increasing usage of Kingsford-Smith Airport	1.6	633
Botany Bay Sub-Region Community Advisory Committee		359.004	Draft EIS does not provide a master plan for Kingsford-Smith Airport	APPENDIX A	764
Botany Bay Sub-Region Community Advisory Committee		359.005	Against a proposal that would increase usage of Kingsford-Smith Airport	2.4	637
Botany Bay Sub-Region Community Advisory Committee		359.006	Rail access to Kingsford-Smith Airport is needed to help alleviate existing problems	10.4	696
Botany Bay Sub-Region Community Advisory Committee		359.007	Congestion at Kingsford-Smith Airport a major problem	1.3	627
Botany Bay Sub-Region Community Advisory Committee		359.008	Study should be conducted dealing with environmental costs attributable to Kingsford-Smith Airport	PREFACE	622
Botany Bay Sub-Region Community Advisory Committee		359.009	High and low passenger figures appear inaccurate	1.2	624
Botany Bay Sub-Region Community Advisory Committee		359.010	Draft EIS does not discuss transportation of fuel to second Sydney airport	15.5	745
Botany Bay Sub-Region Community Advisory Committee		359.011	Although rail connection to Badgerys Creek would not reduce travelling time, it would be preferable to road access from environmental point of view	10.4	696

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Botany Bay Sub-Region Community Advisory Committee		359.012	Draft EIS does not discuss transportation of fuel to second Sydney airport	10.5	698
Botany Independent Action Group	Botany	461.001	Draft EIS is not an environmental study for the development of second Sydney airport, but only a discussion of possible sites	APPENDIX A	764
Botany Independent Action Group		461.002	Draft EIS has not addressed all problems associated with new airport	APPENDIX A	764
Botany Independent Action Group		461.003	Role of second Sydney airport as secondary airport would not resolve the problems of residents around Kingsford-Smith Airport	2.1	635
Botany Independent Action Group		461.004	No concern expressed for people who would be affected	17.2	757
Botany Independent Action Group		461.005	Community Access Centre was not sufficiently publicized	18.2	759
Botany Independent Action Group		461.006	Public opinion has not been extensively canvassed	18.1	759
Boyle, L	Fairfield	238.000	For summary of comments, see submission no. 267, Clark, J	*	*
Boyle, M	Mount Riverview	290.001	Opposes airport at Badgerys Creek	17.1	756
Boyle, M		290.002	Destruction of homes on site a waste	9.1	668
Boyle, M		290.003	Potential pollution of Warragamba Dam a major problem	10.2	692
Boyle, M		290.004	Destruction of valuable agricultural land and associated produce would increase cost of production and hence price	9.7	685
Boyle, M		290.005	Noise levels would be detrimental to livestock at the CSIRO field station	9.7	685
Boyle, M		290.006	Relocating the Overseas Telecommunications Commission radio receiving station would be very costly	APPENDIX B	767
Boyle, M		290.007	Animals at Wilton could rehabilitate themselves in ample bushland, and the Wilton flora is poor compared with that of the Blue Mountains	16.2	751
Boyle, M		290.008	Suggests upgrading Richmond to take interstate traffic	6.4	653
Boyle, M		290.009	At Wilton a lot of pollution from aircraft would be carried out to sea	15.3	739
Boyle, M		290.010	Employment figures are debatable	9.6	682
Bozic, J	Horsley Park	33.000	For summary of comments, see submission no. 8, Lave, L	*	*
Bray, AJ & RJ	Luddenham	221.001	Request to have property included in acquisition area	9.2	674
Brigden, C	Blacktown	266.000	For summary of comments, see submission no. 267, Clark, J	*	*
Brown, G	Fairfield	18.000	For summary of comments, see submission no. 267, Clark, J	*	*
Brown, S	Horsley Park	116.000	For summary of comments, see submission no. 267, Clark, J	*	*
Buchane, JV	Badgerys Creek	60.001	Draft EIS well compiled, comprehensive	PREFACE	622
Buchane, JV		60.002	Concerned about rights of residents to retain properties they have struggled to acquire	9.1	668
Buchane, JV		60.003	Extend Kingsford-Smith Airport - second Sydney airport may never be needed	1.3	627
Buchane, JV		60.004	Worry is affecting health	9.1	668
Buchane, JV		60.005	Concerned about noise	9.2	674
Building Workers' Industrial Union of Australia, NSW Branch	Wollongong	394.001	Supports Wilton site	17.1	756
Building Workers' Industrial Union of Australia, NSW Branch		394.002	Would create continuing employment, badly needed in Illawarra region	14.6	722
Building Workers' Industrial Union of Australia, NSW Branch		394.003	Would not create a nuisance	14.2	715
Building Workers' Industrial Union of Australia, NSW Branch		394.004	Would be readily accessible	15.4	742

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Building Workers' Industrial Union of Australia, NSW Branch		394.005	Modern technology could provide adequate protection of water catchment environment	15.2	736
Building Workers' Industrial Union of Australia, NSW Branch		394.006	Noise would not be major problem at Wilton	14.2	715
Building Workers' Industrial Union of Australia, NSW Branch		394.007	Coal sterilization problem could be overcome by modern technology	15.1	728
CSIRO	Canberra	244.001	Either site would be detrimental to CSIRO's activities, but Wilton is preferable	17.2	757
CSIRO		244.002	Would lose two sites, operated by the Divisions of Animal Production and Animal Health, if Badgerys Creek chosen	9.8	688
CSIRO		244.003	Noise of airport at Badgerys Creek would affect small animals	9.2	674
CSIRO		244.004	Noise of airport at Badgerys Creek would affect small animals	9.7	685
CSIRO		244.005	Staff buildings would be within 25-40 ANEF contours	9.2	674
CSIRO		244.006	Increased pollution would have adverse effect	10.3	693
CSIRO		244.007	Air pollution would affect animals in specific pathogen-free breeding unit	10.3	693
CSIRO		244.008	Could maintain presence if Wilton site chosen	14.8	725
CSIRO		244.009	Occupied buildings at Wilton would be within 20-25 ANEF contours	14.2	715
Cabramatta Branch, Aust Labor Party	Cabramatta	310.001	Supports an airport at Badgerys Creek	17.1	756
Caffyn, L	Luddenham	3.001	Trotting industry ideally situated at Badgerys Creek. Relocation difficult	9.7	685
Caffyn, L		3.002	Town water, needed for trotting establishment, available at Badgerys Creek	10.5	698
Caltex Oil (Aust) Pty Ltd	Sydney	256.001	Draft EIS is set out in impressive and rational way	PREFACE	622
Caltex Oil (Aust) Pty Ltd		256.002	Draft EIS omits description of mode of transport for jet fuel and cost of supply under different options, such as truck or pipeline	10.5	698
Caltex Oil (Aust) Pty Ltd		256.003	Draft EIS omits description of mode of transport for jet fuel and cost of supply under different options, such as truck or pipeline	15.5	745
Caltex Oil (Aust) Pty Ltd		256.004	Cost of pipeline to Badgerys Creek estimated at \$10 million	10.5	698
Caltex Oil (Aust) Pty Ltd		256.005	Cost of pipeline to Wilton estimated at \$19 million	15.5	745
Caltex Oil (Aust) Pty Ltd		256.006	No mention in Draft EIS of number of people who would move into noise-affected areas	9.2	674
Caltex Oil (Aust) Pty Ltd		256.007	No mention in Draft EIS of number of people who would move into noise-affected areas	14.8	725
Caltex Oil (Aust) Pty Ltd		256.008	Supports second Sydney airport at Badgerys Creek	17.1	756
Camden Aero Club	Camden	375.001	Supports airport at Wilton	17.1	756
Camden Aero Club		375.002	Wilton site better, since it is near to Wollongong as well as to Sydney	17.2	757
Camden Aero Club		375.003	Wilton site better, as alternatives of rail or road transport are both available	17.2	757
Camden Aero Club		375.004	Wilton site closer to sea, thus reducing noise nuisance	17.2	757
Camden Aero Club		375.005	Greater ease of expansion at Wilton	17.2	757
Camden Aero Club		375.006	Wilton site cheaper to acquire	17.2	757
Camden Aero Club		375.007	Bankstown and Camden airports able to retain present roles	13.6	709
Camillin, A	Horsley Park	32.000	For summary of comments, see submission no. 8, Lave, L	*	*
Campbelltown City Council	Campbelltown	454.001	Does not feel able to form an opinion on the basis of the level of detail in the Draft EIS	PREFACE	622
Cantrill, L	Silverdale	287.001	Protests at airport siting at Badgerys Creek	17.1	756
Cantrill, L		287.002	Extension of Kingsford-Smith Airport should still be considered	1.3	627
Cantrill, L		287.003	Figures quoted in Draft EIS underestimate people who would be affected by noise	9.2	674

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
Cantrill, L		287.004	What compensation would people receive who are affected by noise, inside and outside the boundary?	9.2	674
Carniato, L	Prairie- wood	214.000	For summary of comments, see submission no. 267, Clark, J	*	*
Carniato, R	Prairie- wood	216.000	For summary of comments, see submission no. 267, Clark, J	*	*
Caronna, C	Kemps Creek	333.000	For summary of comments, see submission no. 8, Lave, L	*	*
Carr, PJ, V, D, KM, Donna and P Jnr	Luddenham	263.001	Opposed to airport at Badgerys Creek	17.1	756
Carr, PJ, V, D, KM, Donna and P Jnr		263.002	Property located within 30-40 ANEF contour, and should be acquired if Badgerys Creek selected	9.2	674
Carr, PJ, V, D, KM, Donna and P Jnr		263.003	Boundary should be redrawn to include safety buffer zone	8.2	661
Cassar, G	Horsley Park	131.000	For summary of comments, see submission no. 8, Lave, L	*	*
Cassar, LF	Badgerys Creek	382.001	Opposes airport at Badgerys Creek	17.1	756
Cassar, LF		382.002	Media coverage of site shows only vacant land and one or two houses - very misleading	18.5	760
Cassar, LF		382.003	Department of Aviation did not interview any of the people in affected area	18.1	759
Cassar, N	Horsley Park	130.000	For summary of comments, see submission no. 8, Lave, L	*	*
Cavanagh, DJ	Sydney	391.001	Draft EIS misleading and makes use of incorrect data	PREFACE	622
Cavanagh, DJ		391.002	Developing a second Sydney airport would not solve the problems of Kingsford-Smith Airport	1.3	627
Cavanagh, DJ		391.003	Long-term costs need to be addressed in Final EIS	1.6	633
Cavanagh, DJ		391.004	Draft EIS ignores the findings of all the major reports dealing with Kingsford-Smith Airport and alternative sites	3.1	639
Cavanagh, DJ		391.005	By reducing numbers of commuter and General Aviation movements, congestion levels would be lowered	1.2	624
Cavanagh, DJ		391.006	Air traffic is declining	1.2	624
Cavanagh, DJ		391.007	Low cost recovery for General Aviation, so why allow them to use Kingsford-Smith Airport	2.4	637
Cavanagh, DJ		391.008	Access to second Sydney airport would involve long ribbon of land resumption and social disturbance at huge cost	9.1	668
Cavanagh, DJ		391.009	Employment figures are inaccurate	9.6	682
Cavanagh, DJ		391.010	Employment figures are inaccurate	14.6	722
Cavanagh, DJ		391.011	Cost return would be greater if Kingsford-Smith Airport were upgraded	1.3	627
Cavanagh, DJ		391.012	Solution to congestion at Kingsford-Smith Airport would be far cheaper than building second Sydney airport, and social cost would be less	1.3	627
Cavanagh, DJ		391.013	A second Sydney airport could be compared to new Brisbane airport as example of over-supply of airport facilities	1.3	627
Cavanagh, Dr DM	Wollongong	340.001	Develops an argument for analysis of second Sydney airport costs in association with related Kingsford-Smith Airport costs, including the social costs	1.3	627
Cavanagh, Dr DM		340.002	Queries need and economics of second Sydney airport as opposed to expansion at Kingsford-Smith Airport - cites 1973 report of Joint Committee on planning Sydney airports	3.1	639
Cavanagh, Dr DM		340.003	Costs of access have not yet even been considered	15.4	742
Cavanagh, Dr DM		340.004	Draft EIS not adequate on social costs of access corridor	15.4	742
Cavanagh, Dr DM		340.005	Inappropriate subsidization received by General Aviation - particularly in cost recovery area	1.4	630
Cavanagh, Dr DM		340.006	New cost recovery policy would force General Aviation to make fuller use of the appropriate aerodromes in Sydney region	1.4	630
Cavanagh, Dr DM		340.007	Increased use of larger aircraft would reduce runway usage for estimated passenger demand	1.2	624
Cavanagh, Dr DM		340.008	Criticizes job estimates - capital would be more efficiently spent if Kingsford-Smith Airport were expanded	14.6	722
Cavanagh, Dr DM		340.009	Suggests that a majority of people in the vicinity of Kingsford-Smith Airport are not troubled by noise - therefore on a social costs basis Kingsford-Smith Airport is a better investment	1.5	633
Cavanagh, Dr DM		340.010	Suggests methods by which Kingsford-Smith Airport could be made more efficient and quieter	1.3	627
Cavanagh, Dr DM		340.011	An airport at Wilton would adversely affect water supply to Sydney	15.2	736
Cavanagh, Dr DM		340.012	Comments adversely on the distance between Wilton and the city centre	15.4	742

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
Cavanagh, Dr DM		340.013	Any change in conservation policy in catchment area would adversely affect water quality	15.2	736
Cavanagh, Dr DM		340.014	Loss of trees within Wilton site would affect soil moisture levels - erosion and siltation effects	15.1	728
Cavanagh, Dr DM		340.015	Subsidence from coal mining would be a problem	15.1	728
Cavanagh, Dr DM		340.016	Geological stability/earthquake threat	15.1	728
Cavanagh, Dr DM		340.017	Cost of cut-and-fill in sandstone excessive	15.1	728
Cavanagh, Dr DM		340.018	High cost of coal sterilization	15.1	728
Cavanagh, Dr DM		340.019	Introduction of rail services to Wilton would not be cost or time effective	15.4	742
Cavanagh, Dr DM		340.020	Airport at Wilton would affect existing aerodrome facilities and airspace	13.6	709
Cavanagh, Dr DM		340.021	Construction works would contaminate water supply	15.2	736
Cavanagh, Dr DM		340.022	Waste disposal in Wilton area expensive	15.2	736
Cavanagh, Dr DM		340.023	Airport run-off contaminated with fuel and other pollutants would find its way into water supply	15.2	736
Cavanagh, Dr DM		340.024	New water and sewerage facilities would be needed at great cost	15.5	745
Cavanagh, Dr DM		340.025	Water supply might be polluted by airport sewage	15.2	736
Cavanagh, Dr DM		340.026	Telephone services need upgrading	15.5	745
Cavanagh, Dr DM		340.027	Community facilities will not be developed because of prospect of second Sydney airport	14.8	725
Cavanagh, Dr DM		340.028	Infrastructure for fuel supply would be expensive	15.5	745
Cavanagh, Dr DM		340.029	There would be strong local opposition to any increase in road traffic from fuel trucks	15.4	742
Cavanagh, Dr DM		340.030	Chance of polluting catchment with fuel during transportation	15.2	736
Cavanagh, Dr DM		340.031	Defoliants would be used to control bird problem	16.2	751
Cavanagh, Dr DM		340.032	Suggests sound-proofing of houses would be needed in vicinity of Wilton - compensation payable	14.2	715
Cavanagh, Dr DM		340.033	The water catchment area is virtually a national park, and as such should not have been considered as a possible airport site	3.6	640
Cavanagh, Dr DM		340.034	Criticizes the selection methodology	4.1	644
Cavanagh, KE	Sydney	385.001	Forecasts based on faulty assumptions	1.2	624
Cavanagh, KE		385.002	Taxpayers' money should not be used to subsidize General Aviation	1.4	630
Cavanagh, KE		385.003	Wilton proposal would affect Sydney's water supply	15.2	736
Cavanagh, KE		385.004	Further runway at Kingsford-Smith Airport more effective way of solving future demand	1.3	627
Cavanagh, KE		385.005	Use of General Aviation aerodromes should be considered as alternative to second Sydney airport	1.4	630
Cavanagh, KE		385.006	Pilots are not in favour of Wilton	17.1	756
Cavanagh, KE		385.007	Site selection criteria questionable	4.4	645
Cavanagh, KE		385.008	Why wasn't Wilton considered in earlier studies?	3.1	639
Cavanagh, KE		385.009	Criticizes site analysis and grouping methods	6.2	650
Cavanagh, KE		385.010	If national parks ruled out, why not Wilton?	3.6	640
Cavanagh, KE		385.011	Critical of costs used for both sites	APPENDIX B	767
Cavanagh, KE		385.012	Noise contours do not accurately represent noise problem, particularly at night	14.2	715
Cavanagh, KE		385.013	Critical of archaeological sampling	14.3	719
Cavanagh, KE		385.014	Draft EIS ignores losses and costs of an airport	14.6	722
Cavanagh, KE		385.015	Disagrees with section of Draft EIS concerning coal	15.1	728
Cavanagh, KE		385.016	Criticizes employment figures	14.6	721
Cavanagh, KE		385.017	Poultry farms in 25 ANEF contour associated with Wilton would be affected	14.7	725
Cavanagh, KE		385.018	Pollution of Allens Creek would affect agriculture downstream	15.2	736
Cavanagh, KE		385.019	Introduces other water quality issues	15.2	736
Cavanagh, KE		385.020	Soil erosion would follow removal of trees from site	15.1	728
Cavanagh, KE		385.021	Use of water catchment area for airport is reversal of State Government policy on use of this area	15.2	736
Cavanagh, KE		385.022	Removal of trees would change soil moisture regime and encourage evaporation	15.1	728
Cavanagh, KE		385.023	Numerous criticisms of Chapter 15, concentrating on damage to catchment and water quality	15.2	736
Cavanagh, KE		385.024	Air quality in Campbelltown and Wollongong would be worsened	15.3	739
Cavanagh, KE		385.025	Considers that the only practical means of access to Wilton is by private vehicle	15.4	742

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Cavanagh, KE		385.026	Impact of relocation work understated	17.2	757
Cavanagh, KE		385.027	Critical of section on landscape and visual quality	15.6	748
Cavanagh, KE		385.028	Pesticides would contaminate water supply	15.2	736
Cavanagh, KE		385.029	Effect of clearing eastern end of long runway understated	16.1	749
Cavanagh, KE		385.030	Study of flora was incomplete	16.1	749
Cavanagh, KE		385.031	Faunal study should have encompassed areas outside airport boundary	16.2	751
Cavanagh, KE		385.032	Fencing of site during construction would be harmful to fauna	16.2	751
Cavanagh, KM	Glenfield	389.001	Opposes a second Sydney airport anywhere, but particularly at Wilton	17.1	756
Cavanagh, KM		389.002	Acquisition costs of Wilton misrepresented in Draft EIS	14.1	713
Cavanagh, KM		389.003	Draft EIS does not mention that Wilton site is in the water catchment area for Sydney, and therefore affects three million people	15.2	736
Cavanagh, KM		389.004	High capital expenditure on traffic access to second Sydney airport would be necessary	15.4	742
Cavanagh, KM		389.005	Analysis determining need for second Sydney airport is wrong	1.2	624
Cavanagh, KM		389.006	General Aviation and commuter traffic increase congestion at Kingsford-Smith Airport. They should pay economic rates for use of airport. This would relieve congestion and make second Sydney airport unnecessary	1.4	630
Cavanagh, KM		389.007	Decline in aircraft movements affects need for second Sydney airport	1.2	624
Cavanagh, KM		389.008	Numbers of transit passengers will decline as hubbing is reduced at Kingsford-Smith Airport	1.2	624
Cavanagh, KM		389.009	Numbers of people employed in General Aviation and commuter very small compared to major airlines	14.6	722
Cavanagh, KM		389.010	Draft EIS ignores specific nature of jobs within aircraft sector. There would continue to be a shortage of licensed aircraft maintenance staff	14.6	722
Cavanagh, KM		389.011	Building second Sydney airport would bring about chronic shortage of trained aircraft workers, with consequent safety problems	14.6	722
Cavanagh, KM		389.012	Only best possible employment figures are discussed in Draft EIS	14.6	721
Cavanagh, KM		389.013	Employment multiplier inaccurate	14.6	722
Cavanagh, KM		389.014	Capital returns due to upgrading Kingsford-Smith Airport better than from second Sydney airport	1.3	627
Cavanagh, KM		389.015	Impact of selection of second Sydney airport on Kingsford-Smith Airport itself	1.3	627
Cavanagh, KM		389.016	Noise near Kingsford-Smith Airport not objected to by residents because it results in cheap housing	14.2	715
Cavanagh, KM		389.017	MANS Study preferred upgrading Kingsford-Smith Airport	3.1	639
Cavanagh, KM		389.018	Suggests need for, and configuration of, a further runway at Kingsford-Smith Airport	1.3	627
Cavanagh, KM		389.019	Suggests compensating owners of residential property near Kingsford-Smith Airport and rezoning certain areas	1.3	627
Cavanagh, KM		389.020	Kingsford-Smith Airport should remain and should be upgraded	1.3	627
Chee, A	Kemps Creek	187.000	For summary of comments, see submission no. 8, Lave, L	*	*
Cheetham, G	Luddenham	303.001	Boundary of his property is also the airport boundary - requests his property be included in acquisition area because of the excessive noise levels	9.2	674
Cini, A	Badgerys Creek	123.000	For summary of comments, see submission no. 267, Clark, J	*	*
Cini, C	Badgerys Creek	122.000	For summary of comments, see submission no. 267, Clark, J	*	*
Cini, M	Badgerys Creek	126.000	For summary of comments, see submission no. 267, Clark, J	*	*
Cini, S	Badgerys Creek	127.000	For summary of comments, see submission no. 267, Clark, J	*	*
Clark, J	Blacktown	267.001	Opposed to airport at Badgerys Creek	17.1	756
Clark, J		267.002	Opposed to twenty-four hour operations in western suburbs	8.3	661
Clark, J		267.003	Opposed to having land values depressed	9.1	668
Claussen, J	Kemps Creek	54.000	For summary of comments, see submission no. 8, Lave, L	*	*
Coir, G	Horsley Park	249.000	For summary of comments, see submission no. 267, Clark, J	*	*
Colusso, S	Horsley Park	50.000	For summary of comments, see submission no. 8, Lave, L	*	*
Combet, J	Erskine Park	67.001	Opposed to airport at Badgerys Creek	17.1	756

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Combet, J		67.002	Concerned at effects on 'Horsley' homestead, which has an 'A' classification from National Trust	9.5	681
Combet, J		67.003	Adverse winds or straying planes would result in serious noise pollution at Erskine Park	9.2	674
Combet, J		67.004	Airport would result in lower land values and higher rates	9.1	668
Combet, J		67.005	Airport would have adverse effects on two high schools and a retirement village nearby	9.2	674
Combet, J		67.006	For summary of additional comments, see submission no. 267, Clark, J	*	*
Comm, R	Horsley Park	129.000	For summary of comments, see submission no. 8, Lave, L	*	*
Community Transport Concern Association	Wollongong East	331.001	Considers value of lost coal production is understated in Draft EIS	15.1	728
Community Transport Concern Association		331.002	Considers planned mine surface facilities in airport site would have serviced many other coal concerns in area	15.1	728
Community Transport Concern Association		331.003	Coal should be mined before airport construction is begun	15.1	728
Community Transport Concern Association		331.004	Final airport design should ensure suitable land still available for West Bellambi mine	13.5	708
Community Transport Concern Association		331.005	Expresses reservations about protection of water catchment area in vicinity of airport at Wilton	15.2	736
Community Transport Concern Association		331.006	Rail access needed from date of opening of second Sydney airport at Wilton, otherwise patronage would be small	15.4	742
Community Transport Concern Association		331.007	Draft EIS overstates benefits to Wollongong. Main employment benefits would go to Macarthur region, and for Wollongong residents access to Kingsford-Smith Airport is almost as quick as access to Wilton	14.6	722
Community Transport Concern Association		331.008	Questions need for a second airport - money might be better spent upgrading Kingsford-Smith Airport, including provision of train service	1.3	627
Cook, CI	Horsley Park	112.000	For summary of comments, see submission no. 267, Clark, J	*	*
Cor Farms Pty Ltd, Niloc Pty Ltd	Sydney	384.001	Inaccuracies regarding Figure 14.8.1, not clearly showing topography of Wilton	CORRIGENDA	**
Cor Farms Pty Ltd, Niloc Pty Ltd		384.002	Draft EIS does not consider environmental effect on region outside airport site	APPENDIX A	764
Corporation for Redevelopment and Employment	Wollongong East	332.001	Supports siting airport at Wilton	17.1	756
Corporation for Redevelopment and Employment		332.002	Only dissenting member against Wilton was Miners' Federation	14.6	722
Corporation for Redevelopment and Employment		332.003	Concerned about sterilization of coal reserves, but considers there are ways around problem	15.1	728
Corporation for Redevelopment and Employment		332.004	Not convinced that water pollution could be contained	15.2	736
Corporation for Redevelopment and Employment		332.005	Concerned about quality of environment in Illawarra area - public relations programme required	16.1	749
Corporation for Redevelopment and Employment		332.006	Suggests additional regional planning that should be undertaken prior to establishment of airport at Wilton	14.8	725
Corporation for Redevelopment and Employment		332.007	Supports siting of airport at Wilton - particularly as it would create jobs	14.6	722
Corrimal Branch, Aust Labor Party	Corrimal	374.001	Supports airport at Wilton	17.1	756
Corrimal Branch, Aust Labor Party		374.002	Advantages of Wilton site would include lower cost of acquisition	17.2	757
Corrimal Branch, Aust Labor Party		374.003	Airport would serve Wollongong and Sydney's south-west	14.8	725
Corrimal Branch, Aust Labor Party		374.004	Would enhance tourism in the region	2.1	635

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Corrimal Branch, Aust Labor Party		374.005	Government contracts should specify minimum number of local labour to be employed in construction	14.6	722
Corrimal Branch, Aust Labor Party		374.006	Would significantly contribute to economic base of Illawarra-Macarthur regions and create employment	14.6	722
Corrimal Branch, Aust Labor Party		374.007	Great community support for airport at Wilton	17.1	756
Corrimal Branch, Aust Labor Party		374.008	Disagrees with Draft EIS regarding quality of coal	15.1	728
Corrimal Branch, Aust Labor Party		374.009	Extraction of coal discussed	15.1	728
Corrimal Branch, Aust Labor Party		374.010	Fewer people would be affected by noise	17.2	757
Corrimal Branch, Aust Labor Party		374.011	Fewer people would be displaced	17.2	757
Corrimal Branch, Aust Labor Party		374.012	Effects on agriculture would be negligible	17.2	757
Cox, PH & IM	Horsley	239.000	For summary of comments, see submission no. 267, Clark, J	*	*
Crocker, B	Fairfield	320.000	For summary of comments, see submission no. 267, Clark, J	*	*
Culalevo, T	Cecil Park	355.000	For summary of comments, see submission no. 352, Andrich, R	*	*
Cuneo, P	Bargo	351.001	Opposes airport at Wilton	17.1	756
Cuneo, P		351.002	Botanical section of Draft EIS very thorough	16.1	749
Cuneo, P		351.003	Wilton site has three times the floral diversity of Badgerys Creek and contains a rare species of fern (Blechnum ambiguum)	16.1	749
Currie, C & J	Cecil Park	10.000	For summary of comments, see submission no. 8, Lave, L	*	*
Dattilo, G	Luddenham	372.001	Opposes airport at Badgerys Creek	17.1	756
Davis, EC	Horsley Park	416.000	For summary of comments, see submission no. 267, Clark, J	*	*
De Aquino, J	Luddenham	252.001	Badgerys Creek unsuitable site because of number of people displaced or adversely affected	17.2	757
De Aquino, J		252.002	People already living within 25 ANEF contour cannot exercise choice	9.2	674
De Aquino, J		252.003	Effects on hospitals and schools already established within 20-25 ANEF contours	9.2	674
De Aquino, J		252.004	If area allowed to develop naturally, long-term employment opportunities would be just as great	9.8	688
De Aquino, Mr & Mrs	Luddenham	82.000	For summary of comments, see submission no. 267, Clark, J	*	*
De Keizer, M	Luddenham	231.001	Critical of service provided by Community Access Bus	18.9	761
De Keizer, M		231.002	All residences situated within zone of unacceptable noise should be acquired	9.2	674
De Keizer, M		231.003	Dubious whether costs of acquisition of affected properties were presented honestly	9.1	668
Debono, L	Horsley Park	55.000	For summary of comments, see submission no. 8, Lave, L	*	*
Debono, M	Horsley Park	56.000	For summary of comments, see submission no. 8, Lave, L	*	*
Decesare, A	Horsley Park	309.000	For summary of comments, see submission no. 267, Clark, J	*	*
Defence, Department of	Canberra	305.001	Views of Department of Defence not fully reflected in Draft EIS	PREFACE	622
Defence, Department of		305.002	Selection of either site would have potential for unacceptable interference with military operations	6.8	658
Defence, Department of		305.003	Negotiations necessary on airspace before Defence could agree to siting or layout in either case	8.6	663
Defence, Department of		305.004	Bringelly Remote Receiver station would need relocation before airport construction commenced at Badgerys Creek	APPENDIX B	767
Defence, Department of		305.005	Kingswood explosives storage facility could not be partly relocated	8.6	663
Defence, Department of		305.006	If relocation of Kingswood is necessary, cost would be \$250 million	APPENDIX B	767
Defence, Department of		305.007	Siting of navigational aids around Badgerys Creek not addressed in relation to Kingswood	8.5	662
Defence, Department of		305.008	Urgent consultation required between Department of Aviation and Department of Defence	18.4	760

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Defence, Department of		305.009	Consultation should take account of the Sydney Region General Aviation Study	18.4	760
Dekatota Trading Company	Wilton	390.001	Opposes second Sydney airport at Wilton	17.1	756
Dekatota Trading Company		390.002	Draft EIS is inaccurate, inconsistent, misinformed and full of omissions	PREFACE	622
Dekatota Trading Company		390.003	Claim of Draft EIS that total cost of Wilton site is only \$1.8 million, because MWS&DB land costs nothing, is false	14.1	713
Dekatota Trading Company		390.004	Catchment area is of a higher order than national parks, which were excluded from selection	15.2	736
Dekatota Trading Company		390.005	A tree preservation order exists within the Shire. This was ignored in Draft EIS	16.1	749
Dekatota Trading Company		390.006	Loss of trees would have disastrous effects on soil moisture and water levels in dams, and would cause soil erosion and siltation of dams and watercourses	15.2	736
Dekatota Trading Company		390.007	Wind data in Draft EIS are wrong	15.3	739
Dekatota Trading Company		390.008	Wind velocity would increase when trees were removed	15.3	739
Dekatota Trading Company		390.009	Unstable nature of Nepean fault and danger of subsidence from coal mining are underestimated	15.1	728
Dekatota Trading Company		390.010	Costs of cut-and-fill at Wilton are higher than at other rejected sites	APPENDIX B	767
Dekatota Trading Company		390.011	Sterilization of coal resources unacceptable	15.1	728
Dekatota Trading Company		390.012	More job losses would result in short term from cessation of mining than would be gained in long term from airport construction	14.6	722
Dekatota Trading Company		390.013	There is no public rail transport system at Wilton and cost of upgrading colliery railways would not be justified	15.4	742
Dekatota Trading Company		390.014	Wilton too far from city centre	15.4	742
Dekatota Trading Company		390.015	Airport at Wilton would interfere with air traffic in area	13.6	709
Dekatota Trading Company		390.016	Preservation of catchment area essential	15.2	736
Dekatota Trading Company		390.017	Waste could not be dumped in catchment area and so waste disposal would be costly	15.2	736
Dekatota Trading Company		390.018	Spilt fuel would pollute water supply	15.2	736
Dekatota Trading Company		390.019	Entire sewerage system would have to be built at cost of \$80 million plus cost of treatment works	15.2	736
Dekatota Trading Company		390.020	Breakdown of or strike in system would endanger health of three million people	15.5	745
Dekatota Trading Company		390.021	Water supply would have to be upgraded to high-pressure mains system	15.5	745
Dekatota Trading Company		390.022	Cost of improving Telecom facilities to airport would cause local towns to have lower priority for improvement	15.5	745
Dekatota Trading Company		390.023	Selection of site would result in capital drain from area	14.6	722
Dekatota Trading Company		390.024	Difficulty of supplying fuel to airport would add to cost	15.5	745
Dekatota Trading Company		390.025	Natural habitats would be destroyed	16.1	749
Dekatota Trading Company		390.026	Compensation to home owners for noise pollution would be higher in areas surrounding Wilton, because it was not suggested as a possible site in earlier studies	14.2	715
Dembey, P	Horsley Park	113.000	For summary of comments, see submission no. 267, Clark, J	*	*
Dent, TF	St Clair	397.001	Favours Wilton site	17.1	756
Dent, TF		397.002	Sees noise affecting quality of life of surrounding area, if Badgerys Creek chosen	9.2	674
Dobell-Brown, F	Kemps Creek	217.000	For summary of comments, see submission no. 8, Lave, L	*	*
Dobrota, R & M	Bossley Park	87.000	For summary of comments, see submission no. 267, Clark, J	*	*
Dodds, DAF	Camden	308.001	Suggests development of Towra Point in preference to Kingsford-Smith Airport	3.6	640
Dodds, DAF		308.002	If Towra Point unacceptable, then Badgerys Creek should be developed as full-scale airport, with north-south and east-west parallel runways, and all Kingsford-Smith Airport operations transferred	1.3	627
Dodds, DAF		308.003	Would relieve 230,000 people around Kingsford-Smith Airport of noise and hazard	1.3	627

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Dodds, DAF		308.004	Purchase more land at Badgerys Creek to reserve for aircraft associated activities and solve noise problem	9.2	674
Dodds, DAF		308.005	Completely upgrade Western Suburbs Distributor and road system around Badgerys Creek	10.4	696
Duffes, R	Merrylands	170.000	For summary of comments, see submission no. B, Lave, L	*	*
Dunn, DR & PM	West St Clair	426.001	Objects to airport at Badgerys Creek	17.1	756
Dunn, DR & PM		426.002	In favour of Wilton site	17.1	756
Dunn, DR & PM		426.003	Many airports to west of Sydney, but none to south	1.4	630
Dunn, DR & PM		426.004	Noise pollution from airport at Badgerys Creek would significantly worsen the quality of life	9.2	674
Dunn, DR & PM		426.005	Access to Wilton is very good, whereas constructing good access to Badgerys Creek would displace many people and disturb historic farming areas	17.2	757
Dunn, DR & PM		426.006	Wilton airport would be of great economic benefit to a depressed sector of Sydney Region	14.6	722
Dunn, DR & PM		426.007	Air pollution from airport at Badgerys Creek would significantly lessen the quality of life	10.3	693
East Woonona Progress Association	Wollongong	425.001	Opposed to airport at Wilton	17.1	756
East Woonona Progress Association		425.002	Opposed to airport at Wilton due to pollution of catchment	15.2	736
East Woonona Progress Association		425.003	Simulate landing by B747 at Wilton, so that residents can assess the noise involved in developing an airport in area	14.2	715
East Woonona Progress Association		425.004	Opposed to airport at Wilton due to coal sterilization	15.1	728
Ebe, E & S	Horsley Park	106.000	For summary of comments, see submission no. 267, Clark, J	*	*
Ebe, S	Horsley Park	21.000	For summary of comments, see submission no. B, Lave, L	*	*
Edmonds, MJ	Emu Plains	387.001	Opposed to Badgerys Creek	17.1	756
Edmonds, MJ		387.002	Fears serious impact on environment from noise	9.2	674
Edmonds, MJ		387.003	Would affect recreation and tourism in the area	9.2	674
Edmonds, MJ		387.004	Considers an airport on coast is the optimum, as it allows take-off and approach paths over the sea	1.3	627
Edmunds, C	Silverdale	219.001	Opposed to airport at Badgerys Creek	17.1	756
Edmunds, C		219.002	Noise and pollution would affect residents of Silverdale	9.2	674
Edmunds, C		219.003	Airport would bring radio and television interference	9.2	674
Edmunds, C		219.004	Choice of Badgerys Creek site would lower property prices	9.1	668
Edmunds, C		219.005	Would adversely affect the peaceful rural lifestyle	9.2	674
Edmunds, C		219.006	Better solution would be to extend Kingsford-Smith Airport	1.3	627
Electrical Engineering, School of	University of Sydney	53.001	Without airport, Fleurs site would be useful into the next century	9.8	688
Electrical Engineering, School of		53.002	Usefulness of Fleurs would cease at commencement of airport construction at Badgerys Creek	9.8	688
Electrical Engineering, School of		53.003	Usefulness of Fleurs would cease when radar or any communications equipment began operation at Wilton	9.8	688
Electrical Engineering, School of		53.004	University of Sydney would seek compensation	9.2	674
Elliott, IC & DA	Horsley Park	14.000	For summary of comments, see submission no. B, Lave, L	*	*
Ellis, L	Horsley Park	17.000	For summary of comments, see submission nos B, Lave, L and 267, Clark, J	*	*
English, Mr & Mrs	Kemps Creek	179.000	For summary of comments, see submission no. B, Lave, L	*	*
Ex-Servicemen's Country Club Holdings Pty Ltd	Austimmer	75.001	Accepts need for second Sydney airport	1.2	624
Ex-Servicemen's Country Club Holdings Pty Ltd		75.002	Stresses need for earliest possible decision on site	PREFACE	622
Fairfield City Council	Fairfield	341.001	Opposed to airport at Badgerys Creek	17.1	756

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
Fairfield City Council		341.002	Draft EIS failed to give adequate information on noise effects, and compensation for property owners	9.2	674
Fairfield City Council		341.003	Draft EIS failed to give adequate information on employment	9.6	682
Fairfield City Council		341.004	Draft EIS did not take into account topographic differences between Badgerys Creek and Kingsford-Smith Airport	17.2	757
Fairfield City Council		341.005	Draft EIS did not consider whether airport's employment capacity was suited to Badgerys Creek or Wilton	17.2	757
Fairfield City Council		341.006	Draft EIS did not give figure for jobs lost by acquisition, as compared with employment gains	9.6	682
Fairfield City Council		341.007	No account taken of reduction of airport employment due to technological advances	9.6	682
Fairfield City Council		341.008	No commitment from Commonwealth on funding of additional roads	10.4	696
Fairfield City Council		341.009	No commitment from Commonwealth on funding of additional services	10.5	698
Fairfield City Council		341.010	Requests that air quality monitoring system should be established by State Pollution Control Commission in Horsley Park area	10.3	693
Fairfield City Council		341.011	Further investigation of possible pollution of Prospect Reservoir by aircraft emissions	10.2	692
Fairfield City Council		341.012	Commitment should be made to complete Smithfield Road corridor and express routes providing link with South Western Freeway	10.4	696
Fairfield City Council		341.013	Low background noise levels likely to extend area of noise nuisance beyond that given in Draft EIS	9.2	674
Fairfield City Council		341.014	Definition of sub-region, for purposes of analysing employment and economic effects, is inadequate. Should include parts of Fairfield and Blacktown	9.6	682
Fairfield City Council		341.015	The economic effects of second Sydney airport, such as its capacity to generate employment, might suit the region well	9.6	682
Fairfield City Council		341.016	Draft EIS did not consider possibility that second Sydney airport might be expanded in the future	8.3	661
Fairfield City Council		341.017	Air pollution might be exacerbated by temperature inversions and calm wind conditions, frequently experienced at Badgerys Creek	10.3	693
Fairfield City Council		341.018	Noise problems might be exacerbated by temperature inversions, frequently experienced at Badgerys Creek. However, management of noise problems appears feasible	9.2	674
Fairfield City Council		341.019	Although airborne pollution from aircraft emissions and increased traffic would be experienced in City of Fairfield, management of these problems appears feasible	10.3	693
Fairfield City Council		341.020	Additional pollution would flow into Sydney area - meteorological effect	10.3	693
Fairfield City Council		341.021	Draft EIS did not mention Smithfield Road, which would provide a route to north-east	10.4	696
Fairfield City Council		341.022	Road network around airport would require major upgrading, and further studies are foreseen	10.4	696
Fairfield City Council		341.023	Rail link to airport major consideration	10.4	696
Fairfield City Council		341.024	Further investigation of possible pollution of Prospect Reservoir by emergency fuel dumping	8.7	665
Fairfield City Council		341.025	This submission also supports comments made by the Horsley Park Protection Co-operative Ltd (submission no. 7)	*	*
Fairfield City Council/Don Fox Planning		341.026	For additional comments, see submission no. 264, Hawkesbury/Nepean/Georges Rivers Anti Airport Committee	*	*
Favara, CA	Luddenham	371.001	Acquisition of property requested, as he is located on airport boundary	9.2	674
Fedele, D	Horsley Park	52.000	For summary of comments, see submission no. 8, Lave, L	*	*
Finch, JR	Lawson	200.001	Supports Badgerys Creek site	17.1	756
Finch, JR		200.002	Supports Badgerys Creek site because main consideration should be distance from centre of Sydney's population, and Badgerys Creek ideal from this aspect	6.6	654
Fletcher, MA	Horsley Park	138.000	For summary of comments, see submission no. 8, Lave, L	*	*
Fletcher, RGC	Horsley Park	181.000	For summary of comments, see submission no. 8, Lave, L	*	*
Foley, E	Bargo	225.000	For summary of comments, see submission nos 223, Greenup, N, 270, Wilson, B, 271, Jenkins, R and 273 Wilton, T	*	*
Foley, H	Bargo	224.000	For summary of comments, see submission nos 223, Greenup, N, 271, Jenkins, R and 273, Wilson, T	*	*
Ford, S	Horsley Park	204.000	For summary of comments, see submission no. 267, Clark, J	*	*
Forner, P & N	Bossley Park	98.000	For summary of comments, see submission no. 267, Clark, J	*	*

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
Foster, BR	Silverdale	72.001	Against airport at Badgerys Creek	17.1	756
Foster, BR		72.002	Lovely area would be affected by noise and other pollution	9.2	674
Fox, BL	Greendale	229.001	Angered at uncertainty and repeatedly changing plans of last eight years for Badgerys Creek	PREFACE	622
Fox, BL		229.002	Angered at lack of compensation for properties within 25-30 ANEF contour	9.2	674
Fox, BL		229.003	Health threat to tank water	10.2	692
Fox, BL		229.004	Implies Badgerys Creek too far out for airport - could only be emergency field	2.1	635
Fox, BL		229.005	Badgerys Creek suffers badly from fog	10.3	693
Fox, BL		229.006	Right of citizen to enjoy what he has worked for	9.1	668
Fox, BL		229.007	Property values already depressed	9.1	668
French, J & M	Cecil Park	49.000	For summary of comments, see submission no. 8, Lave, L	*	*
French, R	Horsley Park	44.000	For summary of comments, see submission no. 8, Lave, L	*	*
French, T	Horsley Park	20.000	For summary of comments, see submission no. 8, Lave, L	*	*
Gailea, J	Horsley Park	160.000	For summary of comments, see submission no. 8, Lave, L	*	*
Gauc, I	Badgerys Creek	132.000	For summary of comments, see submission no. 8, Lave, L	*	*
Gauc, M	Badgerys Creek	133.000	For summary of comments, see submission no. 8, Lave, L	*	*
Gauc, D	Horsley Park	80.000	For summary of comments, see submission no. 267, Clark, J	*	*
General Aviation Association (Aust)	Bankstown	396.001	When site for second Sydney airport is selected, it will be essential to ensure development outside airport boundary is compatible	9.8	688
General Aviation Association (Aust)		396.002	Need to define more rigorously the role envisaged for second Sydney airport	2.1	635
General Aviation Association (Aust)		396.003	Does not accept that a first stage option for a second Sydney airport is to develop a General Aviation airport	1.4	630
General Aviation Association (Aust)		396.004	Second Sydney airport at Badgerys Creek would have serious implications for General Aviation in Sydney region, owing to airspace restraints	8.6	663
General Aviation Association (Aust)		396.005	Bankstown's flying training areas would be eliminated by the airspace requirements of Badgerys Creek - Draft EIS does not clearly define where replacement areas could be located	8.6	663
General Aviation Association (Aust)		396.006	Rejects use of areas south of Camden for flying training	8.6	663
General Aviation Association (Aust)		396.007	Narrow access corridor to Camden considered to have severe implications for air safety	8.6	663
General Aviation Association (Aust)		396.008	Airport at Badgerys Creek would force closure of Hoxton Park, which would place a great burden on Bankstown	8.6	663
General Aviation Association (Aust)		396.009	Camden air traffic would be affected, particularly the gliding sector	8.6	663
General Aviation Association (Aust)		396.010	Schofields would be affected	8.6	663
General Aviation Association (Aust)		396.011	Sydney region airspace would become so complex that much General Aviation would go elsewhere. Bankstown maintenance and service operators might also be affected	1.4	630
General Aviation Association (Aust)		396.012	Accessibility to Bankstown would be constrained and unsafe	8.6	663
General Aviation Association (Aust)		396.013	Refutes notional concept of airspace in Draft EIS	8.6	663
General Aviation Association (Aust)		396.014	Airspace implications of Wilton site less than those of Badgerys Creek	17.2	757

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
General Aviation Association (Aust)		396.015	Second Sydney airport at Wilton would restrict General Aviation access to south coast, but this could be overcome by modifying the restricted airspace at Holsworthy	13.6	709
General Aviation Association (Aust)		396.016	Would close parachuting operations at Wilton	13.6	709
General Aviation Association (Aust)		396.017	Expresses concern about cost recovery implications of second Sydney airport - if initially developed as General Aviation aerodrome, would the aim be to recover cost from General Aviation?	1.4	630
General Aviation Association (Aust)		396.018	No current demand for second Sydney airport to be developed as General Aviation aerodrome	1.4	630
General Aviation Association (Aust)		396.019	Supports close spaced parallel runway at Kingsford-Smith Airport to increase capacity	1.3	627
General Aviation Association (Aust)		396.020	Would object to transfer of commuter and General Aviation to Bankstown or to second Sydney airport	1.4	630
Genovese, M	Prairie- wood	85.000	For summary of comments, see submission no. 267, Clark, J	*	*
Goulburn City Council	Goulburn	459.001	Manner in which sites were selected for short list, and factors and parameters adopted for weighting, give rise to serious doubts about methodology of Draft EIS	6.3	651
Goulburn City Council		459.002	Manner in which sites were selected for short list, and factors and parameters adopted for weighting, give risk to serious doubts about methodology of Draft EIS	6.6	654
Goulburn City Council		459.003	Goulburn site would be best option environmentally	6.3	651
Goulburn City Council		459.004	Goulburn would have very low costs of acquisition and construction	APPENDIX B	767
Goulburn City Council		459.005	Goulburn site would eliminate problem at existing airports of noise disturbance and risk to health	6.3	651
Goulburn City Council		459.006	Goulburn site would eliminate traffic congestion on the road and in the air	6.3	651
Goulburn City Council		459.007	Selection of Goulburn site would provide a viable airport with unlimited potential for expansion	6.3	651
Goulburn City Council		459.008	Selection of Goulburn site would reduce the risk of accidents occurring in densely populated areas	6.3	651
Goulburn City Council		459.009	Goulburn site would serve other major population centres, such as Canberra and Wollongong, and would retain access to Kingsford-Smith Airport for country residents	6.3	651
Goulburn City Council		459.010	Neither of short-listed sites fulfils as satisfactorily as Goulburn, the particular requirements for airport location that Goulburn Council puts forward as being particularly important	6.8	658
Goulburn City Council		459.011	The Department of Aviation failed to consult - either on the options available for access to Goulburn, or on the regional/decentralization benefits of locating an airport at Goulburn	18.4	760
Goulburn City Council		459.012	The Department of Aviation should respond more fully to questions and submissions from the Goulburn City Council	18.8	761
Goulburn City Council		459.013	Requests Public Inquiry as part of site selection process	PREFACE	622
Goulburn City Council		459.014	Draft EIS does not state minimum area considered necessary before a location could be considered as a potential second airport site	4.2	644
Goulburn City Council		459.015	Draft EIS does not state minimum area considered necessary before a location could be considered as a potential second airport site	5.1	647
Goulburn City Council		459.016	No mention made of airport 'buffer' area	9.8	688
Goulburn City Council		459.017	No mention made of airport 'buffer' area	14.8	725
Goulburn City Council		459.018	A nine kilometre grid is too coarse for rigorous analysis of possible airport sites	3.6	640
Goulburn City Council		459.019	What percentage of a nine kilometre square on the grid must be national park, before the whole square is designated national park?	3.6	640
Goulburn City Council		459.020	There is only very limited information on design criteria for runway layouts	8.4	662
Goulburn City Council		459.021	There is only very limited information on design criteria for runway layouts	13.4	708
Goulburn City Council		459.022	Were the same design criteria for runway layouts used as in earlier studies, and why was not mention made of types of cut-and-fill material to be used at each site?	5.1	647
Goulburn City Council		459.023	Terrain clearance limitations queried	3.6	640

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
Goulburn City Council		459.024	Number of people affected by noise queried - also method of assessment of noise nuisance	9.2	674
Goulburn City Council		459.025	Questions justification for the criterion used in short-listing (Figure 3.2), that any potential site should be within an 80 km radius of the Sydney GPO	3.6	640
Goulburn City Council		459.026	There is no indication of the procedures used to identify layouts	5.1	647
Goulburn City Council		459.027	Asks what opportunities exist to review the site selection study	PREFACE	622
Goulburn City Council		459.028	Is role of second Sydney airport to reduce noise effects at Kingsford-Smith Airport?	1.3	627
Goulburn City Council		459.029	Low wind usability will affect role of second Sydney airport	8.3	661
Goulburn City Council		459.030	Low wind usability will affect role of second Sydney airport	13.3	707
Goulburn City Council		459.031	Why would passenger movements at Kingsford-Smith Airport be limited to 11 to 12 million?	4.3	644
Goulburn City Council		459.032	Queries many aspects of site ranking methodology and results	6.6	654
Goulburn City Council		459.033	Raises a number of points concerning the issue of access to Goulburn, and other aspects of the Goulburn site	6.3	651
Goulburn Field Naturalist Society	Goulburn	428.001	Objects to Wilton site	17.1	756
Goulburn Field Naturalist Society		428.002	Suggests reconsideration of MANS study recommendations for Kingsford-Smith Airport and Badgerys Creek	3.1	639
Goulburn Field Naturalist Society		428.003	Loss of water quality is main objection - considers that water treatment works unlikely to remove majority of dissolved contaminants	15.2	736
Goulburn Field Naturalist Society		428.004	Land acquisition cost does not include cost of water treatment works	14.1	713
Goulburn Field Naturalist Society		428.005	Wilton is important as natural bushland - its high ecological value established	16.1	749
Goulburn Field Naturalist Society		428.006	Wilton is important as natural bushland - its high ecological value established	16.2	751
Goulburn Field Naturalist Society		428.007	Coal reserve under proposed site could be worth billions of dollars	15.1	728
Goulburn Field Naturalist Society		428.008	Access to Badgerys Creek is better, and Draft EIS ranking shows Badgerys Creek as preferred site	17.2	757
Gow, Dr LP	Wilton	205.001	Opposed to airport at Wilton	17.2	757
Gow, Dr LP		205.002	Disputes need for second Sydney airport, as total air movements at Kingsford-Smith Airport have been declining since 1980	1.2	624
Gow, Dr LP		205.003	Better solution to redirect commuter and General Aviation to any of smaller airports in Sydney Basin	1.4	630
Gow, Dr LP		205.004	States that no report on Wilton had yet been prepared for the Minister by the Consultants when he announced that Wilton and Badgerys Creek were the short-listed sites	6.8	658
Gow, Dr LP		205.005	States that the Consultants had not visited the Wilton site prior to its short-listing	5.3	648
Gow, Dr LP		205.006	Public information programme unsatisfactory, Community Access Bus not at Wilton when commuters could attend	18.1	759
Gow, Dr LP		205.007	Officers manning Community Access Bus unhelpful	18.9	761
Gow, Dr LP		205.008	Acquisition of Wilton site would create only ninety jobs, and even those not for another ten years	14.6	722
Gow, Dr LP		205.009	Disputes that quality of coal in Wilton area is poor	15.1	725
Gow, Dr LP		205.010	More information needed on forest clearance in water catchment area to meet airport associated needs	15.5	742
Gow, Dr LP		205.011	More details required on fuel storage, and safety measures to prevent ignition from bushfires	13.5	708
Gow, Dr LP		205.012	Would the development of associated industry require further clearing of the catchment area?	14.8	725
Gow, Dr LP		205.013	Draft EIS did not adequately address issue of distance to Wilton. Airline travellers, airport staff and flight crews, would experience big financial and time constraints	15.4	742
Gow, Dr LP		205.014	Choice of Wilton as site would sterilize valuable coal reserves, resulting in the waste of natural resources and a decrease in employment prospects in region	15.1	728
Gow, Dr LP		205.015	Very high environmental cost to Australia of locating airport at Wilton	16.1	749

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
Gow, Dr LP		205.016	Airport would constitute major pollution threat to Sydney's water supply, and would jeopardize all the planning, work, and forward thinking of MWS&DB	15.2	736
Gow, Dr LP		205.017	Even most sophisticated water treatment works would not remove all pollutants, and some would pass into Nepean River system and thence into Sydney's water supply	15.2	736
Gow, Dr LP		205.018	If this water catchment area were polluted, there is no readily available replacement	15.2	736
Gow, Dr LP		205.019	Recent pollution of Georges River illustrates problems associated with water treatment	15.2	736
Gow, Dr LP		205.020	Wilton site is akin to a national park, and should not have been considered	3.6	640
Gow, Dr LP		205.021	Selection of Wilton site would necessitate clearing of 20 square kilometres of virgin forested land	16.1	749
Gow, Dr LP		205.022	Airport at Wilton would threaten many aboriginal sites of archaeological significance	14.3	719
Gow, Dr LP		205.023	Draft EIS misleads public by stating that Tharawal and Illawarra land councils gave conditional approval to proposal	14.4	719
Gow, Dr LP		205.024	Agrees with Draft EIS that insufficient time was set aside for negotiation with Aboriginal communities	14.4	720
Gow, Dr LP		205.025	Asks on what occasion Consultants approached Tharawal and Illawarra land councils and whom they spoke with - discrepancy with views presented to Wilton Airport Resistance Committee	14.4	720
Gow, Dr LP		205.026	Average time taken by Sydney traveller to travel 97 km to Wilton would be 111 minutes	15.4	742
Gow, Dr LP		205.027	One-way taxi fare to Wilton would cost \$80 to \$90	15.4	742
Gow, Dr LP		205.028	International experience shows remote second airports are underutilized, and building them invites criticism for waste of public money	2.1	635
Gow, Dr LP		205.029	If Wilton were selected there would never be a second Sydney airport - it is too far, and the environmental problems are too difficult to overcome.	2.5	638
Graham, J	Douglas Park	453.001	Opposes Wilton as site	17.1	756
Graham, J		453.002	No need for second Sydney airport. Upgrade and extend Kingsford-Smith Airport to cater for Sydney's needs	1.3	627
Graham, J		453.003	No need for second Sydney airport. Upgrade and extend Kingsford-Smith Airport to cater for Sydney's needs	1.5	633
Graham, J		453.004	Site at Wilton is on water catchment land, which is needed so that future water supply may be assured	15.2	736
Graham, J		453.005	Concerned at effects on flora	16.1	749
Graham, J		453.006	Concerned at effects on fauna	16.2	751
Graham, J		453.007	Utilize Bankstown airport more fully	1.4	630
Green, RR	Luddenham	335.001	Objects to Badgerys Creek	17.1	756
Green, RR		335.002	Draft EIS does not conform to the administrative procedures of the Environment Protection (Impact of Proposals) Act 1974-1975	APPENDIX A	764
Green, RR		335.003	Impacts on people outside site boundary have not been addressed	9.2	674
Green, RR		335.004	Discusses objections to public information programme	18.1	759
Green, RR		335.005	Suggests aerial photos used as part of house-count assessment are out of date	18.3	759
Green, RR		335.006	Cost of \$32 million does not take into account fifty - house mismatch discovered March 1985. Estimate of acquisition costs at Badgerys Creek should total \$75 million	9.1	668
Green, RR		335.007	Draft EIS incorrect in stating that site is not serviced by reticulated water	10.5	698
Green, RR		335.008	Airport should be sited where there are fewest people	17.2	757
Greenup, N	Eaglevale	223.001	Opposed to airport at Wilton	17.1	756
Greenup, N		223.002	Adverse effects on water catchment of airport at Wilton	15.2	736
Greenup, N		223.003	Adverse effects on ecology of the area	16.1	749
Greenup, N		223.004	Adverse effects on ecology of the area	16.2	751
Greenup, N		223.005	Adverse social effects on people in the region	14.8	725
Greenup, N		223.006	Distance from Sydney would be a disadvantage of the Wilton site	15.4	742
Greenup, N		223.007	Airlines would not want to duplicate facilities	2.4	637
Greenup, N		223.008	Difficult to justify a new airport - air movements at Kingsford-Smith Airport declining, and fuel and fare increases likely to reduce them further	1.2	624
Greenup, N		223.009	Kingsford-Smith Airport should be extended	1.3	627
Greenup, N		223.010	Severely affected areas around Kingsford-Smith Airport should be resumed/rezoned	1.3	627
Greenup, N		223.011	General Aviation should be dispersed to other airports	1.4	630

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Greenway Federal Electorate Council of Aust Labor Party	Blacktown	348.001	Opposes expansion of Schofields, should Badgerys Creek site be chosen	1.4	630
Grima, A	Horsley Park	151.000	For summary of comments, see submission no. 8, Lave, L	*	*
Grima, C	Horsley Park	30.000	For summary of comments, see submission no. 8, Lave, L	*	*
Grima, CJ	Wetherill Park	31.000	For summary of comments, see submission no. 8, Lave, L	*	*
Grima, F	Horsley Park	152.000	For summary of comments, see submission no. 8, Lave, L	*	*
Grima, Joe	Horsley Park	163.000	For summary of comments, see submission no. 8, Lave, L	*	*
Grima, John	Horsley Park	164.000	For summary of comments, see submission no. 8, Lave, L	*	*
Grima, P	Horsley Park	29.000	For summary of comments, see submission no. 8, Lave, L	*	*
Gruncarski, M	Wetherill Park	247.000	For summary of comments, see submission no. 267, Clark, J	*	*
Hanania, S	St Johns Park	437.000	For summary of comments, see submission no. 267, Clark, J	*	*
Hardy, C	Kemps Creek	71.001	Protests at proposed siting of second Sydney airport at Badgerys Creek	17.1	756
Hardy, C		71.002	Noise, day and night, would have serious effects, including damage to hearing, for people within 25 ANEF plus contours, yet there would be no compensation	9.2	674
Hardy, C		71.003	Air pollution would affect health	10.3	693
Hardy, C		71.004	Few houses, if any, have been built to withstand vibration of such magnitude	9.2	674
Hardy, C		71.005	Queries wisdom of allowing nursing homes to be built in Kemps Creek area	9.2	674
Hardy, C		71.006	Areas newly developed by Land Commission of NSW, like Bossley Park and Wetherill Park would be affected	9.2	674
Hardy, C		71.007	Since airport is to be non-commercial, industry would not follow	9.6	682
Hardy, J	Horsley Park	83.000	For summary of comments, see submission no. 267, Clark, J	*	*
Hardy, P	Kemps Creek	69.001	Objects to second Sydney airport at Badgerys Creek	17.1	756
Hardy, P		69.002	Concerned about noise at Kemps Creek	9.2	674
Hardy, P		69.003	Concerned about air pollution at Kemps Creek	10.3	693
Hardy, P		69.004	Airport could be sited in a national park without affecting ecological balance	3.6	640
Hardy, P		69.005	Lifestyle affected, yet no compensation for people just outside the acquisition boundary	9.2	674
Hawkesbury/Nepean/Georges Rivers AAC/Don Fox Planning	Blacktown	264.001	Draft EIS ignores findings of earlier studies, which indicate option to be preferred would be expansion of Kingsford-Smith Airport	1.3	627
Hawkesbury/Nepean/Georges Rivers AAC/Don Fox Planning		264.002	Only justification offered in Draft EIS for rejecting a widely spaced parallel runway (at Kingsford-Smith Airport) is that it is not politically feasible	1.3	627
Hawkesbury/Nepean/Georges Rivers AAC/Don Fox Planning		264.003	Queries need for second Sydney airport. Total aircraft movements declining	1.2	624
Hawkesbury/Nepean/Georges Rivers AAC/Don Fox Planning		264.004	Commuter and General Aviation will in long term also decline	1.2	624
Hawkesbury/Nepean/Georges Rivers AAC/Don Fox Planning		264.005	A complementary airport strategy, instead of a replacement second Sydney airport, should be investigated	1.3	627
Hawkesbury/Nepean/Georges Rivers AAC/Don Fox Planning		264.006	Secondary airports overseas have not been successful	2.1	635
Hawkesbury/Nepean/Georges Rivers AAC/Don Fox Planning		264.007	Draft EIS study is a deliberate attempt to mislead public on some important aspects	PREFACE	622
Hawkesbury/Nepean/Georges Rivers AAC/Don Fox Planning		264.008	Draft EIS uses worst case for negative environmental factors but best case for employment	9.6	682

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Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.009	No jobs would be created if site merely acquired	9.6	682
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.010	No jobs would be created if site merely acquired	14.6	722
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.011	Jobs would be lost from Kingsford-Smith Airport surrounds, if some airport and airport associated industries were to leave	9.6	682
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.012	Jobs would be lost from Kingsford-Smith Airport surrounds, if some airport and airport associated industries were to leave	14.6	722
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.013	Jobs would be lost when businesses within the acquisition area for the second Sydney airport closed down	9.6	682
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.014	Jobs would be lost when businesses within the acquisition area for the second Sydney airport closed down	14.6	722
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.015	Acquisition area should be larger to allow for expansion of airport	8.3	661
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.016	Property would be acquired at values depressed by years of uncertainty	9.1	668
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.017	Acquisition payments should reflect current market values in comparable areas not affected by uncertainty connected with second Sydney airport	9.1	668
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.018	Areas severely affected by noise should be acquired	9.2	674
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.019	Acquisition costs have been underestimated	9.1	668
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.020	No compensation for planning blight	9.1	668
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.021	No compensation for planning blight	14.1	713
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.022	Acquisition payment would diminish, in real terms, over the course of time taken for settling all claims	9.1	668
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.023	Concerned about expenses currently not allowable in compensation claims	9.1	668
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.024	ANEF contours were based on studies of communities already living in noisy ambient conditions	9.2	674
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.025	ANEF contours were based on studies of communities already living in noisy ambient conditions	14.2	715
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.026	Aboriginal and European heritage was considered only for site itself	9.3	680
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.027	ANEF contours did not take account of site-specific topographic features	9.2	674
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.028	ANEF contours did not take account of site-specific topographic features	14.2	715
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.029	Draft EIS gives insufficient weighting to impact of night-time noise	9.2	674
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.030	Draft EIS gives insufficient weighting to impact of night-time noise	14.2	715

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.031	Draft EIS does not show why second Sydney airport should be curfew-free	8.3	661
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.032	Draft EIS does not show why second Sydney airport should be curfew-free	13.3	707
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.033	Development of site would destroy Aboriginal relics	14.3	719
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.034	Development of site would destroy Aboriginal relics	9.3	680
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.035	European heritage value given very low weighting	9.5	681
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.036	European heritage value given very low weighting	14.5	721
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.037	Economic analysis is insufficient	9.6	682
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.038	Economic analysis is insufficient	14.6	722
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.039	Queries whether both sites would have equal employment generating characteristics	9.6	682
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.040	Queries whether both sites would have equal employment generating characteristics	14.6	722
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.041	Draft EIS should not have assumed employment multipliers currently found at Kingsford-Smith Airport would apply to Badgerys Creek	9.6	682
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.042	Draft EIS should not have assumed employment multipliers currently found at Kingsford-Smith Airport would apply to Wilton	14.6	722
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.043	If presence of second Sydney airport eventually influences location of a very large number of people in west and south west, it could exacerbate employment problems	9.6	682
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.044	Choice of Badgerys Creek site would sterilize clay/shale resources	17.2	757
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.045	Choice of Wilton site would sterilize coal resources	17.2	757
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.046	Agricultural impact likely to be broader than shown in Draft EIS	9.7	685
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.047	Agricultural impact likely to be broader than shown in Draft EIS	14.7	725
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.048	Effect on landscape generally is understated	15.6	748
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.049	Effect on landscape generally is understated	10.6	700
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.050	In emergency, fuel could not be dumped into sea, and so would be potential source of pollution	16.1	749
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.051	In emergency, fuel could not be dumped into sea, and so would be potential source of pollution	13.7	711
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.052	Impact on fauna would not be restricted to site, as suggested by Draft EIS	11.2	703

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Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.053	Impact on fauna would not be restricted to site, as suggested by Draft EIS	16.2	751
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.054	Draft EIS ignores continuing tendency of international airlines to make Melbourne their turn-around base	1.2	624
Hawkesbury/Ne pean/Georges Rivers AAC/Don Fox Planning		264.055	Development of either site would destroy Aboriginal relics	17.2	757
Herhot, HT	Horsley Park	41.000	For summary of comments, see submission no. B. Lave, L	*	*
Higgins, T	Eglinton	59.001	Suggests using Canberra as an international airport in lieu of second Sydney airport	6.8	658
Hill, C	Badgerys Creek	380.001	Opposes airport at Badgerys Creek	17.1	756
Hill, C		380.002	Relocation would mean moving so far out, in order to breed dogs, that husband would have to give up his job	9.1	668
Hill, C		380.003	If they did not relocate, air pollution would affect family's health	10.3	693
Hill, C		380.004	If they did not relocate, noise pollution would affect family's health	9.2	674
Hiroto, R	Horsley Park	418.000	For summary of comments, see submission no. 267, Clark, J	*	*
Hoare, HR	Wilton	195.001	Issue of compensation for those outside the acquisition area	14.2	715
Hoare, HR		195.002	Better solution would be to meet increased demand by using Richmond, Kingsford-Smith Airport and other General Aviation facilities, and transfer Defence facilities elsewhere	1.3	627
Hoare, HR		195.003	Noise contours do not take into account effects of elevation on site	14.2	715
Hoare, HR		195.004	Risk to water supply from pollution	15.2	736
Hoare, HR		195.005	Potential bird hazard to aircraft	16.2	525
Hoare, HR		195.006	Better solution would be to meet increased demand by using Richmond, Kingsford-Smith Airport and other General Aviation facilities, and transfer Defence facilities elsewhere	1.4	630
Hoare, RJT & CA	Wilton	233.001	Air pollution significant on local scale	15.3	739
Hoare, RJT & CA		233.002	Frequency of fog at Wilton high	15.3	739
Hoare, RJT & CA		233.003	Draft EIS did not address effects of noise-induced stress and loss of habitat on important koala colonies at site	16.2	751
Hoare, RJT & CA		233.004	Draft EIS should have considered effects of airport on platypus	16.2	751
Hoare, RJT & CA		233.005	Draft EIS did not detail methods of preventing burrowing species such as wombats from straying onto airport	16.2	751
Hoare, RJT & CA		233.006	Draft EIS did not consider effect of airport noise on bats	16.2	751
Hoare, RJT & CA		233.007	It was indefensible to exclude Somersby from short list of sites and leave Wilton in	6.5	653
Hoare, RJT & CA		233.008	Report on site ranking, referred to by Minister in September 1984, was not even written until November 1984	6.8	658
Hoare, RJT & CA		233.009	Inconsistent to exclude national parks as potential sites while including water catchment areas	3.6	640
Hoare, RJT & CA		233.010	Water Board not consulted until after September 1984	15.2	736
Hoare, RJT & CA		233.011	Protection proposed for catchment area inadequate	15.2	736
Hoare, RJT & CA		233.012	Run-off from tarmac areas should be treated as polluted	15.2	736
Hoare, RJT & CA		233.013	Draft EIS does not address problem of containment of run-off during relocation of Mount Keira Road, and relocation of gas pipeline, transmission line and wastewater line	15.2	736
Hoare, RJT & CA		233.014	Effect of water pollution in Nepean River between Allens Creek and Camden not adequately considered	15.2	736
Hoare, RJT & CA		233.015	Wildlife study limited and may have failed to detect some species	16.2	751
Hoare, RJT & CA		233.016	No attempt to consider effect on wildlife outside airport boundary	16.2	751
Hoare, RJT & CA		233.017	Flocks of birds such as cockatoos would create extremely hazardous conditions	16.2	751
Hoare, RJT & CA		233.018	Methods of bird control not detailed - most methods, such as use of defoliants, incompatible with water catchment site	16.2	751
Hoare, RJT & CA		233.019	'Worst case' scenario would become a reality very quickly at Wilton - at Badgerys Creek it might never occur	17.2	757
Hoare, RJT & CA		233.020	Badgerys Creek the more viable site - and disrupts a relatively small number of people	17.2	757

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
Hoare, RJT & CA		233.021	Airport complementary to Kingsford-Smith Airport would only need short runways, and hence could be located in area closer to Sydney, such as Holsworthy, Richmond or Schofields	2.1	635
Hoare, RJT & CA		233.022	Airport complementary to Kingsford-Smith Airport would only need short runways, and hence could be located in area closer to Sydney, such as Holsworthy, Richmond or Schofields	6.3	651
Hoare, RJT & CA		233.023	Draft EIS should have included some discussion of the search for a third London airport	3.1	639
Hoare, RJT & CA		233.024	Wilton is too far out to become a viable airport	17.2	757
Hoare, RJT & CA		233.025	Query Draft EIS projections for annual aircraft movements - little confidence placed in forecasting	1.2	624
Hoare, RJT & CA		233.026	Growth figures considered artificial, as commuter services are operated in subsidized environment	1.2	624
Hoare, RJT & CA		233.027	Predictions of growth fail to take into account progress in aircraft technology, allowing bigger passenger loads	1.2	624
Hoare, RJT & CA		233.028	Use of smaller aircraft will not increase number of movements, only cost effectiveness of aircraft	1.2	624
Hoare, RJT & CA		233.029	Remoteness of Wilton site would ensure it received only small proportion of Sydney market	17.2	757
Hoare, RJT & CA		233.030	Any improvement in road system would only amplify discrepancy in travel times between Badgerys Creek and Wilton	17.2	757
Hoare, RJT & CA		233.031	Existing airports should first be utilized more fully. Using Wilton simply to supplement Kingsford-Smith Airport would be like having a parallel runway but 90 km away	1.3	627
Hoare, RJT & CA		233.032	Smaller airport complementary to Kingsford-Smith Airport could be closer to Sydney	3.6	640
Hoare, RJT & CA		233.033	Questionable whether second Sydney airport at Wilton would ever receive even 10% of the traffic of Kingsford-Smith Airport	2.1	635
Hoare, RJT & CA		233.034	More information requested on fuel storage	13.5	708
Hoare, RJT & CA		233.035	Refute the air traffic forecasts for Kingsford-Smith Airport	1.2	624
Hogan, H	Bringelly	399.001	Objects to airport in western region of Sydney	17.1	756
Hogan, H		399.002	Is concerned that acquisition payments may be insufficient to relocate at same living standard	9.1	668
Hogan, H		399.003	Local and State Government information was consulted prior to house purchase, but both sources proved incorrect concerning Badgerys Creek	9.8	688
Hogan, H		399.004	Choice of second Sydney airport site has been a cynical political decision that will impose the hardship and injustice of land resumption on many	1.3	627
Hogan, H		399.005	Sydney Region Outline Plan (1968) did not show present short-listed sites as among feasible ones for second Sydney airport	3.1	639
Holmes, G	Mount Riverview	248.001	Airport at Badgerys Creek would adversely affect lifestyle	9.8	688
Holmes, G		248.002	Would increase air pollution in Sydney, especially in the western region	10.3	693
Holmes, G		248.003	Would increase general flow of vehicular traffic in the area	10.4	696
Holmes, G		248.004	Experience of living in Chiswick gives rise to concern over twenty-four hour operation of airport	8.3	661
Holmes, G		248.005	Twenty-five per cent of all flights would pass over his general area, creating considerable noise	9.2	674
Holmes, G		248.006	Wilton would be the better site for second Sydney airport on the basis of lower land acquisition costs	17.2	757
Holmes, G		248.007	Wilton would be the better site for second Sydney airport because it would affect fewer people	17.2	757
Holmes, G		248.008	Wilton would be the better site for second Sydney airport because less agricultural land would be lost	17.2	757
Homfeld, B	Horsley Park	114.000	For summary of comments, see submission no. 267, Clark, J	*	*
Hood, B	Horsley Park	134.000	For summary of comments, see submission no. 8, Lave, L	*	*
Hood, J	Horsley Park	136.000	For summary of comments, see submission no. 8, Lave, L	*	*
Hood, T	Horsley Park	137.000	For summary of comments, see submission no. 8, Lave, L	*	*
Horsley Park Protection Co-operative Ltd	Horsley Park	7.001	Opposed to airport at Badgerys Creek	17.1	756
Horsley Park Protection Co-operative Ltd		7.002	Agrees with wisdom of acquiring land for future airport needs	1.5	633
Horsley Park Protection Co-operative Ltd		7.003	Compliments Department of Aviation on very comprehensive study	PREFACE	622

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
Horsley Park Protection Co-operative Ltd		7.004	Compliments Commonwealth and State Governments for ending uncertainty	PREFACE	622
Horsley Park Protection Co-operative Ltd		7.005	Fears urban blight after site is selected - a vast rural/urban slum could be created	9.1	668
Horsley Park Protection Co-operative Ltd		7.006	Uncertainty of location of 20 ANEF contour - possibility it would include other suburbs with dense population such as the 'Parks' district	9.2	674
Horsley Park Protection Co-operative Ltd		7.007	Claims quoted difference in number of people affected at Badgerys Creek and Wilton is incorrect, because much expensive housing development has occurred at Badgerys Creek since houses were counted	17.2	757
Horsley Park Protection Co-operative Ltd		7.008	Southerly-to-westerly winds and valley contours would alter position of ANEF contours	9.2	674
Horsley Park Protection Co-operative Ltd		7.009	No indication ever given that area would be shared with an airport	3.1	639
Horsley Park Protection Co-operative Ltd		7.010	Areas within the 20-30 ANEF contours should be acquired on moral grounds, but sum involved could not be justified to ratepayers of Australia	9.2	674
Horsley Park Protection Co-operative Ltd		7.011	Airport would affect three schools in area	9.2	674
Horsley Park Protection Co-operative Ltd		7.012	Airport would adversely affect Fairfield District Hospital, at Bossley Park	9.2	674
Horsley Park Protection Co-operative Ltd		7.013	Airport would adversely affect Horsley' homestead	9.5	681
Horsley Park Protection Co-operative Ltd		7.014	Emergency dumping of fuel would affect water quality, especially in Prospect Reservoir	8.7	663
Horsley Park Protection Co-operative Ltd		7.015	Reference in Draft EIS to risk when aircraft approaching over populated areas also applies to Badgerys Creek	8.7	665
Horsley Park Protection Co-operative Ltd		7.016	Kingsford-Smith Airport redevelopment should be undertaken with imagination - no funds available if spent on Badgerys Creek acquisition	1.3	627
Horsley Park Protection Co-operative Ltd		7.017	Fill for Botany Bay runways could be supplied from back-loading on coastal vessels	1.3	627
Horsley Park Protection Co-operative Ltd		7.018	Draft EIS does not address problem of temperature inversions and their effects on noise transmission	9.2	674
Horsley Park Protection Co-operative Ltd		7.019	Claims that 20 ANEF contour unreliable because of lack of input data	9.2	674
Horsley Park Protection Co-operative Ltd		7.020	Figures for employment are questioned	9.6	682
Horsley Park Protection Co-operative Ltd		7.021	Reduction in rates would be accruable to council but costs of road maintenance would not be	9.6	682
Horsley Park Protection Co-operative Ltd		7.022	Blight on land values in areas	9.1	668
Horsley Park Protection Co-operative Ltd		7.023	Acquisition cost is seriously underestimated	9.1	668
Horsley Park Protection Co-operative Ltd		7.024	Reason for second Sydney airport is debatable	1.3	627
Horsley Park Protection Co-operative Ltd		7.025	Commuter activity too high at Kingsford-Smith Airport	1.3	627
Horsley Park Protection Co-operative Ltd		7.026	House population count of areas affected outside boundary are inaccurate	9.2	674

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
Horsley Park Protection Co-operative Ltd		7.027	How does Department of Aviation propose to ensure that Prospect Reservoir would be safeguarded against the effects of any accident stemming from airport development	8.7	665
Hudek, P & A	Greenfield Park	120.000	For summary of comments, see submission no. 267, Clark, J	*	*
Hughes Federal Electorate Council of Aust Labor Party	Menai	383.001	Opposes airport at Wilton	17.1	756
Hutton, RH	Badgerys Creek	107.000	For summary of comments, see submission no. 267, Clark, J	*	*
Illawarra Natural History Society	Keiraville	325.001	Objects to Wilton site being developed as an airport	17.1	756
Illawarra Natural History Society		325.002	Catchment area should be retained for purpose of water catchment - Draft EIS should consider high value of this use	15.2	736
Illawarra Natural History Society		325.003	Removal of water catchment from protection sets undesirable precedent	15.2	736
Illawarra Natural History Society		325.004	Airport construction would result in a deterioration in water quality, and loss of a portion of the water	15.2	736
Illawarra Natural History Society		325.005	Cost of water treatment facility that would be necessary at Wilton, not given sufficient prominence in Draft EIS	APPENDIX B	767
Illawarra Natural History Society		325.006	Airport at Wilton would seriously affect fauna, especially healthy koala communities	16.2	751
Illawarra Natural History Society		325.007	Site of high ecological value because of its undisturbed condition, and situation as a portion of an extensive bushland area - dissection of bushland undesirable	16.1	749
Illawarra Natural History Society		325.008	Development of Wilton would sterilize millions of dollars worth of mineral resources	15.1	728
Illawarra Natural History Society		325.009	Site ranking was incorrect in number of ways - Badgerys Creek is far and above the most favoured site	6.7	657
Illawarra Natural History Society		325.010	Wilton site is of greater archaeological value than Badgerys Creek	17.2	757
Illawarra Natural History Society		325.011	Travel times too great for second airport to be located at Wilton	17.2	757
Illawarra Natural History Society		325.012	First recommendation of MANS Study was for a second runway at Kingsford-Smith Airport. Next, it favoured a second Sydney airport at Badgerys Creek	3.1	639
Irad, E	Kemps Creek	354.000	For summary of comments, see submission no. 353, Fangallo, R	*	*
Italiano, M	Wetherill Park	117.000	For summary of comments, see submission no. 267, Clark, J	*	*
Jackson-Hope, D	Springwood	222.001	Draft EIS has not addressed the alternatives of an additional runway at Kingsford-Smith Airport, or moving General Aviation to Schofields and Camden	PREFACE	622
Jackson-Hope, D		222.002	Draft EIS has not considered impacts of land resumption required for access and other airport related uses	9.1	668
Jackson-Hope, D		222.003	Draft EIS too lengthy, and is therefore very difficult to assess	PREFACE	622
Jackson-Hope, D		222.004	Disposal of quarantined wastes has not been addressed	10.5	698
Jackson-Hope, D		222.005	Disposal of quarantined wastes has not been addressed	15.5	745
Jackson-Hope, D		222.006	Disposal of treated sewage to Hawkesbury-Nepean River system not environmentally acceptable	10.2	692
Jackson-Hope, D		222.007	Disposal of treated sewage to Hawkesbury-Nepean River system not environmentally acceptable	10.5	698
Jackson-Hope, D		222.008	ANEF system based on urban environment and not applicable to rural area	9.2	674
Jackson-Hope, D		222.009	Calls for a Commission of Enquiry to handle objections to proposal at Badgerys Creek	PREFACE	622
Jackson-Hope, D		222.010	Inadequate consideration given to high speed rail as alternative to air travel	1.2	624
Jackson-Hope, D		222.011	Draft EIS did not consider possible pollution of groundwater from sewerage effluent irrigation	10.2	692
Jenkins, R	Woolooware	271.001	Against airport at Wilton	17.1	756
Jenkins, R		271.002	Adverse effects on water catchment of airport at Wilton	15.2	736
Jenkins, R		271.003	Adverse effects on ecology of the area	16.1	749
Jenkins, R		271.004	Adverse effects on ecology of the area	16.2	751

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Jenkins, R		271.005	Airport and inevitable population growth following it would ruin rural lifestyle	14.8	725
Jenkins, R		271.006	Distance from Sydney would add on intolerable increase in travelling time and expense, for passengers and cargo	15.4	742
Jenkins, R		271.007	Connecting flights impossible to organize with present road and rail system	2.4	637
Jenkins, R		271.008	Coal reserve is investment in the future	15.1	728
Jenkins, R		271.009	Increased cost of airport due to construction in a mine subsidence area	15.1	728
Johnson, T	Fairfield	347.000	For summary of comments, see submission no. 267, Clark, J	*	*
Johnston, E	Horsley Park	194.000	For summary of comments, see submission no. 8, Lave, L	*	*
Johnston, F	Horsley Park	193.000	For summary of comments, see submission no. 8, Lave, L	*	*
Johnston, GA	Horsley Park	91.000	For summary of comments, see submission no. 267, Clark, J	*	*
Kellemen, A	Address not supplied	262.000	For summary of comments, see submission nos 223, Greenup, N, 270, Wilson, B, 271, Jenkins, R, and 273, Wilson, T	*	*
Kerfoot, H	Horsley Park	298.000	For summary of comments, in addition to those below, see submission no. 8, Lave, L	*	*
Kerfoot, H		298.001	Opposes airport at Badgerys Creek	17.1	756
Kerfoot, H		298.002	Effects of noise in 20 ANEF contour not believed, expects greater disturbance than indicated	9.2	674
Kerr, BA	Wetherill Park	218.001	Objects to siting airport at Badgerys Creek	17.1	756
Kerr, BA		218.002	Concern for air quality at Badgerys Creek - effect of sea breeze and calms - ideal conditions for temperature inversions, and would be aggravated by night operations	10.3	693
Kerr, BA		218.003	No specific measures for ameliorating air quality have been stated in Draft EIS	10.3	693
Kervroeden, J	Wilton	302.001	Considers use of catchment area for Wilton airport as criminal and a political decision	15.2	736
Kervroeden, J		302.002	Suggests that Draft EIS has glossed over many environmental factors	PREFACE	622
Kilpatric, C	Kingswood	28.000	For summary of comments, see submission no. 8, Lave, L	*	*
Kirk, Young, Kikonyogo-Kuwebwa, Oh, Tsang & Judge	Sydney	337.001	Forecasts questionable - authors argue that extrapolation of trend lines without change in variables is not rigorous enough	1.2	624
Kirk, Young, Kikonyogo-Kuwebwa, Oh, Tsang & Judge		337.002	Runway capacity work too simple	1.3	627
Kirk, Young, Kikonyogo-Kuwebwa, Oh, Tsang & Judge		337.003	Do not agree with argument that second runway at Kingsford-Smith Airport would only defer need for second Sydney airport	1.3	627
Kirk, Young, Kikonyogo-Kuwebwa, Oh, Tsang & Judge		337.004	Statement that General Aviation aerodromes have little scope for expansion is not substantiated	1.4	630
Kirk, Young, Kikonyogo-Kuwebwa, Oh, Tsang & Judge		337.005	The alternative sites are not fundamentally different	17.2	757
Kirk, Young, Kikonyogo-Kuwebwa, Oh, Tsang & Judge		337.006	Site ranking matrix methodology does not cover all the variables	4.4	645
Kirk, Young, Kikonyogo-Kuwebwa, Oh, Tsang & Judge		337.007	Discuss various deficiencies in matrix method - state that matrix is principal means of selecting Wilton and Badgerys Creek	6.6	654
Kirk, Young, Kikonyogo-Kuwebwa, Oh, Tsang & Judge		337.008	Matrix weighting not justified in Draft EIS - inconsistent and subjective	6.6	654
Kirk, Young, Kikonyogo-Kuwebwa, Oh, Tsang & Judge		337.009	Question validity of dividing sites into closer and mid-distance	6.2	650
Kirk, Young, Kikonyogo-Kuwebwa, Oh, Tsang & Judge		337.010	Heavy vehicle emissions on access routes and effects of smell on surrounding land uses not considered	10.3	693
Kirk, Young, Kikonyogo-Kuwebwa, Oh, Tsang & Judge		337.011	Heavy vehicle emissions on access routes and effects of smell on surrounding land uses not considered	15.3	739
Kirk, Young, Kikonyogo-Kuwebwa, Oh, Tsang & Judge		337.012	Dust pollution during construction not mentioned	10.3	693

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Kirk, Young, Kikonyogo- Kuwebwa, Oh, Tsang & Judge		337.013	Relocation of and compensation to displaced population should have been quantified	9.1	668
Kirk, Young, Kikonyogo- Kuwebwa, Oh, Tsang & Judge		337.014	Criticize slight nature of public participation content in production of Draft EIS	18.1	759
Kirk, Young, Kikonyogo- Kuwebwa, Oh, Tsang & Judge		337.015	Criticize Draft EIS for not considering injurious affection	9.2	674
Kirk, Young, Kikonyogo- Kuwebwa, Oh, Tsang & Judge		337.016	Criticize Draft EIS for not considering injurious affection	14.2	715
Kirk, Young, Kikonyogo- Kuwebwa, Oh, Tsang & Judge		337.017	Consideration of effects on local development inadequate	9.6	682
Kirk, Young, Kikonyogo- Kuwebwa, Oh, Tsang & Judge		337.018	Consideration of effects on local development inadequate	14.8	725
Kirk, Young, Kikonyogo- Kuwebwa, Oh, Tsang & Judge		337.019	Suggest 400 Hz power to eliminate use of ancillary power units, and underground fuel lines rather than tankers to reduce noise	10.5	698
Kirk, Young, Kikonyogo- Kuwebwa, Oh, Tsang & Judge		337.020	Suggest 400 Hz power to eliminate use of ancillary power units, and underground fuel lines rather than tankers to reduce noise	15.5	745
Kirk, Young, Kikonyogo- Kuwebwa, Oh, Tsang & Judge		337.021	Long term economic effects on rural industry not covered in Draft EIS	9.6	682
Kirk, Young, Kikonyogo- Kuwebwa, Oh, Tsang & Judge		337.022	Draft EIS preoccupied with archaeology, concerns of Aboriginal people and European heritage, to the detriment of its treatment of economic effects, agriculture, and regional planning and development	9.5	681
Kirk, Young, Kikonyogo- Kuwebwa, Oh, Tsang & Judge		337.023	More detailed investigation into social and economic implications of not extracting existing coal deposits needs to be undertaken	15.1	728
Kirk, Young, Kikonyogo- Kuwebwa, Oh, Tsang & Judge		337.024	Critical of treatment of clay/shale resources at Badgerys Creek	10.1	691
Kirk, Young, Kikonyogo- Kuwebwa, Oh, Tsang & Judge		337.025	Final EIS needs more detail of water treatment methods	15.2	736
Kirk, Young, Kikonyogo- Kuwebwa, Oh, Tsang & Judge		337.026	Draft EIS does not consider water contamination by vehicle emissions	10.2	692
Kirk, Young, Kikonyogo- Kuwebwa, Oh, Tsang & Judge		337.027	Draft EIS does not consider water contamination by vehicle emissions	15.3	739
Kirk, Young, Kikonyogo- Kuwebwa, Oh, Tsang & Judge		337.028	Critical of lack of discussion of lead concentrations in section on air quality	10.3	693
Kirk, Young, Kikonyogo- Kuwebwa, Oh, Tsang & Judge		337.029	Critical of lack of discussion of lead concentrations in section on air quality	15.3	739
Kirk, Young, Kikonyogo- Kuwebwa, Oh, Tsang & Judge		337.030	Inversions need to be assessed	10.3	693
Kirk, Young, Kikonyogo- Kuwebwa, Oh, Tsang & Judge		337.031	Inversions need to be assessed	15.3	739
Kirk, Young, Kikonyogo- Kuwebwa, Oh, Tsang & Judge		337.032	Critical of figures used in Table 10.3.2, page 296	10.3	693
Kirk, Young, Kikonyogo- Kuwebwa, Oh, Tsang & Judge		337.033	Critical of figures used in Table 15.3.2, page 477	15.3	739
Kirk, Young, Kikonyogo- Kuwebwa, Oh, Tsang & Judge		337.034	Effects of higher air pollution levels need to be addressed	10.3	693

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Kirk, Young, Kikonyogo-Kuwebwa, Oh, Tsang & Judge		337.035	Effects of higher air pollution levels need to be addressed	15.3	739
Kirk, Young, Kikonyogo-Kuwebwa, Oh, Tsang & Judge		337.036	Means of safeguarding air quality - such as adequate pollution monitoring - not discussed in Draft EIS	10.3	693
Kirk, Young, Kikonyogo-Kuwebwa, Oh, Tsang & Judge		337.037	Public information programme should be restructured and should elicit and use information from the public	18.1	759
Kirk, Young, Kikonyogo-Kuwebwa, Oh, Tsang & Judge		337.038	In their conclusions, generally critical of the whole Draft EIS	PREFACE	622
Kirk, Young, Kikonyogo-Kuwebwa, Oh, Tsang & Judge		337.039	Relocation of and compensation to displaced population should have been quantified	14.1	713
Kirk, Young, Kikonyogo-Kuwebwa, Oh, Tsang & Judge		337.040	Dust pollution during construction not mentioned	15.3	739
Knowozyk, H	Horsley Park	100.000	For summary of comments, see submission no. 267, Clark, J	*	*
Knox, J	Douglas Park	362.001	Opposes airport at Wilton	17.1	756
Knox, J		362.002	No need for second Sydney airport - readjustment of Kingsford-Smith Airport would solve problem of congestion	1.3	627
Knox, J		362.003	Decline of aircraft movements	1.2	624
Knox, J		362.004	Commuter and General Aviation to be moved out of Kingsford-Smith Airport	1.4	630
Knox, J		362.005	Destruction of flora a major concern	16.1	749
Knox, J		362.006	Destruction of faunal habitat a major concern	16.2	751
Knox, J		362.007	Quality of water supply could not be guaranteed and cost to purify is not accurate	15.2	736
Knox, J		362.008	Pollution of river system a major concern	15.2	728
Knox, J		362.009	Draft EIS does not state the significance of catchment area to the National Estate	14.5	721
Knox, J		362.010	Draft EIS does not outline effects of polluting water supply	15.2	736
Knox, J		362.011	Draft EIS does not consider groundwater pollution	15.2	736
Knox, J		362.012	Draft EIS does not state that Wilton was previously rejected on environmental grounds	3.1	639
Knox, J		362.013	The coal resource that would be sterilized equates to mine-employment for 300-400 men for about twenty-five years	15.1	728
Knox, J		362.014	Draft EIS understates significance of coal mines	15.1	728
Knox, J		362.015	Wilton site has several fault lines	15.1	728
Knox, J		362.016	Wilton site would suffer from many fogs	15.3	739
Knox, J		362.017	Wilton site would suffer from bird strikes	16.2	751
Knox, J		362.018	Wilton site would suffer from bushfire smoke	13.3	707
Knox, J		362.019	Cost of relocating existing facilities understated	APPENDIX B	767
Knox, J		362.020	No airline would want to duplicate facilities	2.4	637
Knox, J		362.021	Employment opportunities grossly overstated	14.6	722
Knox, J		362.022	No mention in Draft EIS that some airlines do not want another airport	2.4	637
Knox, J		362.023	Distance-time factor underestimated for Wilton	15.4	741
Knox, J		362.024	Cost of construction at Wilton exceeds that at Badgerys Creek site	17.2	757
Knox, J		362.025	No consideration given in Draft EIS to the question of where airport users live	10.4	696
Knox, J		362.026	Intending passengers would not want to use trains in preference to private vehicles	15.4	742
Knox, J		362.027	Catchment land significant to Aboriginal people	14.4	719
Krix, E	Wallacia	196.001	Opposed to both airport sites as they are both within catchment of Nepean River	17.1	756
Krix, E		196.002	Opposed to both airport sites as they are both within catchment of Nepean River	15.2	736
Krix, E		196.003	Under certain weather conditions, air pollution would not disperse but accumulate in the Nepean and Warragamba Valleys	10.3	693
Krix, E		196.004	Products of combustion and unburnt fuel or dumped fuel could affect people, water, vegetation, crops, dairy cattle, milk, etc.	10.3	693

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
Krix, E		196.005	Noise propagation affected by weather conditions and hills	9.2	674
Krix, E		196.006	Regulations covering water quality might not be adhered to	10.2	692
Krix, E		196.007	Existing airport, if modified, would be adequate if population remains at reasonable level	1.3	627
Krix, E		196.008	Second airport is expected to bring in overseas money, but it would not give much benefit to man in the street	9.6	682
Krix, E		196.009	Money would be better spent on improving air and water quality	1.3	627
Krix, E		196.010	Health and television reception are affected by radar	9.2	674
Kyriakos, F	St Johns Park	445.000	For summary of comments, see submission no. 267, Clark, J	*	*
Laird, PG	Keiraville	334.001	Objects to airport at Wilton	17.1	756
Laird, PG		334.002	Draft EIS has not proved need for second airport	1.3	627
Laird, PG		334.003	Considers Kingsford-Smith Airport should be developed further	1.3	627
Laird, PG		334.004	New General Aviation airport might be needed	1.4	630
Laird, PG		334.005	Suggests that savings in travel time and transport costs would soon account for price difference between Wilton and Badgerys Creek	17.2	757
Laird, PG		334.006	Opposes Wollongong Chamber of Commerce's support for Wilton site, which would not provide employment in near future	14.6	722
Laird, PG		334.007	Compares Wilton to situation at Montreal, where little use is made of Mirabel airport	2.1	635
Lave, L	Horsley Park	8.001	Cost of acquisition of Badgerys Creek not justified	9.1	668
Lave, L		8.002	Accepts need for selection of site for second Sydney airport	3.7	642
Lave, L		8.003	In favour of acquiring Wilton site	17.1	756
Lave, L		8.004	Kingsford-Smith Airport should be expanded and redesigned	1.3	627
Lave, L		8.005	This submission also supports comments made by the Horsley Park Protection Co-operative Ltd (submission no. 7)	*	*
Leach, A	Wilton	277.001	Gravely concerned at proposed siting of airport at Wilton	17.1	756
Leach, A		277.002	Lifestyle affected	9.2	674
Leach, A		277.003	Most sensible and feasible decision would be to extend and upgrade Kingsford-Smith Airport	1.3	627
Leach, A		277.004	Wilton is too far from Sydney	15.4	742
Leach, A		277.005	Wilton is too valuable environmentally for use as airport site	16.2	751
Leach, A		277.006	Implies choice of Wilton would involve loss of valuable coal and associated employment	15.1	728
Lebusque, M	Badgerys Creek	283.001	Opposed to airport at Badgerys Creek	17.1	756
Lebusque, M		283.002	Draft EIS does not mention that three cemeteries are located within airport site	9.5	681
Lebusque, M		283.003	Community Access Bus was not available at times when people returning from work at a late hour could attend	18.9	761
Lebusque, M		283.004	Compensation should be available to businesses in area already suffering	9.2	674
Lebusque, M		283.005	Relocation hard on older people	9.1	668
Lebusque, M		283.006	Community Access Bus should have been manned also by officers from Department of Local Government and Administrative Services	18.9	761
Lebusque, M		283.007	Should be some compensation for descendants of district's pioneers, for loss of family heritage	9.2	674
Lee, D	Horsley Park	77.000	For summary of comments, see submission no. 267, Clark, J	*	*
Leen, L	Badgerys Creek	125.000	For summary of comments, see submission no. 267, Clark, J	*	*
Leisure Coast Tourist Assoc	Wollongong	58.001	Supports airport at Wilton	17.1	756
Leisure Coast Tourist Assoc		58.002	Would have beneficial effect on local economy, attracting employment and tourism	14.6	722
Lewin, LR	Mount Drutt	201.001	Opposed to airport at Badgerys Creek	17.1	756
Lewin, LR		201.002	Noise would affect populated areas of western Sydney, despite measures to minimize it	9.2	674
Lewin, LR		201.003	Hazardous to operate aircraft over large populated areas	8.7	665
Lewin, LR		201.004	Preferable to look for site elsewhere, or to extend Kingsford-Smith Airport	3.6	640
Lewis, A	Pheasants Nest	228.000	For summary of comments, see submission nos 223, Greenup, N, 270, Wilson, B, 271, Jenkins, R, and 273, Wilson, T	*	*
Liverpool City Council	Liverpool	458.001	Is opposed to an airport at Badgerys Creek, and endorses the submissions made by the Hawkesbury/Nepean/Georges River Anti-Airport Committee and the Badgerys Creek Anti-Airport Group	17.1	756

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Liverpool City Council		458.002	Disadvantages to Liverpool community from airport would outweigh advantages, and Council would suffer a loss of income	9.8	688
Liverpool City Council		458.003	Noise from airport would severely affect urban development at Penrith and St Marys as well as non-urban areas around the site	9.2	674
Liverpool City Council		458.004	Airport might require relocation of Kingswood Central Ammunitions Depot	9.8	688
Liverpool City Council		458.005	Airport would interfere with General Aviation airports in the south-west zone. Much activity would need to be relocated	8.6	663
Liverpool City Council		458.006	Airport would adversely affect property values	9.1	668
Liverpool City Council		458.007	Significant clay/shale resource would be lost if airport were located at Badgerys Creek	10.1	691
Liverpool City Council		458.008	Acquisition cost of Badgerys Creek site was understated	9.1	668
Lolmans ?, A	Horsley Park	284.000	For summary of comments, see submission no. 267, Clark, J	*	*
Lombard, V & V	Horsley Park	192.000	For summary of comments, see submission no. 8, Lave, L	*	*
Longley, M & R	Silverdale	368.001	Oppose airport at Badgerys Creek	17.1	756
Longley, M & R		368.002	Prospect of airport has been hanging over residents for at least fifteen years	PREFACE	622
Longley, M & R		368.003	Times of visits by Community Access Bus were inconvenient for most people	18.9	761
Longley, M & R		368.004	Why has development around possible sites been permitted?	3.7	642
Longley, M & R		368.005	Government should spend money on social welfare and education, not on airports	1.3	627
Longley, M & R		368.006	Upgrading and better organization of traffic at Kingsford-Smith Airport a logical solution	1.3	627
Longley, M & R		368.007	Compensation to people outside boundary should be made	9.2	674
Lotorto, V	Kemps Creek	180.000	For summary of comments, see submission no. 8, Lave, L	*	*
Luddenham Agricultural & Horticultural Show Society	Luddenham	315.001	Opposes siting of an airport at Badgerys Creek	17.1	756
Luddenham Agricultural & Horticultural Show Society		315.002	Opposes the acquisition of Luddenham Showground, which an airport would eventually entail	9.1	668
Lukic, B	Wetherill Park	121.000	For summary of comments, see submission no. 267, Clark, J	*	*
Lumsden, P	Blaxland	312.001	Opposes airport at Badgerys Creek	17.1	756
Lumsden, P		312.002	Areas shown on the map as inside ANEF contours too small, not realistic	9.2	674
Lumsden, P		312.003	There is a lack of frankness about the aircraft noise problem at the proposed site	9.2	674
Lumsden, P		312.004	Wilton better alternative, as it has few people	14.8	725
Lumsden, P		312.005	High speed rail link would inevitably be needed	15.4	742
Lumsden, P		312.006	Technical staff would be recruited from all over Australia and other staff from all parts of metropolitan area, so few local employment benefits	9.6	682
Lumsden, P		312.007	Considers that main support for airport at Badgerys Creek comes from a group representing narrow business interests	18.6	760
Lumsden, P		312.008	Wilton better alternative, as acquisition costs would be much lower	17.1	756
Lynch, J	Bringelly	367.001	Opposes airport at Badgerys Creek	17.1	756
Lynch, J		367.002	Population affected is too numerous to site airport in area	9.1	668
Lynch, J		367.003	Population affected is too numerous to site airport in area	17.1	756
Lynch, J		367.004	Travelling time to airport is not of more importance than is disruption to people	10.4	696
Lynch, J		367.005	Wilton is preferable site because destruction of natural habitats is better than disrupting human life	17.2	757
Lynch, J		367.006	Compensation should be made to people outside boundary	9.2	674
Magri, T	St Johns Park	447.000	For summary of comments, see submission no. 267, Clark, J	*	*
Manning, KS	Cecil Park	356.000	For summary of comments, see submission no. 353, Pangallo, R	*	*
Manninof, P	Cecil Park	363.000	For summary of comments, see submission no. 352, Andrich, R	*	*
Mansueto, L	Horsley Park	159.000	For summary of comments, see submission no. 8, Lave, L	*	*
Mansueto, M	Horsley Park	162.000	For summary of comments, see submission no. 8, Lave, L	*	*
Marshall, R	South Penrith	450.001	Opposed to airport at Badgerys Creek	17.1	756

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Marshall, R		450.002	Concern expressed about noise levels at Penrith	9.2	674
Marshall, R		450.003	Objects that the date of decision has been extended so often	PREFACE	622
Marshall, R		450.004	Draws attention to frequency of fogs in Badgerys Creek area	10.3	693
Marshall, R		450.005	Upgrade and extend Kingsford-Smith Airport, and then there would be no need for second Sydney airport	1.5	633
Marshall, R		450.006	Wilton site preferable to Badgerys Creek	17.1	756
Martignago, G	Horsley Park	185.000	For summary of comments, see submission no. 8, Lave, L	*	*
Martin, D	Bargo	257.001	Opposed to development of Wilton site	17.1	756
Martin, D		257.002	Wilton is not a good site because of extra cost of landfill	17.2	757
Martin, D		257.003	Wilton is not a good site because of the risk of water pollution in a large catchment area	17.2	757
Martin, D		257.004	Wilton is an unacceptable distance from Sydney	15.4	742
Martin, D		257.005	Wilton lacks hospital facilities and any effective means of public transport in case of disaster	13.7	711
Martin, D		257.006	There would be a significant risk of adding to the incidence of serious bushfires	12.3	705
Martin, D		257.007	Environmental factors are numerous which would affect a population well beyond local residents, and should exclude development at Wilton	14.8	725
Martin, D		257.008	Ninety-five per cent of residents are against airport development at Wilton	18.6	760
Martin, D		257.009	Justify need for second Sydney airport, and decision not to expand Kingsford-Smith Airport	1.3	627
Martin, SP (M.P.)	Corrimal	243.001	Supports choice of airport site at Wilton	17.1	756
Martin, SP (M.P.)		243.002	Twenty-four hour airport needed in Sydney region	13.3	707
Martin, SP (M.P.)		243.003	Comments on perceived role	2.1	635
Martin, SP (M.P.)		243.004	Cites several advantages of Wilton: - cheaper - few people affected by acquisition - few people affected by noise - minimal effect on agriculture	17.2	757
Martin, SP (M.P.)		243.005	Although Wilton further from city centre than Badgerys Creek, it would easily serve south western region of Sydney	17.2	757
Martin, SP (M.P.)		243.006	High speed rail link and upgraded road network would aid in solving access problems from city centre	15.4	742
Martin, SP (M.P.)		243.007	Support voiced by major organizations	17.1	756
Martin, SP (M.P.)		243.008	Township of Wilton should not be adversely affected by the airport	14.8	725
Martin, SP (M.P.)		243.009	Urban sprawl will engulf rural communities in southern Sydney Region, whether airport is built or not	14.8	725
Martin, SP (M.P.)		243.010	Major employer - need for diversification in employment in the south western region	14.6	722
Martin, SP (M.P.)		243.011	Would stimulate tourism in region, increasing capital inflow and employment	14.6	722
Martin, SP (M.P.)		243.012	Widespread community support	18.6	760
Martin, SP (M.P.)		243.013	Suggests water protection proposals in Draft EIS could be used successfully - cites colliery system located within water catchment area	15.2	736
Martin, SP (M.P.)		243.014	Coal sterilization real problem, but there are ways around it	15.1	728
Martin, SP (M.P.)		243.015	Economic advantages outweigh environmental effects	14.6	722
Marts, R	Badgerys Creek	124.000	For summary of comments, see submission no. 267, Clark, J	*	*
Masland, D	Unanderra	361.001	Opposes airport at Wilton	17.1	756
Masland, D		361.002	Second Sydney airport should not be located in the water catchment area	15.2	736
Masland, D		361.003	Possibility of aircraft accidents in the water catchment area	13.7	711
Masland, D		361.004	Possibility of fuel pollution in the water catchment area	13.7	711
Masland, D		361.005	Second Sydney airport located in the catchment area is contrary APPENDIX H to the MWS&DB policy of exclusion		770
Masland, D		361.006	Would set a precedent that would encourage other authorities to attempt to use the catchment area	APPENDIX H	770
Masland, D		361.007	Catchment area is virtually a national park, and this character would be adversely affected by selection as airport site	3.6	640
Masland, D		361.008	Natural reserves of the calibre of the catchment are rare in New South Wales - it needs preservation	16.1	749

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Masland, D		361.009	Several species of fauna have been missed in Draft EIS	16.2	751
Masland, D		361.010	Koala, which is an endangered species, would be affected by the loss of habitat	16.2	751
Masland, D		361.011	Several endangered bird species would be affected by loss of habitat	16.2	751
Masland, D		361.012	Koalas within the site are disease-free	16.2	751
Masland, D		361.013	Koalas would be at risk if relocated	16.2	751
Masland, D		361.014	Removal of forest would affect air quality	15.3	739
Masland, D		361.015	Further clearing needed for emergency access roads	16.1	749
Masland, D		361.016	Lopping of trees in approach path would break the natural vegetation cover and allow the introduction of exotic species - fauna would also be affected	16.1	749
Masland, D		361.017	Base case for air pollution is incorrect - Wilton has cleaner air than Badgerys Creek	15.3	739
Masland, D		361.018	Noise pollution would affect the residents of Wilton	14.2	715
Masland, D		361.019	A second Sydney airport at Wilton would not attract patronage for a long time	2.5	638
Masland, D		361.020	Extensive cut-and-fill would be required at Wilton	15.1	728
Masland, D		361.021	No cost placed on water collection system around the airport boundary	APPENDIX B	767
Masland, D		361.022	Considering other cost factors, such as access costs, Wilton might become a marginal case on economic grounds	APPENDIX B	767
Masland, D		361.023	Job opportunities would not be the panacea for Wollongong's employment problems	14.6	722
Masland, D		361.024	Either site could create job opportunities	17.2	757
Masland, D		361.025	Jobs needed now, not in year 2000	14.6	721
Masland, D		361.026	Why has Bankstown a higher daily traffic rate than Kingsford-Smith Airport?	1.4	630
Masland, D		361.027	Why not develop other Sydney-based airports	1.5	633
Masland, D		361.028	With improved capacity elsewhere and more nationalized development and better management procedures at Kingsford-Smith Airport, the need for a second Sydney airport disappears	1.3	627
Masland, D		361.029	Higher user charges at Kingsford-Smith Airport would force operators to use other airports	1.4	630
Masland, D		361.030	Use Nowra for Armed Services operations and devote Richmond to civil aviation	1.4	630
Masland, D		361.031	Concerned at sterilization of coal reserves, if second Sydney airport at Wilton	15.1	728
Masland, D		361.032	Relocation of Mount Keira Road would be expensive, adding to Wilton development cost	15.5	745
Masland, D		361.033	River system and water catchment would be polluted by aircraft emissions	15.3	739
Masland, D		361.034	Flora would be affected by aircraft emissions	16.1	749
Masland, D		361.035	Wilton environmentally unacceptable	6.8	658
Masland, D		361.036	Wilton more expensive in terms of access	17.2	757
Masland, D		361.037	Wilton more expensive to operate and develop	17.2	757
Masland, D		361.038	Cheaper to acquire but more expensive in long term and in relation to water supply and natural heritage	17.2	757
Masland, D		361.039	Airport would have less detrimental effect on natural environment if placed in an area that is already partially degraded, and where urban growth is at all events bound to come shortly	16.1	749
Masland, D		361.040	If airport not constructed, Wilton would retain its rural character as long as area remains a water catchment	14.8	725
Masland, D		361.041	Wollongong does not need proximity of an airport to attract tourists, but better promotion of the City's unique features	2.1	635
Masland, D		361.042	If some other Sydney airport were enlarged to complement Kingsford-Smith Airport, passengers in transit could be catered for by a service of large helicopters	1.4	630
Masland, D		361.043	As an alternative, suggests siting the airport offshore, and disposing of Wollongong's industrial waste by making use of it as fill	3.6	640
Matthews, D	Luddenham	322.001	Opposes airport at Badgerys Creek	17.1	756
Matthews, D		322.002	Located in 30 ANEF contour, not inside boundary - concerned that land would not be acquired, and no compensation would be payable	9.2	674
Maynell, JE & LM	Wilton	208.001	Opposed to airport at Wilton	17.1	756
Maynell, JE & LM		208.002	Residents of Bargo and Yanderra would be directly under flight path	14.2	715

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Maynell, JE & LM		208.003	Fifty MT of coal lost to Australian economy if Wilton chosen	15.1	728
Maynell, JE & LM		208.004	Draft EIS understates effects of aircraft emissions and airport maintenance on water catchment	15.2	736
Maynell, JE & LM		208.005	Jobs generated by a cargo airport would be about eighty-four, not 10,500 as stated in Draft EIS	14.6	722
Maynell, JE & LM		208.006	Relocation of transmission line and gas pipeline would further encroach into catchment	15.5	745
Maynell, JE & LM		208.007	Existing airport facilities can be made to meet future needs	1.3	627
Maynell, JE & LM		208.008	Deplores destruction of Australian environmental heritage	16.1	749
McDonald, J & R	Canley Vale	253.001	Object to second Sydney airport at Badgerys Creek	17.1	756
McDonald, J & R		253.002	Financial burden of new airport plus infrastructure would be strain on economy	1.6	633
McDonald, J & R		253.003	Developing Kingsford-Smith Airport would be much more economic than second Sydney airport	1.3	627
McDonald, J & R		253.004	Noise-affected residents around Kingsford-Smith Airport built or bought in full knowledge that they were located close to airport	1.3	627
McDonald, J & R		253.005	Area around Badgerys Creek only land close to city suitable for small farming	9.7	685
McDonald, J & R		253.006	Taking Army purchases of prime land into account, Commonwealth will soon create shortage of land suitable for agriculture	9.7	685
McDonald, J & R		253.007	Choice of Wilton would cause much less trauma and affect far fewer people and their lifestyles	17.2	757
McDonald, J & R		253.008	Noise would affect Fairfield residents	9.2	674
McLean, K	Bringelly	419.001	Opposed to airport at Badgerys Creek	17.1	756
McLean, K		419.002	Airport would destroy valued lifestyle	9.2	674
McLean, M	Bringelly	420.001	Opposes airport at Badgerys Creek	17.1	756
McLean, M		420.002	Level of noise pollution underestimated, as Badgerys Creek enjoys low background noise levels	9.2	674
McLean, M		420.003	Why is there no acquisition for people in intensive noise area outside boundaries?	9.2	674
Meador, B	Horsley Park	13.000	For summary of comments, see submission no. 8, Lave, L	*	*
Meeks, A	Wilton	430.000	For summary of comments, see submission nos 223, Greenup, N, 270, Wilson, B, 271, Jenkins, R and 273, Wilson, T	*	*
Meeks, PJ	Wilton	202.001	Opposes selection of a site for a second Sydney airport	17.1	756
Meeks, PJ		202.002	MWS&DB catchment area highly important as a buffer	16.1	749
Meeks, PJ		202.003	At least one additional site should have been studied	6.8	658
Meeks, PJ		202.004	Criteria for site selection should be reconsidered in light of low growth rate of NSW aviation	4.3	644
Meeks, PJ		202.005	Artificial growth in commuter and General Aviation due to subsidized operations	1.2	624
Meeks, PJ		202.006	Development of Sydney's already existing facilities and/or Richmond preferred	1.3	627
Meeks, PJ		202.007	Development of Sydney's already existing facilities and/or Richmond preferred	3.6	640
Meeks, PJ		202.008	Development of Sydney's already existing facilities and/or Richmond preferred	1.4	630
Meeks, PJ		202.009	Wilton is an area prone to major bush fires	12.3	705
Meeks, PJ		202.010	Contamination of catchment water far more difficult to avoid than Draft EIS suggests	15.2	736
Meeks, PJ		202.011	Class 'S' waters a very valuable resource. Purity would be threatened by wastes from aircraft both on site and in the air, and also from the concentration of people and motor vehicles	15.2	736
Meeks, PJ		202.012	Coal resources are not of poor quality as suggested in the Draft EIS	15.1	728
Meeks, PJ		202.013	Effects on flora would extend well beyond site boundaries	16.1	749
Meeks, PJ		202.014	Effects on fauna would extend well beyond site boundaries	16.2	751
Meeks, PJ		202.015	Value of land at Wilton greatly underestimated - no consideration of non-monetary values	14.1	713
Meigan, D & K	St Johns Park	440.000	For summary of comments, see submission no. 267, Clark, J	*	*
Meteorology, Bureau of	Melbourne	386.001	Meteorological data in Draft EIS are inadequate	10.3	693
Meteorology, Bureau of		386.002	Figure 15.3.2 suggests wind measurements for Wilton were made at Picton - leads to uncertainty in conclusions drawn from data	15.3	739
Meteorology, Bureau of		386.003	Figure 10.3.2 suggests winds were measured at 9 a.m. only - leads to uncertainty in conclusions drawn from data	10.3	693

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
Meteorology, Bureau of		386.004	Calculation of noise levels takes into account only air traffic intensity, not meteorological conditions	9.2	674
Meteorology, Bureau of		386.005	Calculation of noise levels takes into account only air traffic intensity, not meteorological conditions	14.2	715
Meteorology, Bureau of		386.006	Meteorological discussion in air quality section contains oversights and inaccuracies	10.3	693
Meteorology, Bureau of		386.007	Meteorological discussion in air quality section contains oversights and inaccuracies	15.3	739
Meteorology, Bureau of		386.008	Statements show misunderstanding of effects of mixing layer	10.3	693
Meteorology, Bureau of		386.009	Statements show misunderstanding of effects of mixing layer	15.3	739
Mezey, D	Horsley Park	9.000	For summary of comments, see submission no. 8, Lave, L	*	*
Mezey, J	Horsley Park	405.001	Opposed to Badgerys Creek site	17.1	756
Mezey, J		405.002	Rapidly growing suburbs of Bossley Park, Wetherill Park and Horsley Park would all be affected by noise	9.2	674
Mezey, J		405.003	Property prices blighted by airport	9.1	668
Mezey, J		405.004	Resistance of Kingsford-Smith Airport residents to second runway illustrates problems	1.3	627
Miletic, M	St Johns Park	446.000	For summary of comments, see submission no. 267, Clark, J	*	*
Milisenin ?, M	Horsley Park	149.000	For summary of comments, see submission no. 8, Lave, L	*	*
Mills, C	Luddenham	314.001	Opposes airport at Badgerys Creek	17.1	756
Mills, C		314.002	As a fourth generation resident of district, and now nearing retiring age, feels he faces impossible task relocating	9.1	668
Mills, C		314.003	Airport and airport associated roads, buildings and traffic would spoil many kilometres of peaceful rural land	9.8	688
Mills, C		314.004	Second Sydney airport should be sited where it would affect fewest people	17.2	757
Mills, K	Woonona	240.001	Concerned at possible choice of Wilton	17.1	756
Mills, K		240.002	Building airport at Wilton would involve largest single destruction of native vegetation since the nineteenth century	16.1	749
Mills, K		240.003	The site is situated in the Woronora catchment area and this could have serious consequences on the quality of water from this area	15.2	736
Mills, K		240.004	Area significant as wildlife habitat. Airport would decrease the area available	16.2	751
Mills, K		240.005	Relocation of powerlines, gas lines and roads would disturb greater area and destroy more vegetation	16.1	749
Mills, K		240.006	Northern Wollongong would be affected by aircraft flying over at all hours of night	14.2	715
Mills, K & W	Horsley Park	40.000	For summary of comments, see submission no. 8, Lave, L	*	*
Milosevic, K	Horsley Park	148.000	For summary of comments, see submission no. 8, Lave, L	*	*
Mobbs, C	Horsley Park	144.000	For summary of comments, see submission no. 8, Lave, L	*	*
Moffitt, M	Horsley Park	128.000	For summary of comments, see submission no. 8, Lave, L	*	*
Morrant, SE	Badgerys Creek	63.001	Implied criticism that too little account taken of impact on people, as opposed to that on environment	6.6	654
Morrant, SE		63.002	Cost of land acquisition at Badgerys Creek underestimated	9.1	668
Morrant, SE		63.003	Access time to Badgerys Creek underestimated	10.4	696
Morrant, SE		63.004	Badgerys Creek site only affects 'little people' not Inghams, Boral Brick, CSIRO, etc.	9.1	668
Morrant, SE		63.005	Photos displayed at Community Access Centre did not reveal extent of new housing at Badgerys Creek	18.3	759
Morrant, SE		63.006	Badgerys Creek flight path would extend over new hospital at Wetherill Park	9.2	674
Morrant, SE		63.007	Officers manning Community Access Bus unhelpful	18.9	761
Morrice, HF	Picton	241.001	Dissents from choice of Wilton	17.1	756
Morrice, HF		241.002	Cost involved in purifying water, after airport became operational, was not adequately covered in Draft EIS	APPENDIX B	767
Morrice, HF		241.003	Pollution from airport construction almost impossible to control	15.3	739
Morrice, HF		241.004	Prohibit small planes from taking off at Kingsford-Smith Airport, thus reducing congestion - use Hoxton Park and Bankstown	1.4	630
Moss, RH	Address not supplied	278.001	Dissatisfied with choice of Badgerys Creek for airport	6.8	658

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Moss, RH		278.002	House in 30-35 ANEF contour, yet apparently there would be no compensation	9.2	674
Moss, RH		278.003	Airport development would leave only a devalued property to pass on to children	9.1	668
Munro, D	Silverdale	369.001	Opposes airport at Badgerys Creek	17.1	756
Munro, D		369.002	Objects to noise	9.2	674
Munro, D		369.003	Air pollution would be particularly bad at Silverdale	10.3	693
NSW Police Aero Club	Hoxton Park	324.001	Concerned that many aviation and other activities would cease or be curtailed, if a second airport were developed	8.6	663
NSW Police Aero Club		324.002	Airport at Badgerys Creek would severely restrict training areas of Hoxton Park, Camden and Bankstown	8.6	663
NSW Police Aero Club		324.003	Suggested alternatives for existing aerodromes/airspace in the Badgerys Creek area are not viable	8.6	663
NSW Police Aero Club		324.004	Concern that acquiring land far in advance of construction may displace people unnecessarily	9.1	668
NSW Police Aero Club		324.005	Towra Point should be examined again as a possible site	3.6	640
Name & address illegible		95.000	For summary of comments, see submission no. 267, Clark, J	*	*
Name illegible	Horsley Park	35.000	For summary of comments, see submission no. 8, Lave, L	*	*
Name illegible	Merrylands	166.000	For summary of comments, see submission no. 8, Lave, L	*	*
Name illegible	Horsley Park	178.000	For summary of comments, see submission no. 8, Lave, L	*	*
Nash, KA	Horsley Park	89.000	For summary of comments, see submission no. 267, Clark, J	*	*
Nathaniel, V	St Johns Park	436.000	For summary of comments, see submission no. 267, Clark, J	*	*
National Parks Association of NSW	Wollongong	358.001	Too much land from the water catchment area would be used when all of it is required to serve a growing Sydney population	15.2	736
National Parks Association of NSW		358.002	How is the remaining area going to be protected from pollution due to fallout, roads, building, urban sprawl?	14.8	725
National Parks Association of NSW		358.003	Such large numbers of flora and fauna would be destroyed, that it could have serious consequences for endangered species	16.1	749
National Parks Association of NSW		358.004	Such large numbers of flora and fauna would be destroyed, that it could have serious consequences for endangered species	16.2	751
National Parks Association of New South Wales	Berrima	423.001	Opposed to airport at Wilton	17.1	756
National Parks Association of New South Wales		423.002	Opposed to airport at Wilton due to effect on water catchment area	15.2	736
Newstead, WA	Bargo	227.000	For summary of comments, see submission no. 271, Jenkins, R	*	*
Nikolovski, J	St Johns Park	438.000	For summary of comments, see submission no. 267, Clark, J	*	*
Noble, B	Kemps Creek	165.000	For summary of comments, see submission no. 8, Lave, L	*	*
Novokovic, M	St Johns Park	444.000	For summary of comments, see submission no. 267, Clark, J	*	*
O'Brien, E	Bringelly	236.001	Strongly objects to selection of Badgerys Creek site	17.1	756
O'Brien, E		236.002	Enormous amount of building in Bringelly area during past fifteen years	6.4	653
O'Brien, E		236.003	MANS report recommendation ignored	3.1	639
O'Brien, E		236.004	Loss of rural values for many thousands of people	9.2	674
O'Brien, E		236.005	Market value of Badgerys Creek site underestimated	9.1	668
O'Brien, E		236.006	Need for compensation of noise-affected areas	9.2	674
O'Brien, E		236.007	Use of ANEF units rather than decibels is misleading	9.2	674
O'Brien, T	Bringelly	232.001	Protests strongly against choice of Badgerys Creek site	17.1	756
O'Brien, T		232.002	Effect of noise at Bringelly - area is natural amphitheatre	9.2	674
Oehm, GJ	Figtree	455.001	Opposes second Sydney airport at Wilton site	17.1	756
Oehm, GJ		455.002	Development of airport at Wilton site would be shortsighted in light of coming fuel crisis, present high unemployment in mining industry, and limited reserves of high quality coal in Australia	15.1	728
Oehm, GJ		455.003	Development of airport would damage flora and destroy catchment area in which further rare species may be located. Potential richness of flora in this area has not been fully investigated	16.1	749

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Dehm, GJ		455.004	Development of airport would damage fauna, and destroy catchment area habitat which functions as corridor between national parks. Potential richness of fauna in this area has not been fully investigated	16.2	751
Dehm, GJ		455.005	Ability of area to recover after bushfire or other disaster would be severely impaired	16.1	749
Dehm, GJ		455.006	There would be risk of pollution and contamination of catchment area by exhaust from aircraft, fuel dumping and aircraft accidents	13.7	711
Dehm, GJ		455.007	The site would be inconvenient, the distance to Wilton excessive, and upgrading of means of access would entail considerable expenditure	15.4	742
Dehm, GJ		455.008	There is a high incidence of fog and a possibility of wind shear	15.3	739
Dehm, GJ		455.009	Fuel dumping at sea would damage marine life, and have a serious effect on beaches and fishing industry in the area	13.7	711
Dlueh ?, R	Horsley Park	365.000	For summary of comments, see submission no. 267, Clark, J	*	*
Pan, YS	Badgerys Creek	379.001	Opposes airport at Badgerys Creek	17.1	756
Pan, YS		379.002	Impact on flora and fauna not more important than human welfare	17.2	757
Pan, YS		379.003	Facts and figures in Draft EIS inaccurate, for instance in the count of houses	9.1	668
Pan, YS		379.004	Facts and figures in Draft EIS inaccurate, for instance concerning water supply	10.5	698
Pan, YS		379.005	Photographic displays at second Sydney airport exhibition in Sydney misrepresented sites	18.3	759
Pan, YS		379.006	Compensation should be payable to people outside boundary but within 20 ANEF contour	9.2	674
Pan, YS		379.007	Wilton site preferred	17.1	756
Panetta, R & A	Horsley Park	191.000	For summary of comments, see submission no. 8, Lave, L	*	*
Pangallo, R	Cecil Park	353.001	Opposes airport at Badgerys Creek	17.1	756
Pangallo, R		353.002	Construction of an airport would adversely affect many people who have moved into area in recent years	9.1	668
Pangallo, R		353.003	Construction of an airport would adversely affect many people who have moved into area in recent years	9.2	674
Pangallo, R		353.004	Construction of an airport would ruin a rural area	10.6	700
Papaun, R	Horsley Park	12.000	For summary of comments, see submission no. 8, Lave, L	*	*
Papaun, T	Horsley Park	19.000	For summary of comments, see submission no. 8, Lave, L	*	*
Pelina, S	Cabramatta	167.000	For summary of comments, see submission no. 8, Lave, L	*	*
Penny, R	Liverpool	172.000	For summary of comments, see submission no. 8, Lave, L	*	*
Penrith City Council	Penrith	429.001	Recognizes Badgerys Creek has some advantages over Wilton site, but requests a fuller investigation of noise issue (rotation of landing strips, temperature inversions, application of ANEF system, cost of acoustically acceptable dwellings)	APPENDIX A	764
Penrith City Council		429.002	Recognizes Badgerys Creek has some advantages over Wilton site, but requests a fuller investigation of drainage issue (quality, volume, variability of discharge from site, condition of South Creek, control of sedimentation during construction)	APPENDIX A	764
Penrith City Council		429.003	Recognizes Badgerys Creek has some advantages over Wilton site, but requests a fuller investigation of prospects for the creation of jobs	APPENDIX A	764
Penrith City Council		429.004	Recognizes Badgerys Creek has some advantages over Wilton site, but requests a fuller investigation of future zoning needs for City of Penrith	APPENDIX A	764
Penrith City Council		429.005	Recognizes Badgerys Creek has some advantages over Wilton site, but requests a fuller investigation of possible planning blight	APPENDIX A	764
Penrith City Council		429.006	Recognizes Badgerys Creek has some advantages over Wilton site, but requests a fuller investigation of access (cost and construction details of future roads, Erskine Park Road modifications, impact on residents)	APPENDIX A	764
Penrith City Council		429.007	Recognizes Badgerys Creek has some advantages over Wilton site, but requests a fuller investigation of socio-economic impact of construction workforce	APPENDIX A	764
Penrith City Council		429.008	If Badgerys Creek site were chosen, then detailed layouts should form basis for further discussion	8.5	662
Peters, PJ & J	Bargo	297.001	Oppose airport at Wilton	17.1	756
Peters, PJ & J		297.002	Noise levels at Bargo expected to be excessive	14.2	715
Peters, PJ & J		297.003	Effects of aircraft emissions detrimental to water supply	15.2	736

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Peters, PJ & J		297.004	Dubious whether airport users would travel distance to Wilton	15.4	742
Phillips, M	Blacktown	268.000	For summary of comments, see submission no. 267, Clark, J	*	*
Philp, BC	Fairfield	403.001	Suggests second Sydney airport should be placed at Holsworthy	6.3	651
Piva, G	Horsley Park	317.000	For summary of comments, see submission no. 267, Clark, J	*	*
Piva, Mr & Mrs P	Horsley Park	326.000	For summary of comments, see submission no. 267, Clark, J	*	*
Pizzardi, E	Cabramatta	171.000	For summary of comments, see submission no. B, Lave, L	*	*
Powell, HC	Bringelly	451.001	Opposed to airport at Badgerys Creek	17.1	756
Powell, HC		451.002	Frequency of fogs in Badgerys Creek area	10.3	693
Powell, HC		451.003	Badgerys Creek area is important supplier of agricultural produce	9.7	685
Powell, HC		451.004	Badgerys Creek is historical district	9.5	681
Powell, M	Address supplied	457.001	Kingsford-Smith Airport could be upgraded at much lower cost than development of second Sydney airport, by means of a second runway and rationalization of its usage by General Aviation	1.3	627
Powell, M		457.002	Upgrading of Kingsford-Smith Airport would become necessary before second Sydney airport could become operational	1.3	627
Powell, M		457.003	Aspects of forecasts queried - air traffic and air traffic split-up	1.2	624
Powell, M		457.004	More detailed total costs should have been done for the two short-listed sites	APPENDIX B	767
Powell, M		457.005	Queries short-listing process. Wilton and Badgerys Creek sites have both been altered since the rankings were drawn up and the decision announced, in September 1984	6.8	658
Powell, M		457.006	Questions the weighting factors used in Draft EIS	6.6	654
Powell, M		457.007	Acquisition cost is too low for Badgerys Creek option - improvements, relocation costs and incidental costs must be considered	9.1	668
Powell, M		457.008	Reasoning behind location of second Sydney airport is questioned	4.4	645
Powell, M		457.009	Reasoning behind location of second Sydney airport is questioned	6.6	654
Powell, M		457.010	Second Sydney airport at Badgerys Creek would encroach on future urban areas	9.8	688
Powell, M		457.011	Land-use plan based on airport would affect more people at Badgerys Creek than at Wilton	17.2	757
Powell, M		457.012	Questions no-curfew operations planned for second Sydney airport - queries application of ANEF system at night	9.2	674
Powell, M		457.013	No assurances given that aspects of airport development would not be changed in future	APPENDIX A	764
Powell, M		457.014	Airspace around Badgerys Creek would be seriously affected by airport development	8.6	663
Powell, M		457.015	Prime agricultural land would be lost if airport sited at Badgerys Creek	9.7	685
Powell, M		457.016	Construction works for access would require further resumption of land at Badgerys Creek and within inner Sydney	10.4	696
Powell, M		457.017	Noise would be nuisance during construction - effect would be greater at Badgerys Creek	9.2	674
Powell, M		457.018	Dust would be nuisance during construction - effect would be greater at Badgerys Creek	17.2	757
Powell, M		457.019	Any unique flora within the Wilton site could be transplanted to nearby site	16.1	749
Powell, M		457.020	Archaeological finds could be preserved in museums	9.3	680
Powell, M		457.021	Considers protection of water catchment at Wilton feasible	15.2	736
Powell, M		457.022	Several technical and educational facilities at Badgerys Creek would be removed if airport constructed there	9.8	688
Powell, M		457.023	Capacity of Kingsford-Smith Airport could be increased by better air traffic control	1.3	627
Powell, M		457.024	Residents around an airport are at risk from terrorism and accident - argument against choosing a populous location such as Badgerys Creek	8.7	665
Powell, M		457.025	Badgerys Creek area experiences bushfires	8.7	665
Powell, M		457.026	No cost/benefit study has been carried out on second Sydney airport	APPENDIX B	767
Powell, M		457.027	Draft EIS does not specify whether its low or its high population forecast is more likely. To which year does figure for noise-affected people apply?	9.2	674
Powell, M		457.028	Queries multipliers used in Draft EIS to forecast employment	9.6	682
Powell, M		457.029	Queries numbers of people that would be displaced, as forecast in Draft EIS	9.1	668

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Powell, PR	Address supplied	329.001	Opposes Badgerys Creek site being developed as an airport	17.1	756
Powell, PR		329.002	Use of National Acoustics Laboratory report to assess effects of noise in rural setting is blatant abuse of information collected under different circumstances - recommends changes in application of ANEF system	9.2	674
Powell, PR		329.003	Consultants have disregarded temperature inversion effects on propagation of sound through air	9.2	674
Powell, PR		329.004	Airport at Badgerys Creek would sterilize 6,368 ha of land in western suburbs	9.8	688
Powell, PR		329.005	Loss of food producing land at Badgerys Creek would be wasteful and shortsighted	9.7	685
Powell, PR		329.006	Compensation would be insufficient to acquire equivalent properties elsewhere	9.1	668
Powell, PR		329.007	Weighting factors are biased towards selection of Badgerys Creek and Wilton	6.6	654
Powell, PR		329.008	Holsworthy and Wattamolla were excluded as possible sites, and justification for this is deficient	3.6	640
Powell, PR		329.009	Second Sydney airport traffic patterns concentrating on weekends and holidays would cause extra social disruption, and this invalidates the reference to National Acoustics Laboratory Report	9.2	674
Powell, PR		329.010	Low background noise level at Badgerys Creek, especially at night, would increase impact of lower ANEF levels	9.2	674
Powell, PR		329.011	Noise study should have been by independent consultant	9.2	674
Powell, PR		329.012	Population affected by noise underestimated in Draft EIS due to misinterpretation of 40-ha-minimum category	9.2	674
Powell, PR		329.013	Draft EIS underestimates proportion of flights that would be at night	9.2	674
Premier's Department	Sydney	274.001	Airport at Badgerys Creek would not have significant impact on Crown land	17.1	756
Premier's Department		274.002	Presumably ANEF contours take into account the topography around each site	9.2	674
Premier's Department		274.003	Draft EIS does not predict noise levels from ground running operations	9.2	674
Premier's Department		274.004	More detail needed on noise levels during construction	9.2	674
Premier's Department		274.005	Wilton site quieter than is inferred by Draft EIS	14.2	715
Premier's Department		274.006	ANEF contours might be enlarged if allowance made for temperature inversions	9.2	674
Premier's Department		274.007	ANEF contours might be enlarged if allowance made for temperature inversions	14.2	715
Premier's Department		274.008	Noise from access roads and railways should have been quantified	9.2	674
Premier's Department		274.009	Noise from access roads and railways should have been quantified	14.2	715
Premier's Department		274.010	Agrees with use of ANEF system	9.2	674
Premier's Department		274.011	Agrees with use of ANEF system	14.2	715
Premier's Department		274.012	Selection data should have been based on 20 ANEF not 25 ANEF contour	4.3	644
Premier's Department		274.013	New planning schemes for airport surrounds must take into account number of existing buildings, and impact of prohibiting certain types of new buildings	4.1	644
Premier's Department		274.014	There should be compensation for property owners within the 20 ANEF contour	9.2	674
Premier's Department		274.015	There should be compensation for property owners within the 20 ANEF contour	14.2	715
Premier's Department		274.016	Some planning changes needed to allow for road and rail corridors	9.8	688
Premier's Department		274.017	Some planning changes needed to allow for road and rail corridors	14.8	725
Premier's Department		274.018	Views of Gandangara local Aboriginal land council supported	9.4	681
Premier's Department		274.019	Electricity Commission would need to bring forward upgrading of Yass-Sydney West transmission line by ten years, and possibly modify other planned work	10.5	698
Premier's Department		274.020	Wilton site crossed by Avon-Kemps Creek transmission line, not Sydney South-Dapto transmission line	CORRIGENDA	**
Premier's Department		274.021	New South Wales Department of Agriculture states as policy that agricultural land should be left in agriculture	9.7	685
Premier's Department		274.022	Frequent aircraft traffic would upset the laying regime of hens	9.7	685

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Premier's Department		274.023	Draft EIS does not sufficiently address the pressure put on other areas for agricultural and urban development	9.7	685
Premier's Department		274.024	If Badgerys Creek selected, 28,000 homesites would be lost within 20 ANEF contour and further 26,000 in 20-25 ANEF contour	9.8	688
Premier's Department		274.025	Loss of agricultural income from Badgerys Creek would be \$10 million per annum, double the figure in the Draft EIS	9.7	685
Premier's Department		274.026	No information in Draft EIS on methods of removal and disposal of green timber	16.1	749
Premier's Department		274.027	Direct employment at airport is proportional to size, and so would be considerably less than at Kingsford-Smith Airport	9.6	682
Premier's Department		274.028	Direct employment at airport is proportional to size, and so would be considerably less than at Kingsford-Smith Airport	14.6	722
Premier's Department		274.029	Indirect employment at second Sydney airport would depend on airport functions, and so a freight forwarding industry should be encouraged	9.6	682
Premier's Department		274.030	Indirect employment at second Sydney airport would depend on airport functions, and so a freight forwarding industry should be encouraged	14.6	722
Premier's Department		274.031	Areas of local job creation, such as aircraft servicing, repair and catering, should be developed in early stages	14.6	722
Premier's Department		274.032	Areas of local job creation, such as aircraft servicing, repair and catering, should be developed in early stages	9.6	682
Premier's Department		274.033	Commonwealth should make ex gratia payments to councils for acquired properties, in lieu of rates	9.1	668
Premier's Department		274.034	Commonwealth should make ex gratia payments to councils for acquired properties, in lieu of rates	14.1	713
Premier's Department		274.035	Local councils that would be affected, are divided in opinion over the choice of site for second Sydney airport	17.1	756
Premier's Department		274.036	The main benefit singled out by Councils from the development of a second airport, would be the alleviation of unemployment	17.2	757
Premier's Department		274.037	Badgerys Creek better located with respect to existing disaster services	17.2	757
Premier's Department		274.038	A second airport would aid in the provision of health services to country people	2.1	635
Premier's Department		274.039	Coal underlying Badgerys Creek is not a major obstacle to development of airport	10.1	691
Premier's Department		274.040	Concerned that Prospect Reservoir directly in flight path at Badgerys Creek - risk of pollution	8.7	665
Premier's Department		274.041	Drainage systems for site should be designed to control a range of floods, small as well as large	10.2	692
Premier's Department		274.042	Drainage systems for site should be designed to control a range of floods, small as well as large	15.2	736
Premier's Department		274.043	Flood run-off co-efficients quoted in Draft EIS should not be used in actual design, as they are not sufficiently accurate	10.2	692
Premier's Department		274.044	Flood run-off co-efficients quoted in Draft EIS should not be used in actual design, as they are not sufficiently accurate	15.2	736
Premier's Department		274.045	Airport at Badgerys Creek would exacerbate pollution problem in Hawkesbury-Nepean unless adequate safeguards implemented	10.2	692
Premier's Department		274.046	Dust during construction is dismissed as temporary but would be present for several years	10.3	693
Premier's Department		274.047	Dust during construction is dismissed as temporary but would be present for several years	15.3	739
Premier's Department		274.048	Draft EIS does not address 'fail-safe' measures for Wilton, to ensure contaminated waters do not enter Sydney's water supply	15.2	736
Premier's Department		274.049	Draft EIS does not address possibility of release of connate salts to surface waters, and de-silting of sedimentation traps and dams	15.2	736
Premier's Department		274.050	Draft EIS does not address possibility of release of connate salts to surface waters, and de-silting of sedimentation traps and dams	10.2	692
Premier's Department		274.051	Use of treated sewage for irrigation preferable to discharge to surface streams	10.5	698
Premier's Department		274.052	Use of treated sewage for irrigation preferable to discharge to surface streams	15.5	745
Premier's Department		274.053	Polluted run-off should be prevented from entering groundwater	10.2	692
Premier's Department		274.054	Polluted run-off should be prevented from entering groundwater	15.2	736
Premier's Department		274.055	Suggests improved method of controlling water pollutants during construction phase	10.2	692
Premier's Department		274.056	Suggests improved method of controlling water pollutants during construction phase	15.2	736
Premier's Department		274.057	More detail needed on water management proposals and water quality safeguards	10.2	692
Premier's Department		274.058	More detail needed on water management proposals and water quality safeguards	15.2	736

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
Premier's Department		274.059	Overall, potential impact on water resources less at Badgerys Creek than at Wilton	17.2	757
Premier's Department		274.060	Draft EIS does not state that airport would have significant impact on air quality within local airshed	10.3	693
Premier's Department		274.061	Draft EIS does not state that airport would have significant impact on air quality within local airshed	15.3	739
Premier's Department		274.062	Draft EIS omits air polluting effect of vehicular emissions and understates effect on air quality of dust during construction	10.3	693
Premier's Department		274.063	Draft EIS omits air polluting effect of vehicular emissions and understates effect on air quality of dust during construction	15.3	739
Premier's Department		274.064	Air quality would be less affected by airport at Wilton than Badgerys Creek	17.2	757
Premier's Department		274.065	Airport in south western sector is marginally better than a site in north western, and considerably better than expansion of Kingsford-Smith Airport, for maintaining air quality	17.2	757
Premier's Department		274.066	State Rail Authority disputes statement that spare capacity exists between Sydney and Strathfield	10.4	696
Premier's Department		274.067	Werrington-Glenlee railway no longer under consideration	10.4	696
Premier's Department		274.068	State Rail Authority prefers rail link to Badgerys Creek from Glenfield rather than from St Marys	10.4	696
Premier's Department		274.069	No need, on grounds of capacity, for rail link between second Sydney airport and Kingsford-Smith Airport	10.4	696
Premier's Department		274.070	Cost of transport of quarantine waste a consideration in site selection	17.2	757
Premier's Department		274.071	Need to examine costs of roads and road users for both sites	10.4	696
Premier's Department		274.072	Need to examine costs of roads and road users for both sites	15.4	742
Premier's Department		274.073	Need to examine implications for South Western Freeway east of King Georges Road	15.4	742
Premier's Department		274.074	Need to examine implications for South Western Freeway east of King Georges Road	10.4	696
Premier's Department		274.075	No need, on grounds of capacity, for rail link between second Sydney airport and Kingsford-Smith Airport	15.4	742
Premier's Department		274.076	Absence of surveys of aquatic fauna a major omission in Draft EIS	16.2	751
Premier's Department		274.077	Compensation would be sought from Commonwealth for loss of Crown land at Wilton	14.1	713
Premier's Department		274.078	Saving in acquisition cost at Wilton offset by cost of perimeter canal (\$40 million)	APPENDIX B	767
Premier's Department		274.079	Draft EIS fails to include opportunity cost to community if part of water catchment area rendered useless by second Sydney airport site	APPENDIX H	770
Premier's Department		274.080	Views of Tharawal local Aboriginal land council supported	14.4	719
Premier's Department		274.081	Deviation of transmission line would require 15 km of new construction	15.5	745
Premier's Department		274.082	Petroleum for Wilton airport could conveniently be supplied by rail or pipeline	15.5	745
Premier's Department		274.083	Water Act restricts felling of trees close to Cordeaux River	15.2	736
Premier's Department		274.084	Second Sydney airport at Wilton could sterilize coal resources of West Bellambi project, and would increase capitalization cost of drift and surface facilities	15.1	728
Premier's Department		274.085	Absence of surveys of aquatic fauna a major omission in Draft EIS	11.2	703
Premier's Department		274.086	Not economic to extract coal before construction of airport	15.1	728
Premier's Department		274.087	Extraction of some coal after construction of airport would be possible, thus reducing amount of coal sterilized	15.1	728
Premier's Department		274.088	Amount of coal sterilized could be reduced by realigning runways	15.1	728
Premier's Department		274.089	Coal washery reject might prove suitable fill material for airport construction	15.1	728
Premier's Department		274.090	Resumption of land for airport should be restricted to the surface, to enable underlying coal to be extracted where not hazardous	15.1	728
Premier's Department		274.091	Balgownie seam uneconomic in East Bargo sector of airport site only	15.1	728
Premier's Department		274.092	Changes and corrections suggested to Figure 15.1.2	CORRIGENDA	**
Premier's Department		274.093	Corrections to statement on coal quality	CORRIGENDA	**

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Premier's Department		274.094	Value of coal resources at Wilton greater than of clay/shale resources at Badgerys Creek	17.2	757
Premier's Department		274.095	Recovery of coal underlying Wilton more likely to eventuate than recovery of coal at Badgerys Creek, where establishment of new mine required	17.2	757
Premier's Department		274.096	Site within Metropolitan Catchment area should not be preferred over one within village of Wilton, without study of differential costs and benefits	5.3	648
Premier's Department		274.097	Attention is drawn to extreme precautions needed to protect metropolitan water supply, and difficulty of doing so	15.2	736
Premier's Department		274.098	Draft EIS inadequately addresses question of treatment for water discharging to Hawkesbury-Nepean system	15.2	736
Premier's Department		274.099	Error in Figure 15.2.1	CORRIGENDA	**
Premier's Department		274.100	Waters impounded by Devines Weir are not part of Sydney water supply	CORRIGENDA	**
Premier's Department		274.101	Draft EIS inadequately addresses question of risks from fuel polluting water supply. International experience and possible safeguards should be considered	15.2	736
Premier's Department		274.102	Treatment works might be needed to safeguard metropolitan water supply if airport at Wilton	15.2	736
Premier's Department		274.103	Without safeguards, Wilton proposal is counter to National Conservation Strategy	16.1	749
Premier's Department		274.104	Without safeguards, Wilton proposal is counter to National Conservation Strategy	16.2	751
Premier's Department		274.105	Costs of supplying water and sewerage to development peripheral to airport would be greater at Wilton than at Badgerys Creek	APPENDIX B	767
Premier's Department		274.106	Draft EIS gives no information on user population profile, such as densities in metropolitan region and accessibility of either site for the likely user population	10.4	696
Premier's Department		274.107	Costs of construction and servicing for water and sewerage would be greater at Wilton than at Badgerys Creek	APPENDIX B	767
Premier's Department		274.108	Draft EIS gives no information on user population profile, such as densities in metropolitan region and accessibility of either site for the likely user population	15.4	742
Premier's Department		274.109	Choice of alternative runway alignment would adversely affect the Nepean College of Advanced Education	8.5	662
Premier's Department		274.110	Additional costs identified in this submission, particularly those of protecting ground and surface water resources, might eliminate Wilton's marginal superiority over Somersby as choice of site	6.5	653
Premier's Department		274.111	Costs of constructing a rail link to Wilton via Appin must be listed among those wholly attributable to airport	15.4	742
Premier's Department		274.112	Draft EIS does not sufficiently emphasize rarity of plant community at Wilton	16.1	749
Premier's Department		274.113	Wilton site is of much higher significance for nature conservation than Badgerys Creek site	17.2	757
Premier's Department		274.114	New proposed layout at Badgerys Creek would place Badgerys Creek Primary School within airport site	17.2	757
Premier's Department		274.115	Primary schools at Bringelly, Luddenham, Horsley Park, Kemps Creek and Cobbitty, would all experience some effects of noise from Badgerys Creek	17.2	757
Premier's Department		274.116	Relatively small shifts in location of 20 ANEF contours would encompass Wetherill Park College, Mt Druitt and Werrington Colleges.	9.2	674
Premier's Department		274.117	Finalizing choice of site would release up to 300 square kilometres of land now affected by uncertainty	1.5	633
Premier's Department		274.118	Airport at Badgerys Creek would adversely affect dairy research and milk production at McGarvie Smith Animal Husbandry Farm	9.7	685
Premier's Department		274.119	Increased run-off from airport at Badgerys Creek might cause flooding at Fleurs Radio Observatory	10.2	692
Premier's Department		274.120	Choice of alternative runway alignment would affect the University of Sydney's teaching and research centre at Cobbitty	9.2	674
Premier's Department		274.121	Transport proposals for Badgerys Creek could benefit Nepean College of Advanced Education	10.4	696
Premier's Department		274.122	Airport at Badgerys Creek would generally benefit Nepean College of Advanced Education	10.4	696
Premier's Department		274.123	Airport at Wilton would generally benefit Macarthur Institute of Higher Education	14.8	725
Premier's Department		274.124	Operation of Fleurs Radio Observatory would be incompatible with airport construction and operation	9.8	688
Premier's Department		274.125	Research into air navigational problems at Fleurs Airstrip would be incompatible with construction and operation of airport	9.8	688
Premier's Department		274.126	University of Sydney considers Commonwealth morally obliged to compensate for relocation of its teaching and research facilities rendered inoperative by Badgerys Creek site	9.2	674

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Premier's Department		274.127	Proposed corrections to Draft EIS. Page 236 (2nd para): Poultry processors do not want to travel more than 25 km (not 100 km, as in Draft EIS). Page 238 (3rd para): Delete to limit supply. Page 244 (5th para): Delete ref to NSW Dairy Corporation	CORRIGENDA	**
Prospect County Council	Parramatta	378.000	Preliminary letter advising of intention to make submission		
Qantas Airways Limited	Sydney	433.001	Favours selection and acquisition of Badgerys Creek site	17.1	756
Qantas Airways Limited		433.002	Supports the north-east - south-west runway alignment (minimizes community noise exposure and recognizes prevailing winds)	8.5	662
Qantas Airways Limited		433.003	Considers the area allowance would be adequate	8.5	662
Qantas Airways Limited		433.004	Suggests that initially airport should be developed for General Aviation and leisure-associated traffic	2.1	635
Qantas Airways Limited		433.005	Stresses that a twenty-four hour curfew-free operation would be essential for second Sydney airport	8.3	661
Qantas Airways Limited		433.006	Appropriate land zoning must be associated with twenty-four hour airport concept	9.8	688
Qantas Airways Limited		433.007	Considers that airspace would not be a problem in the future	8.6	663
Qantas Airways Limited		433.008	Suggests Kingsford-Smith Airport should be fully developed before second Sydney airport is established - distinct need for master plan for Kingsford-Smith Airport	1.3	627
Qantas Airways Limited		433.009	Interest charges associated with purchase of second Sydney airport should not be cost-recoverable from the industry	2.5	638
Radovanovic, T	St Johns Park	259.000	For summary of comments, see submission no. 267, Clark, J	*	*
Rankin, LM	Kemps Creek	357.000	For summary of comments, see submission no. 352, Andrich, R	*	*
Reeves, V & W	Bargo	226.000	For summary of comments, see submission no. 271, Jenkins, R	*	*
Refalo, G	Greystanes	198.000	For summary of comments, see submission no. 267, Clark, J	*	*
Regional Airlines Association of Australia Ltd	Mount Waverley, Vic	449.001	In favour of second Sydney airport sited within Sydney Region, preferably at Badgerys Creek	17.1	756
Regional Airlines Association of Australia Ltd		449.002	Argues against any attempt to extend capacity of Kingsford-Smith Airport by imposing 'activity stultifying' regulations	1.3	627
Regional Airlines Association of Australia Ltd		449.003	Only development of a second airport can provide extra runway capacity required in Sydney Region	1.3	627
Regional Airlines Association of Australia Ltd		449.004	Not in favour of forcing commuter traffic to use second Sydney airport	2.1	635
Regional Airlines Association of Australia Ltd		449.005	Agrees with methodology used in selecting final two sites	4.1	644
Renehan, T	Fairfield	79.000	For summary of comments, see submission no. 267, Clark, J	*	*
Rennie, I & L	Cecil Park	48.000	For summary of comments, see submission no. 8, Lave, L	*	*
Reppas, G	Horsley Park	97.000	For summary of comments, see submission no. 267, Clark, J	*	*
Reppas, P	Horsley Park	96.000	For summary of comments, see submission nos 8, Lave, L and 267, Clark, J	*	*
Reppas, V	Horsley Park	99.000	For summary of comments, see submission nos 8, Lave, L and 267, Clark, J	*	*
Rigato, C	Kemps Creek	140.000	For summary of comments, see submission no. 8, Lave, L	*	*
Riordan, JF	Luddenham	102.000	For summary of comments, see submission no. 267, Clark, J	*	*
Ripepi, A	Horsley Park	154.000	For summary of comments, see submission no. 8, Lave, L	*	*
Ripepi, S	Horsley Park	155.000	For summary of comments, see submission no. 8, Lave, L	*	*
Roadnight, A	Bringelly	282.001	Airport would adversely affect lifestyle	9.8	688
Roadnight, A		282.002	Noise would be major problem	9.2	674
Roadnight, CJ	Bringelly	276.001	Asks for independent study of noise footprints	9.2	674
Roadnight, CJ		276.002	Should consider relocating noise-sensitive people now living adjacent to the acquisition site	9.2	674
Roadnight, CJ		276.003	Considers Wilton preferable to Badgerys Creek	17.1	756
Roadnight, CJ		276.004	People desiring to be relocated from a 'frozen' area - no development allowed - should be satisfied	9.2	674

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
Roadnight, JA	Badgerys Creek	65.001	Draft EIS inaccurate, incomplete and misleading	PREFACE	622
Roadnight, JA		65.002	Draft EIS does not mention need to demolish church and move graves at Badgerys Creek	9.5	681
Roadnight, JA		65.003	Draft EIS inadequately treats effects of land acquisition for road and rail access	9.1	668
Roadnight, JA		65.004	Concerned that airport traffic would increase travel time between Bringelly and Penrith	10.4	696
Roadnight, JA		65.005	Draft EIS gives misleading picture of present and future pollution levels from aircraft, road traffic and industry	10.3	693
Roadnight, JA		65.006	Concerned about effects on poultry and livestock	9.7	685
Roadnight, JA		65.007	Dubious that impact on agriculture would be small, since McGarvie Smith Animal Husbandry Farm would become inoperable	9.7	685
Roadnight, JA		65.008	Queries justice of expression, 'minimal visual quality', used in Draft EIS of landscapes at Badgerys Creek	10.6	700
Roadnight, JA		65.009	Queries 'total of 22,000 new jobs' - requests more details	9.6	682
Roadnight, JA		65.010	Points out that at all events jobs would not eventuate for many years	9.6	682
Roadnight, JA		65.011	Queries need for airport to be curfew-free	8.3	661
Roadnight, JA		65.012	Criticizes lack of place names on Figure 1.3	CORRIGENDA	**
Roadnight, JA		65.013	Enquires about original purpose of railway under construction at Wilton	15.4	739
Roadnight, JA		65.014	Travel times to Wilton exaggerated	15.4	742
Roadnight, JA		65.015	Travel times to Badgerys Creek underestimated (queries route used)	10.4	696
Roadnight, JA		65.016	Detrimental effect on local people if site selected, whether airport built or not	9.1	668
Roadnight, JA		65.017	Asks for present noise levels at Badgerys Creek-Bringelly, especially at night	9.2	674
Roadnight, JA		65.018	Misleading to say site is between Badgerys Creek and Luddenham - Badgerys Creek would disappear if airport were constructed	7.2	660
Roadnight, JA		65.019	Draft EIS gives misleading impression that all properties surrounding site are of 40 ha minimum size	9.8	688
Roadnight, JA		65.020	Uncertainty still prevails, as need for second Sydney airport not proven, and airport might never be built	PREFACE	622
Roadnight, JA		65.021	Draft EIS does not address question of increased crime due to airport	9.8	688
Roadnight, JA		65.022	Disputes not being affected by predicted 275,000 aircraft movements per year, even though she is outside the noise affected areas	9.2	674
Roadnight, JA		65.023	Would affect local heritage	9.5	681
Roadnight, JA		65.024	Those outside acquisition area would suffer most	9.2	674
Roadnight, JA		65.025	Continuing uncertainty as to when airport would be developed	2.5	638
Roadnight, JA		65.026	Uncertainty lowers values of properties, whether the airport is built or not	9.1	668
Roadnight, JA		65.027	Figure of \$32 million insufficient to acquire property at fair price	9.1	668
Roadnight, JA		65.028	Residents would bear unnecessary expenses for rates and services	9.6	682
Roadnight, JA		65.029	Airport would bring more pollution from noise	9.2	674
Roadnight, JA		65.030	Airport would bring more pollution from traffic	10.4	696
Roadnight, JA		65.031	Airport would bring more pollution from dust and erosion	10.3	693
Roadnight, JA		65.032	Local hospitals could not cope with an emergency	8.7	665
Roadnight, JA		65.033	Pollution from airport could affect dams and tank water	10.2	692
Roadnight, JA		65.034	Aerial photos used for display do not show all development at Badgerys Creek	18.3	759
Roadnight, JA		65.035	Airport would bring more pollution from industry construction	10.3	693
Roadnight, JA		65.036	Local fauna was not considered properly - cites various migratory birds, lizards and the long necked-turtle	11.2	703
Roadnight, JA		65.037	Residents would bear expense of connecting to mains water	10.5	698
Roadnight, JA		65.038	New road system associated with Badgerys Creek airport would adversely affect family's commuting time to Sydney	10.4	696
Roadnight, JA		65.039	Would Badgerys Creek primary school close if an airport were placed in Badgerys Creek area?	9.1	668
Roadnight, M	Bringelly	279.001	Detrimental to residents to have an airport at Badgerys Creek	9.2	674
Roadnight, M		279.002	Residents would be affected by noise and pollution	9.2	674
Roadnight, M		279.003	Cost of land acquisition makes Badgerys Creek unsuitable	9.1	668
Roadnight, M		279.004	Lack of facilities (transport, water and sewerage) makes Badgerys Creek unsuitable	10.5	698

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Robinson, D & I	Badgerys Creek	4.001	Implied impossibility of compensating for loss of enterprise	9.2	674
Robinson, D & I		4.002	Better to uproot trees at Wilton than people at Badgerys Creek	17.2	757
Robinson, D & I		4.003	Uncertainty has depressed business	9.6	682
Robinson, D & I		4.004	Uncertainty has affected health	9.1	668
Robinson, E	Badgerys Creek	199.001	Second Sydney airport unnecessary, when Kingsford-Smith Airport could be extended for fraction of cost	1.3	627
Robinson, E		199.002	Additional pollution and noise at Badgerys Creek would be caused by planes hovering around when airport closed by fog	9.2	674
Robinson, E		199.003	Airport would take away local people's livelihoods in farms and businesses	9.6	682
Robinson, E		199.004	Badgerys Creek school would be affected by noise and pollution	9.2	674
Robinson, E		199.005	Threat of an airport is causing worry and stress	PREFACE	622
Robinson, E		199.006	Noise would affect thousands in widespread areas around airport site	9.2	674
Robinson, I	Bossley Park	118.000	For summary of comments, see submission no. 267, Clark, J	*	*
Rockdale Municipal Council	Rockdale	74.001	Badgerys Creek preferred. More centrally located and more likely to be developed	17.1	756
Roneth, L	Horsley Park	177.000	For summary of comments, see submission no. 8, Lave, L	*	*
Rose Bay Branch, Aust Labor Party	Rose Bay	61.001	Queries need for second airport	1.2	624
Rose, A	Horsley Park	153.000	For summary of comments, see submission no. 8, Lave, L	*	*
Rose, G	Horsley Park	156.000	For summary of comments, see submission no. 8, Lave, L	*	*
Rose, W	Horsley Park	39.000	For summary of comments, see submission no. 8, Lave, L	*	*
Rossetto, A & L	Horsley Park	404.000	For summary of comments, see submission no. 267, Clark, J	*	*
Rossetto, L	Horsley Park	169.000	For summary of comments, see submission no. 8, Lave, L	*	*
Rowatt, S	Horsley Park	81.001	Would be greatly disadvantaged by an airport at Badgerys Creek, particularly from the noise and pollution	9.2	674
Rowatt, S		81.002	No compensation for noise or pollution from airport	9.2	674
Rowatt, S		81.003	The MANS Study stating numbers of people and growth in these areas is about eight years out of date. A more up to date survey should be carried out, including the number of people in the surrounding areas	9.1	668
Rowatt, S		81.004	Concerned about historical buildings in Horsley Park under flight path	9.2	674
Rowatt, S		81.005	Concerned about cemetery within the Badgerys Creek site	9.5	681
Rowatt, S		81.006	Concerned about old people's home proposed for Fairfield and located under the flight path	9.2	674
Rowatt, S		81.007	Concerned about the flora and fauna in the Badgerys Creek area	11.1	702
Rowatt, S		81.008	Concerned about travelling times from the northern suburbs to Badgerys Creek	10.4	696
Rowatt, S		81.009	Questions why Kingsford-Smith Airport could not be upgraded and instead of developing Badgerys Creek	1.3	627
Roy, JL	Greendale	16.001	Expresses satisfaction that decision will finally be made	PREFACE	622
Roy, JL		16.002	New airport would benefit economy and create jobs	9.6	682
Roy, JL		16.003	Kingsford-Smith Airport would not be adequate for the future	1.3	627
Roy, JL		16.004	Concerned at his situation within 25-30 ANEF contour, exposed to noise of 275,000 aircraft movements per annum	9.2	674
Roy, JL		16.005	Concerned at aircraft emissions contaminating tank water supplies	10.2	692
Roy, JL		16.006	Is some compensation possible for those in areas affected by noise but not to be acquired?	9.2	674
Ryan, TJ	Cecil Park	364.000	For summary of comments, see submission no. 352, Andrich, R	*	*
S.A.N.I.T.Y.	Colyton	328.001	No need for second Sydney airport - cites previous studies and Department of Aviation statistics	3.1	639
S.A.N.I.T.Y.		328.002	Investigation of options to rationalize traffic and expand Kingsford-Smith Airport integral to Draft EIS preparation, and this was not done	1.3	627
S.A.N.I.T.Y.		328.003	Airport at Badgerys Creek would seriously affect growing suburbs in area	9.8	688
S.A.N.I.T.Y.		328.004	Queries need for traffic to operate beyond normal curfew hours	8.3	661
S.A.N.I.T.Y.		328.005	People would be unable to obtain realistic compensation	9.1	668
S.A.N.I.T.Y.		328.006	Travel times quoted in Draft EIS incorrect	10.4	696

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
S.A.N.I.T.Y.		328.007	Objects to noise, especially at night	9.2	674
S.A.N.I.T.Y.		328.008	National Acoustics Laboratory survey not applicable to quiet area	9.2	674
S.A.N.I.T.Y.		328.009	Airport would cause damage to health of residents	9.2	674
S.A.N.I.T.Y.		328.010	Land is too valuable to be wasted on airport	9.7	685
S.A.N.I.T.Y.		328.011	How would aviation fuel be transported to Badgerys Creek site?	10.5	698
S.A.N.I.T.Y.		328.012	Difficulty in getting airlines to operate from second Sydney airport	2.4	637
S.A.N.I.T.Y.		328.013	Danger of mid-air collision due to proliferation of flight paths	8.6	663
S.A.N.I.T.Y.		328.014	Incidence of fogs too high for international airport	10.3	693
S.A.N.I.T.Y.		328.015	Post-construction employment opportunities have been overstated in Draft EIS	9.6	682
S.A.N.I.T.Y.		328.016	Delay in publishing Draft EIS due to error in property acquisition figures	9.1	668
S.A.N.I.T.Y.		328.017	Second airports do not make 'social contributions', as claimed	2.1	635
S.A.N.I.T.Y.		328.018	Uncertainty has depressed land values	9.1	668
S.A.N.I.T.Y.		328.019	Second Sydney airport anywhere in Sydney region would be opposed to Sydney Region Plan	9.8	688
S.A.N.I.T.Y.		328.020	No need for rail service	10.4	696
S.A.N.I.T.Y.		328.021	No independent noise expert was consulted	9.2	674
S.A.N.I.T.Y.		328.022	Difficulty of finding alternative sites for food producing and research establishments	9.1	668
S.A.N.I.T.Y.		328.023	Confusion, time and money lost in airport transfers	10.4	696
S.A.N.I.T.Y.		328.024	Businesses would not re-locate around airport	9.6	682
S.A.N.I.T.Y.		328.025	Cost of construction too high to consider second Sydney airport	1.6	633
S.A.N.I.T.Y.		328.026	Second Sydney airport only needed in order to fulfill political promise to Mascot residents	1.3	627
Sahin, H	St Johns Park	260.000	For summary of comments, see submission no. 267, Clark, J	*	*
Sahin, S	St Johns Park	439.000	For summary of comments, see submission no. 267, Clark, J	*	*
Sammut, B	Horsley Park	26.000	For summary of comments, see submission no. 8, Lave, L	*	*
Sammut, C	Horsley Park	27.000	For summary of comments, see submission no. 8, Lave, L	*	*
Samo, M	Horsley Park	173.000	For summary of comments, see submission no. 8, Lave, L	*	*
Sanger, D, Pty Ltd		203.001	Presents submissions on behalf of two clients, to the effect that rezoning of land within the 20-25 ANEF contours at Horsley Park and Cecil Park should be allowed to proceed	9.8	688
Sanger, D, Pty Ltd		203.002	Contents that such land should be permitted to develop as rural/residential estate	9.8	688
Santarossa, I	Horsley Park	84.000	For summary of comments, see submission no. 267, Clark, J	*	*
Sarkez, N	Bossley Park	86.000	For summary of comments, see submission no. 267, Clark, J	*	*
Saster, M	Horsley Park	183.000	For summary of comments, see submission no. 8, Lave, L	*	*
Saster, R	Horsley Park	184.000	For summary of comments, see submission no. 8, Lave, L	*	*
Sawarsin, CA	Cecil Park	64.001	Concerned about noise, especially in view of topography of Badgerys Creek area, and lack of curfew	9.2	674
Sawarsin, CA		64.002	Airport would affect new Fairfield District Hospital	9.2	674
Sawarsin, CA		64.003	Airport would affect new retirement village at Kempa Creek	9.2	674
Sawarsin, CA		64.004	Concerned for safety of densely populated areas around Badgerys Creek	8.7	665
Sawarsin, CA		64.005	Cost of land acquisition underestimated	9.1	668
Sawarsin, CA		64.006	Additional runway at Kingsford-Smith Airport better solution than second Sydney airport	1.3	627
Schmeherin, A & F	Horsley Park	47.000	For summary of comments, see submission nos 8, Lave, L and 267, Clark, J	*	*
Scout Air Activities Base, Camden Airport	Wahroonga	234.001	Objects to siting of second Sydney airport at Badgerys Creek	17.1	756
Scout Air Activities Base, Camden Airport		234.002	Gliding Wing would be forced to cease operations, whether site were Badgerys Creek or Wilton	8.6	663

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
Scout Air Activities Base, Camden Airport		234.003	If site were Badgerys Creek, loss of training area would force closure of Scout Air Activities Base	8.6	663
Scout Air Activities Base, Camden Airport		234.004	Gliding Wing would be forced to cease operations, whether site were Badgerys Creek or Wilton	13.6	709
Sefton, AR	Thirroul	431.001	Expresses concern about Wollongong City Council's EIS supporting Wilton site	17.1	756
Sefton, AR		431.002	States that natural environment of Wollongong is in a state of ecological crisis and that an international airport in area would only add to degradation of environment	16.2	751
Sefton, AR		431.003	Second Sydney airport at Wilton would jeopardize water supply of Australia's largest and seventh largest cities	15.2	736
Sefton, AR		431.004	Development at Wilton would jeopardize the extraction of millions of tonnes of coal	15.1	728
Sefton, AR		431.005	Mine subsidence is a problem in the area	15.1	728
Sefton, AR		431.006	Residents' choice of quiet lifestyle would be overturned	14.8	725
Sefton, C	Woonona	327.001	Archaeological significance of Wilton site has not been fully investigated - value increased by geographical and geological features and by tribal boundary location	14.3	719
Sefton, C		327.002	Shortcomings in predicted nature and frequency of archaeological sites in Draft EIS and in survey method used	14.3	719
Sefton, C		327.003	Archaeological significance of Allens Creek site underestimated in Draft EIS	14.3	719
Sefton, C		327.004	Archaeological value of Wilton site should be reassessed and, if Wilton is selected, detailed archaeological recording of site should be undertaken	14.3	719
Segura, P	Wilton	288.001	Totally opposed to airport at Wilton, and also at Badgerys Creek	17.1	756
Segura, P		288.002	Second Sydney airport not needed	1.3	627
Segura, P		288.003	Pollution of water catchment area should be a major consideration	15.2	736
Segura, P		288.004	Upgrading of Kingsford-Smith Airport would accommodate Sydney's needs well into the next century	1.3	627
Seraglio, AD	Horsley Park	38.000	For summary of comments, see submission no. 8, Lave, L	*	*
Sewter, AD	Emu Plains	388.001	Opposed to Badgerys Creek	17.1	756
Sewter, AD		388.002	Would affect recreation and tourism in the area	9.2	674
Shaw, D	Kemps Creek	139.000	For summary of comments, see submission no. 8, Lave, L	*	*
Shaw, S	Fairfield West	206.000	For summary of comments, see submission no. 267, Clark, J	*	*
Shephard, P	Wilton	255.001	If perimeter canal and retarding basins at Wilton are only partly lined, as stated in Draft EIS, there is potential for pollution through seepage	15.2	736
Shephard, P		255.002	Water that would be lost from Sydney and Wollongong supply might be needed in future, for the growing population in these centres	15.2	736
Shephard, P		255.003	How does a scheme for an airport in the headwaters of the Nepean system fit with the State Government's announcement of a required environmental plan for this river?	15.2	736
Shephard, P		255.004	How does a scheme for an airport in the headwaters of the Nepean system fit with the State Government's announcement of a required environmental plan for this river?	14.8	725
Shephard, P		255.005	Proposal conflicts with National Conservation Strategy	16.1	749
Shephard, P		255.006	Proposal conflicts with National Conservation Strategy	16.2	751
Shephard, P		255.007	To increase urban boundary would be waste of rural and green belt land	14.8	725
Shephard, P		255.008	If Wilton selected, importance of protecting remainder of catchment area would be heightened - catchment has been increasingly divided in recent years by various public utilities	15.2	736
Simmer ?, V	St Johns Park	443.000	For summary of comments, see submission no. 267, Clark, J	*	*
Sims, C	Badgerys Creek	381.001	Opposes airport at Badgerys Creek	17.1	756
Sims, C		381.002	Repercussions in area around Badgerys Creek would be severe	9.2	674
Sims, C		381.003	Total compensation required for own property, business not hobby	9.1	668
Skybey, G	St Johns Park	435.000	For summary of comments, see submission no. 267, Clark, J	*	*
Smith, AP	Campbell- town	292.001	Pollution of Hawkesbury-Nepean River system needs further investigation with respect to a second Sydney airport	15.2	736

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Smith, AP		292.002	Upper Nepean is particularly susceptible to pollutants from second Sydney airport at Wilton	15.2	736
Smith, AP		292.003	Treated effluent from airport industry would also be discharged into Nepean River	15.2	736
Smith, AP		292.004	Selective clearing of approaches would introduce erosion problems and silting to Wallandoola Creek	16.1	749
Smith, AP		292.005	Environmental problems of using water catchment land have been underestimated	15.2	736
Smith, AP		292.006	Maldon-Dombarton railway line has caused problems with water run-off	15.2	736
Smith, AP		292.007	How would pollution be controlled during construction?	15.2	736
Smith, AP		292.008	Need more than assurances to avoid pollution of water supply	APPENDIX H	770
Smith, AP		292.009	Department of Aviation's ornithologist has not visited site	16.2	751
Smith, AP		292.010	Draft EIS ornithological study was cursory	16.2	751
Smith, AP		292.011	Because bird strike is a real problem at airports, Wilton is very poor site from point of view of safety, as its surrounds attract birds	16.2	751
Smith, J	Wilton	293.001	No study has been undertaken regarding environmental impacts of area outside airport boundary at Wilton	12.1	705
Smith, J		293.002	Draft EIS uninformative on specific measures for controlling bird strike while conserving bird life	16.2	751
Smith, J		293.003	A comprehensive study of bird life should be carried out at Wilton and surrounding areas	16.2	751
Smith, J		293.004	Healthy colony of koalas at Wilton should not be jeopardized	16.2	751
Society for Social Responsibility in Engineering	Sydney	311.001	Inadequate consideration given to high speed rail in relation to Goulburn site	6.3	651
Society for Social Responsibility in Engineering		311.002	Access time would be as low as 42 minutes between a Sydney terminal and the Goulburn terminal	6.3	651
Society for Social Responsibility in Engineering		311.003	Revised site ranking analysis lifts Goulburn into a favourable position	6.3	651
Society for Social Responsibility in Engineering		311.004	Disagrees with statement in Draft EIS that benefits of a high speed system could equally benefit Wilton	6.3	651
Society for Social Responsibility in Engineering		311.005	States that practicality of gaining running rights into Sydney are quite good	6.3	651
Society for Social Responsibility in Engineering		311.006	Disagrees with Draft EIS statement that second Sydney airport would not by itself generate sufficient traffic to justify a high speed access system	6.3	651
Society for Social Responsibility in Engineering		311.007	Practicality of high speed rail systems well established in other countries	6.3	651
Society for Social Responsibility in Engineering		311.008	Banks and transport companies might be interested in financing cost of approx \$850 million	6.3	651
Society for Social Responsibility in Engineering		311.009	Most important benefit would be stimulus to employment and economic activity in a decentralized growth centre	6.3	651
Society for Social Responsibility in Engineering		311.010	The responsible course is to resolve the issues around a high speed access system at the same time as those around a second Sydney airport	6.3	651
Society for Social Responsibility in Engineering		311.011	Recommends that Final EIS should be suspended until a supplementary study, or else a public enquiry, is undertaken	PREFACE	622
Sommerville, C	Bringelly	289.001	Opposed to airport at Badgerys Creek	17.1	756
Sommerville, C		289.002	Suggests a high speed rail link with Melbourne to utilize facilities at Tullamarine	1.2	624
South Coast Conservation Society Co-operative Ltd	Wollongong	342.001	Opposes airport at Wilton	17.1	756
South Coast Conservation Society Co-operative Ltd		342.002	Airport development jeopardizes quality of water supply - contrary to MWS&DB policy	15.2	736

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
South Coast Conservation Society Co-operative Ltd		342.003	Risk of aircraft accidents, or an emergency need to jettison fuel over catchment area	13.7	711
South Coast Conservation Society Co-operative Ltd		342.004	Catchment areas serve useful role as buffer for expanding urban area, and as flora and fauna reserve	14.8	725
South Coast Conservation Society Co-operative Ltd		342.005	Site is valuable as providing habitats for highly diverse fauna. Healthy on-site colonies of endangered koala and of bird species requiring special protection, are particularly important	16.2	751
South Coast Conservation Society Co-operative Ltd		342.006	Flora of the site area is significant - six rare species.	16.1	749
South Coast Conservation Society Co-operative Ltd		342.007	Resource value of clean air and clean water not considered in Draft EIS	14.8	725
South Coast Conservation Society Co-operative Ltd		342.008	Off-site roads for emergency access and clearing for requirements of approach path would further damage environment	16.1	749
South Coast Conservation Society Co-operative Ltd		342.009	Risk of invasion of site-area by exotic plant species	16.1	749
South Coast Conservation Society Co-operative Ltd		342.010	Risk of invasion of site-area by feral and exotic fauna	16.2	751
South Coast Conservation Society Co-operative Ltd		342.011	Distance to Wilton too far for passengers to use regularly	17.2	757
South Coast Conservation Society Co-operative Ltd		342.012	Draft EIS should consider costs of water retention and diversion works, and MWS&DB supervisory fees, as well as acquisition costs	APPENDIX B	767
South Coast Conservation Society Co-operative Ltd		342.013	Employment for Wollongong residents would not be experienced now but decades hence, and Wollongong residents would not necessarily be favoured	14.6	722
South Coast Conservation Society Co-operative Ltd		342.014	Draft EIS should consider costs of cut-and-fill, and operating costs resulting from distance from Sydney, as well as acquisition costs	APPENDIX B	767
South Coast Conservation Society Co-operative Ltd		342.015	Tourist flow to Wollongong is not dependent on siting airport at Wilton	2.1	635
South Coast Conservation Society Co-operative Ltd		342.016	Is there any need for a second Sydney airport if, by constructing a parallel runway and reducing aircraft mix, capacity at Kingsford-Smith Airport can be increased	1.3	627
South Coast Conservation Society Co-operative Ltd		342.017	Why not force operators other than regular passenger traffic to use Bankstown, by increasing charges at Kingsford-Smith Airport	1.4	630
South Coast Conservation Society Co-operative Ltd		342.018	Give Richmond air base to civil aviation	3.6	640
South Coast Conservation Society Co-operative Ltd		342.019	Build off-shore airport off Five Islands of Illawarra - combine with disposing of waste by use as fill	3.6	640
South Coast Conservation Society Co-operative Ltd		342.020	Build airport in an area where the natural environment has already been degraded	3.6	640

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
South Coast Conservation Society Co-operative Ltd		342.021	Noise pollution would have greater impact because of rural nature of site	14.2	377
South Coast Conservation Society Co-operative Ltd		342.022	Site has national park potential because of undisturbed condition	3.6	640
South Coast Conservation Society Co-operative Ltd		342.023	Air pollution would have more serious effects because of rural nature of site	15.3	739
South Coast Conservation Society Co-operative Ltd		342.024	Draft EIS states that air pollution at second Sydney airport would be less than in Sydney region. Air quality at both sites is considerably better than in Sydney region - therefore proportional degradation greater	15.3	739
South Coast Conservation Society Co-operative Ltd		342.025	Doubts accuracy of figures regarding coal quality, and quantity that would be sterilized	15.1	728
South Coast Conservation Society Co-operative Ltd		342.026	Problems of subsidence and seismic movement	15.1	728
South Coast Conservation Society Co-operative Ltd		342.027	Costing to include sum already spent on Mount Keira Road	15.4	742
South Coast Conservation Society Co-operative Ltd		342.028	Aircraft pollutants would be most significant in periods of take-off and climb-out, and would be deposited in river system and catchment areas	15.2	736
South Coast Conservation Society Co-operative Ltd		342.029	No consideration has been given in Draft EIS to detrimental effect on flora from aircraft fuel fallout	16.1	749
South Coast Conservation Society Co-operative Ltd		342.030	Wilton site is environmentally unsuitable	17.2	757
South Coast Conservation Society Co-operative Ltd		342.031	Wilton site would be more expensive in terms of access	17.2	757
South Coast Conservation Society Co-operative Ltd		342.032	Wilton site would be more expensive to operate. Although cheaper to acquire, it would work out dearer in the long run	17.2	757
South Coast Labour Council	Wollongong	456.001	Draft EIS does not sufficiently address question of coal sterilization and its implications	15.1	728
South Coast Labour Council		456.002	Concerned at loss of employment from coal sterilization not only under airport site, but also under induced and ancillary development that would occur	14.6	722
South Coast Labour Council		456.003	Requires a number of guarantees to safeguard the continued extraction of coal	15.1	728
South Coast Labour Council		456.004	Draft EIS is not satisfactory review of environmental impact in APPENDIX A relation to the exploitation of coal resources		767
South West Action Group (S.W.A.G.)	Bringelly	250.001	Draft EIS discloses that apart from some restricted zones, there are no existing planning controls for Badgerys Creek area, beyond normal subdivision limitations	9.8	688
South West Action Group (S.W.A.G.)		250.002	Continuance of existing zonings would allow housing to develop close to a twenty-four hour curfew-free airport	9.8	688
South West Action Group (S.W.A.G.)		250.003	Continuance of existing zonings would induce health and stress problems in next generation	9.2	674
South West Action Group (S.W.A.G.)		250.004	Tullamarine airport provides a cautionary example of encircling development around an airport	9.8	688
South West Action Group (S.W.A.G.)		250.005	Population of western suburbs predicted to increase by 0.5 million to 1 million by year 2000. Hence extremely large number of people would be affected by noise	9.8	688
South West Action Group (S.W.A.G.)		250.006	Social and economic conditions oblige young families to live in western region, with no redress from airport development	9.8	688
South West Action Group (S.W.A.G.)		250.007	No Schedule of Conditions from MWS&DB applicable to Badgerys Creek, similar to that for Wilton	APPENDIX H	770

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South West Action Group (S.W.A.G.)		250.008	Although airport might create 2,200 jobs, this figure would represent only 1% share of total regional employment	9.6	682
South West Action Group (S.W.A.G.)		250.009	When Commonwealth resumes rateable land, local councils have difficulty providing services, let alone jobs, for rising population	9.6	682
South West Action Group (S.W.A.G.)		250.010	Twenty-four hour noise problem is understated in Draft EIS	9.2	674
South West Action Group (S.W.A.G.)		250.011	Noise would affect people in every direction from airport at Badgerys Creek, whereas Kingsford-Smith Airport can schedule flights over sea	9.2	674
South West Action Group (S.W.A.G.)		250.012	No serious consideration has been given to planning community facilities	9.8	688
South West Action Group (S.W.A.G.)		250.013	Many lives would be lost if major tragedy occurred, as support services are thinly spread	8.7	665
South West Action Group (S.W.A.G.)		250.014	Major upgrading of roads needed - would be wasted if airport not built	10.4	696
South West Action Group (S.W.A.G.)		250.015	Road network and transport systems would need major upgrading, at great cost to community	10.4	696
South West Action Group (S.W.A.G.)		250.016	Badgerys Creek is at least 60 km from city centre, not 48 km	10.4	696
South West Action Group (S.W.A.G.)		250.017	Has not been proven that Kingsford-Smith Airport could not cope with air traffic beyond year 2000	1.3	627
South West Action Group (S.W.A.G.)		250.018	Wilton would be better site for second Sydney airport because it would affect fewer people	17.2	757
South West Action Group (S.W.A.G.)		250.019	Wilton would be better site for second Sydney airport because less agricultural land would be lost	17.2	757
Southern Cross Gliding Club	Camden	360.001	Controlled airspace requirements should be altered if Badgerys Creek or Wilton chosen. This would increase airspace above Camden	13.6	709
Southern Cross Gliding Club		360.002	Wilton is preferred site	17.1	756
Southern Cross Gliding Club		360.003	Would seek government permission to use Mittagong or old Wilton airstrip if Badgerys Creek chosen	8.6	663
Southern Cross Gliding Club		360.004	Major relocation (more than two hours' drive from Sydney) would be harmful to Club	8.6	663
Southern Cross Gliding Club		360.005	Club would welcome proposal to relocate to Fleurs or Schofields	13.6	709
Southern Cross Gliding Club		360.006	Major relocation (more than two hours' drive from Sydney) would be harmful to Club	13.6	709
Southern Cross Gliding Club		360.007	Controlled airspace requirements should be altered if Badgerys Creek or Wilton chosen. This would increase airspace above Camden	8.6	663
Spillane, JJ	Horsley Park	23.000	For summary of comments, see submission no. 8, Lave, L	*	*
Spillane, S	Horsley Park	24.000	For summary of comments, see submission no. 8, Lave, L	*	*
Spiteri, C & D	Badgerys Creek	2.001	What compensation payable for loss of business (or for relocation), when many constraints on possible relocation sites?	9.2	674
Spiteri, C & D		2.002	No vacant places at Catholic schools, if obliged to relocate further out	9.1	668
Spiteri, C & D		2.003	Uncertainty has produced health problems	PREFACE	662
Spooner, J	Lansvale	168.000	For summary of comments, see submission no. 8, Lave, L	*	*
Sproule, HC Pty Ltd	Luddenham	68.001	Opposed to airport at Badgerys Creek	17.1	756
Sproule, HC Pty Ltd		68.002	People moved into Mascot area knowing an airport already there, but those now living in Badgerys Creek and Luddenham area came in search of rural quiet	9.8	688
Sproule, HC Pty Ltd		68.003	A better solution would be to extend Kingsford-Smith Airport	1.3	627
Sproule, HC Pty Ltd		68.004	Any land rezoned as industrial around Kingsford-Smith Airport increases in value but land so rezoned around Badgerys Creek would lose value	9.1	668
Sproule, HC Pty Ltd		68.005	Luddenham has unusual features making it exceptionally good for market gardening	9.7	685
Sproule, HC Pty Ltd		68.006	Unlike at Kingsford-Smith Airport, there is no ocean nearby to abate noise nuisance of take-off and landing	9.2	674
Sproule, HC Pty Ltd		68.007	Cost of land acquisition very high	9.1	668

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Sproule, HC Pty Ltd		68.008	Airport development would ruin good agricultural land, now used to supply Sydney market economically	9.7	685
Sproule, IJ	Luddenham	400.001	Objects to Badgerys Creek site	17.1	756
Sproule, IJ		400.002	The family business might not be viable if forced to move, and another suitable site would be very difficult to find	9.1	668
Sproule, IJ		400.003	Feels they have been blighted - had settled at Badgerys Creek before possibility of airport was raised	9.1	668
Sproule, IJ		400.004	Peaceful rural lifestyle highly valued by residents	9.2	674
Sproule, IJ		400.005	Should develop Kingsford-Smith Airport in preference to second Sydney airport	1.3	627
Sproule, IJ		400.006	House counts within Badgerys Creek area are wrong	9.1	668
Stivola, P	Cecil Park	93.000	For summary of comments, see submission no. 267, Clark, J	*	*
Stone, AJ	Thirlmere	251.000	For summary of comments, see submission nos 223, Greenup, N, 270, Wilson, B and 273, Wilson, T	*	*
Sykes, R	Mount Ousley	230.001	How can an airport be built in a catchment area when people are prohibited from entry?	15.2	736
Sykes, R		230.002	Scientific value of Wilton airport site	16.1	749
Sykes, R		230.003	Scientific value of Wilton airport site	16.2	751
Sykes, R		230.004	Critical of service provided by Community Access Bus	18.9	761
Sykes, R		230.005	Effect of airport and defoliants on flora, especially on endangered species	16.1	749
Sykes, R		230.006	Effect of airport and defoliants on flora, especially on endangered species	16.2	751
Tadro, AP	Horsley Park	135.000	For summary of comments, see submission no. 8, Lave, L	*	*
Tagg, K & M	Luddenham	370.001	Oppose airport at Badgerys Creek	17.1	756
Tagg, K & M		370.002	Compensation/acquisition requested, as they are inside 30-40 ANEF contour	9.2	674
Tamnopole ?, P	Address illegible	94.000	For summary of comments, see submission no. 267, Clark, J	*	*
Teaken, A	Badgerys Creek	336.001	Against airport at Badgerys Creek	17.1	756
Teaken, A		336.002	Draft EIS does not take into account role of Kingsford-Smith Airport as major international airport	2.4	637
Teaken, A		336.003	There are already enough aerodromes in Sydney region to cater for needs	1.3	627
Teaken, A		336.004	There are already enough aerodromes in Sydney region to cater for needs	1.4	630
Teaken, A		336.005	Acquisition cost too low for Badgerys Creek - should be \$75 million	9.1	668
Tek Bou	St Johns Park	70.000	For summary of comments see submission no. 267, Clark, J	*	*
Telecom Australia	Address not supplied	373.001	Prefers Badgerys Creek	17.1	756
Telecom Australia		373.002	No relocation of existing plant would be required for Wilton site. A junction cable and some subscriber cables would need to be relocated for Badgerys Creek site	17.2	757
Telecom Australia		373.003	Vast majority of calls from Wilton to Sydney would be at trunk rates. Lower percentage of trunk calls from Badgerys Creek	17.2	757
Telecom Australia		373.004	Badgerys Creek is not beyond Commission's existing major network (as is Wilton), and a superior service could therefore be provided	17.2	757
Telecom Australia		373.005	Optical fibre cables with digital line systems would be used at either site. Satellite circuits (as implied in Draft EIS) would not be used. Badgerys Creek would need less cable and so be cheaper	17.2	757
Thi B1	St Johns Park	395.000	For summary of comments, see submission no. 267, Clark, J	*	*
Townsend, J	St Johns Park	441.000	For summary of comments made, see submission no. 267, Clark, J	*	*
Trew, WM	Kingswood	254.001	Opposes airport at Badgerys Creek	17.1	756
Trew, WM		254.002	Noise from Badgerys Creek airport would be extreme	9.2	674
Trew, WM		254.003	Pollution from Badgerys Creek would be extreme as no coastal breeze to move it	10.3	693
Tumbah, P	Horsley Park	92.000	For summary of comments, see submission nos 8, Lave, L and 267, Clark, J	*	*
Turner, CM	Horsley Park	188.000	For summary of comments, see submission nos 8, Lave, L and 267, Clark, J	*	*
Turner, M	Horsley Park	401.000	For summary of comments, see submission no. 267, Clark, J	*	*
Turner, R	Horsley Park	189.000	For summary of comments, see submission no. 8, Lave, L	*	*

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
Turner, WG	Horsley Park	190.000	For summary of comments, see submission no. 8, Lave, L	*	*
Vaak, K	Badqerys Creek	261.001	Opposed to airport Badqerys Creek	17.1	756
Vaak, K		261.002	Kingsford-Smith Airport should be enlarged	1.3	627
Vanolini, A	Prairie-wood	210.000	For summary of comments, see submission no. 267, Clark, J	*	*
Vanolini, P	Prairie-wood	209.000	For summary of comments, see submission no. 267, Clark, J	*	*
Vanolini, R	Prairie-wood	211.000	For summary of comments, see submission no. 267, Clark, J	*	*
Vassallo, EM	Horsley Park	46.000	For summary of comments, see submission no. 8, Lave, L	*	*
Vaughan, K	Blackett	295.001	Another airport in western Sydney not necessary - there are five already	1.4	630
Vaughan, K		295.002	Too close to suburbs of Miller, Bonnyrigg, Mount Druitt	9.2	674
Vaughan, K		295.003	Would create noise problems for over 3,000 people	9.2	674
Vaughan, K		295.004	Would require relocation of 750 people	9.1	668
Vaughan, K		295.005	Would affect the farming land of the area	9.7	685
Vaughan, K		295.006	Concerned at possible adverse effect on research and technical facilities	9.8	688
Vaughan, K		295.007	Plane crash in Badqerys Creek area would be a major disaster	8.7	665
Vaughan, K		295.008	Demand for facilities associated with airport would cause undesirably high-intensity development in the western region	9.8	688
Vaughan, K		295.009	Why not abide by recommendations of the MANS report and build a second runway at Kingsford-Smith Airport?	1.3	627
Vella, D	Horsley Park	6.000	For summary of comments, see submission no. 267, Clark, J	*	*
Vella, F	Horsley Park	174.000	For summary of comments, see submission no. 8, Lave, L	*	*
Vella, J	Horsley Park	110.000	For summary of comments, see submission no. 267, Clark, J	*	*
Vella, M	Horsley Park	5.000	For summary of comments, see submission no. 267, Clark, J	*	*
Vello, C	Wetherill Park	176.000	For summary of comments, see submission no. 8, Lave, L	*	*
Vello, V	Horsley Park	175.000	For summary of comments, see submission no. 8, Lave, L	*	*
Vianello, S	Luddenham	319.001	Opposes airport at Badqerys Creek	17.1	756
Vianello, S		319.002	Area needed for urban sprawl	9.8	688
Vianello, S		319.003	Acquisition costs underestimated	9.1	668
Vianello, S		319.004	Amount of compensation not discussed in Draft EIS - but it could not match the continuing fall in land values ever since idea of second Sydney airport was first raised	9.1	668
Vianello, S		319.005	Draft EIS does not disclose whether airport construction would start immediately	2.5	638
Vianello, S		319.006	Second airports historically under-utilized	2.1	635
Viglione, JC	Horsley Park	36.000	For summary of comments, see submission no. 8, Lave, L	*	*
Walker, S	Horsley Park	143.000	For summary of comments, see submission no. 8, Lave, L	*	*
Walton, C	Bargo	220.001	Objects to airport at Wilton	17.1	756
Walton, C		220.002	Concerned at risk to water supply	15.2	736
Walton, C		220.003	Drainage into Allens Creek would have impact on environment	15.2	736
Walton, C		220.004	Travel time to Wilton makes it unsuitable for airport	15.4	742
Water Industry Salaried Officers' Union	Sydney	76.001	Astonished that serious consideration should have been given to siting second Sydney airport within the Metropolitan Water Catchment area	15.2	736
Water Industry Salaried Officers' Union		76.002	Draft EIS inadequate on cost of maintaining integrity and quality of water supply	15.2	736
Water Industry Salaried Officers' Union		76.003	Concerned that provisions of Clean Waters Act might not be adhered to, if airport sited at Wilton	15.2	736
Water Industry Salaried Officers' Union		76.004	Concerned at potential environmental damage	15.2	736
Weidmann, G	St Johns Park	111.000	For summary of comments, see submission no. 267, Clark, J	*	*

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Weiner & Woods Poultry Products/Woods, RA	Badgerys Creek	460.001	Opposes airport at Badgerys Creek	17.1	756
Weiner & Woods Poultry Products/Woods, RA		460.002	Contends that Badgerys Creek site is inferior to Wilton, in view of greater number of people and small businesses affected, and potential conflict with agricultural and possible future urban uses	17.2	757
Weiner & Woods Poultry Products/Woods, RA		460.003	Fog would present problems at Badgerys Creek	10.3	693
Weiner & Woods Poultry Products/Woods, RA		460.004	Far more people would be adversely affected by compulsory acquisition at Badgerys Creek than at Wilton	17.2	757
Weiner & Woods Poultry Products/Woods, RA		460.005	Decision is fifteen years too late	3.7	642
Weiner & Woods Poultry Products/Woods, RA		460.006	Figures for cost of acquisition are erroneous	9.7	685
Weiner & Woods Poultry Products/Woods, RA		460.007	Concerned at scale of compensation, as set out in Draft EIS, to be paid for items such as poultry sheds, and other improvements to properties	9.1	66B
Weiner & Woods Poultry Products/Woods, RA		460.008	Considers market value would not be reasonable compensation to poultry farmers or others engaged in intensive farming activities	9.1	66B
Weiner & Woods Poultry Products/Woods, RA		460.009	Concerned that land might be unnecessarily resumed if airport development did not proceed	9.1	66B
Weiner & Woods Poultry Products/Woods, RA		460.010	Far more people would be adversely affected by noise at Badgerys Creek than at Wilton, and future growth in the region would increase this impact	17.2	757
Whalan, J	Blaxland	301.001	Opposed to airport at Badgerys Creek	17.1	756
Whalan, J		301.002	Against airport at Badgerys Creek on grounds of air pollution	10.3	693
Whalan, J		301.003	Against airport at Badgerys Creek on grounds of water pollution	10.2	692
White, D	Wetherill Park	88.000	For summary of comments, see submission no. 267, Clark, J	*	*
Williams, MA	Badgerys Creek	424.001	Protests against airport at Badgerys Creek	17.1	756
Williams, MA		424.002	Parallel runway at Kingsford-Smith Airport should have been allowed for in planning stage, so second airport would not have been needed	1.3	627
Williams, MA		424.003	Suggests second Sydney airport more appropriate at Wilton - much less disruption for people	17.2	757
Williams, MA		424.004	Contends that acquisition cost at Badgerys Creek was understated in Draft EIS, and this undermines credibility of entire document	9.1	66B
Williams, MA		424.005	Acquisition at Badgerys Creek involves over 750 residents at cost of \$80 million	9.1	66B
Williams, MA		424.006	Twelve questions submitted covering the topic of land acquisition	9.1	66B
Williams, R	Fairfield Heights	318.000	For summary of comments, see submission no. 267, Clark, J	*	*
Wilson, B	Wilton	270.001	Opposed to airport at Wilton	17.1	756
Wilson, B		270.002	Residents value peaceful rural lifestyle	14.2	715
Wilson, B		270.003	Development of an airport would bring noise	14.2	715
Wilson, B		270.004	Development of an airport would bring pollution	15.3	739
Wilson, B		270.005	Population growth that would occur in region would result in greater pollution, ecological and social problems	14.8	725
Wilson, DM	Horsley Park	115.000	For summary of comments, see submission no. 267, Clark, J	*	*
Wilson, T	Monterey	273.001	Opposed to airport at Wilton	17.1	756
Wilson, T		273.002	Wide variety of airport pollutants could not be prevented from contaminating water catchment, and would jeopardize purity of Sydney's water supply	15.2	736
Wilton Airport Resistance Committee	Wilton	338.001	Considers that little attention was paid to its previous submissions	18.8	761
Wilton Airport Resistance Committee		338.002	States that two different sets of figures for aircraft movements were supplied to Wilton Airport Resistance Committee by the Department of Aviation - requests inclusion of most recent data in Supplement to Draft EIS	18.9	761

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
Wilton Airport Resistance Committee		338.003	Questions the choice of Wilton as best mid-distance site, considers Somersby as a contender	6.5	653
Wilton Airport Resistance Committee		338.004	No report on Wilton before Minister's announcement of September 1984	6.8	658
Wilton Airport Resistance Committee		338.005	Contends that water catchment should have been assigned high environmental rating, given that national parks were excluded from consideration on this basis	3.6	640
Wilton Airport Resistance Committee		338.006	MWS&DB not approached before September 1984	4.5	645
Wilton Airport Resistance Committee		338.007	MWS&DB protection was not effective during Maldon-Dombarton rail-line construction - catchment protection would be too great responsibility?	APPENDIX H	770
Wilton Airport Resistance Committee		338.008	Earth bank and canal proposed for airport would not adequately contain polluted water	15.2	736
Wilton Airport Resistance Committee		338.009	Draft EIS does not consider pollution from the relocation of other services affected by the airport, such as transmission lines, roads and pipelines	15.2	736
Wilton Airport Resistance Committee		338.010	Water pollution in Nepean River assessed on basis of inaccurate flow rates - flow at Allens Creek far less than at Camden	15.2	736
Wilton Airport Resistance Committee		338.011	Draft EIS does not consider air pollution in local context	15.3	739
Wilton Airport Resistance Committee		338.012	Meteorological data in Draft EIS deficient	15.3	739
Wilton Airport Resistance Committee		338.013	Wildlife surveys were not comprehensive - out of season wildlife, trapping methods, limited range of sites for bird survey	16.2	751
Wilton Airport Resistance Committee		338.014	Bird control methods would be incompatible with the water catchment controls	16.2	751
Wilton Airport Resistance Committee		338.015	Koalas would be affected by noise - healthy communities of koalas off-site not considered in Draft EIS	16.2	751
Wilton Airport Resistance Committee		338.016	Draft EIS does not consider platypus	16.2	751
Wilton Airport Resistance Committee		338.017	No reference to burrowing animals getting under airport fence	16.2	751
Wilton Airport Resistance Committee		338.018	Bats not considered in Draft EIS	16.2	751
Wilton Airport Resistance Committee		338.019	Draft EIS does not consider 'worst case' employment, which would arise if Wilton were to be simply a General Aviation airport	14.6	722
Wilton Airport Resistance Committee		338.020	Local noise problems of twenty-four hour airport not addressed	14.2	715
Wilton Airport Resistance Committee		338.021	Criticizes ANEF system as applied in non-urban areas	14.2	715
Wilton Airport Resistance Committee		338.022	Impact of noise greater in semi-rural area with quiet lifestyle	14.2	715
Wilton Airport Resistance Committee		338.023	Public amenities in reservoir areas would be affected by noise - impact on Campbelltown and Wollongong populations	14.2	715
Wilton Airport Resistance Committee		338.024	Fuel storage not addressed adequately, particularly the risk during a bushfire	13.5	708
Wilton Airport Resistance Committee		338.025	Area around Wilton not suitable for preferred regional development	14.8	725
Wilton Airport Resistance Committee		338.026	Wilton area would be blighted	14.1	713
Wilton Airport Resistance Committee		338.027	Fuel storage not addressed adequately, particularly the risk during a bushfire	16.1	749
Wilton Airport Resistance Committee		338.028	Would sterilize coal reserves worth \$10,000 million	15.1	728
Wilton Airport Resistance Committee		338.029	Suggests that there has been a decline in airport usage at Kingsford-Smith Airport	1.2	624
Wilton Airport Resistance Committee		338.030	Commuters and General Aviation are favoured at Kingsford-Smith Airport because of cost recovery bias - reduce usage by small aircraft, by policy of full cost recovery	1.4	630

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Wilton Airport Resistance Committee		338.031	No discussion in Draft EIS of alternatives to reduce the problem of noise at Kingsford-Smith Airport	1.3	627
Wilton Airport Resistance Committee		338.032	Compares Draft EIS forecasts with MAN Study - general criticism of forecasts - requests inclusion of base data in Supplement and consideration of effect of larger carriers	1.2	624
Wilton Airport Resistance Committee		338.033	General criticism of role of second Sydney airport - suggests a smaller airport closer to city centre would be more appropriate. Wilton would not attract adequate number of passengers	2.1	635
Wilton Airport Resistance Committee		338.034	Argues that travel time quoted for Wilton is not representative of actual situation	15.4	742
Wilton Airport Resistance Committee		338.035	Argues initial acquisition cost differences between sites is irrelevant. Introduces arguments with respect to travel time costs and cost of development, value of unspoilt Crown land, cost of subsidy of uneconomic airport	17.2	757
Wilton Airport Resistance Committee		338.036	General discussion on comparison of Wilton and Badgerys Creek - feels there is bias in Draft EIS toward Wilton	17.2	757
Wilton Airport Resistance Committee		338.037	Pollution of catchment from fire retardants and fuel in the event of a plane crash	15.2	736
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.038	Wilton would be world's most remote airport - not viable on international experience	3.7	642
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.039	Would disturb pristine eco-systems	16.1	749
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.040	Would disturb pristine eco-systems	16.2	751
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.041	Would increase erosion and sedimentation of waterways	15.2	736
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.042	Surface water would discharge into Class 'S' waterways	15.2	736
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.043	Could lead to pollution of Sydney's water supply	15.2	728
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.044	Site would be expensive to develop because of moat and drainage and run-off controls necessary, during construction and operation	15.2	736
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.045	Site would be expensive to develop because of requirement to relocate transmission line	15.5	745
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.046	Site would be expensive to develop because of amount of cut-and-fill needed	15.1	728
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.047	Site would be expensive to develop as it is in an area of mine subsidence and seismic activity	15.1	728
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.048	Site would be expensive to develop because of need to upgrade transport links to Sydney	15.4	742
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.049	Site would be expensive to develop because of infrastructure requirements	15.5	745
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.050	Site would be expensive to operate because of long travel times	15.4	742
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.051	Site would be expensive to operate because of necessity of disposing of waste, well away from site	15.5	745
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.052	Site would be expensive to operate because of necessity for precautions against water pollution	15.2	736
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.053	Site would be expensive to operate because of necessity for precautions against air pollution	15.3	739

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Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.054	Site would be expensive to operate because of necessity for precautions against exotic disease organisms entering water supply	15.2	736
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.055	Site would be expensive to operate because of precautions against exotic disease organisms entering water supply	15.5	745
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.056	Site would be expensive to operate because of need to police against trespass into catchment area	15.2	736
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.057	Site would be expensive to operate because of necessity for precautions against exotic flora invading catchment	16.1	749
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.058	Site would be expensive to operate because of necessity for precautions against exotic fauna invading catchment	16.2	751
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.059	Site would be expensive to operate because of necessity for precautions during periods of high fire danger - area is prone to bushfires	16.1	749
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.060	Site would be expensive to operate because of precautions needed against bird strike	16.2	751
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.061	Aboriginal sites in district not fully explored or documented, for instance in airport surrounds and infrastructure routes	14.3	719
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.062	High incidence of fog, hail and lightning	15.3	739
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.063	Unfavourable wind patterns	15.3	739
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.064	North-south runway only feasible at great cost	13.5	708
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.065	Proposal runs counter to National Conservation Strategy	3.6	640
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.066	Conflict with statutory requirements of NSW Government	15.2	736
Wilton Airport Resistance Committee/Gow, LP & Balla, JR		338.067	Would be contrary to Water Board policy	15.2	736
Wilton Airport Resistance Committee/Environmental Management		338.068	Draft EIS at fault in considering only worst case (heaviest use of second Sydney airport). Wilton would be far greater economic liability than Badgerys Creek at low volumes of traffic	17.2	757
Wilton Airport Resistance Committee/Environmental Management		338.069	Estimates of noise in Draft EIS very conservative	14.2	715
Wilton Airport Resistance Committee/Environmental Management		338.070	Draft EIS at fault in not concentrating on the more significant impacts, applying sensitivity tests - this led to error in short-listing Wilton	6.6	654
Wilton Airport Resistance Committee/Environmental Management		338.071	No report and almost no on-site work on Wilton before Minister's announcement. Analysis in Draft EIS insufficient to justify elimination of some sites from short-listing.	4.5	645
Wilton Airport Resistance Committee/Environmental Management		338.072	Wilton site of value to the National Estate - undisturbed catchments of high scientific value	3.6	640
Wilton Airport Resistance Committee/Environmental Management		338.073	Errors in short-listing process, most importantly heavier weighting of social environmental effects than of natural environmental effects - conservation status of ecological systems should be considered	6.6	654

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Wilton Airport Resistance Committee/Envir onmental Management		338.074	Draft EIS contains no consideration of value of clean water supply in resource terms rather than monetary	15.2	736
Wilton Airport Resistance Committee/Envir onmental Management		338.075	Draft EIS should have considered operating costs that varied between sites as well as acquisition costs and variations in economic viability of airport	APPENDIX B	767
Wilton Airport Resistance Committee/Envir onmental Management		338.076	Impact of water contamination at Badgerys Creek far less significant than at Wilton - very stringent run-off controls and discharge treatment would be necessary at Wilton. Badgerys Creek water already degraded - mitigation feasible	17.2	757
Wilton Airport Resistance Committee/Envir onmental Management		338.077	Ecological implications of altered moisture regime downstream of airport boundaries	16.2	751
Wilton Airport Resistance Committee/Envir onmental Management		338.078	Risk of fire retardant chemicals and fuel polluting catchment in event of plane crash	13.7	711
Wilton Airport Resistance Committee/Envir onmental Management		338.079	Precautions required to prevent exotic disease organisms entering water supply	15.5	745
Wilton Airport Resistance Committee/Envir onmental Management		338.080	Ecological implications of altered moisture regime downstream of airport boundaries,	16.1	749
Wilton Airport Resistance Committee/Envir onmental Management		338.081	Environmental effects of relocating power line and other infrastructure not discussed in Draft EIS	15.5	745
Wilton Airport Resistance Committee/Envir onmental Management		338.082	Draft EIS does not discuss rare and endangered species of plants at Wilton. Vegetation at Badgerys Creek already very much disturbed	16.1	749
Wilton Airport Resistance Committee/Envir onmental Management		338.083	Fire hazard in Wilton area high	16.1	749
Wilton Airport Resistance Committee/Envir onmental Management		338.084	Faunal study does not discuss rare and endangered species known to occur in Wilton area	16.2	751
Wilton Airport Resistance Committee/Envir onmental Management		338.085	Draft EIS misinterprets attitude of Tharawal Aboriginal land council	14.4	720
Wilton Airport Resistance Committee/Envir onmental Management		338.086	Requests detailed study of capacity of Wilton and Badgerys Creek to attract passengers - economic viability	17.2	757
Wilton Airport Resistance Committee/Envir onmental Management		338.087	Draft EIS inconsistent on assessment of quality of coal - Bellambi Coal Company development plans	15.1	728
Wilton Airport Resistance Committee/Envir onmental Management		338.088	Draft EIS overestimates value of agricultural production that would be lost at Badgerys Creek	9.7	685
Wilton Airport Resistance Committee/Envir onmental Management		338.089	Queries need for second Sydney airport. Strategies to increase life of Kingsford-Smith Airport available, such as peak-pricing policy to reduce General Aviation congestion, larger craft, flights bypassing Sydney, and other modes of travel	1.2	624
Wilton Airport Resistance Committee/Envir onmental Management		338.090	Period of delay before construction would be longest at site furthest from Sydney	2.5	638
Wilton Airport Resistance Committee/Envir onmental Management		338.091	Social disruption at Badgerys Creek overstated - delay between land acquisition and construction would deplete area through relocation of many residents and through natural mortality	9.1	668
Wilton Airport Resistance Committee/Envir onmental Management		338.092	Positive effects of employment generation greater at Badgerys Creek than at Wilton	17.2	757

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Wisbey, D & M	Silverdale	73.001	Against airport at Badgerys Creek	17.1	756
Wisbey, D & M		73.002	Plenty of scope for extension of Kingsford-Smith Airport	1.3	627
Wisbey, D & M		73.003	Airport would not benefit lagging business in the area	9.6	682
Wolli Creek & Bardwell Valley Preservation Society	Turrella	66.001	Draft EIS inadequately addresses problems of moving passengers between Kingsford-Smith Airport and second Sydney airport	10.4	696
Wolli Creek & Bardwell Valley Preservation Society		66.002	Draft EIS inadequately addresses problems of moving passengers between Kingsford-Smith Airport and second Sydney airport	15.4	742
Wolli Creek & Bardwell Valley Preservation Society		66.003	Demands of freight transport might necessitate construction of airport-to-airport freeway	10.4	696
Wolli Creek & Bardwell Valley Preservation Society		66.004	Demands of freight transport might necessitate construction of airport-to-airport freeway	15.4	742
Wolli Creek & Bardwell Valley Preservation Society		66.005	Fuel requirements of second Sydney airport would add to pressure to construct freeway	10.4	696
Wolli Creek & Bardwell Valley Preservation Society		66.006	Fuel requirements of second Sydney airport would add to pressure to construct freeway	15.4	742
Wolli Creek & Bardwell Valley Preservation Society		66.007	Proposes comprehensive rail link with no further development of roads. Fuel should be transported by pipeline or rail only	10.4	696
Wolli Creek & Bardwell Valley Preservation Society		66.008	Proposes comprehensive rail link with no further development of roads. Fuel should be transported by pipeline or rail only	15.4	742
Wolli Creek & Bardwell Valley Preservation Society		66.009	Supports concept of second Sydney airport	1.3	627
Wolli Creek & Bardwell Valley Preservation Society		66.010	Opposes any associated development adversely affecting Wolli Creek Valley	9.8	688
Wolli Creek & Bardwell Valley Preservation Society		66.011	Opposes any associated development adversely affecting Wolli Creek Valley	14.8	725
Wollongong Chamber of Commerce & Industry	Wollongong	349.001	Expresses strong support for Wilton proposal	17.1	756
Wollongong Chamber of Commerce & Industry		349.002	Acceptable travel time, taking into account the planned construction of the Southern Freeway	15.4	742
Wollongong Chamber of Commerce & Industry		349.003	Impacts of noise pollution minimal	14.2	715
Wollongong Chamber of Commerce & Industry		349.004	Flight paths in the main within uninhabited tracts of catchment area	13.6	709
Wollongong Chamber of Commerce & Industry		349.005	Wilton easily serviced from Sydney, Wollongong and Campbelltown	15.4	742
Wollongong Chamber of Commerce & Industry		349.006	Acquisition costs nil	14.1	713
Wollongong Chamber of Commerce & Industry		349.007	Employment and flow-on effects would be very beneficial to Wollongong area	14.6	722
Wollongong City Council	Wollongong East	432.001	Supports development of Wilton site	17.1	756
Wollongong City Council		432.002	Conflict between mining interest and airport, but most of coal could still be extracted	15.1	728
Wollongong City Council		432.003	Badgerys Creek Airport would sterilize large potential urban growth area	9.8	688
Wollongong City Council		432.004	Wilton would provide great economic stimulus and improve employment opportunities	14.6	722
Wollongong City Council		432.005	Lower cost of acquiring Wilton compensates for additional cost of accessibility	17.2	757
Wollongong City Council		432.006	Airport at Wilton would not interfere with other airspace	13.6	709

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Wollongong City Council		432.007	Air quality would not be affected to any marked degree	15.3	739
Wollongong City Council		432.008	Water quality would not be affected	15.2	736
Wollongong City Council		432.009	Dual-purpose management strategy for controlling both water and ecology should be adopted	15.2	736
Wollongong City Council		432.010	Dual-purpose management strategy for controlling both water and ecology should be adopted	16.1	749
Wollongong City Council		432.011	Dual-purpose management strategy for controlling both water and ecology should be adopted	16.2	751
Wollongong City Council		432.012	More people would be affected by noise at Badgerys Creek site than at Wilton	17.2	757
Wollongong City Council		432.013	Aircraft noise not issue for residents at Wollongong	14.2	715
Wollongong City Council		432.014	Although Wilton is further from Sydney than Badgerys Creek, Wilton is nearer Wollongong and other urban areas such as Goulburn, Canberra	17.2	757
Wollongong City Council		432.015	Aboriginal land council not opposed to Wilton site	14.4	720
Wollongong City Council		432.016	Airport would provide employment for Wollongong and Campbelltown regions	14.6	722
Wollongong City Council		432.017	Area of approximately 2000 hectares of relatively flat land available at Wilton	15.1	728
Wollongong City Council		432.018	Site satisfies MANS criteria for accessibility	15.4	742
Wollongong City Council		432.019	Wilton site would require extensive cut-and-fill, but extra fill (slag and coal wash) is available locally	15.1	728
Wollongong City Council		432.020	Clear flight paths in all directions	13.6	709
Wollongong City Council		432.021	Acquisition costs minimal	14.1	713
Wollongong City Council/Airport Task Force		432.022	Speedy acquisition process	14.1	713
Wollongong City Council/Airport Task Force		432.023	Coal mining presents problem, but measures could be taken to avoid subsidence	15.1	728
Wollongong City Council/Airport Task Force		432.024	Region offers most of required infrastructure and resources (available residential land, transport routes, workforce)	14.8	725
Wollongong City Council/Airport Task Force		432.025	Skilled labour available locally for design and construction	14.6	721
Wollongong City Council/Airport Task Force		432.026	International airport would increase tourism in region	2.1	635
Wollongong City Council/Airport Task Force		432.027	Meteorological data show fogs are not severe	15.3	739
Wollongong City Council/Airport Task Force		432.028	Airport accessible from F5 Freeway	15.4	742
Wollongong City Council/Airport Task Force		432.029	Maldon-Dombarton railway could provide direct high-speed rail link to Sydney and Wollongong	15.4	742
Wollongong City Council/Airport Task Force		432.030	Strict water control measures would be needed, but MWS&DB concludes that problems are surmountable	15.2	736
Wollongong City Council/Airport Task Force		432.031	Few, if any, people affected by noise, if airport sited at Wilton	14.2	715
Wollongong City Council/Airport Task Force		432.032	Reduction in adverse effects experienced by suburbs near Kingsford-Smith Airport would be beneficial	1.3	627
Wollongong City Council/ Mitchell McCotter		432.033	It would be necessary to develop all remaining sectors within Sydney Region by year 2011 in order to accommodate the increase in population	14.8	725
Wollongong City Council/ Mitchell McCotter		432.034	Draft EIS does not acknowledge that second Sydney airport at Badgerys Creek would affect the ultimate capacity for development of the Sydney Region	9.8	688
Wollongong City Council/ Mitchell McCotter		432.035	Draft EIS does not acknowledge that second Sydney airport at Wilton would affect the ultimate capacity for development of the Sydney Region	14.8	725
Wollongong City Council/ Mitchell McCotter		432.036	Development of preferred runway alignment at Badgerys Creek would result in noise effects over approximately 345 hectares of Bringelly growth sector (third priority sector)	9.8	688

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
Wollongong City Council/ Mitchell McCotter		432.037	Noise from the preferred runway alignment at Wilton would not affect sectors of future urban growth in the area	14.2	715
Wollongong City Council/ Mitchell McCotter		432.038	Badgerys Creek very well placed for future urban development, and its use for this purpose would postpone the socially and financially costly need to expand outside Sydney Region	9.8	688
Wollongong City Council/ Griffith		432.039	Recommends that second Sydney airport planning emphasize environmental management aspects in routeing and construction of services, and in regional planning and land use allocation	14.8	725
Wollongong City Council/ Griffith		432.040	Pressure on environment of region would increase through changes induced in demographic, commercial and industrial patterns of the area	14.8	725
Wollongong City Council/ Griffith		432.041	Recommends application of environmental protection principles evolved on Maldon-Port Kembla rail link, to infrastructure works associated with second Sydney airport	15.5	745
Wollongong City Council/ Griffith		432.042	Effective management of natural environment might require further investigatory projects and collation of resources, and an increased level of law enforcement by MWS&DB	15.2	736
Wollongong City Council/ Griffith		432.043	Integrated forward planning by local, regional and State governments would be needed to help protect important aspects of environment, once identified	14.8	725
Wollongong City Council/ University of Wollongong		432.044	Refers to difficulty of integrating programmes that would allow for working coal under proposed site, and for airport construction	15.1	728
Wollongong City Council/ University of Wollongong		432.045	Current programme of extraction would preclude construction of airport for 30-40 years	15.1	728
Wollongong City Council/ University of Wollongong		432.046	Sterilizing coal under airport would reduce life of Bulli seam by ten years - this would be uneconomic for the Bellambi Coal Company Pty Ltd	15.1	728
Wollongong City Council/ University of Wollongong		432.047	Limiting working under the airport to solids would not significantly reduce the loss of coal sterilized	15.1	728
Wollongong City Council/ University of Wollongong		432.048	Panel and pillar mining would reduce subsidence risk adequately, but would still delay construction of airport until year 2020, and would increase costs of production	15.1	728
Wollongong City Council/ University of Wollongong		432.049	Combined seam and pillar extraction would not control subsidence and would be too costly	15.1	728
Wollongong City Council/ University of Wollongong		432.050	Prospects for allocation to the Bellambi Coal Company Pty Ltd of compensatory reserves at Bargo and Loddon appear good	14.1	713
Xuereb, J	Horsley Park	34.000	For summary of comments, see submission no. 8, Lave, L	*	*
Yacchenello, AV	Horsley Park	142.000	For summary of comments, see submission no. 8, Lave, L	*	*
Yacchenello, U	Horsley Park	145.000	For summary of comments, see submission no. 8, Lave, L	*	*
Young, C	Horsley Park	280.000	For summary of comments, see submission no. 8, Lave, L	*	*
Young, Dr A	Wollongong	245.001	Factual material in Draft EIS is of high standard	PREFACE	622
Young, Dr A		245.002	Adverse effects if fuel were dumped over Metropolitan Water Catchment dams.	15.2	736
Young, Dr A		245.003	Draft EIS does not discuss polluting effects resulting from localised cold air flows	15.3	739
Young, Dr A		245.004	Inevitably some siltation of actual water catchment streams would occur during construction	15.1	728
Young, Dr A		245.005	Only first flush of stormwater could be controlled. Proposed treatment not adequate for pollutants such as oils, pesticides and solvents	15.2	736
Young, Dr A		245.006	Would not be possible to meet at all times the standards required by Clean Waters Act Class 'S' and 'P' water	15.2	736
Young, Dr A		245.007	Draft EIS does not consider adequately effects of re-routing 330kV powerline	15.5	506
Young, Dr A		245.008	No indication of impact of constructing suitable road connection to South Western Freeway	15.4	742
Young, Dr A		245.009	Approach flight path over Royal National Park detrimental to quiet enjoyment	14.2	715
Young, Dr A		245.010	Draft EIS does not comment on potential effects of major bushfires on airport	12.3	705
Zammit, T	St Johns Park	434.000	For summary of comments, see submission no. 267, Clark, J	*	*
Zatschler, E & K	Oak Flats	393.001	Object to Wilton site	17.1	756

AUTHOR(S) OF SUBMISSION	ADDRESS	COMMENT NO	SUMMARY OF COMMENTS MADE IN SUBMISSION	DRAFT EIS SECTION	SUPPLEMENT PAGE
Zatschler, E & K		393.002	The use of water catchment area as site for airport would be thin edge of wedge	15.2	736
Zatschler, E & K		393.003	Future demand for water as well as airport facilities	15.2	736
Zatschler, E & K		393.004	Coal sterilization issue	15.1	728
Zatschler, E & K		393.005	Destruction of natural environment	16.1	749
Zatschler, E & K		393.006	Destruction of natural environment	16.2	751
Zivanovic, H	St Johns Park	442.000	For summary of comments, see submission no. 267, Clark, J	*	*
blank no.		37.000			
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* For comment reference, see model proforma

** See APPENDIX 2

APPENDIX 2 — CORRIGENDA IN THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

This appendix comprises amendments to the Draft EIS to correct errors or omissions identified during the ten-week public comment period. Amendments have been identified which relate to:

- . text
- . figures.

The amendments which have been identified are set out below.

A2.1 AMENDMENTS TO TEXT

One submission made a number of comments (274.020, 274.093 and 274.127) relating to amendments to the text. These are included below.

Page 22

'... about 2 km of 330 kV transmission line forming part of the Sydney South to Dapto supply service, ...'

should read,

'... about 2 km of the 330 kV Avon-Kemps Creek transmission line, ...'

Page 236

'Owing to increasing transport costs, it is also desirable for farms to be close to the hatchery, feed mill and processing plant (100 km is the maximum recommended distance for the transport of poultry to processing plants).

The Premier's Department has indicated that the wording of this should be changed to indicate that:

'Poultry processors do not want to travel more than 25 km due to increased costs.'

Page 238

'Milk production is regulated by a quota system to limit supply, but growers must also produce ...'

should read,

'Milk production is regulated by a quota system and growers must produce ...'

Page 244

'Similarly, the NSW Dairy Corporation might not allow a producer to transfer his quota to a property further away from Sydney ...'

should read,

'Similarly, a producer might not be able to transfer his quota to a property further away from Sydney ...'

Page 348

'Part of the Sydney South to Dapto 330 kV steel tower transmission line ...'

should read,

'Part of the Avon-Kemps Creek 330 kV steel tower transmission line ...'

Page 440

'This seam is considered uneconomic for mining purposes within the proposed site.'

should read,

'This seam is considered uneconomic for mining purposes within the East Bargo sector of the proposed site.'

Page 440

The reference to 'Coal Development Area No. 3'

should read

'Area set aside for potential future development' to accord with the revised wording of Figure 15.1.2 on page 441 (see below - amendments to Figures)

Page 446

'... was the preferred choice over all other sites in the Wilton area was because it overlies an area of poor quality coal and therefore minimizes the potential for coal sterilization.'

The Premier's Department advises that this statement needs to be qualified by the following:

'... for coal sterilization. However, it is not possible to predict the quality of coal contracts at the turn of the century and it might be desirable to selectively mine the area to obtain coal for blending to produce a marketable product.'

Page 506

'... the Sydney West - Avon 330 kV transmission line'

should read

'... the Kemps Creek - Avon 330 kV transmission line.'

A2.2 AMENDMENTS TO FIGURES

Three submissions made five comments (65.012, 274.092, 274.099, 274.100 and 384.001) which relate to three figures contained in the Draft EIS.

Figure 1.3 (Page 51)

One submission criticized this figure because it omitted place names.

The purpose of this figure was to provide a schematic representation of the constraints to urban development within the Sydney region. This map is a stylized version of a map prepared at 1:150,000 scale by the Department of Environment and Planning using information from a variety of sources. It does not purport to be a precise delineation, hence to put place names on the map could be misleading.

The map contains physical information such as rivers and bays. This information has been proportionally scaled down and is sufficient to indicate the relative geographic location of the mapped features.

Figures 14.8.1 (Page 431)

One comment was that the figure is inaccurate as it does not correctly indicate topographically difficult or unstable land.

This map is a stylized version of a map prepared at 1:150,000 scale by the Department of Environment and Planning using the best available information at the time of its compilation. Figure 14.8.1 has been reduced in scale and is reproduced at about 1:500,000. It should not be used by property owners as a means of interpreting the constraints which might or might not apply to particular parcels of land. It should be noted that the scaled distance between the blue hatching on the map represents about 500 m in distance, and hence the map is not intended to give precise and detailed information in respect of individual properties.

The Department of Environment and Planning is currently preparing a Regional Environmental Study for the Macarthur Region. This study will examine the urban capability of the region based on more recent information relating to land capability and topographic constraints. This information is based on more advanced mapping techniques than were used to prepare the data for Figure 14.8.1 and is likely to provide some detailed information.

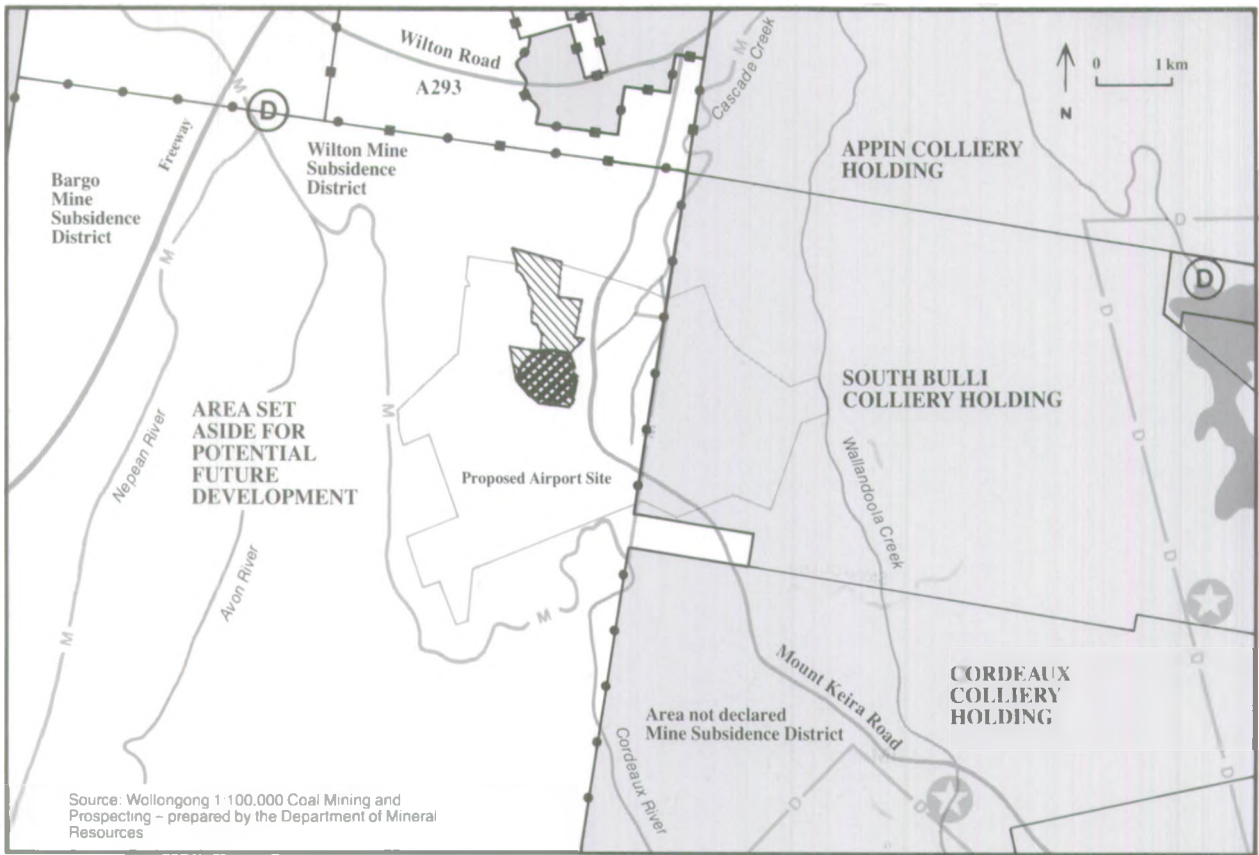
Figure 15.1.2 (Page 441)

One comment indicated that Figure 15.1.2 of the Draft EIS should be revised and amended to include updated and additional information.

Figure A2.1 has been revised and amended in accordance with the comments. 'Coal Development Area No. 4 (Bargo)' has been retitled 'Area Set Aside for Potential Future Development.'

It has not been possible to extend the proposed coal mining area boundary due to the size and scale of the figure. However, the source from which this information can be obtained is added to the figure.

The proposed West Bellambi pit top site has been included on the revised figure.



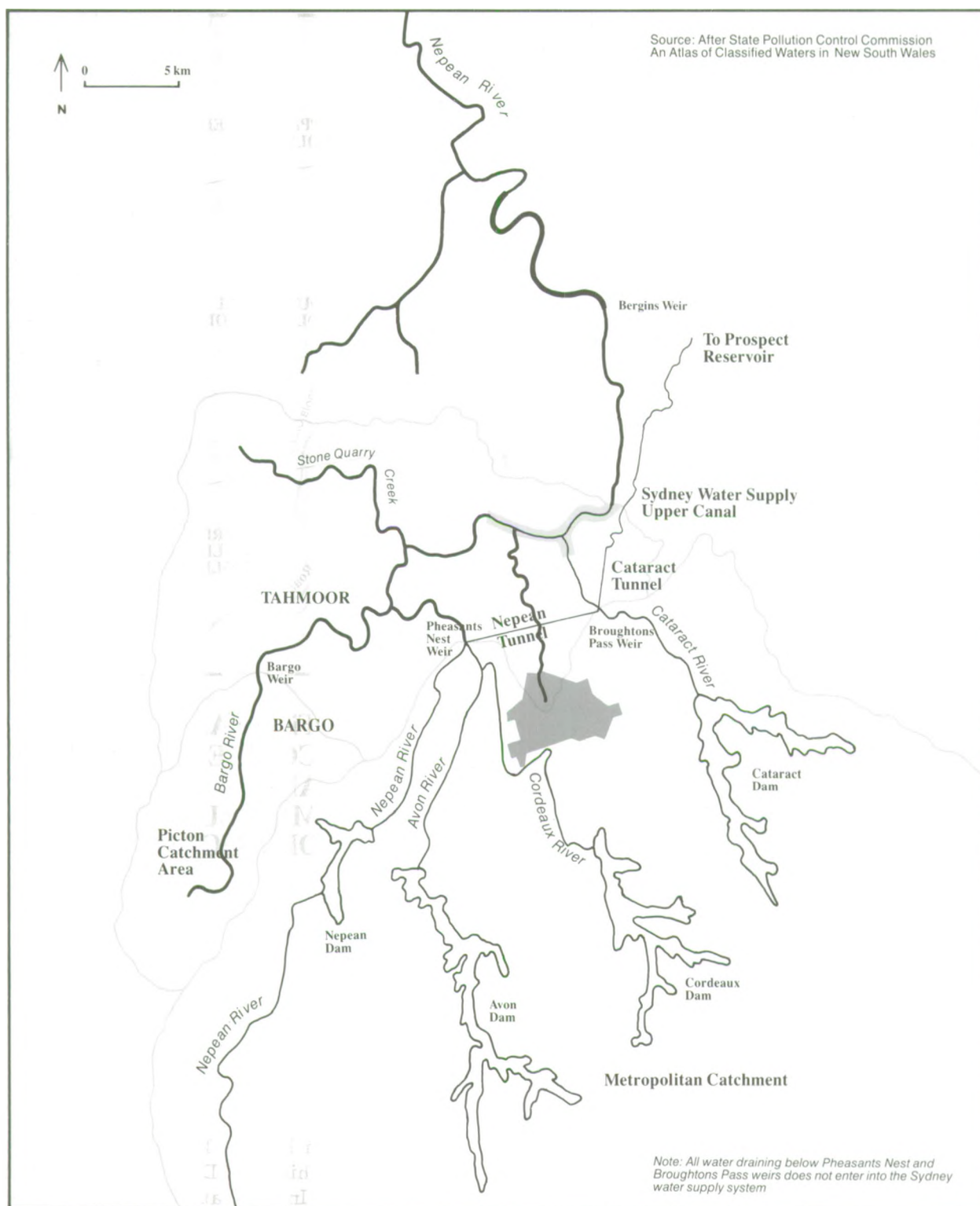
**Figure A2.1
COLLIERY HOLDINGS
AND
MINE SUBSIDENCE
DISTRICTS**

Figure 15.2.1 (Page 459)

One submission made two comments about details shown on Figure 15.2.1 of the Draft EIS relating to the classification of the Nepean River within the Devines Weir Inner Catchment area and the inference that the Devines Weir Inner Catchment is part of Sydney's water supply system.

Figure A2.2 has been amended to show the correct classifications of the Nepean River within the Devines Weir Inner Catchment.

A note has been added to the illustration to indicate the Devines Weir Inner Catchment is not part of the Sydney water supply system.



-  Proposed airport site
-  Metropolitan Catchment
(Section 55, MWS & DB Act, 1924)
-  Devines Weir Inner Catchment
area
(Section 55, MWS & DB Act, 1924)
-  Class S – Specially protected
waters
-  Class P – Protected waters
-  Class C – Controlled

Figure A2.2
UPPER NEPEAN RIVER
SCHEME – PART OF
SYDNEY'S WATER SUPPLY
SYSTEM

APPENDIX 3 — LATE SUBMISSIONS

As stated in the Introduction, thirteen submissions were received by the Department of Aviation after 6 September and therefore too late to be included in either the computer listing or the detailed analysis of submissions. These were examined after the responses to the other submissions had been completed and a brief description of their contents is given below.

Overseas Telecommunications Commission

- . OTC receiver station will not be technically obsolete at time airport built;
- . Claim that relocation will be necessary without airport not supported by data;
- . EIS does not state that airport would make receiver station unworkable;
- . Supplement should contain quantitative data relating to electromagnetic interference.

Response

The Draft EIS acknowledges (page 258) that the OTC station is to be upgraded 'by a more technically advanced system'.

The Draft EIS states (page 260) 'the long-term future of these sensitive facilities in their present locations is very uncertain, in the context of continued metropolitan growth and technological change.' This statement is believed correct. It is acknowledged that the receiver station in its present location would be incompatible with the airport. Quantifiable data relevant to the time of operation of the airport is not readily available due to the uncertainties of airport planning and technological advances.

Frank Arkell, M.P. for Wollongong

- . Supports Wilton
- . Numerous points related to regional economic considerations, timetable for development, protection of the catchment area and concern at the effects on mining activity. All these points have been covered in responses to other submissions.
- . High quality road and rail links to Wollongong needed.

Response

Airport access links would in the first instance be directed towards Sydney. Connections to Wollongong would be developed as appropriate to the level of demand.

Australian Federation of Air Pilots

- . Considerable development desirable at Kingsford-Smith Airport.
- . Prefers Badgerys Creek to Wilton because of distance from city.

- . Prefers north/south alignment at Badgerys Creek because of distant terrain conflict.
- . Cross wind runway needed.

Response

The north/south alignment at Badgerys Creek was rejected because of its excess noise impact compared with the north-east/south-west direction. There is high ground to the south-west of the airport but 1.6% approach surfaces are available for more than 15 km from the runway threshold and this is considered more than adequate.

The pilots' suggestion of a cross wind runway is based on a 10 knot cross wind tolerance for aircraft when the runway is wet. This is a very conservative figure as most commercial aircraft have a higher cross wind tolerance than this.

However, even if this criterion was accepted the usability of either site without a cross runway would be in excess of 99.5% which is considered adequate for a second airport.

R.J.T. and C.A. Hoare

Twelve submissions were received and attached together as submission number 233. Two additional late submissions were received which did not raise any issues not previously covered.

Fairfield City Council

Fairfield Council's submission was number 341. An additional late submission was received comprising a copy of the submission of the Horsley Park Protection Co-operative to Fairfield Council. Two points not covered previously were:

- . Allegations of 'sneaky' and 'snide' conduct by Department of Aviation in the maps used in the Draft EIS;
- . Claims that some existing houses in the Horsley Park area are not shown on the aerial photograph.

Response

The map bases used in the Draft EIS were not drawn by Department of Aviation or Kinhill Stearns but were simply available maps of the area chosen for their clarity and suitability of scale.

The aerial photograph was taken in September 1984 and would not show houses constructed since that date.

Wollongong City Council

Wollongong Council's submission was number 432. A late addition was received from the Council advising that the potential impact of an airport at Wilton on the coal mining activity was more severe than originally realised. The Council also supports the comments of the Bellambi Coal Company Pty Limited (submission no. 346).

Wollondilly Shire Council

Favours upgrading of Kingsford-Smith Airport.

National Trust of Australia

- . Urges further environmental studies of both sites before a decision is taken.
- . Opposes both sites.
- . Claims Draft EIS contains no assessment of effects on avifauna at either site.
- . Other points related to historic buildings, land use planning and protection of water quality covered in previous responses.

Response

The need for further environmental studies is not accepted.

Chapters 11.2 and 16.2 of the Draft EIS contain assessments of the importance of avifauna at the two sites.

Prospect County Council

- . Not opposed to either site.
- . Stresses need for early decision and consultation.
- . Would be necessary to change route of proposed 132 kV transmission line if Badgerys Creek chosen.

Response

Consultation would be undertaken with all relevant bodies including Prospect Council as soon as appropriate after a site decision is known.

Upper Blue Mountains Conservation Society/Lower Blue Mountains Conservation Society

Contains many points on environmental and social issues, several very similar to those made by the Blue Mountains Anti-Airport Committee (submission no. 330). No new issues were raised.

Corrimal and District Chamber of Commerce

Supports Wilton.

Illawarra Region of Councils

- . Supports Wilton.
- . Supports Wollongong Council's concerns for protection of the water supply, management of the ecology of the catchment area, protection of existing jobs and consideration for the effects on Wilton residents.

Illawarra Regional Information Service

Supports Wilton.

GLOSSARY

Aircraft movement	a landing or take-off of an aircraft
Airshed	drainage of air mass over a defined geographic area
Angle of draw	specified angle limiting the extent of underground mining so as to provide protection to a specific surface feature or boundary
At-grade	(of a road intersection) having the intersecting roads on the same level
Authigenic	(of minerals) formed in situ, during or after deposition
B horizon	the middle layer of soil, lying between the topsoil and the originating material; the subsoil
Channel sandstone	sandstone formed from a bed of sand deposited in a stream bed or some other channel eroded into the underlying bed
City-pair passenger demand	demand for seats on aircraft between any given pair of cities
Forb	any herbaceous plant which is not a grass
Glide slope	an electronic navigation facility providing vertical guidance for aircraft during approach and landing
Gross margin	the gross return from an enterprise less variable costs
Groundside	of that part of a journey which is made on land, not in the air
Hubbing	the designation of selected airports for the collection and distribution of an airline's passengers making intermediate stops
Interlining	changing from one airline carrier to another on the same journey
Laminite	a series of sedimentary beds made up of individual units that show a regular vertical pattern of changing grain size of the sediments comprising the bed
Lithosol	surface rock without soil
Localizer	a directional radio beacon which guides an aircraft during approach and landing
Longwall	method of mining coal in which the whole seam is removed leaving no pillars
Pedal	(of soil) having a structure that includes natural aggregates
Picrite	an igneous rock consisting principally of ferromagnesian minerals

Pisolithic	(of sedimentary rock) built of round concretions 2 mm or more in diameter
Point bar	a bank of sand or gravel deposited on the inner side of a river meander
Propagule	a part of a plant, such as a seed or cutting, capable of forming a new plant
Provenance terrain	the parent rock from which the fragments of a sediment are formed
Quartzose sandstone	a sandstone composed of at least 90% silica
Silcrete	a compacted subsoil cemented with silica
Swale	a depression or marshy place in the ground
Terminal passenger	a passenger who joins or leaves an aircraft at an airport
Touch-and-go training flights	a landing followed immediately by a take-off without stopping
Understorey	the lower layer of trees in a forest
Wind shear	a change of wind speed with height

Note: The Concise Oxford Dictionary may be consulted for definitions of any terms not listed in this glossary.

ABBREVIATIONS

ANEF	Australian Noise Exposure Forecast
CSPR	two closely spaced parallel runways with a cross-wind runway
d	day(s)
dB	decibel(s)
DSE	dry sheep equivalent
DWSPR	two double widely spaced parallel runways with a pair of cross-wind runways
EIS	Environmental Impact Statement
h	hour(s)
ha	hectare(s)
L	litre(s)
m	metre(s)
MANS	Major Airport Needs of Sydney
MJ	megajoule(s)
MM	Modified Mercallie scale (followed by roman numeral)
Mt	megatonne(s)
MV	megavolt(s)
MWS&DB	Metropolitan Water Sewerage and Drainage Board
NA	not applicable
NEF	Noise Exposure Forecast
pphm	parts per hundred million
ppm	parts per million
R	right
RPT	regular public transport (scheduled airline and commuter services)
S. A. N. I. T. Y	Sydney's Airport Needs in the Year 2000
SR	single runway
WSPR	two widely spaced parallel runways with a cross-wind runway

