

Non - Aboriginal Cultural Heritage

Proposal for a Second Sydney Airport at Badgerys Creek or Holsworthy Military Area

Technical Paper



387.736099441 PPK



Prepared for:



GPO Box 594 Canberra ACT 2601

Non - Aboriginal Cultural Heritage

Proposal for a Second Sydney Airport at Badgerys Creek or Holsworthy Military Area



Prepared by:

Godden Mackay

78 George Street Redfern NSW 2016



ACN 078 004 798

A NATA Certified Quality Company

PPK House PO Box 248 Concord West NSW 2138

December 1997

Report No: 58H233B PR1503 ISBN No: 0642280428

Explanatory Statement

This technical paper is not part of the Draft Environmental Impact Statement (EIS) referred to in paragraph 6 of the Administrative Procedures made under the Environment Protection (Impact of Proposals) Act 1974.

The Commonwealth Government is proposing to construct and operate a second major airport for Sydney at Badgerys Creek. This technical paper contains information relating to the Badgerys Creek airport options which was used to assist the preparation of the Draft EIS.

The technical paper also assesses the impacts of developing a major airport at the Holsworthy Military Area. On 3 September 1997, the Government eliminated the Holsworthy Military Area as a potential site for Sydney's second major airport. As a consequence, information in this technical paper relating to the Holsworthy Military Area is presented for information purposes only.

Limitations Statement

This technical paper has been prepared in accordance with the scope of work set out in the contract between Rust PPK Pty Ltd and the Commonwealth Department of Transport and Regional Development (DoTRD) and completed by PPK Environment and Infrastructure Pty Ltd (PPK). In preparing this technical paper, PPK has relied upon data, surveys, analyses, designs, plans and other information provided by DoTRD and other individuals and organisations, most of which are referenced in this technical paper. Except as otherwise stated in this technical paper, PPK has not verified the accuracy or completeness of such data, surveys, analyses, designs, plans and other information.

This technical paper has been prepared for the exclusive use of DoTRD. PPK will not be liable to any party other than DoTRD and assumes no responsibility for any loss or damage suffered by any other party arising from matters dealt with in this technical paper, including, without limitation, matters arising from any negligent act or omission of PPK or for any loss or damage suffered by any other party in reliance upon the matters dealt with and opinions and conclusions expressed in this technical paper.

Acknowledgments

Data used to develop the figures contained in this document have been obtained and reproduced by permission of the Australian Bureau of Statistics, NSW Department of Land and Water Conservation, NSW National Parks and Wildlife Service (issued 14 January 1997), NSW Department of Urban Affairs and Planning and Sydney Water. The document is predominantly based on 1996 and 1997 data.

To ensure clarity on some of the figures, names of some suburbs have been deleted from inner western, eastern, south-eastern and north-eastern areas of Sydney. On other figures, only 'Primary' and 'Secondary' centres identified by the Department of Urban Affairs and Planning's Metropolitan Strategy, in addition to Camden, Fairfield and Sutherland, have been shown.

Copyright

Commonwealth of Australia 1997

This work is copyright. Apart from any use as permitted under the Copyright Act 1968, no part may be reproduced by any process without written permission from the Australian Government Publishing Service. Requests and inquiries concerning reproduction and rights should be directed to the Manager, Commonwealth Information Service, GPO Box 84, Canberra, ACT 2601.

CONTENTS

PART A:	Inti	RODUC	TION	
CHAPTER 1	Ovi	ERVIEW	OF THE PROPOSAL	1 - 1
	1.2 1.3 1.4	A BRIE THE PI AIR TR	DUCTION F HISTORY ROPOSAL AFFIC FORECASTS ATION OF THE AIRPORT OPTIONS	1 - 1 1 - 1 1 - 3 1 - 5 1 - 6
CHAPTER 2	Cor	NSULTA	ATION	2 - 1
			nunity Consultation R Consultation	2 - 1 2 - 1
CHAPTER 3	MET	THODO	DLOGY	3 - 1
	3.2	ACKNO	AND SCOPE OF WORK DWLEDGEMENTS DDOLOGY FOR THIS STUDY	3 - 1 3 - 1 3 - 2
		3.3.2 3.3.3 3.3.4 3.3.5	OVERVIEW STUDY AREAS HISTORICAL CONTEXT IDENTIFICATION OF HERITAGE ITEMS ASSESSMENT OF SIGNIFICANCE LIMITATIONS OF STUDY	3 - 2 3 - 2 3 - 3 3 - 3 3 - 3
PART B:	Exis	ting E	nvironment	
CHAPTER 4	STA	TUTOR	y Context	4 - 1
	4.1	STATU	TORY FRAMEWORK	4 - 1
			THE AUSTRALIAN HERITAGE COMMISSION ACT, 1975 NSW HERITAGE ACT 1977	4 - 1 4 - 2

Page Number

	4.2	LOCAL	GOVERNMENT INSTRUMENTS	4 - 5
		4.2.2	LIVERPOOL COUNCIL CAMPBELLTOWN COUNCIL SUTHERLAND COUNCIL	4 - 5 4 - 6 4 - 6
	4.3	OTHER	R HERITAGE BODIES	4 - 6
		4.3.1	THE NATIONAL TRUST	4 - 6
CHAPTER 5	HER	RITAGE S	Survey and Assessment	5 - 1
	5.1	BADGE	erys Creek - Historical Assessment	5 - 1
		5.1.25.1.35.1.4	EARLY EXPLORATION 1809-1820 - SETTLEMENT 1859 TO 1890 - SUBDIVISION AND ESTABLISHMENT OF THE VILLAGES 1890 TO 1950 - ALTERNATIVE LAND USES 1950 TO 1990S - RURAL DECLINE AND URBAN FRINGE	5 - 1 5 - 1 5 - 6 5 - 7 5 - 8
	5.2 5.3		rys Creek - Heritage Items rys Creek - Heritage Significance	5 - 10 5 - 12
		5.3.1	OVERVIEW OF SIGNIFICANCE	5 - 12
	5.4 5.5		rys Creek - Summary Statement of Significance vorthy Military Area and Surrounds - Historical ment	
		5.5.2 5.5.3 5.5.4	EARLY EXPLORATION AND AGRICULTURE INDUSTRY IN THE HOLSWORTHY AREA THE SETTLEMENT OF ECKERSLEY OCCUPATION BY THE ARMY OLD ROADS IN THE STUDY AREA	5 - 20 5 - 22 5 - 23 5 - 26 5 - 26
			vorthy - Heritage Items vorthy - Heritage Significance	5 - 27 5 - 29
		5.7.1	OVERVIEW OF SIGNIFICANCE	5 - 29
	5.8	Holsw	VORTHY - SUMMARY STATEMENT OF SIGNIFICANCE	5 - 33
PART C:	Assı	essmen'	T OF IMPACTS	
CHAPTER 6	IMP/	ACTS OF	BADGERYS CREEK OPTIONS	6 - 1
	6.1	OPTION	N A	6 - 1
		6.1.1	CONSTRUCTION IMPACTS	6 - 1

		6.1.3	Operational Impacts Impacts on Heritage Items Summary of Heritage Impacts	6 - 2 6 - 2 6 - 4
	6.2	Ортіс	ON B	6 - 10
		6.2.3 6.2.4	CONSTRUCTION IMPACTS OPERATIONAL IMPACTS IMPACTS ON HERITAGE ITEMS SUMMARY OF HERITAGE IMPACTS PROPOSED CONCEPTUAL PLAN	6 - 10 6 - 10 6 - 11 6 - 13 6 - 19
	6.3	ОРТІС	DN C	6 - 19
		6.3.2 6.3.3 6.3.4	CONSTRUCTION IMPACTS OPERATIONAL IMPACTS IMPACTS ON HERITAGE ITEMS SUMMARY OF HERITAGE IMPACTS PROPOSED CONCEPTUAL PLAN	6 - 19 6 - 20 6 - 20 6 - 23 6 - 24
CHAPTER 7	IMP	ACTS C	F HOLSWORTHY OPTIONS	7 - 1
	7.1	ОРТІС	DN A	7 - 1
		7.1.3 7.1.4	CONSTRUCTION IMPACTS OPERATIONAL IMPACTS IMPACTS ON HERITAGE ITEMS SUMMARY OF HERITAGE IMPACTS PROPOSED CONCEPTUAL PLAN	7 - 1 7 - 2 7 - 2 7 - 4 7 - 5
	7.2	ОРТІС	ON B	7 - 10
		7.2.2 7.2.3 7.2.4	CONSTRUCTION IMPACTS OPERATIONAL IMPACTS IMPACT ON HERITAGE ITEMS SUMMARY OF HERITAGE IMPACTS PROPOSED CONCEPTUAL PLAN	7 - 10 7 - 10 7 - 11 7 - 13 7 - 14
PART D:	Env	IRONM	MENTAL MANAGEMENT	
CHAPTER 8	Env	IRONM	MENTAL MANAGEMENT	8 - 1
		Overview Non-Aboriginal Archaeological Resources		8 - 1 8 - 1
		8.2.1 8.2.2	Type Existing Archaeological Evidence	8 - 1 8 - 2

	8.3.1 ARCHAEOLOGICAL ASSESSMENT	8 - 3
	8.3.2 ARCHAEOLOGICAL MANAGEMENT	8 - 3
	8.3.3 NO FURTHER ACTION	8 - 3
	8.3.4 ARCHAEOLOGICAL MONITORING	8 - 4
	8.3.5 TEST EXCAVATION	8 - 4
	8.3.6 ARCHAEOLOGICAL EXCAVATION	8 - 4
	8.4 ARTEFACT COLLECTIONS	8 - 5
	8.5 RETENTION AND CONSERVATION	8 - 6
	8.6 ARCHIVAL RECORDING	8 - 7
	8.7 SPECIFIC MANAGEMENT PROPOSALS FOR THE AIRPORT OPTION	_
	5.7 SPECIFIC WAINAGEMENT PROPOSALS FOR THE AIRPORT OPTION	15 0 - 0
PART E:	SUMMARY OF NON-ABORIGINAL CULTURAL HERITAGE IMP	ACTS
CHAPTER 9	SUMMARY AND COMPARISON OF IMPACTS	9 - 1
REFERENCES		D 1
KEFEKENCES		R - 1
LIST OF FIG	GURES	
		lowing
	Pa	ige No.
Eiguro 1 1	Betantial Airport Cites Considered in the Dreft FIS	1.2
Figure 1.1	Potential Airport Sites Considered in the Draft EIS	1-3
Figure 1.2 Figure 1.3	Assumptions about Passenger Movements for Air Traffic Forecast 3 Predominant Directions of Movement of Aircraft for Airport	1-3
rigule 1.5	Operation 1	1-7
Figure 1.4	Predominant Directions of Movement of Aircraft for Airport	1-/
rigure 1.4	Operation 2	1-7
Figure 3.1	Study Areas - Badgerys Creek and Holsworthy	3-2
Figure 5.1	Parish of Bringelly - 1835	5-2 5-1
Figure 5.1	Village of Luddenham - 1859	
_	Eastern Division of Luddenham Estate	5-6
Figure 5.3		5-7
Figure 5.4	Parish of Bringelly, County of Cumberland - 1908	5-8
Figure 5.5	Land Grants on Holsworthy Military Area - 1820	5-21
Figure 5.6	Holsworthy Study Area - 1850	5-22
Figure 5.7	Holsworthy Study Area - 1908	5-22
Figure 6.1	Non-Aboriginal Cultural Heritage Items Affected by Badgerys Creek Option A	6-2
Figure 6.2	Non Aborisinal Cultural Haritage Harry Affected by Dadage - Corel	
	Non-Aboriginal Cultural Heritage Items Affected by Badgerys Creek	
	Option B	6-11
Figure 6.3		6-11

Non-Aboriginal Cultural Heritage Items Affected by Holsworthy Options A and B

8.3 ARCHAEOLOGICAL MANAGEMENT PROCEDURES

8 - 3

7-2

Figure 7.1

APPENDICES

Appendix A Study Team

Appendix B
Appendix C
Appendix C
Location of Non-Aboriginal Cultural Heritage Items

Part A Introduction

CHAPTER 1 OVERVIEW OF THE PROPOSAL

1.1 Introduction

This technical paper addresses the potential non-Aboriginal cultural heritage impacts identified as part of the previously proposed development of the Second Sydney Airport at either Badgerys Creek or the Holsworthy Military Area. It contains information used to prepare the Draft Environmental Impact Statement (EIS) which addresses the overall environmental impacts of the Badgerys Creek airport options.

1.2 A BRIFF HISTORY

The question of where, when and how a second major airport may be developed for Sydney has been the subject of investigation for more than 50 years. The investigations and the associated decisions are closely related to the history of the development of Sydney's existing major airport, located at Mascot.

The site of Sydney Airport was first used for aviation in 1919. It was acquired by the Commonwealth Government in 1921, and was declared an International Aerodrome in 1935. In 1940 the first terminal building and control tower were opened.

In 1945 the airport had three relatively short runways. A major expansion began in 1947, and by 1954 the current east-west runway was opened. The north-south runway was first opened in 1954 and was extended to its current length in 1972. The present international terminal was opened in 1970.

Planning and investigations for a site for a second Sydney airport first started in 1946. A large number of possible sites both within and outside the Sydney Basin have been investigated.

The Second Sydney Airport Site Selection Program Draft Environmental Impact Statement (Kinhill Stearns, 1985) re-examined all possible locations for the second airport and chose 10 for preliminary evaluation. Two sites, Badgerys Creek and Wilton, were examined in detail and an EIS was prepared. In February 1986 the then Commonwealth Government announced that Badgerys Creek had been selected as the site for Sydney's second major airport.

The Badgerys Creek site, which is about 46 kilometres west of Sydney's Central Business District and is 1,700 hectares in area, was acquired by the

Commonwealth between 1986 and 1991. A total of \$155 million has been spent on property acquisition and preparatory works.

Since 1986, planning for Sydney's second airport has been closely linked to the development of the third runway at Sydney Airport. In 1989 the Government announced its intention to construct a third runway. An EIS was undertaken and the decision to construct the runway was made in December 1991.

At the same time as investigations were being carried out on the third runway, detailed planning proceeded for the staged development of the second airport at Badgerys Creek. In 1991 it was announced that initial development at Badgerys Creek would be as a general aviation airport with an 1,800 metre runway.

The third runway at Sydney Airport was opened in November 1994. In March 1995, in response to public concern over the high levels of aircraft noise, the Commonwealth Senate established a committee in March 1995 to examine the problems of noise generated by aircraft using Sydney Airport and explore possible solutions. The committee's report, *Falling on Deaf Ears?*, containing several recommendations, was tabled in parliament in November 1995 (Senate Select Committee on Aircraft Noise, 1995).

During 1994 and 1995 the Government announced details of its proposed development of Badgerys Creek, and of funding commitments designed to ensure the new airport would be operational in time for the 2000 Olympics. This development included a 2,900 metre runway for use by major aircraft.

The decision to accelerate the development of the new airport triggered the environmental assessment procedures in the *Environment Protection (Impact of Proposals) Act 1974*. In January 1996 it was announced that an EIS would be prepared for the construction and operation of the new airport.

In May 1996, the present Commonwealth Government decided to broaden the environmental assessment process. It put forward a new proposal involving the consideration of 'the construction and operation of a second major international/domestic airport for Sydney at either Badgerys Creek or Holsworthy on a site large enough for future expansion of the airport if required' (Department of Transport and Regional Development, 1996). A major airport was defined as one 'capable of handling up to about 360,000 aircraft movements and 30 million passengers per year' (Department of Transport and Regional Development, 1996).

The Government also indicated that 'Badgerys Creek at this time remains the preferred site for Sydney's second major airport, subject to the favourable outcome of the EIS, while Holsworthy is an option to be considered as an

alternative' (Minister for Transport and Regional Development, 1996). The two sites considered in this technical paper are shown in *Figure 1.1*.

Following the substantial completion of a Draft EIS on the Badgerys Creek and Holsworthy airport options, the Government eliminated the Holsworthy Military Area as a potential site for Sydney's second major airport. The environmental assessment showed that the Badgerys Creek site was significantly superior to the Holsworthy Military Area. As a result a Draft EIS was prepared which examines only the Badgerys Creek site. While this technical paper examines both the Badgerys Creek and Holsworthy airport options, only the parts of the assessment relating to the Badgerys Creek airport options were used to assist the preparation of the Draft EIS.

1.3 THE PROPOSAL

The Commonwealth Government proposes the development of a second major airport for Sydney capable of handling up to 30 million domestic and international passengers a year. By comparison, Sydney Airport will handle about 20 million passengers in 1997. The Second Sydney Airport Site Selection Program Draft Environmental Impact Statement anticipated the airport would accommodate about 13 million passengers each year (Kinhill Stearns, 1985).

A stated objective of the Government is the building of a second major airport in the Sydney region to a full international standard, subject to the results of an EIS. In the Government's view, Sydney needs a second major airport to handle the growing demand for air travel and to control the level of noise experienced by Sydney residents (Coalition of Liberal and National Parties, 1996).

Government policy (Coalition of Liberal and National Parties, 1996) indicates:

- that Sydney's second airport will be more than just an overflow airport and will, in time, play a major role in serving Sydney's air transport needs; and
- a goal of reducing the noise and pollution generated by Sydney Airport as much as possible and that the Government would take steps to ensure that the noise burden around Sydney Airport is shared in a safe and equitable way.

The assumptions made on how the Second Sydney Airport would operate and the master plans which set out the broad framework for future physical development of the airport are based on an operational limit of 30 million passengers a year. The main features include parallel runways, a cross wind

runway and the provision of the majority of facilities between the parallel runways.

Consideration has also been given to how the airport may be expanded in the future and the subsequent environmental implications. Such an expansion could not proceed, however, unless a further detailed environmental assessment and decision making process were undertaken by the Government.

Five airport options are considered, as well as the implications of not proceeding with the proposal. Three of the airport options are located at Badgerys Creek and two are located within the Holsworthy Military Area. Generally, the airport options are:

- Badgerys Creek Option A which has been developed to be generally consistent with the planning for this site undertaken since 1986. The airport would be developed within land presently owned by the Commonwealth with two parallel runways constructed on an approximate north-east to south-west alignment;
- Badgerys Creek Option B would adopt an identical runway alignment to Option A, but provides an expanded land area and also a cross wind runway;
- Badgerys Creek Option C would provide two main parallel runways on an approximate north to south alignment in addition to a cross wind runway. Again the land area required would be significantly expanded from that which is presently owned by the Commonwealth;
- Holsworthy Option A would be located centrally within the Holsworthy Military Area and would have two main parallel runways on an approximate north to south alignment and a cross wind runway; and
- Holsworthy Option B would be located in the south of the Holsworthy Military Area and would have two main parallel runways on an approximate south-east to north-west alignment and a cross wind runway.

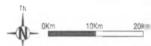
To ensure that the likely range of possible impacts of the airport options are identified a number of different assumptions about how the airport options would be developed and operate have been adopted. These different assumptions relate to the number and types of aircraft that may operate from the airport, the flight paths used and the direction of take offs and landings.

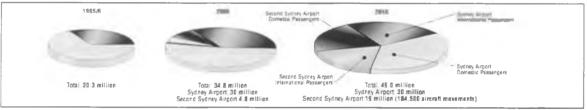
The number of flights into and out of the proposed Second Sydney Airport would depend on a number of factors including the types of aircraft that would use the airport and the associated numbers of passengers in each aircraft. The



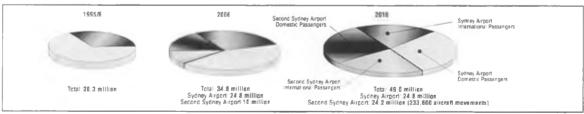
Figure 1.1

Potential Airport Sites Considered in the Draft EIS

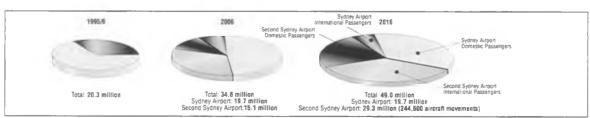




Assumptions about Passenger Movements for Air Traffic Forecast 1



Assumptions about Passenger Movements for Air Traffic Forecast 2



Assumptions about Passenger Movements for Air Traffic Forecast 3

proposal put forward by the Government anticipates a major airport handling 30 million passengers and up to 360,000 aircraft movements per year.

Air traffic forecasts have been developed based on an examination of the number and type of aircrafts that would use the airport as it approaches an operating level of 30 million passengers per year. This examination has shown that if the airport accommodated about 245,000 aircraft movements each year, the number of air passengers would approach 30 million. This assumes a relatively high percentage of international flights being directed to the Second Sydney Airport. Therefore it is appropriate for this Draft EIS to assess the airport operating at a level of 245,000 aircraft movements per year, rather than the 360,000 originally anticipated by the Government. It has been assumed that this level of operation could be reached by about 2016.

1.4 AIR TRAFFIC FORECASTS

Cities around the world which have developed second major airports have responded to their particular needs in different ways. For example, the original airport in Dallas, United States, is now used for short range traffic that does not connect with other flights. Second airports in New York and Washington serve as hubs for particular airlines. In Taipei, Taiwan, smaller domestic aircraft use the downtown airport and larger international flights use a newer airport 40 kilometres from the city.

It is clear that each metropolitan area around the world has unique characteristics and the development of multi-airport systems respond to particular local circumstances. The precise role and consequential staging of development of the Second Sydney Airport would be the subject of future Government decisions. To assist in developing a realistic assessment of the potential impacts of the Second Sydney Airport, three sets of air traffic forecasts for the airport were developed. Each forecast assumes a major airport would be developed, however, this may be achieved at different rates of growth.

The three potential air traffic scenarios considered for the Second Sydney Airport are shown in *Figure 1.2*. They are:

- Air Traffic Forecast 1 where the Second Sydney Airport would provide only for demand which cannot be met by Sydney Airport. This is an overflow forecast, but would nevertheless result in a significant amount of air traffic at the Second Sydney Airport. The proportion of international and domestic air traffic is assumed to be similar at both airports;
- Air Traffic Forecast 2 where the Second Sydney Airport would be developed to cater for 10 million passengers a year by 2006, with all

further growth after this being directed to the second airport rather than Sydney Airport. The proportion of international and domestic traffic is also assumed to be similar at both airports; and

Air Traffic Forecast 3 which is similar to Forecast 2 but with more international flights being directed to the Second Sydney Airport. This would result in the larger and comparatively noisier aircraft being directed to the second airport. It would accommodate about 29.3 million passengers by 2016.

1.5 OPERATION OF THE AIRPORT OPTIONS

At any airport, aircraft operations are allocated to runways (which implies both the physical runway and the direction in which it is used) according to a combination of wind conditions and airport operating policy. The allocation is normally performed by Air Traffic Control personnel.

Standard airport operating procedures indicate that a runway may not be selected for either approach or departure if the wind has a downwind component greater than five knots, or a cross wind component greater than 25 knots. If the runway is wet, it would not normally be selected if there is any downwind component. This applies to all aircraft types, although larger aircraft would be capable of tolerating relatively higher wind speeds. Wind conditions at the airport site therefore limit the times when particular runways may be selected. However, there would be a substantial proportion of the time, under low wind conditions, when the choice of runways would be determined by airport operating policy.

For the environmental assessment, the maximum and minimum likely usage for each runway and runway direction was estimated and the noise impact of each case calculated. The actual impact would then lie between these values and would depend on the operating policy which is applicable at the time.

The three airport operation scenarios were adopted for the environmental assessment, namely:

Airport Operation 1 shown in Figure 1.3. Aircraft movements would occur on the parallel runways in one specified direction (arbitrarily chosen to be the direction closest to north), unless this is not possible due to meteorological conditions. That is, take offs would occur to the north from the parallel runways and aircraft landing would approach from the south, travelling in a northerly direction. Second priority is given to operations in the other direction on the parallel runways, with operations on the cross wind runway occurring only when required because of meteorological conditions;

- Airport Operation 2 shown in Figure 1.4. As for Operation 1, but with the preferred direction of movements on the parallel runways reversed, that is to the south; and
- Airport Operation 3. Deliberate implementation of a noise sharing policy under which seven percent of movements are directed to occur on the cross wind runway (equal numbers in each direction) with the remainder distributed equally between the two parallel runway directions.

Since a cross wind runway is not proposed at Badgerys Creek Option A, only Operations 1 and 2 were considered for that option.

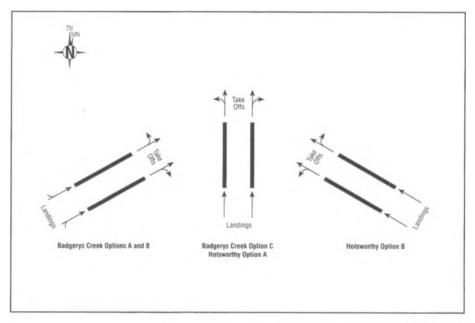


Figure 1.3 **Predominant Directions of Movement of Aircraft**

for Airport Operation 1

Note: Cross wind runway used only when required because of meteorological conditions

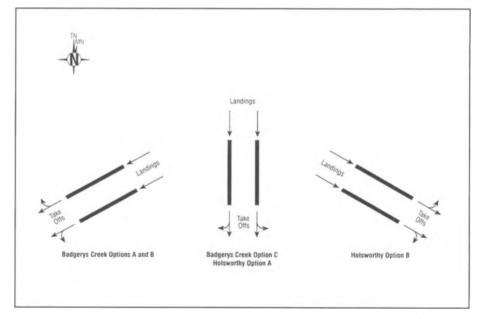


Figure 1 4 **Predominant Directions of Movement of Aircraft** for Airport Operation 2 Note: Cross wind runway used only when required because of meteorological conditions

CHAPTER 2 CONSULTATION

Preparation of this Draft EIS involved consultation with the community, other stakeholders, Commonwealth, State and local Governments and Government agencies.

2.1 COMMUNITY CONSULTATION

The primary role of the consultation process during the preparation of the Draft EIS was to provide accurate, up to date information on the proposals being considered and the assessment process being undertaken. From October 1996 to May 1997, ten separate information documents were released and over 400,000 copies distributed to the community. Four types of display posters were produced and 700 copies distributed. Over 140 advertisements were placed in metropolitan and local newspapers. Non English language documents were produced in 14 languages and over 20,000 copies distributed. Advertisements in seven languages were placed on ethnic radio.

Opportunities for direct contact and two way exchange of information with the community occurred through meetings, information days, displays at shopping centres, telephone conversations and by responding to written submissions. Through these activities over 20,000 members of the community directly participated in the consultation activities.

Written and telephone submissions received were incorporated into a database which grouped the issues in the same way as the chapters of the Draft EIS. The issues raised were progressively provided to the EIS study team to ensure that community input was an integral part of the assessment process.

Further details of consultation with the community and other stakeholders and its outcomes are contained in *Technical Paper No. 1 Consultation*.

2.2 OTHER CONSULTATION

Several heritage organisations and the relevant local councils were consulted during the preparation of this technical paper. At a Commonwealth level the Australian Heritage Commission was consulted regarding existing heritage listings and the provisional list of heritage items identified in the study areas. A review of its draft heritage inventory listings was also undertaken. At a State level the National Trust of Australia (NSW) and the NSW Heritage Office were also consulted regarding existing heritage studies and heritage listings. These organisations were asked to review the provisional list of heritage items

identified in the study areas and provide any relevant information to assist the study team in assessing the impacts on non-Aboriginal cultural heritage items.

Consultation was also undertaken with local residents of Badgerys Creek, Luddenham, Bringelly and Campbelltown and Department of Defence personnel to provide information on specific sites within the study areas, particularly within the Holsworthy Military Area.

CHAPTER 3 METHODOLOGY

3.1 AIMS AND SCOPE OF WORK

The aims and scope of work for this study are to:

- investigate through research and field surveys, the non-Aboriginal cultural heritage of the Badgerys Creek and Holsworthy Airport sites;
- describe the history, and listing in an inventory format, cultural sites and items of significance using the relevant statutory framework applicable at the Commonwealth, State and local level;
- assess and define the potential impacts on listed items which would occur as a result of the construction and operation for the airport option at Badgerys Creek and Holsworthy; and
- prepare an environmental management framework with potential mitigation strategies for both the Badgerys Creek and Holsworthy airport options.

The methodology is detailed in Section 3.3.

3.2 ACKNOWLEDGEMENTS

The study team, which is listed in Appendix A, wish to acknowledge the assistance of a number of people who contributed to this study of non-Aboriginal cultural heritage, including:

- Mr Keith Longhurst, a long term resident of the Campbelltown area, who provided valuable information on the location of historic sites and background of the early settlers of the Holsworthy area; and
- Corporal Bob Thompson, who accompanied the field team and helped to locate and research many sites in the vicinity of the Holsworthy Military Area.

3.3 METHODOLOGY FOR THIS STUDY

3.3.1 OVERVIEW

The philosophical basis for this study of non-Aboriginal cultural heritage was the Australia ICOMOS Charter for the Conservation of Places of Cultural Significance (the Burra Charter), and its Guidelines (Australia ICOMOS, 1988). The Burra Charter defines the basic principles and processes to be observed in the conservation of important places. Australia ICOMOS is the national chapter of ICOMOS, the International Council of Monuments and Sites.

The historical guidelines, evaluation criteria and draft inventory format, published as part of the NSW Heritage Manual, were also used for this study, although a separate database has been used to format the inventory. The format of information collected and the fields used should ensure consistency with other heritage studies undertaken using the State Heritage Inventory system as now contained in the Heritage Manual.

3.3.2 STUDY AREAS

Badgerys Creek

The study area for non-Aboriginal cultural heritage for the Badgerys Creek airport options was generally limited to the area within the boundaries of the proposed airport master plans. However, sites immediately adjoining these boundaries were also assessed. The study area for the Badgerys Creek airport options is shown on *Figure 3.1*.

Holsworthy

The study area for the Holsworthy airport options was generally limited to the area within the boundaries of the Holsworthy Military Area excluding the northern section around Holsworthy Barracks as shown on *Figure 3.1*.

3.3.3 HISTORICAL CONTEXT

Historical overviews were undertaken for each area studied to provide a historical context and setting for the identification and assessment of heritage items in the Badgerys Creek and Holsworthy areas. These overviews were undertaken by reviewing primary and secondary materials.

Previous heritage studies (Neustein and Associates, 1992; Proudfoot, 1990) and the *Draft Environmental Impact Statement for Second Sydney Airport Site Selection Program* (Kinhill Stearns, 1985) were reviewed, followed by a review of secondary source material within the local studies section of Liverpool and

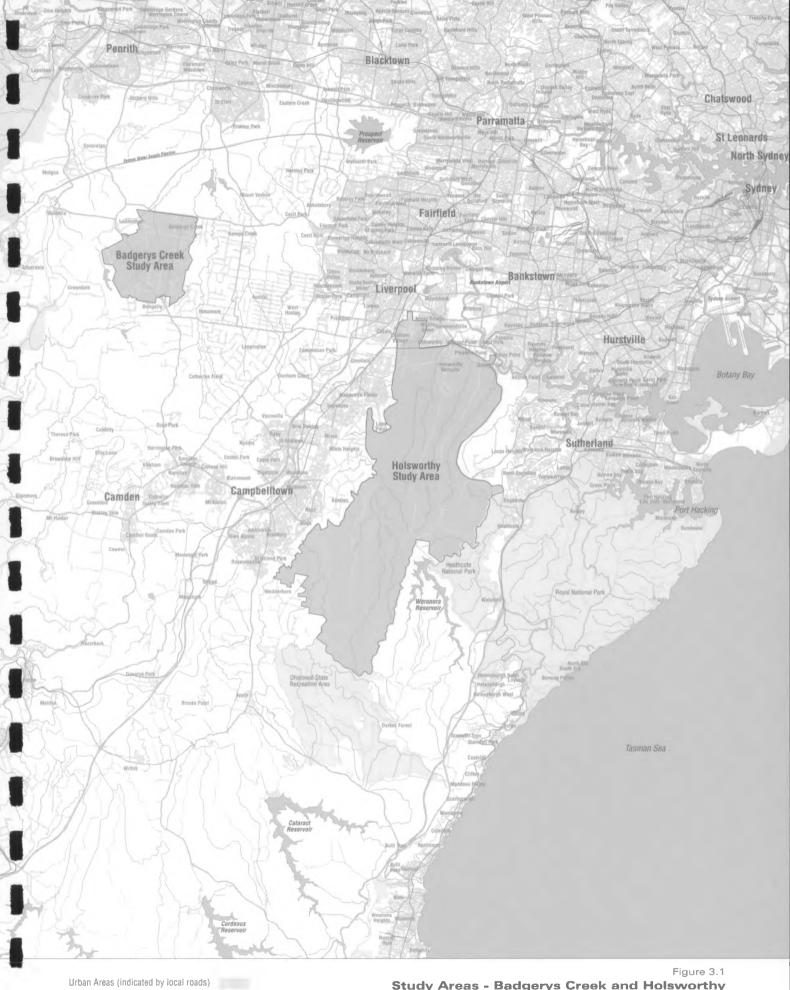


Figure 3.1 **Study Areas - Badgerys Creek and Holsworthy**

Campbelltown Libraries. The latter included material prepared by the Campbelltown and Airds Historical Society.

Primary material research was then conducted at the State Library of NSW, the Land Titles Office, the Archives Authority of NSW and the Australian Archives.

Interviews with local residents of Badgerys Creek, Luddenham, Bringelly and Campbelltown, and Department of Defence personnel provided further information on specific sites within the areas studied, particularly within the Holsworthy Military Area.

3.3.4 IDENTIFICATION OF HERITAGE ITEMS

Identification of heritage items and sites was achieved through a combination of primary and secondary research, scrutiny of existing heritage studies and reviews of existing heritage listings. The latter included items identified by the Australian Heritage Commission, the National Trust of Australia (NSW) and Liverpool City Council in a Draft Local Environmental Plan. Generally, secondary sources were used to establish the historical context for the Badgerys Creek and Holsworthy areas. Primary research was undertaken to establish the history and archaeological potential of individual sites identified from the field surveys and historical maps and supplement available secondary source material. Site inspections were then undertaken to record physical evidence and to verify historical research.

3.3.5 ASSESSMENT OF SIGNIFICANCE

An assessment of significance of each heritage item identified has been undertaken using the NSW Heritage Manual criteria (Department of Urban Affairs and Planning and NSW Heritage Office, 1996). For each heritage item, an inventory form containing an assessment of significance in both a matrix and written format was developed. The matrix also indicates the level of significance (local, regional or state) of each item. Items previously identified by heritage agencies or by local government, were reassessed against the Heritage Criteria Manual.

The inventory forms are contained in *Appendix B*. Maps showing the location of heritage items included in the inventory (each with an individual reference number) are contained in *Appendix C*.

Principles

The concept of 'cultural significance' or 'heritage value' embraces the value of a place or item which cannot be expressed in solely financial terms. Assessment of cultural significance endeavours to establish why a place or item is considered important and is valued by the community. Cultural

significance is embodied in the fabric of the place (including its setting and relationship to other items), the records associated with the place, and the response that the place evokes in the community.

The assessment of cultural significance with respect to archaeological sites is more difficult, in that the extent and nature of the features is sometimes unknown and it becomes necessary for value judgements to be formulated on the basis of expected or potential attributes. The element of judgement can be greatly reduced by historical or other research, as has been undertaken in the case of this study.

Archaeological deposits and features provide important evidence of the history and settlement of NSW. Archaeological sites may include stratified deposits of material culture which can be analysed to yield information about the history of the colony which is unavailable from documentary sources alone. Archaeological investigations can reveal much about technologies, economic and social conditions, taste and style. The archaeological information extracted and recorded can provide primary evidence about the way of life of previous generations, through examining structural features, artefacts and deposits. Archaeological sites that contain these elements therefore have a high scientific value. This value can be further enhanced where there is a substantial body of supporting documentary evidence that enables further inference to be drawn from the archaeological records. It is through this potential for revealing information that the heritage significance of archaeological sites occurs.

Basis for Assessment

The Burra Charter and its Guidelines for Assessment of Cultural Significance suggest that significance can be assessed in categories such as aesthetic, historic, scientific and social. While categories provide a useful framework and basis for considering sites and items, they are not so relevant for purely archaeological sites, where the remains are entirely sub-surface and the significance is therefore predominantly scientific, (except where the site may be significant for historical or social reasons - if the site relates to an important historic event, for example).

The NSW Heritage Manual (Department of Urban Affairs and Planning and NSW Heritage Office, 1996) outlines four criteria in relation to the nature of significance and two criteria in relation to comparative significance to be considered in assessing the significance of potential heritage items. These criteria are:

Nature of Significance

- Criterion 1 Historic Significance (Evolution and Association) significant because of the importance of an association
 with, or position in the evolving pattern of our cultural
 history;
- Criterion 2 Aesthetic Significance (Scenic Qualities/Creative Accomplishment) - significant because it demonstrates positive visual or sensory appeal, landmark qualities and/ or creative or technical excellence;
- Criterion 3 Social Significance (Contemporary Community Esteem) significant through its social, cultural or spiritual association with a recognisable community; and
- Criterion 4 Technical Significance and Research Potential (Archaeological, Educational and Scientific Values) significant because of its contribution or potential contribution to an understanding of our cultural history or environment.

Comparative Significance

- Criterion A Representativeness significant because it is a are fine representative example of an important class of significant items or environments; and
- Criterion B Rarity significant because it represents a rare, unusual or endangered aspect of our history or cultural environment.

To be significant a place or item must meet at least one of the 'Nature' criteria and one of the 'Comparative' criteria. These criteria have been used to assess each potential heritage item identified during this study.

The terms local, regional and State heritage significance relate to both the geographical and historical context of an item's significance. An item which is of local significance, for example, will be of historic, aesthetic, social or technical/research significance in a local geographical context or to an identifiable contemporary local community. The item will be of significance only within the locality in which it is found, although the item may be of undoubted interest to people from outside the locality. For the purposes of this study, the local context is the local government area in which the item is located.

An item with regional significance is defined as being significant in a regional historical or geographical context or to an important and identifiable contemporary regional community. For the purposes of this study, the region is the Sydney basin as shown in the NSW Heritage Manual.

State significance means an item is significant in a state-wide historical or geographical context or to an important and identifiable contemporary statewide community.

The Australian Heritage Commission Act 1975 also specifies criteria for the assessment of the significance (or national estate value) of a place. There are three broad groups of values - indigenous; natural; and 'historic' (that is, non-Aboriginal) cultural heritage values and eight criteria used to determine national estate values.

The criteria used in the assessment of 'historic' national estate values can be directly correlated with the NSW Heritage Assessment Criteria contained in the NSW Heritage Manual (Department of Urban Affairs and Planning and NSW Heritage Office, 1996), which have been used in this assessment.

Table 3.1 comprises the Australian Heritage Commission's assessment criteria for the Register of the National Estate with the State Heritage Inventory Assessment Criteria as outlined in the NSW Heritage Manual. This table only compares those criteria which relate to historic or cultural values; criteria which relate specifically to natural, ecological and landscape values have been omitted, as they are not relevant to this study.

TABLE 3.1 COMPARISON OF HERITAGE CRITERIA

Australian Heritage Commission Criteria	NSW Heritage Manual Criteria
Historic (Evolution	n and Association)
Criterion A Importance in the course or pattern of Australia's natural or cultural history	NSW Criterion 1 Significant because of the importance of an association with, or position in the evolving patterns of our cultural history - with phases, activities or people
A3. Importance in exhibiting unusual richness or diversity ofcultural features.	
A4. Importance for association with events, developments or cultural phases which have had a significant role in the human occupation and evolution of the nation, state, region or territory.	

TABLE 3.1 CONTINUED

Australian Heritage Commission Criteria

NSW Heritage Manual Criteria

Criterion H

Its special association with the life or works of a person or group of persons of importance in Australia's natural or cultural history.

H1. Importance for close associations with individuals whose activities have been significant within the history of the nation, State or region.

Aesthetic (Creative/Technical Accomplishment)

Criterion E

Its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group.

E1: Importance for a community for aesthetic characteristics held in high esteem or otherwise valued by a community.

Criterion F

Its importance in demonstrating a high degree of creative or technical achievement at a particular period

F1: Importance for its technical, creative, design or artistic excellence, innovation or achievement.

Criterion 2

Significant for strong visual, or sensory appeal or cohesion; landmark qualities'creative and/ or technical (including architectural excellence) qualities; creative and/or technical (including architectural) excellence.

Scientific (Research Potential)

Criterion C

Its potential to yield information that will contribute to an understanding of Australia's natural or cultural history.

C2: Importance for information contributing to a wider understanding of the history of human occupation of Australia.

Criterion 3

Significant because of its contribution or potential contribution to an understanding of our cultural history or environment.

Social

Criterion G

Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.

G1: Importance as a place highly valued by a community for reasons of religious, spiritual, symbolic, cultural, educational or social associations.

Criterion 4

Significant through association with a contemporary community for social, spiritual or other reasons.

Australian Heritage Commission Criteria

NSW Heritage Manual Criteria

Representatives

Criterion D

Its importance in demonstrating the principal characteristics of:

I) A class of Australia's's natural or cultural places; or

II) A class of Australia's natural or cultural environments

D2: Importance in demonstrating the principal characteristics of the range of human activities in the Australian environment (including way of life, philosophy, custom, process, land use, function, design, technology or technique).

Criterion A/Representativeness Significant because it represents an important class of significant items or environments.

Rarity

Criterion B

Its possession of uncommon, rare or endangered aspects of Australia's natural or cultural history.

B2: Importance in demonstrating a distinctive way of life, custom, process, land use, function or design no longer practised, in danger of being lost, or of exceptional interest.

Criterion B/Rarity
Significant because it represents a rare,
endangered or unusual aspect of our history
or cultural environment.

3.3.6 LIMITATIONS OF STUDY

The study undertaken for this Draft EIS was limited to non-Aboriginal cultural heritage sites within each of the two defined study areas. This study did not include Aboriginal or natural heritage sites which were undertaken by other specialists for the Draft EIS and documented in *Technical Papers No.11* and *No.14*. The research, fieldwork, documentation and analysis undertaken for this study may generally be regarded as comprehensive. The level of documentation undertaken for individual heritage items, though sufficient to establish their significance and status for the purposes of inventory inclusion, must not be regarded as definitive or as a replacement for systematic research and documentation which would be undertaken as part of the conservation planning or development consent process.

Although the research and field surveys within the study areas was systematic, it is possible that further research may reveal additional sites not included in the inventory, but which may subsequently be found to be significant. This situation may result from the limited (and in one case, lack of) access that was available to some properties, particularly those in private ownership. It may also be created by changing levels of knowledge or perceptions about heritage significance in the future.

Part B Existing Environment

CHAPTER 4 STATUTORY CONTEXT

4.1 STATUTORY FRAMEWORK

Heritage items may be protected by Commonwealth and State legislation and by local statutory instruments. The legislation and statutory instruments which are relevant to this study and to the proposal to develop a Second Sydney Airport are outlined in more detail below.

4.1.1 THE AUSTRALIAN HERITAGE COMMISSION ACT, 1975

The Australian Heritage Commission Act provides for the creation of the Register of the National Estate. This Register is the national list of all those parts of Australia's natural, historic and cultural heritage which should be conserved. It alerts planners, decision makers, researchers and the community at large to the heritage value of these places.

The Register lists items which, in the opinion of the Australian Heritage Commission, fall within the following definition:

'Components of the natural environment or the cultural environment of Australia that have aesthetic, historic, scientific or social significance, or other special value for future generations, as well as for the present community'.

Listing in the Register of the National Estate imposes no legal restrictions except on Commonwealth departments and agencies, which must consult with the Commission prior to carrying out any work which will impact upon the heritage value of a place on the Register. A department or agency may not take any action which adversely affects a place on the Register if there is an alternative which is 'prudent' and 'feasible'.

There are two properties adjacent to the study areas which are listed on the Register of the National Estate. These are the Holsworthy Army Camp and Kelvin Park, the latter located immediately adjacent to but beyond the boundaries of the proposed Badgerys Creek airport options.

In July 1997 the Holsworthy Military Area was placed on the Interim List of the Register of the National Estate as the *Cubbitch Barta National Estate* area. Nomination of the area was requested by the Thurawal Local Aboriginal Land Council as it meets many different criteria for national estate listing recognising the significance of its 'cultural and natural landscape which demonstrates relationships between the environment and human occupation through time.' (Australian Heritage Commission, 1997). If the area is listed finally in the

Register this would invoke section 30 of the Australian Heritage Commission Act 1975 which contains specific obligations for the Commonwealth Government, including its Ministers, departments and authorities as described previously. Non-aboriginal cultural items or places that are cited by the Commission as being recognised by this interim listing include:

- 19th century settlement sites, dry stone walls and old transport routes;
- the training site for Australia's World War I troops and horses bound for places such as Gallipoli and its use for training after World War II; and
- the site of Australia's largest World War I internment camp for German and other European migrants between 1914 and 1919.' (Australian Heritage Commission, 1997).

4.1.2 NSW HERITAGE ACT 1977

The NSW Heritage Act includes various provisions for protecting identified items of environmental heritage. These include the following:

- Interim Conservation Orders:
- Permanent Conservation Orders;
- Section 130 Orders:
- Section 136 Orders; and
- Relics provision.

Interim Conservation Order

After receiving a recommendation from the NSW Heritage Council, the Minister may make an Interim Conservation Order over a building, work, relic or place, including groups or precincts of items.

This may be an item which, upon further investigation, warrants a Permanent Conservation Order. Interim Conservation Orders take effect when they are published in the NSW Government Gazette and remain in force for a maximum period of one year.

Alternatively, the Heritage Council may recommend that an Interim Conservation Order on an item be revoked or allowed to lapse. The Minister is required to notify the owner of an item affected by an Interim Conservation Order as soon as it has been gazetted. The notice is to include:

- a statement as to the effect of the Interim Conservation Order:
- the grounds for making a submission for or against the Interim Conservation Order and that the submission must be made within six months:
- that the Minister shall carry out an inquiry if an owner, mortgagee or lessee objects: and
- that at the end of the inquiry, a Permanent Conservation Order could be made without further notice.

Permanent Conservation Order

The Minister may, after receiving a recommendation from the NSW Heritage Council, decide to place a Permanent Conservation Order on an item. The owner or occupier as well as the local Council concerned must be given public notice of the proposal so they have an opportunity to make a submission. The owner of an item may also request the Minister to make a Permanent Conservation Order over the item.

Submissions for or against a Permanent Conservation Order must be made within the specified period (which is not less than 28 days). In the case of a submission objecting to the making of a Permanent Conservation Order which is considered to fall within the grounds specified in Section 41 of the Heritage Act, the Minister appoints a Commissioner of Inquiry to hold an inquiry. In summary, these grounds are:

- the item is not a heritage item;
- the permanent conservation of the item is not necessary;
- the Permanent Conservation Order would render the item incapable of reasonable or economic use; or
- the Permanent Conservation Order would cause undue financial hardship to the owner, mortgagee or leasee of the item.

The Commissioner considers the submissions as well as the case for the Permanent Conservation Order and makes a recommendation to the Minister. A Permanent Conservation Order is notified in the NSW Government Gazette when made by the Minister.

Section 130 Order

The Minister (or delegates) may also make an order over an item pursuant to Section 130 of the NSW Heritage Act where it is considered that, after further investigation, an Interim or Permanent Conservation Order may be justified.

A Section 130 order requires notification to the NSW Heritage Council regarding any proposal to 'harm' (that is, demolish or alter) the subject item. It lasts for one year, unless an Interim Conservation Order or Permanent Conservation Order is made, or notice of proposed works or demolition is served on the NSW Heritage Council. Where notice of proposed works or demolition is served, the Minister must make an Interim Conservation Order or Permanent Conservation Order within 40 days or the order lapses.

Where a local Council has a draft Local Environmental Plan ready to exhibit containing a schedule of heritage items, the NSW Heritage Council, Director/ Assistant Director or nominee may delegate authority to make Section 130 orders to a local Council. This can be a useful tool for providing interim protection to items identified during a heritage study, while other appropriate statutory or non statutory protective measures are determined. This approach is not favoured, however, by the NSW Heritage Council due to the demolition controls now available under the NSW Local Government Act, 1996.

Section 136 Order

An order may also be made pursuant to Section 136 of the NSW Heritage Act. Such orders are made by the Minister, the Chairman of the NSW Heritage Council, or delegate, and provide immediate protection where an item of environmental heritage is being, or is about to be, demolished or harmed. The order prevents any work for a period of 40 days.

Relics

The NSW Heritage Act affords automatic statutory protection to 'relics' which form part of archaeological deposits. The Act defines a 'relic' as:

'any deposit, object or material evidence relating to the settlement of the area that comprises NSW, not being Aboriginal settlement and which is 50 or more years old'.

Sections 139 to 145 of the Act prevent the excavation or disturbance of land for the purpose of discovering, exposing or moving a relic, except in accordance with an Excavation Permit issued by the NSW Heritage Council.

Relationship to Proposal

There are no items within either of the two study areas currently protected by conservation instruments under the *NSW Heritage Act*. However, Kelvin Park, which lies immediately adjacent to the Badgerys Creek study area, is protected by a Permanent Conservation Order.

The NSW Heritage Act does not bind the Commonwealth.

4.2 LOCAL GOVERNMENT INSTRUMENTS

4.2.1 LIVERPOOL COUNCIL

Liverpool Council has prepared a draft consolidating *Local Environmental Plan* 1997 which incorporates heritage provisions, a schedule of heritage items and a schedule of potential archaeological sites. There are 11 items within or immediately adjacent to the Badgerys Creek study area which are identified in the heritage schedule. These are:

- the Overseas Telecommunications Commission site group, including Road Receiving Station and staff housing;
- water tanks in Badgerys Creek Road;
- St John's Anglican Church Group including church and cemetery, Badgerys Creek;
- Mount Pleasant, Bringelly;
- Road Bridge, Pitt Street Badgerys Creek;
- Badgerys Creek Public School;
- Vicary's Winery Group, including wool shed, slab horse shed, land area, main house (and garden), The Northern Road Luddenham;
- Lawsons Inn site, The Northern Road Luddenham (the Thistle site);
- Luddenham Public School;
- Bringelly Public School Group, including School House and former Headmaster's residence; and
- the Kelvin Park Group, including site landscaping, homestead, kitchen wing, servant's quarters, coach house, slat barns (two), and other

works/relics (located adjacent to the Badgerys Creek airport options area).

4.2.2 CAMPBELLTOWN COUNCIL

Campbelltown Council has an Interim Development Order in place which includes a portion of the Holsworthy Military Area. There are no heritage provisions contained within this Interim Development Order. Campbelltown Council does not have any other planning instruments which contain heritage provisions or schedules affecting heritage items within the Holsworthy Military Area.

4.2.3 SUTHERLAND COUNCIL

Sutherland Council has a Local Environmental Plan 1993 in place which contains heritage provisions and a schedule of heritage items. This Local Environmental Plan applies to the southern portion of the Holsworthy Military Area, however, there are no heritage items within this area contained within the Schedule.

OTHER HERITAGE BODIES 4.3

4.3.1 THE NATIONAL TRUST

The National Trust of Australia (NSW) has assembled a comprehensive register of heritage items and conservation areas through the assessment work of its expert committees. Although it holds no legal status, the Trust's register is considered to be an authoritative guide to heritage significance and the Trust acts as an effective lobby group for heritage conservation.

There are only two items within or immediately adjacent to the study areas which are classified by the National Trust. These are the Holsworthy Landscape Conservation Area and Kelvin Park at Bringelly.

CHAPTER 5 HERITAGE SURVEY AND ASSESSMENT

5.1 BADGERYS CREEK - HISTORICAL ASSESSMENT

5.1.1 EARLY EXPLORATION

European settlement in the Badgerys Creek and Bringelly region was contemporaneous with the earliest agriculturally driven expansion beyond the Sydney Cove and Parramatta settlements. The area contained within the proposed airport sites was probably first crossed by a European in 1802 when the botanist George Caley led a party through the district. His expedition had contact with the local Aboriginal people, probably of the Cabrogal clan of the Darug. Caley, in his journal described the 'native huts', walking tracks and the effects of burning off on the local environment. The use of fire to trap animals had left the area like an 'English Park... with large trees separated by a grassy understorey' (Keating, 1996).

The inevitable expansion of settlement to the west was encouraged by the discovery of arable land that could support grain crops. The intensive farming that had taken place to support the fledgling colony around Sydney and Parramatta had exhausted the soil and alternative farming land was needed.

The Hawkesbury area had been settled for this reason. However, widespread flooding in 1800 and again in 1809, encouraged further investigations for suitable land. Access to Sydney and fresh water from a number of creeks added to the Badgerys Creek region's appeal.

5.1.2 1809-1820 - SETTLEMENT

The first land grants in the region were used as a testing ground for the emerging social policies of the fledgling colony. Larger than land parcels that had previously been offered to settlers, the grants were primarily intended to encourage farmers to grow sufficient crops to feed the growing population. Land was granted by the Governor on a freehold basis. The amount of land granted was initially decided on directions from London depending on the standing of the grantee and often correlated to the sum of money that the grantee could invest in order to improve the land (Proudfoot, 1990). This was based on the principle that those who had the money would be more likely to advantage the colony through capital investment in their property which would, in time, ease food shortages (Neustein and Associates, 1992).

Initial land grants were made soon after the turmoil surrounding the arrest of Governor Bligh during the 'Rum Rebellion' of January 1808 (see *Figure 5.1*). Bligh had been seen by some of the most influential landholders and by the

military as being both obstructive and in some cases damaging to their interests.

On 26 January 1808, the 20th anniversary of the establishment of the colony, John Macarthur wrote a letter to the commanding officer of the NSW Corps, Major Johnson, asking for the immediate arrest of the Governor. The letter read:

'Sir,

The present alarming state of this colony, in which every man's property, liberty and life is endangered, induces us most earnestly to implore you instantly to place Governor Bligh under an arrest and to assume the command of the colony. We pledge ourselves, at a moment of less agitation to come forward to support the measures with our fortunes and our lives (Clark, 1979)'.

The letter was signed by John Macarthur and over one hundred other residents including James Badgery and the brothers John and Gregory Blaxland. Badgery and John Blaxland were to receive substantial land grants under the succeeding administrations.

Settlement in the area began in 1809 with a grant to James Badgery of 840 acres at South Creek. Robert Lowe's grant of 1,000 acres at Bringelly in 1812 was next and in 1813 John Blaxland received a grant of 6,770 acres which he named Luddenham (Keating, 1996).

James Badgery had arrived in the colony on board the 'Walker' in November 1799. Forced to lease land in the Hawkesbury area he farmed 11 acres intensively and with the proceeds he established a mill in Sydney, attached a bakery to it and by 1803 had been granted 100 acres at Hawkesbury. Badgery, who along with other Hawkesbury farmers had supported the arrest of Governor Bligh in 1808 (Clark, 1979), was granted 840 acres at South Creek under the new administration headed by Colonel William Paterson.

Many of the grants made under Paterson were revoked upon the arrival of the replacement Governor, Lachlan Macquarie in 1810. Badgery's was one of these and he had to reapply for his land. Macquarie approved Badgery's application but reduced it to 640 acres which Badgery increased through purchases over the next 10 years to include an extra 1,300 acres. The estate which would later be split up under the name Exeter Farms, covered and area to the north and south of the present day Elizabeth Drive incorporating Badgerys Creek, named after him.

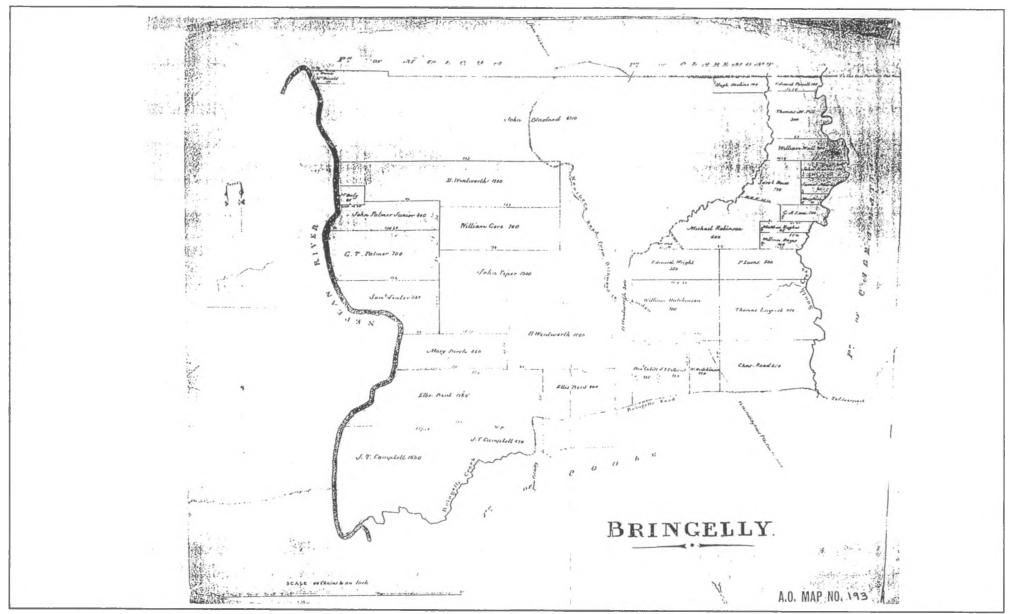


Figure 5.1
Parish of Bringelly - 1835
Source: Archives Office of NSW Map No. 193

Robert Lowe's grant of 1,000 acres at Bringelly corresponded with the £1,000 worth of property and assets that had accompanied him to NSW. Using the land for grazing he expanded his property 'Birling Gap' with an extra 500 acres in 1818. His eventual holdings in 1828 totalled 5,600 acres (Australian Dictionary of Biography, 1968).

Lowe was appointed by Macquarie to be magistrate for the Badgerys Creek, Bringelly area from 1815 and for the County of Cumberland from 1820. In July 1820, Lowe wrote to Commissioner John Thomas Bigge who was in the colony to inquire into conditions under Governor Macquarie. Lowe expressed the view that convicts could be better rehabilitated if employed in agricultural pursuits on the estates surrounding the settled townships. He believed that convicts left in the town of Sydney congregating with other convicts remained set in their ways and were more likely to be re-offered. Under the direction of sober and industrious masters, the convicts had time to think of their deeds (Lowe, 1820). However, Lowe (1820) complained of the system of allocating convicts:

'I must observe that the convicts are not fairly distributed. They are mustered at Sydney upon their arrival and after the mechanics and all the better farmers men are separated for the use of Government, the wants of the people of Sydney are next consulted...I can confidently assert that amongst the three last allotments of convicts to the district of Bringelly or Cook not one useful farming man could be found amongst them (Lowe, 1820)'.

Lowe also complained about the lack of mechanical skills amongst the convicts and the distance of 40 miles return to Parramatta that had to be covered in order to gain repairs on carts or ploughs. A trip of this length would have been arduous at the time. Mrs Felton Matthews described The Northern Road in 1833 as having been laid down without any regard to the nature of the land with some areas being close to impassable due to the clayey soil, especially after rain. Other sections traversed the steepest part of hills or the deepest hollows. With poor maintenance, including on bridges, the trip was slow. It was made more perilous with bushranging gangs operating in the area, including those of Bold Jack Donohue (Proudfoot, 1990).

The settlement in the early 1800s was on the fringe of European expansion. The influx of settlers and the establishment of farms had inevitably pushed the traditional owners, the Darug people, off their land. Clashes occurred as was becoming common elsewhere along the frontier in NSW. In 1816 an Aboriginal uprising was reported at Bringelly where 30 'natives' attacked a settlers farm. The following day a party of seven settlers crossed the Nepean River to track the party. In the resulting clash, four Europeans were killed, one was wounded and two escaped. Fighting continued in the district until a

military detachment was established at nearby Airds (Royal Australian Historical Society, 1920).

The largest landholder in the region (whose land covered much of the proposed airport site) was John Blaxland. Blaxland had inherited his fathers estate in Kent and having recently retired from the army, decided to emigrate. He arrived in NSW in October 1807 with the promise of 5,000 acres of land, the use of 18 convicts for 18 months and free passage for his family and goods.

Despite poor relations with Governor Bligh and subsequently with Governor Macquarie, John Blaxland, as one of the first wealthy capitalist farmers to arrive in NSW, was granted 6,710 acres in 1813, stretching from Badgerys Creek to the Nepean River, which he named Luddenham (Keating, 1996). From 1813 until his death in 1845 Blaxland ran sheep and cattle on his property, gradually clearing it to develop pasture. Although Blaxland was running 462 cattle and over 2,600 sheep by 1821, this was not a significantly large number considering that he was in the richest area for agriculture in the colony (Keating, 1996). In fact Blaxland had been criticised for the neglect of his property due to him being an absentee landlord and by concentrating on cattle instead of growing grain when the colony was short of food.

Blaxland's absenteeism could explain why no substantial dwelling was ever erected on the property. Mrs Felton Matthew, the wife of a Government Surveyor who accompanied her husband on his trips around NSW, wrote of Blaxland's house at Luddenham in 1833, describing it as:

"..nothing, a mere settler's habitation, of wood principal and set up with all other neglect of comfort..." (Royal Australian Historical Society, 1920).

It had been from John Blaxland's Luddenham property that the successful crossing of the Blue Mountains started in May 1813. The expedition, which included Johns brother Gregory, established a viable crossing over the mountains returning to John's property in 26 days.

Other grantees of note in the area included Sarah Howe. Independently wealthy after being widowed by her first husband in 1811 she was granted 270 acres which ran from Badgerys Creek and incorporated the location of the present day brickworks. Her land was one of the grants that had been created on what was to have been common grazing land. The common had been proposed by Governor Macquarie in 1811 after his visit to the region the year before, but was incorporated into the local grants after it was discovered that the land would not be good enough to support small landholders (Keating, 1996). Sarah married George Howe the printer of the 'Sydney Gazette'.

Living nearby at Bringelly was Ellis Bent, who having come to Australia with Governor Macquarie, was appointed Deputy Chief Judge Advocate. While he is attributed with naming the area Bringelly after an estate he owned in Wales, other reports suggest the name comes from the Aboriginal word 'Bringelli' meaning unobtainable.

One other prominent land holder in the area was D'Arcy Wentworth. Wentworth arrived in NSW in June 1790 having agreed to emigrate to NSW after being acquitted on three counts of highway robbery. Transferred to Norfolk Island as assistant in the hospital he returned to Sydney in February 1796 as assistant surgeon to the colony. By 1818 Wentworth held a considerable amount of land in various grants, one adjoining Blaxland's Luddenham estate and another in the Bringelly area along The Northern Road. At the time of his death in 1827, Wentworth was one of the wealthiest people in the colony and left 22,000 acres of land in his will to numerous heirs (Keating, 1996).

Of the remaining grants, that of Thomas Laycock, covering the former Overseas Telecommunication Centre is significant in that his house, Kelvin Park, remains as a near complete example of a rural homestead plus associated buildings dating from the 1820s to 1850s. Laycock, who also had played a part in the uprising against Governor Bligh in 1808, was granted 600 acres in November 1818 calling it Cottage Vale and added the adjoining farm, Cottage Grove owned by Charles Reid soon after. At its sale in 1823 a 'handsome and roomy residence' existed on the farm, then comprising 1,200 acres (Keating, 1996).

From 1825 to 1833 the Kelvin Park property served as the first Australian headquarters of the Australian Agricultural Company. This company, set up to develop a fine wool industry in Australia, used the site as its initial base. In December 1825 the appointed manager Robert Dawson and his employees, being 15 men, 14 women and 40 children, arrived in Sydney aboard the ships *York* and *Brothers*. These people along with 600 sheep, 12 cattle and seven horses were accommodated at The Retreat, as it was then known. Most stayed only a short while before relocating to the Hunter Valley from 1826.

Dawson's reason for relocating his workers was that at The Retreat he felt that they were surrounded by small settlers of bad character. Dawson was concerned that the inevitable contact that would occur between the locals and his own people 'would produce bad consequences' (Australian Council of National Trusts, 1982).

The Retreat went into private ownership after the Australian Agricultural Company's occupation and remained as a farming property until the 1950s when Overseas Telecommunications receiving station was built there, incorporating a large amount of the land, but not the house, in its site.

The first phase of settlement and development in the Badgerys Creek area was characterised by the land grants and the use of the land for grazing wheat crops. The break up and sale of Blaxland's Luddenham estate between 1859 to 1864 has been identified as the beginning of the next phase in the area, which saw the subdivision of the original grants.

5.1.3 1859 TO 1890 - SUBDIVISION AND ESTABLISHMENT OF THE VILLAGES

In the 1825 census the Bringelly area had 717 free settlers and another 120 male convicts living there. However the end of transportation and the consequent withdrawal of convict labour signalled the start of a decline in fortune for the Bringelly/Badgerys Creek area. A severe drought from 1838 to 1840 resulted in wheat crops failing two years in a row. This was followed in 1841 by an economic depression due, in part, to a crash in wool prices and a reduction in British investment capital (Keating, 1996). The most obvious effect of the downturn was the sale and subsequent subdivision of the Luddenham estate.

Towards the end of the 1830s Blaxland's land and associated property was valued at upwards of £30,000. His estate included a brewery and water mill (neither of which are within the proposed airport sites) and he employed 300 people. Yet by 1841 the whole of the estate had been mortgaged. Following Blaxland's death in 1845, Sir Charles Nicolson purchased the entire estate in 1851 after the property's mortgage had been defaulted.

The increasing demand for land close to the growing population centres coupled with the collapse of viable wheat farms after an outbreak of rust and the consequent de-population of the area as small tenant farmers moved in search of better land, culminated in many of the estates being subdivided into smaller allotments. Indeed from the 1880s rust completely eliminated wheat as a crop in the area (Proudfoot, 1990).

The first estate to be subdivided, as mentioned above, was Luddenham. Initially subdivided into one acre and half acre blocks, it was advertised as a village subdivision called Luddenham. Centred on The Northern Road, the village was to include the then only public drinking house in the area, Lawson's (Thistle) Store Inn and made provision for a public school and church (Nuestein and Associates, 1992) (see *Figure 5.2*). By 1857 a small weatherboard Methodist school had been established, with a more substantial brick school being opened in 1862.

The small rural settlement provided the surrounding estates with a focal point and Luddenham was soon establishing itself as a viable settlement. On 1 March 1872 Luddenham Post Office was opened with a local resident, Mr C.H. Beardow as the Post Master. The post office played an important role in the village, serving as a money order office from January 1885, acquiring a

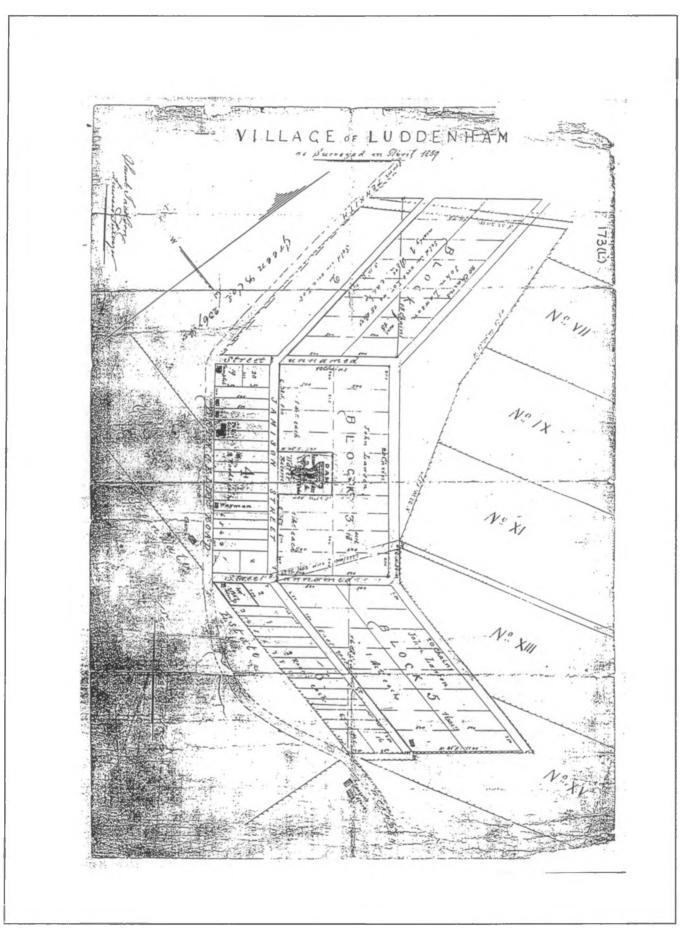


Figure 5.2 Village of Luddenham - 1859 Source: Land Titles Office

telephone and telegraph service from August 1905 and a Commonwealth Savings Bank office in April 1914 (Hopson and Tobin, 1995). Also from 1892, Luddenham held an annual agricultural show, allowing the local farmers and graziers to display their produce and animals.

Later partition on the eastern boundaries of Blaxland's old estate, the Exeter farms and William Hutchinson's estate on the Northern Road, subdivided in 1891, allowed for further small scale settlement and the communities of Luddenham, Bringelly and Badgerys Creek to grow (see *Figure 5.3*). However, neither Bringelly nor Badgerys Creek developed into the same well defined village centre as Luddenham.

5.1.4 1890 TO 1950 - ALTERNATIVE LAND USES

The main alternative land use to grazing and cropping in the area around the turn of the century was orchards. City families, displaced by the depression of the 1890s were attracted by the subdivision of the large estates into smaller manageable land parcels. The subdivisions, many of lots between three and 10 acres, were designed to encourage settlement in the area. Reasonable deposits and easy repayments belied the trouble that many of these new farmers were to face. Inexperience, seasonal changes and small lots combined to make life difficult on the land. Small orchards dominated land use on the smaller properties, while dairy farms and some vine growing occupied other farms (Nuestein and Associates, 1992).

The number of vineyards declined in the region from the 1890s due to a disease in the vines known as phylloxera. Of the vineyards that continued operation after this period, one on The Northern Road at Luddenham was called Anchau Vineyard. Beginning operations sometime after 1870 and still operating in 1908, it had been established by German immigrants who were descendants of vine-dressers originally brought to Australia by the Macarthurs and other families to help establish vine growing in the colony (Keating, 1996).

Opposite Anschau Vineyard from 1917, when the first grapes were planted, was Vicarys Winery (Norrie, 1990). Planting (originally as a sideline to the main rural activities of sheep and dairy cows) on a former farm dating from the 1880s, Cec Vicary and his family began commercial wine sales from 1923 though still running dairy cows up until the early 1940s. The winery was gradually expanded, its size peaking in the 1930s, with 65 hectares (160 acres) under cultivation. Although now operating on a reduced scale the winery continues in commercial production (Lester Firth Associates, 1991). Today, the property retains the original homestead (albeit altered) and a woolshed also dating from the 1880s. Both have been incorporated into the present promotional aspects of the winery.

By the 1920s the character of the area had been largely established (see Figure 5.4). Small to medium sized farms were arranged around the service centres of Luddenham, Badgerys Creek and Bringelly. A system of main roads, some like The Northern Road, dating from the mid 1820s, linked this area to the major centres of Liverpool and Sydney. From the 1950s, the land development changed slightly with the establishment of intensive farming operations such as battery hen farms, some horse studs and market gardening (Kinhill Stearns, 1985).

5.1.5 1950 to 1990s - RURAL DECLINE AND URBAN FRINGE

By the 1950s the district around Badgerys Creek was still sparsely populated. The remnants of the older farms were seen by the government as the perfect position for the placement of large infrastructure facilities. Of these, the Overseas Telecommunications Commission site and the Royal Australian Air Force Remote Receiving Station, adjacent to each other at Bringelly are the only two within the boundary of the proposed airport sites.

Bringelly was chosen by the Overseas Telecommunications Commission because of its isolation from intensive settlement, having only 200 residents in the early 1950s. The Overseas Telecommunications Commission station was constructed between 1952 and 1955 on land purchased by the Commonwealth Government in October 1949, as part of an upgrade of its The architectural firm Hennessy, Hennessy and Co were commissioned by the Overseas Telecommunications Commission in 1952 to design the station and the associated staff quarters. However, due to space restrictions the accommodation provided for workers at the station was less than that of a standard dwelling for the time, despite the inclusion of a communal swimming pool and tennis courts. Comments made by the architects at the time reflect their attempts at fitting the development into the local environment:

'On Bringelly

Site plan in this locality has a more formal character to suit the restricted area available for housing and here again the cottages would face towards the central park area in which could be located the recreational and social facilities.

Future expansion of staff accommodation could easily be obtained along the northern side of the Station Road. Individual cottages would be located to suit the particular aspect of each site.

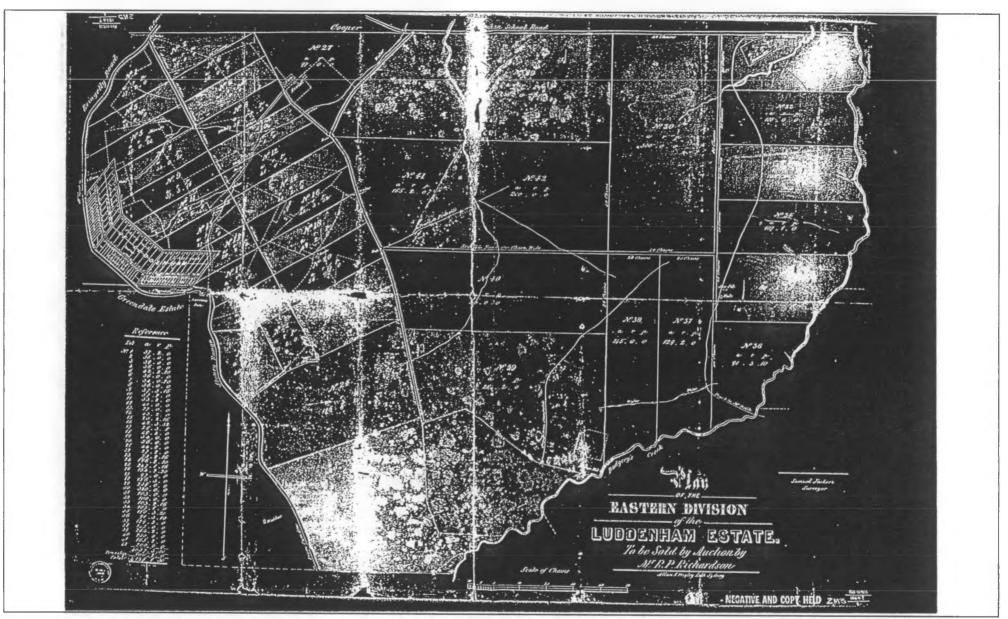


Figure 5.3
Eastern Division of Luddenham Estate
Source: Mitchell Library (ZM3 811.11311/1864/1)

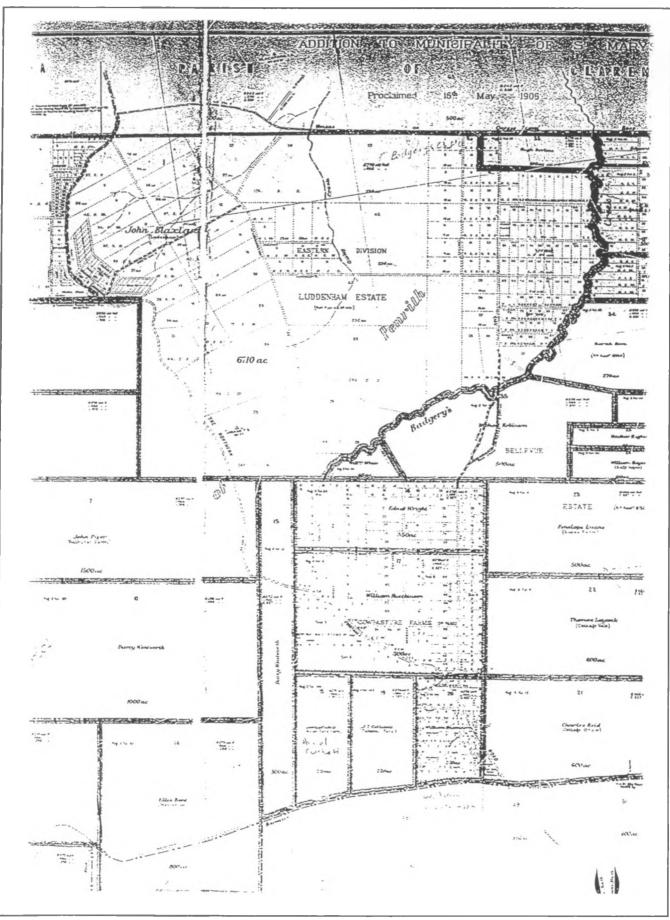


Figure 5.4
Parish of Bringelly, County of Cumberland - 1908
Source: Mitchell Library Parish Maps

On Cottages

The specified total area of 1,025 square feet for brick cottages will not permit larger sized rooms than those indicated on our sketches and very little space is available for built-in cupboards, etc, which are often the feature in the modern home'.

The Bringelly station was the last of its type built before technological changes shifted the Overseas Telecommunications Commission's focus and made them redundant.

Adjacent to the Overseas Telecommunications Commission site is the Royal Australian Air Force Radio Receiving Station. This plays a similar role to the Overseas Telecommunications Commission station except it is specifically for the reception of military radio transmissions. After initial protests from residents over the positioning of the station, a site was chosen and a series of protracted negotiations began. The site for the station was on the western boundary of the land that belonged to the historic Kelvin Park homestead.

Negotiations between the army and the then owner of Kelvin Park, Mrs L J McDonald, concluded with the site being bounded on the east by Thompson's Creek thereby allowing access to water for stock. A private access road to Kelvin Park on the northern boundary was also included (Australian Archives, PA960). The area agreed upon for the station totalled 283 acres, three rods and 20 perches. With the market value of the land at the time being £36 per acre, the total sale was settled at £10,219.10, in December 1954. The Government took formal possession of the land on 16 September 1959 with construction starting soon after (Australian Archives, PA960).

From the 1970s Badgerys Creek has been the focus for the proposed development of a second Sydney airport. The Major Airport Needs of Sydney Study (Major Airport Needs of Sydney Study Committee, 1979) identified the Badgerys Creek area as its most preferred site. The findings of this study were never seriously refuted and in response the Commonwealth Government began buying property that might be affected by construction of the airport in this location.

Despite this and State Government assessments of the Luddenham area for further subdivision for intense urban development, the Badgerys Creek, Bringelly and Luddenham region retains much of its rural character (Keating, 1996). The small rural allotments, the farms and the village communities continue as a link to the region's earliest European history.

5.2 BADGERYS CREEK - HERITAGE ITEMS

The non-Aboriginal cultural heritage items identified from this study in the Badgerys Creek study area are listed in the schedule below. A detailed inventory form has been prepared for each of the items and is contained in Appendix B. A map showing the location of each item is contained in Appendix C.

- B1 Luddenham Public School; The Northern Road, Luddenham;
 Australian Map Grid Reference E286350 N6248400; Local significance;
- B2 Vertical slab dairy c1930; Lot 10 Adams Road, Badgerys Creek;
 Australian Map Grid Reference E287400 N6249100; Local significance;
- B3 Luddenham Uniting Church, Cemetery and Progress Hall; The Northern Road, Luddenham; Australian Map Grid Reference E286250 N6248450; Regional significance;
- B4 Lawson's Inn site demolished 1930s; The Northern Road, Luddenham, Australian Map Grid Reference E286650 N6248050; Regional significance;
- B5 Luddenham Anglican Church and Cemetery; The Northern Road, Luddenham; Australian Map Grid Reference E286400 N6248250; Regional significance;
- B6 Anchau vineyard site vineyard operated up until c1910; The Northern Road, Luddenham; Australian Map Grid Reference E287700 N6246300; Local significance;
- B7, B8, B9, B10 Vickerys Winery c1880s original house, c1910 Winery Building, c1880s woolshed and c1880s Shearers Quarters; The Northern Road, Luddenham; Australian Map Grid Reference E286950 N6246300; Regional significance, B9 Local significance;
- B11 'Evergreen' homestead c1900 small farm house; off Derwent Road, Bringelly; Australian Map Grid Reference E289300 N6243800; Local significance;
- B12 'Mount Pleasant' homestead c1900 small farm house; Shannon Road, Bringelly; Australian Map Grid Reference E289500 N6245150; Local significance;

- B13 RAAF Water Tanks two c1950 steel elevated water tanks;
 Badgerys Creek Road, Bringelly; Australian Map Grid Reference
 E690200 N6244450; Local significance;
- B14 Overseas Telecommunications Commission Bringelly Remote Receiving Station - c1955 overseas radio receiving station; Badgerys Creek Road, Bringelly; Australian Map Grid Reference E290000 N6244900 Regional significance;
- B15:-Kelvin Park c1820 Estate homestead and associated buildings;
 off Kelvin Park Drive, Bringelly; State significance;
- B16 Braeburn Homestead turn of the century homestead; private road off Longleys Road, Badgerys Creek; Australian Map Grid Reference E289750 N6246850; Local significance;
- B17 Former Badgerys Creek butchery c1880s building; Badgerys creek Road, Badgerys Creek; Australian Map Grid Reference E291000 N6247800; Local significance.;
- B18 St Johns (Badgery's Creek) Anglican Church Cemetery approximately 30 graves; Pitt Street Badgerys Creek; Australian Map Grid Reference E291150 N6248250; Local significance;
- B19 Badgery's Creek Methodist Church Cemetery two graves; Pitt Street Badgerys Creek; Australian Map Grid Reference E291300 N6248300; Local significance;
- B20 Gardiner Road Farm Cottage c.1900 weatherboard cottage;
 Gardiner Road, Badgerys Creek; Australian Map Grid Reference
 E291900 N6248600; Local significance;
- B21 Gardiner Road Farm Outbuildings c1930s timber slab buildings;
 Gardiner Road, Badgerys Creek; Australian Map Grid Reference
 E291500 N6248700; Local significance;
- B22 Pitt Street Bridge steel truss bridge; Pitt Street, Badgerys Creek; Australian Map Grid Reference E292200 N6248100; Local significance;
- B23 Badgerys Creek Public School c1895 Public School building;
 Badgerys Creek Road; Australian Map Grid Reference E291100
 N6248350; Regional significance; and

B24 - The Northern Road, Badgerys Creek. Australian Map Grid Reference E290300/286990 N6242000/6250400; Regional significance.

5.3 BADGERYS CREEK - HERITAGE SIGNIFICANCE

5.3.1 OVERVIEW OF SIGNIFICANCE

The existing heritage items/sites and heritage significance of the Badgerys Creek study area can be analysed in terms of the major phases of activity that have occurred since the first grants of land were allocated.

Phase 1 - Land Grants and Early Estates, 1788 to 1850

The first activity that occurred in the Badgerys Creek area arises from the circumstances behind the 'Rum Rebellion', where the senior officers of the NSW Corps conspired to arrest the then Governor, William Bligh, and to take over the administration of the colony for their own interests. John MacArthur, a pivotal figure in the Rebellion, was already foreseeing a great pastoral future for the colony, with his own extensive land holdings in the Camden and Parramatta vicinities. Prior to the rebellion, land grant policies worked against large pastoral properties being granted under single ownerships (although individuals were able to extend their holdings by purchase) and many of the settlers who took the side of the rebel soldiers were clearly expecting to profit from a change of this policy. Many of the first grants of land in the area southwest of Parramatta were made by the Acting Governor, Colonel Paterson, soon after Governor Bligh was deposed and one of these was to James Badgery, an established Hawkesbury River farmer and supporter of Captain MacArthur and the rebels. His grant, like all other grants made at this time, was rescinded by Governor Macquarie but a smaller grant in the same area was later approved. From this land which he named 'Exeter Farms', the name Badgerys Creek has survived.

This tumultuous period also saw the arrival of John and Gregory Blaxland, the colony's first major capitalists. John Blaxland arrived in 1807 with considerable money to spend, a promise of 8,000 acres of land and an attitude that Bligh described as caring 'for nothing but making money'. John Blaxland supported the rebels against Bligh but nevertheless, Governor Macquarie was compelled to honour the promises made back in England, granting him, amongst other properties, 6,710 acres on the east side of the Nepean River. This became the Luddenham Estate.

Other grants in the area followed, generally to individuals of some wealth and class. Thomas Laycock's 'Cottage Vale' (later *The Retreat*, then *Kelvin Park*), Robert Lowe's 'Burling', D'Arcy Wentworth's 'Emshall' and the properties of

Captain John Piper, Sarah Howe and William Hutchinson (Cowpasture Farm) were all substantial properties in the area.

Existing Heritage Items - Phase I

From the establishment period of 1809 to 1850, few relics of the early properties survive. The Luddenham Estate is recorded by the name of the township which was created by its subdivision and Badgery's name is preserved in both the watercourse and the small township. The layout of property boundaries and streets in the area is a product of the various original grants and their subdivisions, especially the Luddenham and Exeter Farms estates. These estates however are not clearly recorded by these features and the landscape of the area has undergone considerable development since they were subdivided.

Heritage items/sites that remain are shown on Figure C1, Appendix C and are described below:

- of the other estates, Thomas Laycock's homestead *The Retreat*, now known as *Kelvin Park*, remains intact and is remarkably well-preserved. It is one of the few early colonial homesteads which survive in NSW and it has associations with some notable individuals and companies in the early history of Australia. It is of considerable heritage significance, especially as it retains its original kitchen block, servants quarters, its 1860's coachhouse and the farm outbuildings;
- the original main road, *The Northern Road*, which traditionally connected Camden with the township of Windsor, still maintains its original route through the area with only minor deviations. The route has some significance for its continuous linkage to the early days of settlement, its expression of the physical requirements of the transportation of the period, though this has diminished due to later improvements that have been made, and for the influence it has exerted upon development in its vicinity; and
- associated with The Northern Road is the site of Lawson's Inn (Item B4) which, although long demolished, is historically significant for its role as an important stopping place on the road in the earliest period. Its position on the road can be related to the normal distances that could be traversed by the transportation of the period until a rest stop was required and this characteristic led to the Inn's later influence on the siting and layout of the town subdivision of Luddenham.

Phase II - Small Farms and Country Towns, 1850 to 1900

The western plains of the Cumberland County were a generational staging post for pastoral and agricultural development in NSW. The successful land owners of the 1820s to 1840s period had moved their investments over the mountains by the 1850s. The unsuccessful had generally been caught by the 1840s depression or the gold rushes of the 1850s and the families forced into bankruptcy and retirement. In either case, the large properties were all progressively subdivided and sold during the decades between the 1850s and 1880s.

In the 1850s and 1860s the township of Luddenham was laid out alongside The Northern Road, with allotments provided for a church, a school and a post office. The township of Badgerys Creek developed later, as a satellite community, with the school established for the children of the local farmers from the mid 1880s and the post office and the churches following in the 1890s.

This period is characterised by the operation of small farms usually less than 50 acres. Development however was severely compromised by a series of droughts and bushfires between 1847 and 1859, followed by severe floods in the district in 1860, 1866 and 1868. The small farms were marginal producers and the families which prospered were those which combined their farming with other trades such as carting, shoemaking, butchery or coachbuilding. The manufacturers in the area, such as the brickworks, also provided seasonal and part time work for local families.

The last of the large estates were subdivided in the 1890s, including the Hutchinson estate and the remaining sections of Badgery's Exeter Farms. By the turn of the century orchards, dairies and vineyards were the main agricultural activities. Vineyards and winemaking originated in the district in the 1840s with several of the large estates, most notably John Jamieson's 'Regentville' and William Cox's 'Winbourne', importing German and other European vintners to manage large vineyards on these estates. By the end of the century, the descendants of these immigrants had purchased their own farms and were raising vines and pressing grapes in the district. Few were hugely successful in this area, but a small number prospered well into the middle of the twentieth century.

Existing Heritage Items - Phase II

Much of the existing historic fabric of the Badgerys Creek area dates from its second phase of development. The Badgerys Creek township grew out of the progressively closer settlement of the area and was a typical rural district community centre. As it grew, it gradually acquired the facilities of a township such as churches and shops, a school and a post office. The post office itself

has been demolished and both timber church buildings removed in the last decade, but the cemeteries remain, as does the school. Churches and schools are focal points of most small towns and demonstrate the size, wealth and outlook of the local population in their form and location.

Heritage items/sites that remain are shown on Figure C1, Appendix C and are described below:

- the Badgerys Creek Public School (Item B23) retains the small weatherboard schoolhouse that was erected in 1914 and retains its semi-rural setting. It features prominently in the oral histories of the area and is representative of many one room schools that have existed in small towns throughout NSW;
- the two churches at Badgerys Creek, an Anglican and a Methodist, have not survived but the *cemeteries* of each (Items B18 and B19) are still in place. Considerable information as to the cultural origins, wealth, aspirations and the health of the inhabitants of the area is contained in the remaining headstones and the cemeteries have considerable social significance to the families of the people buried there;
- one interesting building which survives is the small butchery on Badgerys Creek Road (Item B17), though the business has ceased and the building is presently used for other purposes. It has features that are typical of a butchery in a small township, such as its detachment from the town centre, its setting within an open paddock and its compact, brick-walled form;
- there are few traditional farm houses of 19th century origin which remain in the area. Documentary evidence indicates that timber slab was the most common form of construction used in this area in the 19th century but such buildings represent a crude and relatively temporary building form and were typically replaced or rebuilt within a few decades. The earlier building forms are represented by the timber slab farm outbuildings at *Vicary's Winery* (Items B8, B9 and B10), *Kelvin Park* (Item B15), *Gardiner Road* (Item B21) and *Adams Road* (Item B2), although the original homestead at Vicary's (Item B7) has sections where the original construction survives. These outbuildings have generally been erected in the 20th century but utilise traditional materials and construction methods. The *Shearers Quarters* (Item B10) at *Vicary's Winery* is amongst the most original of these buildings but is in very poor condition;
- the best examples of farmhouses in the area are Mt Pleasant (Item B12),
 Evergreen (Item B11) and the Gardiner Road farmhouse (Item B20),

which are all small weatherboard cottages dating from around the turn of the century. They are representative examples of the 'better' class of this type of house. The 'Braeburn' homestead (Item B16) was a member of this group but has become an archaeological site in recent years;

- Luddenham's earliest building, the St James Anglican Church (Item B5), is an evocatively rural style of church, with its simple form and rubble wall construction. Its quality is indicative of the class of the local Anglican population and it forms part of a particular set of mid 19th century rural churches which are characteristic of the colonial townships along the Hawkesbury-Nepean River between Camden and Windsor;
- the Luddenham Uniting Church, with its Progress Hall (Item B3), dates from the 1880s and indicates both increasing population and diversity of origins in the vicinity. The absence of other denominations highlights the strong Protestant presence in the community and this characteristic is repeated by the two churches of the Badgerys Creek township, of which only the cemeteries remain. A small Catholic Church existed near Luddenham but has been demolished and the cemetery removed to Greendale;
- the school at Luddenham (Item B1) is larger than that of Badgerys Creek but also retains weatherboard buildings from the first decade of this century. Both schools are significant as representative examples of small town schools and have some social significance as the focus of the memories of many former residents of the area; and
- the historic significance of the area as a seminal wine producing region is demonstrated by the still operating Vicary's Winery (Item B8) and by the site of the former Anchau Vineyard (Item B6) across The Northern Road. Although eclipsed by later vineyards in the Hunter Valley, South Australia and Victoria, the Cumberland Plain was the location of the first generation of wineries in Australia and the strong European immigrant presence in the Australian industry has its origins in the early investments made in this locality. The Vicarys Winery property also contains examples of 19th century farm outbuildings, although the Woolshed (Item B9) is now modified for its current 'dance hall' use. It is an evocative, if not authentic, example of a combined shearing shed, dairy and barn. The nearby Shearer's Quarters (Item B10) is an excellent example of a crude bush hut and is probably representative of a wide range of 19th century structures once common in the area. This woodshed and the Shearer's Quarters are the only examples noted in the area which provide evidence of the once common grazing of sheep.

Phase III - Family Farms to Urban Fringe, 1900 to 1990s

The first half of the 20th century produced few changes to the landscape or the activities of the Badgerys Creek area. The changes which occurred in the late 19th century produced a relatively stable community of a semi-rural character, with a diversity of income sources shielding the local economy from the seasonal vagaries of true agricultural and pastoral business. Orchards, dairies and horse breeding were the typical activities, feeding the nearby city markets and neither the two World Wars, the Great Depression or the advent of reticulated electricity had a great impact upon the region.

These conditions changed after the end of World War II. The private motor car changed the lifestyle of the nation during this period and its effect locally was to marginalise local businesses. Shops that once supplied walking distances were now redundant whilst supermarkets and shopping malls developed in regional centres. Schools, churches and government offices were similarly affected. The increasing size and facility of motor trucks and road transport increased the efficiency of agriculture throughout the country. For marginal producing areas such as Badgerys Creek, this had the effect of making most of the traditional farming activities totally uneconomic. By the 1970s, few of the orchards and dairies that had sustained the area were still working and most of the small farms had become residential properties. Many were subdivided for housing where the immediate area was suitable; others were consolidated into larger properties operating in one of the few businesses for which the area remained suitable - horse breeding and training.

As these changes occurred, the area developed attractions for new forms of activity that were being created in the decades following World War II. In the 1950s, the Commonwealth Government purchased a large area of land to establish firstly an international radio communication centre and secondly a military radio centre. These required large areas of open land with low local populations, whilst remaining close to urban facilities. In a similar fashion, large poultry businesses moved into the area, the former paddocks and pastures being now important more as buffer zones around the central production facilities. Most recently, cattle production has adopted some similar techniques and feed-lot cattle farming has also been established.

The proposal to build a major airport in the Badgerys Creek area was first raised in the 1970s. The Second Sydney Airport proposal has been an ongoing political debate during the subsequent two decades and considerable uncertainty has surrounded its development. The effect of this process upon the Badgerys Creek area has been to sterilise the area for substantial new development, particularly for commercial or manufacturing purposes, and to accelerate the departure of government and community services from the locality. At the same time, there has been considerable building of new residential buildings on existing properties, a process which has usually involved the demolition of the previous generation of buildings.

Existing Heritage Items - Phase III

The low level of development in the area during the course of the 20th century has not left a large number of significant relics of this phase.

Heritage items/sites that remain are shown in *Figure C1*, *Appendix C* and are described below:

- although the Radio Communications facilities were important technological developments, much of the technology upon which they were based is obsolete and has been superseded and removed from the buildings. The buildings themselves were built as simple, functional enclosures for the equipment and now have only associational links to their historic origins. They have little aesthetic or other value;
- most of the other buildings associated with the Radio Receiving Stations are nondescript residences erected for the staff and have little individual significance, although the Overseas Telecommunications Commission's Bringelly Radio Receiving Station (Item B14) had its residences constructed as a small communal group around a central recreation area and this group is expressive both of the perceived isolation of the area at that period and, (in the number of residences) of the staffing requirements arising from the technology;
- a feature of the two Radio Stations is the erection of elevated water reservoirs (Item B13) using government standard pattern watertanks.
 These are local landmarks and have some aesthetic qualities; and
- there has been little change to the street pattern and layout of the area during this period. One item that has been modified is the low level timber beam bridge over Badgerys Creek on Pitt Street, which was reconstructed after World War II as a steel truss bridge (Item B22) at a higher level. It is aesthetically significant as an interesting and structurally expressive bridge of simple design, which is in keeping with the semi-rural character of the area. It is also historically significant as it indicates the low-level of activity and investment in the region at the time of its erection.

5.4 BADGERYS CREEK - SUMMARY STATEMENT OF SIGNIFICANCE

The Badgerys Creek study area has environmental heritage significance because of:

 evidence of its association with the disposition of land ownership in the early years of the colony and the events leading up to and following the 'Rum Rebellion', a seminal event in the history of the colonial administration of NSW (Historic Significance);

Items of major significance include: the name of the area as Badgerys Creek, recording the farmer, James Badgery, and the resultant layout of the properties in the area which reflect the original property boundaries derived from the events surrounding the land grants made at that time.

evidence of the expansion of the colony from its early centres into the rural hinterland prior to the crossing of the Blue Mountains, the first road routes through the district and the type of agriculture and the people employed in these developments (Historic and Aesthetic and Research Significance);

Items of major significance include the site of Lawsons Inn and the route of The Northern Road.

evidence of early 19th century 'gentleman farmer' residential housing and the form and extent of buildings necessary for the operation of a remote grazing property in the period (Historic and Aesthetic and Research Significance);

Items of major significance include 'Kelvin Park' homestead and its outbuildings.

 evidence of the form and materials of the homesteads and outbuildings associated with small farming properties in the late 19th century and the development of small townships that service these communities (Historic and Aesthetic and Research and Social Significance);

Items of major significance include 'Evergreen', 'Mt Pleasant' and the Gardiner Road cottage, the farm outbuildings at Vicary's Winery and in Adams Road and Gardiner Road, the churches and schoolhouse at Badgerys Creek and at Luddenham and the bridge over Badgerys Creek.

 evidence of the gradual decline in the agricultural viability of the Cumberland Plain, the rise and fall of the wine and grape industry and the development of alternative uses for former pastoral land associated with 20th century technology (*Historic Significance*);

Items of major significance include Vicary's Winery, the site of Anchau's vineyard, the Overseas Telecommunications Commission site, the military radio stations and the two water tanks associated with these.

5.5 HOLSWORTHY MILITARY AREA AND SURROUNDS HISTORICAL ASSESSMENT

5.5.1 EARLY EXPLORATION AND AGRICULTURE

The earliest European exploration of the Georges River occurred in 1788 when Governor Phillip explored Botany Bay and sailed up the Georges River for a short distance before arriving at Port Jackson and establishing the first European settlement (Keating, 1996). Later in the same year Captain John Hunter surveyed the river from Botany Bay to Alford's Point but was unimpressed with what he found (Keating, 1996). Matthew Flinders and George Bass were the first to undertake a major exploration of the Georges River. Not surprisingly the first grants of land in the area, in April 1798, went to Bass and Flinders and to Captains George Johnson and Thomas Rowley along the river near present day George's Hall (Keating, 1996).

In the Liverpool area the first small grants given out from 1798 to 1805 were along the Georges River in the bend that now encloses Moorebank and Chipping Norton. In the first few years land along the alluvial flats was given to Captain Thomas Rowley, Richard Clinch, James Angle, Thomas Bramwell and others as small cropping allotments. Clinch was given 260 acres in March 1800 but drowned before the deeds were completed. The land was then given to his family whose name is commemorated today by Clinches Pond. Rowley, Thomas Laycock and others received land in the thin sandstone country around Harris and William's Creeks a few years later (Keating, 1996) (this is within the current Holsworthy Military Area).

The major recipient of land in this area was Thomas Moore, the former government boatbuilder. After his years of service Lieutenant Governor Paterson judged him to be 'a proper subject of the indulgences given to settlers of the most respectable class'. He got his first land grant at Moorebank in 1805 and received multiple grants in the Liverpool area after his retirement in 1809. Moore ultimately owned over 6,000 acres on the east bank of the river (Keating, 1996). This area covered most of the area from the Georges River east to Harris Creek and south to the east-west bend of Harris Creek.

The area along the Georges River and to the east (within the present Holsworthy Military Area) developed as an agricultural region, mostly for wheat. By 1821 the Liverpool district (which at that time included areas such as present-day Campbelltown, Camden, Cobbity, Menangle and Bringelly) was second only to Windsor in the production of wheat (National Trust, 1996). The historian Brian Fletcher calculated that around the early 1820's the Liverpool district contained 28.1 percent of the land owned in NSW, 28 percent of the area cropped, 27 percent of the horses, 26.9 percent of the cattle and 27.5 percent of the sheep (National Trust, 1996).

The more fertile areas in the Liverpool district were taken up by the late 1790's. However the harder sandstone country within the present Holsworthy Military Area was granted in the period from 1805 to 1809 (see *Figure 5.5*). By 1810 the Sydney merchant boatbuilder Henry Kable was calling in debts from the Georges River farmers (Keating, 1996).

Farming in the Sydney area on a large scale began in Parramatta in 1788. This was followed by Windsor, Richmond, Penrith and Emu Plains. The Georges River area, farmed from the late 1790s is contemporaneous with the earliest agricultural developments in Australia. During the initial settlement period along the Georges River conflict between Aborigines and Europeans occurred. Troops were sent to protect crops in the Georges River area as early as 1797 (National Trust, 1996). The most prominent early landowner within the study area was Thomas Moore. Moore arrived in the colony in 1792 on the Britannia as the ship's carpenter and in 1796 was appointed Government Boat Builder. Moore built a home which he named 'Moore Bank' in the early 19th Century hence the name of the present day suburb. He was appointed a magistrate in 1810, was responsible for allocating the ten blocks of Liverpool (after Macquarie) and was Superintendent of Convicts (National Trust, 1996). Moore continued as Magistrate for thirty years until his death on Christmas Eve 1840. In his will, Moore gave his entire estate to the Church of England which administered it for the next 60 years. Under the bequest, Moore Theological College was established in Elizabeth Street, Liverpool in 1857. The College and Moore's home 'Moore Bank' were demolished in 1930 (National Trust, 1996).

In November 1810 Lachlan Macquarie (the new Governor) set out with a small party from Parramatta to inspect the newly settled district of Georges River. They crossed the river and arrived at Moore Bank, the house of Thomas Moore. After breakfast, the group, now accompanied by Dr William Redfern and Thomas Moore, 'set out in a boat...to view and survey the ground intended for the new township' (National Trust, 1996). A mile up the river they disembarked at Thomas Laycock's house and Macquarie recorded that 'having surveyed the ground and found it in every respect eligible and fit for the purpose, I determined to erect a township on it, and named it Liverpool, in honour of (Robert Banks Jenkinson) the Earl of that Title, now the Secretary

of State for the Colonies'. The Acting Surveyor, Mr Meehan, was at the same time directed to mark out the ground for the town, with a square in the centre thereof, for the purpose of having a church hereafter erected within it (National Trust, 1996). Later in the same year Macquarie marked out five other townships around the settled hinterland of Sydney, naming them Windsor, Richmond, Pitt Town, Wilberforce and Castlereagh (Keating, 1996). This was an effort to extend the agricultural districts which supplied the colony after flooding of the Georges River caused food shortages.

5.5.2 INDUSTRY IN THE HOLSWORTHY AREA

The earliest mention of industry within the Holsworthy area occurs in 1824. An 1827 map of part of the Parish of Holsworthy prepared by Surveyor Robert Dixon noted a 'mill' on the western bank of Williams Creek on land granted to Thomas Rowley and adjacent to the land granted to miller, John Lucas (National Trust, 1996) (see *Figure 5.6*). This is thought to be the 'Brisbane Water Mill' built in 1822 and operated by John Lucas and named after Governor Brisbane (National Trust, 1996). The following advertisement appeared in the Sydney Gazette in March 1824:

'BRISBANE WATER MILL - The first Grant of his Excellency the present GOVERNOR, of one hundred and fifty acres of land, for the purpose of erecting a Water Mill, at Liverpool, has been completed by Mr John Lucas, a Native of the Colony. This mechanic has finished the Machinery with the greatest accuracy; and now the Dam is completed, the Public are assured, that flour will be sold at as low prices as in Sydney; and I can confidently say; this Mill will not stand still for the want of water, when once the dam is full. As hitherto the Mill was worked undershot, this waste, added to the uncommon drought, has caused the Mill to stand still. In the mean time, Mr. John Lucas will receive Wheat, free from smut, at the Liverpool Warehouse, and pay for the same as fair as Settler can sell in Sydney...' (Sydney Gazette, 1824).

Other industries that are reported in the Holsworthy area during the latter half of the 19th Century are quarrying, saw milling, paper milling, ship building and noxious operations such as tanning along the river. However the only definite location that has been found on a map is the site of paper milling on Williams Creek and ship building which occurred at the confluence of Williams Creek and the Georges River. This is shown in *Figure 5.7*.

In the 1860s Joseph Pemmell set up a cardboard mill at Holsworthy on Williams Creek. The mill was later converted to a flour mill. The National Trust's *Draft Landscape Conservation Area Proposal* (National Trust, 1996) states, that Thomas Woodward utilised the mill as a woolwash until it was

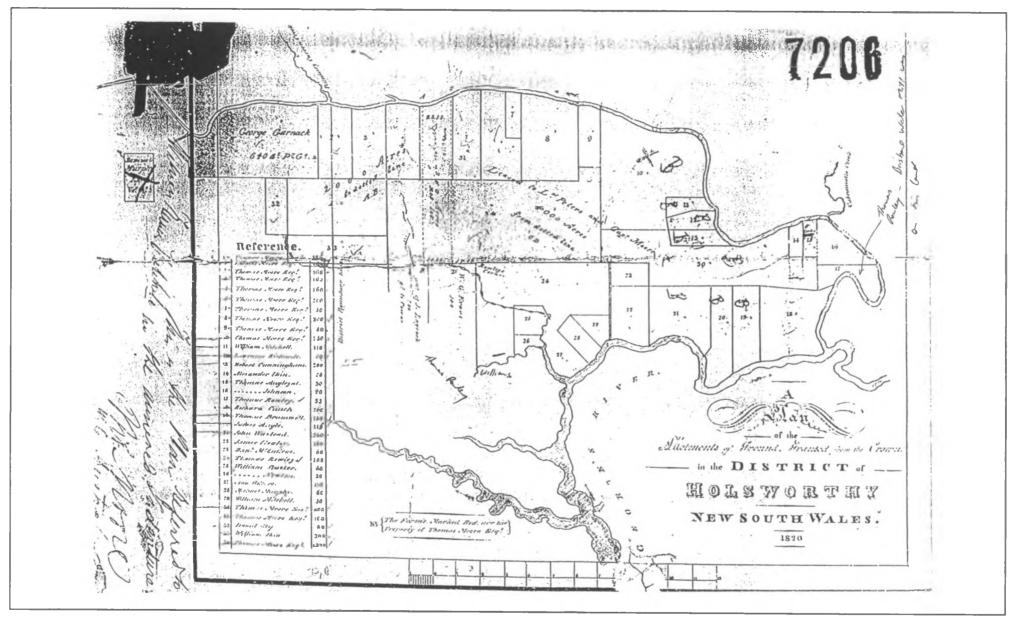


Figure 5.5
Land Grants on Holsworthy Military Area - 1820
Source: Mitchell Library

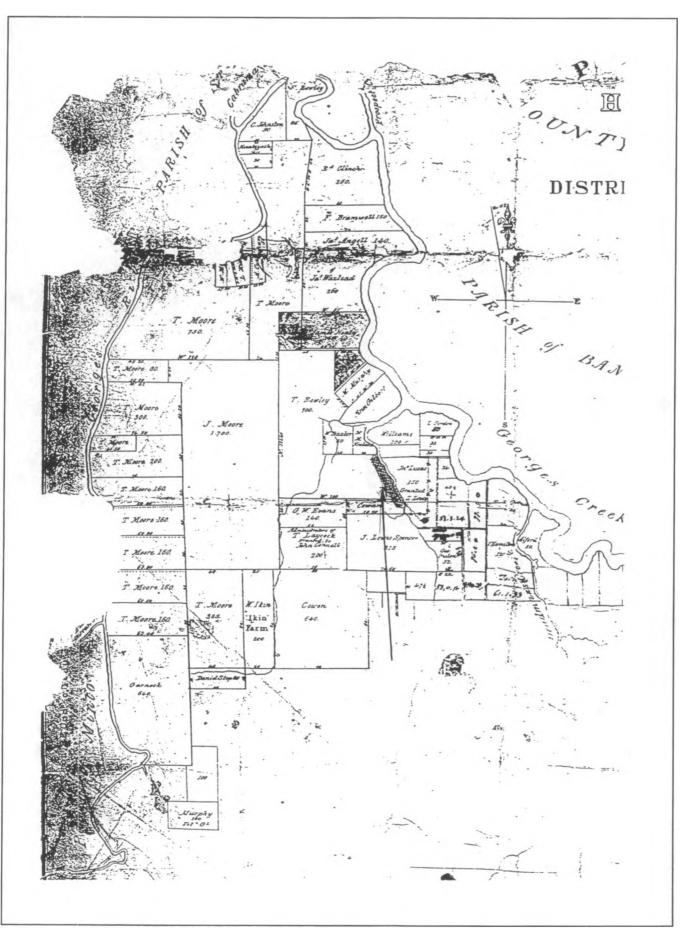
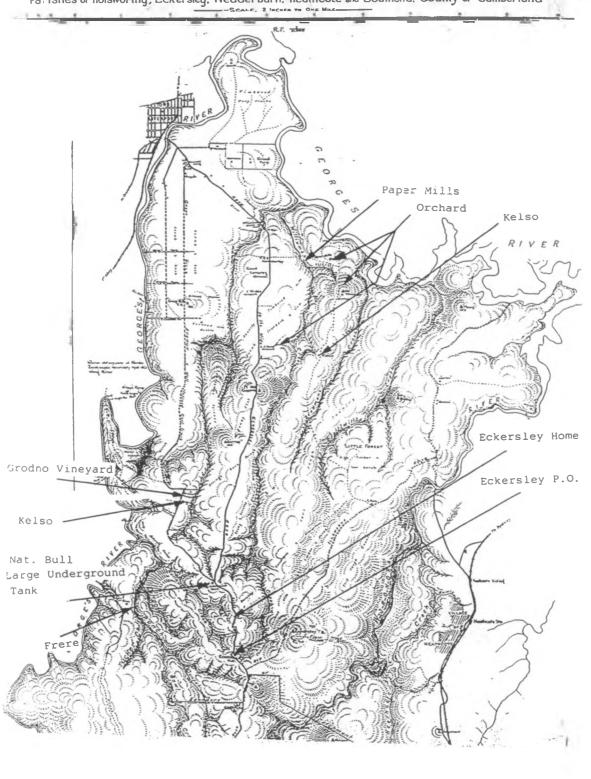


Figure 5.6 Holsworthy Study Area - 1850 Source: Mitchell Library (ZM2 811.1141/1850/1)

MAP OF COUNTRY BETWEEN GEORGE'S & CATARACT RIVERS & SOUTH COAST RAILWAY. 1 N. S. V. Parishes or Holsworthy, Eckersley, Wedderburn, Healhcote and Southend, County of Cumberland



destroyed by fire in the 1880s. However a 'Paper Mill' is marked on a 1908 map of the area on Williams Creek which would suggest that either it was always known as the site of the paper mill or it was still operating. This mill is contemporaneous with the Liverpool Paper Mill which began operation in 1868 (Sydney Gazette, 1824). It is outside the Holsworthy Military Area.

Keating (1996) in his history of Liverpool states that quarries operated near the confluence of Williams Creek and the George's River from as early as 1841. Sandstone from these quarries was loaded onto ships and taken downriver (Keating, 1996).

Keating also reports that F. E. Forbes operated sawpits with convict labour from 1832 on the farms of John Campbell and John Gowan at Holsworthy (Keating, 1996). However, neither of these names appear as grantees on the early Parish map of the study area. Thus, the site of these undertakings is unclear and it is not known whether they occurred within the Holsworthy Military Area.

By the late 19th century there were complaints regarding the noxious industries around Liverpool and their impacts on the environment. Release of waste products into the Georges River had all but destroyed the water life of that river and tanneries and paper mills created extremely unpleasant odours. Agriculture also declined. The onset of rust disease and poor seasons in the 1860s saw the decline of wheat growing on the Cumberland Plain and its transfer to west of the Great Dividing Range. A 1908 plan of the study area indicates orchards in the north of the study area near Williams Creek. The only other agriculture noted is the wine production around Eckersley which was the most substantial development within the study area prior to the Commonwealth Department of Defence obtaining control in 1913.

5.5.3 THE SETTLEMENT OF ECKERSLEY

While migrant groups never made up a large proportion of the Liverpool area's population during the 19th century, there had been a long tradition of importing skilled labour into Liverpool to work in industry and agriculture. French, Italian and German vinedressers in the 1820s and 1830s were among the earliest of these arrivals and they made great contributions to the establishment of wine growing in the district (Keating, 1996). By mid-century there were numerous German families growing grapes in the Liverpool area, including those of Joseph Stein, Johann Stumpf and Johann Beckhaus around Carramar and the Ettinger and the Asimus and Klein families at Fairfield (Keating, 1996). At Luddenham, opposite the present Vicary Winery, the Anchau vineyard was established by Germans originally brought out by the Macarthur and Cox dynasties and, from the late 1880s, the Eckersley area became an enclave of French, and Polish winemakers (Keating, 1996).

Keith Longhurst, a long time resident of the Campbelltown area, has undertaken a great deal of study on the families that settled in the Eckersley area in the 1880s. Most of the information which follows was provided by communications with Mr Longhurst (Keating, 1996) and sources for other information are indicated.

The settlement of Eckersley was centred around the area known as Giles Junction where the Old Illawarra Road and what was marked on a 1908 map as, the 'Eckersley Road' (now referred to as the New Illawarra Road) met, (Longhurst, pers. comm., 1996).

The Crown Lands Act of 1884 opened the area for European settlement. Eckersley lay between the Parishes of Holsworthy to the north and Wedderburn to the south, Williams Creek to the east and the Georges River to the west. The boundaries of the Campbelltown Municipality were extended east to Williams Creek to include this new district (Keating, 1996).

A number of families selected land at Eckersley in the late 1880s and early 1890s. Road access from Liverpool was along an extension of Greenhills Avenue and the Old Illawarra Road to Darkes Forest. National Park Road (later renamed Georges River Road) led to a ford at the junction of Peter Meadows Creek and the Georges River (the section of road from the end of Georges River Road to the river is now referred to as the Old Ford Road). After crossing the river, this road (also known as No Bridge Road) linked up with Greenhills Road in Eckersley. The road included a number of carefully constructed stone culverts which protected it wherever torrential rain cascaded down from rocky outcrops above (Longhurst pers. comm., 1996).

Most of the families who settled in this area were French (such as the Frere family) or Polish (Lebinski, who owned land around Giles Junction; Himmelhock, who owned the Grodno Vineyard, after 1894). More detailed information on the history of the farms in this area appears on the inventory sheets for the heritage sites provided in *Appendix B*.

The following list indicates the names of people and their properties that research has so far shown to be associated with the Eckersley community or settlement at one time or another:

GF Everett;
AH Etchells;
Lebinski;
De Leski;
J. Hetteman;
C. Frere;
GP Frere (Beausejour);
FC Frere (Monville);
RS Adams;
Lebinski;
De Leski;
L. Wroblewski (initial owner of Grodno);
Grodno);
J. Hearse;
PVL de Schedlin;

E. Kelso (Punchbowl);

I. Himmelhoch (Grodno);

J. Hefferman;C. Kelso (L'Hermitage);

J. Draper;JP Rochaix;

JC, J. and T. Wearne; N. Bull;

J. Bull (Gettysburg); C. Wilkinson; and

T. Giralamo.

A report in the September 1889 edition of the Cumberland Argus (1889) noted a new community had established at Eckersley south of Holsworthy:

'a novel settlement [of] thirteen Russian Poles, under a Russian nobleman named De Liski, who finds the money (and each has) selected 640 acres of land, and are planting it out with grapes, almonds, figs and olives. The foreigners reckon they have struck the best land in the world for vine growing and intend to show the world the best champagne yet uncorked.' (Cumberland Argus, 1989).

A few kilometres further south Charles Kelso and the Frere Family also established a vineyard in 1889 known as 'Beausejour'. Australian vines were being attacked by phylloxera and Leonce Frere was aware that vines grown on sandy soils of Eckersley would be ideal for vine growing (National Trust, 1996).

The name De Liski does not appear on the petition in 1891 which resulted in the construction of the Eckersley Post Office. Thus, it is assumed that he had resigned his position as a 'Lord' as described in the article above. Russian Polish names do not appear heavily on the 1891 petition. However, the names of the vineyards and orchards give an idea of the cosmopolitan nature of the settlement (National Trust, 1996).

Keith Longhurst reports that at least one of the families involved with the settlement, the Etchell's, made money from selling 'moonshine' to mines in the Illawarra. Mr Longhurst also reports that he is aware of the site of two of the stills involved in the operation (Longhurst, pers. comm., 1996).

A 1908 map of the study area as shown in *Figure 5.7* shows a number of features from the Eckersley settlement such as Grodno Vineyard, a Frere family dwelling, the Kelso homes, Eckersley Post Office and Eckersley house and some orchards in the north. The same map shows the property owned by Nathaniel Bull. Bull was a prominent local business man and councillor in the late 19th century. He established the Commercial Stores in 1880 and was Liverpool's mayor in 1887 and 1888 (Keating, 1996).

The settlement began declining after 1906 as the news spread of the proposed takeover of the land by the Department of Defence. The Department of Defence took over the area in 1913. Keith Longhurst reports that none of the

people who still owned land in the area received compensation for loss of property in this takeover (Longhurst, pers. comm., 1996).

5.5.4 OCCUPATION BY THE ARMY

The Department of Defence has occupied the study area since 1913 using it for training for recruits and weapons testing. The area north of the Holsworthy airport options area has been in use for military purposes since the 1890s. There are substantial relics of the Military's occupation and use of the Holsworthy Firing Range. Most of the associated Infrastructure is however located north of the Holsworthy airport study area in the Moorebank, Holsworthy village and Old Holsworthy area.

5.5.5 OLD ROADS IN THE STUDY AREA

The earliest road through the Holsworthy Military Area is the Old Illawarra Road. The section of this road which runs from the south through Giles Junction then north-east through Lucas Heights to Lugarno. There is some confusion about the history of the Old Illawarra Road as another road is also known by this name. A card in Liverpool Council's local history library refers to a road running from Liverpool to Hammondville built by convicts in 1850, becoming 'Army Road' in 1930 (Keating, 1996). However the Old Illawarra Road surveyed by Thomas Mitchell in 1843 does not follow the route described by the card in the Council's Library.

The road which today is known as the New Illawarra Road appears to be the one referred to in the Council's card reference or an extension of it. This road is marked on a 1908 plan of the area as Eckersley Road. New Illawarra Road joins Old Illawarra Road at Giles Junction. It is probable that the Old Illawarra Road, surveyed by Mitchell in 1843 and which runs through part of the study area, traces an Aboriginal migration route which was later used as a track by the early Georges River settlers.

The Old Coach Road runs from the southern end of the Holsworthy Military Area north to the ridge near GP Freres land. The name is a misnomer as the 'Coach Road' was never actually more than a bridle track used to trip to the Illawarra. It probably dates from the 1880s although it could date from the earlier settlement along the Georges River or was first made and used by surveyors in the 1850s. In the 1950s it was enlarged by the Military and made into a road.

No Bridge Road which probably dates from the 1880s to 1890s provided access to Grodno and surrounding properties.

Greenhills Road extends from Moorebank Avenue and meets the New Illawarra Road near the Nathaniel Bull House site. On a 1908 map of the area

it is marked as a 'well defined cart track'. It has since been upgraded by the Military.

National Park Road appears to have run from the north crossing of what is now called Heathcote Road (previously the Old Illawarra Road) to follow what is now called Little Forest Road. An alignment similar to this appears as a track on a 1908 map of the area. Currently the road does not join the Heathcote Road (a side track traces its original line and meets this road) but has been extended down the ridge between Williams and Deadmans Creeks to meet the Old Illawarra Road.

5.6 HOLSWORTHY - HERITAGE ITEMS

The non-Aboriginal cultural heritage items identified from this study of the Holsworthy Military Area are listed in the schedule below. A detailed inventory form has been prepared for each of the items and is contained in Appendix B. A map showing the location of each item is contained in Appendix C.

- H1 Army Range Control Headquarters brick administration building;
 Australian Map Grid Reference E308300 N6238150; Regional significance;
- H2 Harris Creek farm house remains; Australian Map Grid Reference
 E308070 N6235630; Local significance;
- H3 Remains of Masonry Wall circa World War One; Australian Map
 Grid Reference E311350 N6235770; Local significance;
- H4 Adams House and well remains Ruins of homestead, c1890s;
 Australian Map Grid Reference E307080 N6231100; Local significance;
- H5 Grodno settlement site c1889 settlement site, dry stone walls and irrigation channels; Australian Map Grid Reference E306900 N 6231700; Local significance;
- H6 Grodno settlement site c1889 settlement site, including winery ruins, cisterns; Australian Map Grid Reference E306900 N6227900; Regional significance;
- H7 Rubbish dump and well, Himmelhoch Property, Grodno settlement; Australian Map Grid Reference E307075 N6230710; Local significance;

- H8 Kelso House site house site and associated ruins c1890s;
 Australian Map Grid Reference E305550 N6229660; Local significance;
- H9 Etchell's Hut c1890s house site with ruined hut; Australian Map
 Grid Reference E304832 N6228995; Local significance;
- H10 Frere's House and Winery Site ruined wine vats c1890s;
 Australian Map Grid Reference E304400 N6228400; Local significance;
- H11 -Engineers Bridge box girder and truss bridge over Punchbowl creek; Australian Map Grid Reference E 305100 N6227900; Regional significance;
- H12 Nat Bull House site c1884 house site and cistern; Australian
 Map Grid Reference E 307886 N6228407; Local significance;
- H13 Eckersley Post Office c1891-1913 ruins; Australian Map Grid
 Reference E308235 N6226260; Local significance;
- H14 Eckersley House site c1900 homestead site, including cellar and rock shelter; Australian Map Grid Reference E308660 N6226550; Local significance;
- H15 Vineyard remains on Lebinski's property c1890; Australian Map Grid Reference N/A; Local significance;
- H16 Chimney remains and concrete slab c1900 homestead ruins;
 Australian Map Grid Reference E307870 N6224430; Local significance;
- H17 Etchell Still c1890s 'moonshine' still site; Australian Map Grid Reference E303700 N 6219800; Local significance;
- H18 Old Coach Road early bridle track c1850s; Australian Map Grid Reference E304200 N6228900; Regional significance;
- H19 Old Illawarra Road connecting road from Sydney to southern settlements c1830s; Australian Map Grid Reference E 312550 N 6229800; Regional significance; and
- H20 New Illawarra Road 1870s connecting Road to Liverpool;
 Australian Map Grid Reference E308450 N6225500; Regional significance.

5.7 HOLSWORTHY - HERITAGE SIGNIFICANCE

5.7.1 OVERVIEW OF SIGNIFICANCE

The Holsworthy Military Area is a discrete area within a larger historic context and much of its own development is as a part of developments which occurred in its vicinity. With this in mind, the following sections analyse the heritage significance of the area by reference to its major phases of historic activities.

Phase 1 - Exploration and Roads, 1800 to 1870

The Holsworthy Military Area is evident in the early history of the colony of NSW firstly as an area of exploration and secondly as an area through which the early roads to the Illawarra region traversed. The Georges River was explored by boat within the first years of settlement and throughout the early 19th century, land adjacent to the Georges River was surveyed, granted and settled. This activity though, was largely confined to the waterfrontages as the river was the primary transportation corridor of the era. Wheat farms, quarries and waterfront industries such as boat building were the major activities, however few of these lasted for many years, the wheat growing in particular having moved westwards by the 1840s. An early water powered flour mill was operating on Williams Creek in the 1820s, processing the wheat of the local farms. Thomas Moore was a recipient of large tracts of land within and north of the Holsworthy area. Like the Georges River farms, though, virtually all activity on Moore's land occurred along the River foreshores, outside of the Holsworthy Military Area, and the rough sandstone country of the ranges behind the river flats was left undeveloped. Timber getting was a ubiquitous activity and undoubtedly occurred within the area during the period.

Whilst the Military Area was never settled in this period, it was explored and surveyed. The spread of settlement of the colony had reached the Illawarra by the 1820s and various attempts were made to find a passable land route from Sydney to this area. Surveyor Thomas Mitchell identified two main routes to the Illawarra, the western one (the Old Illawarra Road), passing through the Military Area. This route was built as a road progressively between 1830 and the 1860s, much of it by convict road gangs.

By the 1850s, Liverpool was a minor metropolis and a connecting road between the township and the Old Illawarra Road was built. A bridle path also existed through the western part of the area, connecting across a ford of the Georges River to Campbelltown. These roads were not heavily used and Mitchell's eastern Illawarra route, via Sylvania, Sutherland and Waterfall, had become the most popular southern route by the 1850s. They did, however, open the rough, dry landscape of the Military Area for further exploration and settlement.

Existing Heritage Items - Phase I

There is virtually no evidence of settlement or other European activity from this first phase period within the current Holsworthy Military Area. Heritage items/sites that remain are shown on Figure C2, Appendix C and are discussed below:

the three roads which are known to have originated during this period, the Old Illawarra Road (Item H19), the New Illawarra Road (Item H20) and the Old Coach Road (Item H18), all still exist and are little changed in their route, though they have been greatly improved in their surface and structure. There is no place known where early construction methods and features remain evident on these roads. These historic routes are however significant for their continuous linkage to the early days of colonial settlement, their expression of the physical limitations of the transport of the period and for the influence that they have had in shaping development in the vicinity.

Phase II - Orchards and Vineyards, 1850 to 1913

The second phase of development of the Holsworthy Military Area is one of limited agricultural settlement. From the 1880s, land in the area was made available and sold by the government. Most of the land in the northern part of the area was purchased but much of this appears to have been for speculative investments only intended for resale, as no activity ever occurred. Many of the first purchases were repossessed for default of payment in the 1890s.

Some land was occupied, though, and a notable group of French, Russian and Russian Polish immigrants formed a singular community at Eckersley, near the intersection of the Old and New Illawarra Roads and at 'Grodno'. The main agricultural pursuit was vine growing and wine making, with 'Grodno' in particular having a substantial winery. Although up to two decades of work and investment occurred on some properties, this area was not a successful vine growing region and most farms were abandoned by the first decade of the 20th century.

Orchards were planted in the northern part of the area but beyond this, there was little further development of these lands. Many of the properties were occupied by small settler farmers looking to support themselves and their families from their land but, unfortunately, the rough and dry landscape appears to have been unsuitable even for this purpose. Few families stayed beyond their first generation and many left after only a few years. The most successful survivors in this area appear to have been the Etchell brothers, who discovered that the isolation of the country was its most exploitable feature and supplemented their income by making 'moonshine' liquor in the bush.

Existing Heritage Items - Phase II

Most of the heritage sites and relics identified in the current Holsworthy Military Area relate to this phase of its development. Most are similar in their heritage values, being of local historical significance as a physical record of the history of the area and having some scientific and research value as archaeological sites with artefacts which relate to settlement in the late 19th century. They also have an aesthetic value which arises from their context, having a particular quality which relates to their location and to their obviously rough and expedient methods of construction. These remains are evocative of the difficulties faced by the pioneer small settlers and demonstrate the determination and ingenuity of these people. Even the larger settlements such as 'Grodno' demonstrate a high degree of independence from manufactured goods and technology and illustrate the extensive, laborious manipulation of the landscape required to achieve their aim of agricultural cultivation. Few other localities express so clearly why so many European immigrants recoiled from the alien landscape of Australia and considered it to be a place characterised by pitiless hardship and thwarted ambition. The long period of time since these farms were abandoned, combined with the subsequent activities of the Military, have removed most of the physical evidence of these settlers.

Heritage items/sites that remain are shown on Figure C2, Appendix C and are described below:

- the former Grodno winery (Item H6) and settlement area has extensive tracts of dry-stone walling, irrigation channels and areas of former vine plantings (Item H5), with footings and remains of buildings, wells and domestic artefacts (Item H7) in several locations. The site of the neighbouring Adam's homestead (Item H4) also has the archaeological remains of the house, with its water cistern cut into natural rock nearby. The extensive manual labour involved in these constructions is apparent and impressive;
- further south is the area once known as Eckersley, where a local post office served the surrounding farms. There are the archaeological remains of the Post Office (Item H13) and of Eckersley House (Item H14), but there is little evidence of the other properties except a ruined house with standing chimney (Item H16) approximately 1.5 kilometres southwards, possibly associated with CC Lebinski. The archaeological evidence of the vineyard on the property of Lebinski (Item H15) is also in this area;
- between these two settlements are the footings of Nathanial Bull's house and its water cistern (Item H12) at the road junction known now as 'Nat Bull'. Other runs which are evidence of prior occupation of the

area are the ruins of a farmhouse near Harris Creek (Item H2) and a masonry wall (Item H3) near the Army's airfield; and

the third settlement area of note is between Punchbowl Creek and the Georges River, in the vicinity of Frere's Crossing. George Frere operated a vineyard, whilst Edmond Kelso and Frank Etchell attempted subsistence farming. Fragmentary and ruinous remains of the Kelso homestead (Item H8) and of Etchell's Hut and dam (Item H9) can still be found and Frere's four concrete wine vats (Item H10) existed intact until recently. Frank Etchell's illegal moonshine still (Item H17) in the bush eight kilometres to the south is evidence of the precarious nature of these farms and the need for additional income sources.

Phase III - Department of Defence (Australian Army), 1913 to 1997

The third phase of development of the Holsworthy Military Area is entirely concerned with the activities of the Military. The land was resumed by the Commonwealth in 1913 for the Holsworthy Military Area, but the proposal had been well known for several years. The whole area on the north of the Military Area up to the banks of the Georges River had been in use for military purposes since the 1890s and the annual military encampments had progressively grown in size and complexity. The impending war in Europe was the impetus necessary for the establishment of a permanent National Army and the Holsworthy area was an essential part of its early years of operation.

While most of the Holsworthy Military Area has been predominantly used as an artillery practice facility, with periods of heavy use relating to periods of high military activity, it has also been an important venue for practising military manoeuvres and techniques. Up to the 1930s, horses were integral to military operations and many soldiers learned to ride at the Holsworthy Remount Depot. Training runs through the Firing Range were common and later, soldiers in tanks and armoured cars have performed the same activities across the Area. Trench digging and foxhole preparation have been practised almost since the establishment of the Firing Range and the evidence of small encampments in the bush are common, though characteristically insubstantial, in keeping with 20th century military practice.

Existing Heritage Items - Phase III

There are few substantial relics of the Army's occupation and use of the Holsworthy Military Area. Most of the Army's infrastructure is located north of the Military Area, in the Moorebank, Holsworthy Village and Old Holsworthy areas. The north-west corner of the Military Area contains a number of sculptured small arms firing ranges but these are all of relatively recent construction, though based around the site of earlier facilities.

Heritage items/sites remaining are shown on Figure C2 in Appendix C and are described below:

- the Range Control building (Item H1) is also less than two decades old but it has aesthetic significance in its design which reflects its function and symbolises the operations of the Range. It has historic associations as the operational heart of activities throughout the Range and is the successor to a long line of Range Control offices and facilities; and
- the roads throughout the Holsworthy Military Area have all been developed and maintained by the Army and their present form reflects both the Army's requirements and their construction techniques. The single major structure within the area the Engineers Bridge (Item H11), relates to these roads and their use. Its aesthetic significance has both rarity and representative qualities as it is an unusual example of an important military portable-bridge design, the Bailey Bridge, which has been the mainstay of English and Australian military engineering for several decades. It is the only known example in NSW of a permanent installation of this bridge type.

Despite their long occupation of the Holsworthy Military Area, the Army has had a surprisingly low impact upon the landscape. Most evidence of the Army is in the form of unexploded ordnances, spent artillery shells and smoke grenades, shattered mortar and rocket casings and the casings of practise (blank) rifle cartridges, all of which are commonly found. Dug-outs and training trenches also abound but are insubstantial and generally utilise the natural resources of the locality. These items provide artefacts and landscapes which together demonstrate the known history of the area but are in themselves of little heritage value.

5.8 HOLSWORTHY - SUMMARY STATEMENT OF SIGNIFICANCE

The Holsworthy Military Area has environmental heritage significance because of:

evidence of the expansion of the colony and the early routes out of Sydney to the Illawarra and to the southern tablelands (*Historic Significance*);

Items of major significance include the routes of the Old Illawarra Road and the New Illawarra Road and the original bridle path which is now the Old Coach Road.

 evidence of the release of Crown land into small land holdings in the late 19th century and the development, or not, of these properties for market gardens and orchards (Historic Significance).

Items of major significance include the remains of Nat Bull's homestead, the Harris Creek farmhouse and the remains of the various properties associated with the Eckersley area.

evidence of the early agricultural activities of non-English immigrants in the latter part of the 19th century, their continuing close association and the differing farm and agricultural techniques practised by such groups (Historic and Research Significance);

Items of major significance include the Grodno and Eckersley settlements and their evidence of vine growing, the dry-stone walls and irrigation channels at Grodno and the archaeological deposits at these sites.

evidence of the general growth, the role of European emigrants and the unique role that this area played in the history of the Australian wine industry (*Historic and Social Significance*);

Items of major significance include the remains of the Grodno winery and the associated vineyard, including the irrigation channels and property walls, the concrete vats on the Frere property and the vineyard remains of Lebinski's property at Eckersley.

evidence of the nature and the structures typical of subsistence farming in the late 19th century, the hardship and isolation of settlement in this area and the activities that individual settlers engaged in to survive (Historic and Aesthetic and Research Significance); and

Items of major significance include the remains of Frank Etchell's hut and dam and of his moonshine still, the ruins of Kelso's, Adam's and Lebinski's homesteads and to a lesser extent, the ruins of the Post Office and of Eckersley House.

 evidence of the occupation and activities of the Australian Army, particularly with regard to its training and weaponry, from its creation shortly after Federation until the present (Historic and Aesthetic Significance);

Items of major significance include the formation and structure of the roads through the Military Area, Engineers Bridge and the Range Control Building.

The Holsworthy Military Area is also on the Interim List of the Register of the National Estate as the Cubbitch Barta National Estate Area. It meets many different criteria for national estate listing recognising the significance of its 'cultural and natural landscape which demonstrates relationships between the environment and human occupation through time' (Australian Heritage Commission, 1997). Non-Aboriginal cultural items or places that are cited by the Commission as being recognised by this interim listing include:

- 19th century settlement sites, dry stone walls and old transport routes;
- the training site for Australia's World War I troops and horses bound for places such as Gallipoli, and it use for training after World War II; and
- the site of Australia's largest World War I internment camp for German and other European migrants between 1914 and 1919' (Australian Heritage Commission, 1997).

The first two of these heritage items/places are included in the study area for this Draft EIS.

Part C Assessment of Impacts

CHAPTER 6 IMPACTS OF BADGERYS CREEK OPTIONS

6.1 OPTION A

6.1.1 CONSTRUCTION IMPACTS

Construction of Badgerys Creek Option A would result in a range of impacts on heritage items identified from this study within the Badgerys Creek study area.

The necessary site works within the master plan area, in particular, the requirements for clearing and excavation, would result in the demolition of all above ground structures and the destruction of all archaeological sites and below ground features within the master plan area. Thirteen of the 24 non-Aboriginal cultural heritage items within the Badgerys Creek study area would be demolished or destroyed as a result of clearing or excavation within the master plan area. One further item, The Northern Road (Item B24), would be partly destroyed (and is proposed to be rebuilt) within the master plan area, but would remain intact outside of the proposed airport site boundary. The remaining 10 heritage items, all outside the master plan area would not be affected by this option. Additionally, there is some potential for the site of the Lawsons Inn (Item B4) to be retained.

The proposed perimeter road adjacent to the proposed security fence for the airport would potentially destroy the Lawsons Inn site (Item B4), although this would most likely be destroyed by clearing/excavation within the master plan area. No other items are assessed as being affected by construction/access roads.

The proposed rail corridor would not impact on the majority of heritage items within the study area as for most of its route in this area it would be underground. The corridor passes in close proximity to three heritage items and it appears unlikely that it would directly affect those three items.

Two heritage items, the Anchau Vineyard site (Item B6) and The Northern Road (Item B24) would be potentially affected by services proposed within the proposed site boundary. However, these items would already be destroyed by clearing/excavation within the master plan area.

There are no heritage items affected by the proposed Obstacle Limitation Surface cut areas.

6.1.2 OPERATIONAL IMPACTS

The majority of the retained non-Aboriginal cultural heritage items, that is, items not demolished or destroyed during construction, would be relatively unaffected by the airport's operation. The majority of retained items are at a sufficient distance from the boundary of the airport master plan area to avoid any significant impact on existing views and vistas, that is, these items would not be read against the airport structures. Similarly, there would be no scale impact caused by the new airport structures on retained heritage items, as they would be visually separated from one another and would therefore not be read together.

The greatest impact that would be caused by the airport's operation would be the likely impact on the ambience and setting of retained heritage items. The historic rural setting of all of the retained items would be affected to some degree by aircraft noise. In addition, some retained heritage items may be affected by vibration impacts, in particular, the bridge over Badgerys Creek (Item B22).

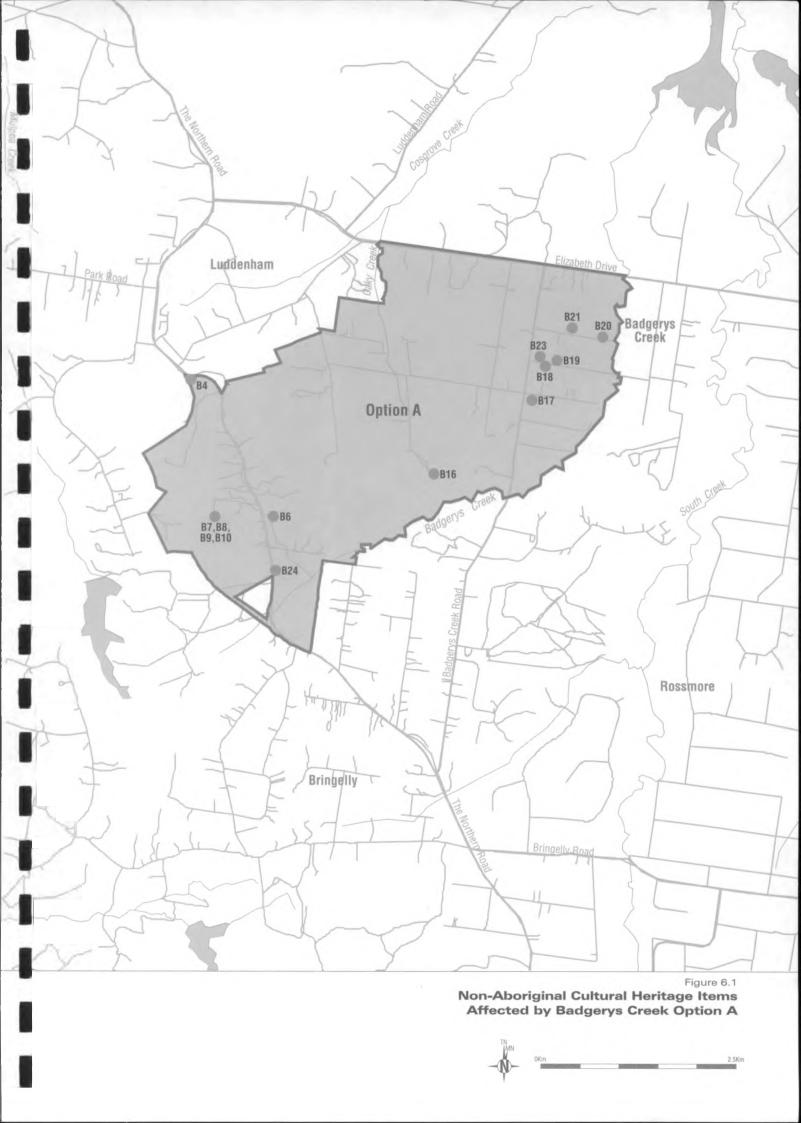
6.1.3 IMPACTS ON HERITAGE ITEMS

As described, Badgerys Creek Option A would result in a range of impacts on the non-Aboriginal cultural heritage items identified from this study in the Badgerys Creek study area. Figure 6.1 indicates the items affected by Option A. The impact on each heritage item following construction of Option A is assessed as follows:

Heritage Items Demolished or Destroyed

Items of Regional Significance

- B4: Site of Lawsons Inn c1910 archaeological site; The Northern Road, Luddenham;
- B7: Vicary's Vineyard Homestead- c1880s Original homestead; The Northern Road, Luddenham;
- B8: Vicary's Winery c1910 Winery Building; The Northern Road, Luddenham:
- B10: Vicary's Vineyard c1880s Shearers Quarters; The Northern Road, Luddenham; and
- B23: Original Badgerys Creek Public School Building c1895 Public School building; Badgerys Creek Road, Badgerys Creek.



Items of Local Significance

- B6: Anchau vineyard site c1910 Archaeological Site; The Northern Road, Luddenham;
- B9: Vicary's Vineyard c1880s woolshed; The Northern Road, Luddenham;
- B16: 'Braeburn' homestead turn of the century homestead; private road off Longleys Road, Badgerys Creek;
- B17: Former Badgerys Creek butchery c1880s building; Badgerys Creek Road, Badgerys Creek;
- B18: St Johns Anglican Church Site and Cemetery approximately 30 graves; Pitt Street, Badgerys Creek;
- B19: Badgery's Creek Uniting (Methodist) Church Cemetery two graves; Pitt Street, Badgerys Creek;
- B20: Farm Cottage c.1900 weatherboard cottage; Gardiner Road, Badgerys Creek;
- B21: Group of Farm Outbuildings c1930s timber slab buildings;
 Gardiner Road, Badgerys Creek.

Heritage Items Partly Demolished or Destroyed

Items of Regional Significance

 B24: The Northern Road (between Luddenham and Bringelly) c1820s road alignment, connecting Windsor and Camden.

Heritage Items Retained - (with Potential Noise and/or Vibration Impacts)

Items of State Significance

 B15: Kelvin Park Homestead - c1820 Estate homestead and associated buildings; off Kelvin Park Drive, Bringelly.

Items of Regional Significance

 B3: Luddenham Uniting Church, Cemetery and Progress Hall; The Northern Road, Luddenham;

- B5: Luddenham Anglican Church and Cemetery (St James); The Northern Road, Luddenham; and
- B14: Overseas Telecommunications Commission Bringelly Remote Receiving Station - c1955 overseas radio receiving station; Badgerys Creek Road, Bringelly.

Items of Local Significance

- B1: Luddenham Public School; The Northern Road, Luddenham;
- B2: Dairy Shed c1930; Lot 10 Adams Road, Badgerys Creek;
- B11: 'Evergreen' homestead c1900 small farm house; off Derwent Road, Bringelly;
- B12: 'Mount Pleasant' homestead c1900 small farm house; Shannon Road, Bringelly;
- B13: Two elevated water tanks two c1950 RAAF steel elevated water tanks; Badgerys Creek Road, Bringelly; and
- B22: Bridge over Badgerys Creek- steel truss bridge; Pitt Street, Badgerys Creek.

6.1.4 SUMMARY OF HERITAGE IMPACTS

Construction impacts associated with Badgerys Creek Option A would result in the loss of 13 of the 24 heritage items which were identified from this study within the Badgerys Creek study area. Of these, five are items of regional significance and the remaining eight items are of local significance. One further item, The Northern Road, would be destroyed with the master plan area, but remain intact beyond the airport boundaries.

Seven of the 13 items that would be demolished or destroyed are listed as heritage items in *Liverpool Local Environmental Plan*, 1997. These are the Site of Lawsons Inn (B4); the Vicary's Vineyard Homestead (B7), Winery (B8), Woolshed (B9) and Shearers Quarters (B10); Badgerys Creek Public School (B23) and St Johns Anglican Church Site and Cemetery (B18). There are no other heritage listings applying to items that would be destroyed for this airport option.

The demolition/destruction of these individual heritage items would, in most cases, result in the total loss of their historic, aesthetic, social and technical/research values. The loss of these items would also impact on the heritage significance of the Badgerys Creek study area as a whole, as identified in

Section 5.4. These impacts mainly relate to the loss of evidence of aspects of the area's history and, hence, heritage significance, in particular:

- evidence of the expansion of the colony from its early centres into the rural hinterland, prior to the crossing of the Blue Mountains (Site of Lawsons Inn and a portion of The Northern Road);
- evidence of the form and materials of the homesteads and outbuildings associated with small farming properties in the late 19th century and the development of small townships that service these communities (Vicary's Vineyard Homestead, Woolshed and Shearers Quarters; the original Badgerys Creek Public School building; St Johns Anglican Church site and Cemetery; Badgerys Creek Uniting (Methodist) Church site and Cemetery; and the Farm Cottage and Outbuildings in Gardiner Road, Badgerys Creek); and
- evidence of the gradual decline in the agricultural viability of the Cumberland Plain and the rise and fall of the grape and wine industry (Vicary's Winery and Anchau's Vineyard).

With the exception of the latter aspect, other evidence of these aspects of significance would remain through the retention of heritage items not affected by Option A.

In addition to the above construction impacts, the ambience and historic setting of the retained heritage items and the study area as a whole, would be affected to some degree by visual, noise and/or vibration impacts associated with the operation of an airport nearby. However, the magnitude of these potential impacts cannot be accurately assessed for this study. *Table 6.1* provides a summary of the non-Aboriginal cultural heritage impacts of Option A.

TABLE 6.1 SUMMARY OF HERITAGE IMPACTS - BADGERYS CREEK AIRPORT OPTION A

Heritage Item Badgerys Cn Study Area Option A	eek a				Constructio	n Impacts				Ори	erational t	mpacts	Conceptua Plan
Heritage Item	No.	Master Plan Site Works (Clearing/ Excavation/ Fill)	Construction/ Access Roads	Proposed Rail Corridor	Services	Obstacle Limitation Surface Cut	Borrow Areas	Comments	Status after Construction	Views/ Vistas	Scale	Ambience Setting	
Luddenham Public School	B1	No impact	No impact	No impact	No impact	No impact	N/A	Outside Master Plan area	Retained	No impact	No impact	Potential noise and vibration impacts	N/A
Dairy Shed	B2	No impact	No impact	No impact	No impact	No impact	N/A	Outside Master Plan Area	Retained	No impact	No impact	Potential noise and vibration impacts	N/A
Luddenham Uniting Church Cemetery and Progress Hall	В3	No impact	No impact	No impact	No impact	No impact	N/A	Outside Master Plan Area	Retained	No impact	No impact	Potential noise and vibration impacts	N/A
Lawsons Inn Site	B4	Destroyed	Potentially destroyed by perimeter road	No impact	No impact	No impact	N/A	Potential for retention	Destroyed	N/A	N/A	N/A	N/A
Luddenham Anglican Church and Cemetery	B5	No impact	No impact	No impact	No impact	No impact	N/A	Outside Master Plan area	Retained	No impact	No impact	Potential noise and vibration impacts	N/A

TABLE 6.1 CONTINUED

Heritage Iter Badgerys Cr Study Are Option A	eek a				Constructio	n Impacts				Ори	erational I	Impacts	Conceptua Plan
Heritage Item	No.	Master Plan Site Works (Clearing/ Excavation/ Fill)	Construction/ Access Roads	Proposed Rail Corridor	Services	Obstacle Limitation Surface Cut	Borrow Areas	Comments	Status after Construction	Views/ Vistas	Scale	Ambience Setting	
Anchau Vineyard Site	В6	Destroyed	No impact	No impact	Potentially affected by drainage	No impact	N/A	•	Destroyed	N/A	N/A	N/A	N/A
Vicarys Winery - Original Homestead	B <i>7</i>	Demolished	No impact	No impact	No impact	No impact	N/A		Demolished	N/A	N/A	N/A	N/A
Vicarys Winery Building	88	Demolished	No impact	No impact	No impact	No impact	N/A	-	Demolished	N/A	N/A	N/A	N/A
Vicarys Winery Woolshed	B 9	Demolished	No impact	No impact	No impact	No impact	N/A		Demolished	N/A	N/A	N/A	N/A
Vicarys Winery Shearers Quarters	B10	Demolished	No impact	No impact	No impact	No impact	N/A	-	Demolished	N/A	N/A	N/A	N/A
Evergreen Homestead	B11	No impact	No impact	No impact	No impact	No impact	N/A	Outside Master Plan Area	Retained	No impact	No impact	Potential noise and vibration impact	N/A
Mount Pleasant' Homestead	B12	No impact	No impact	Not known but unlikely	No impact	No impact	N/A	Outside Master Plan area	Retained	No impact	No impact	Potential noise and vibration impact	N/A

TABLE 6.1 CONTINUED

Heritage Iten Badgerys Cr Study Are Option A	eek a				Construction	n Impacts			_	Ори	erational I	mpacts	Conceptual Plan
Heritage Item	No.	Master Plan Site Works (Clearing/ Excavation/ Fill)	Construction/ Access Roads	Proposed Rail Corridor	Services	Obstacle Limitation Surface Cut	Borrow Areas	Comments	Status after Construction	Views/ Vistas	Scale	Ambience Setting	
Two Elevated Water Tanks	B13	No impact	No impact	Not known but unlikely	No impact	No impact	N/A	Outside Master Plan area	Retained	No impact	No impact	Potential vibration impact	N/A
OTC Bringelly Radio Receiving Station	B14	No impact	No impact	Not known by unlikely	No impact	No impact	N/A	Outside Master Plan area	Retained	No impact	No impact	Potential vibration impact	N/A
Kelvin Park Homestead	B15	No impact	No impact	No impact	No impact	No impact	N/A	Outside Master Plan area	Retained	No impact	No impact	Potential noise and vibration impact	N/A
Braeburn Homestead	B16	Demolished	No impact	No impact	No impact	No impact	N/A	,	Demolished	No impact	No impact	Potential noise and vibration impact	N/A
Former Badgerys Creek Butchery	B17	Demolished	No impact	No impact	No impact	No impact	N/A	-	Demolished	N/A	N/A	N/A	N/A
St Johns Anglican Church and Cemetery Site	B18	Destroyed	No impact	No impact	No impact	No impact	N/A		Destroyed	N/A	N/A	N/A	N/A

TABLE 6.1 CONTINUED

Heritage Iten Badgerys Cr Study Are Option A	eek a	_			Constructio	n Impacts				Ори	erational I	impacts	Conceptual Plan
Heritage Item	No.	Master Plan Site Works (Clearing/ Excavation/ Fill)	Construction/ Access Roads	Proposed Rail Corridor	Services	Obstacle Limitation Surface Cut	Borrow Areas	Comments	Status after Construction	Views/ Vistas	Scale	Ambience Setting	
Badgerys Creek Methodist Church Site and Cemetery	B19	Destroyed	No impact	No impact	No impact	No impact	N/A	•	Destroyed	N/A	N/A	N/A	N/A
Farm Cottage	B20	Demolished	No impact	No impact	No impact	No impact	N/A	•	Demolished	N/A	N/A	N/A	N/A
Group of Farm Outbuildings	B21	Demolished	No impact	No impact	No impact	No impact	N/A	-	Demolished	N/A	N/A	N/A	N/A
Bridge over Badgerys Creek	B22	No impact	No impact	No impact	No impact	No impact	N/A	Outside fenced area	Retained	No impact	No impact	Potential noise and vibration impact	N/A
Original Badgerys Creek Public School Buildings	B23	Demolished	No impact	No impact	No impact	No impact	N/A	140	Demolished	N/A	N/A	N/A	N/A
The Northern Road	B24	Partly destroyed	No impact	No impact	Potential impact	No impact	N/A	Alignment deviated around master plan area	Partly destroyed	No impact	No impact	N/A	N/A

6.2 OPTION B

6.2.1 CONSTRUCTION IMPACTS

Construction of Badgerys Creek Option B would result in a range of impacts on heritage items identified from this study within the Badgerys Creek study area.

The necessary site works within the master plan area, in particular, the requirements for clearing and excavation, would result in the demolition of all above ground structures and the destruction of all archaeological sites and below ground features within the master plan area. Fifteen of the 24 items within the Badgerys Creek study area would be demolished or destroyed as a result of clearing or excavation within the master plan area. One further item, The Northern Road (Item B24) would be partly destroyed (and is proposed to be rebuilt) within the master plan area, but would remain intact outside of the proposed airport site boundary. The remaining eight items, all outside the master plan would not be affected by this option. Additionally, there is some potential for the Lawsons Inn site (Item B4) to be retained.

The proposed perimeter road adjacent to the proposed security fence would potentially destroy the Lawsons Inn site (Item B4), although this would most likely be destroyed by clearing/excavation within the master plan area. Three other items, the St Johns Anglican Church Site and Cemetery (Item B18), the Farm Cottage (Item B20) and the group of Farm Outbuildings (Item B21) would also potentially be affected by construction/access roads.

Only one heritage item, Mt Pleasant Homestead (Item B12) would potentially be affected by the proposed rail corridor. However, this item would already be destroyed by clearing/excavation within the master plan area.

One item, The Northern Road, is assessed as being potentially affected by services. None of the retained items would be affected by services.

There are no heritage items affected by the proposed Obstacle Limitation Surface cut areas.

6.2.2 OPERATIONAL IMPACTS

The majority of the retained non-Aboriginal cultural heritage items, that is, items not demolished or destroyed during construction, would be relatively unaffected by the airport's operation. The boundary of and structures within the airport master plan area are at a sufficient distance from the retained heritage items to avoid any significant impact on existing views and vistas, that is, the heritage items would not be read against the airport structures. Similarly, there would be no scale impact caused by the new airport structures

on retained heritage items, as they would be visibly separated from one another and would therefore not be read together.

The greatest impact that would be caused by the airport's operation would be the likely impact on the ambience and setting of retained heritage items. The historic rural setting of all of the retained heritage items, other than the exception of the elevated water tanks (Item B13) and radio receiving station (Item B14) (which do not have an historic setting) are likely to be affected to some degree by aircraft noise. In addition, some retained items may be affected by vibration impacts.

6.2.3 IMPACTS ON HERITAGE ITEMS

As described Badgerys Creek Airport Option B would result in a range of impacts on the non-Aboriginal cultural heritage items identified from this study in the Badgerys Creek study area. Items affected by Option B are shown on Figure 6.2. The impact on each heritage item following construction of Option B is assessed as follows:

Heritage Items Demolished or Destroyed

Items of Regional Significance

- B4: Site of Lawsons Inn c1910 archaeological site; The Northern Road, Luddenham;
- B7: Vicary's Vineyard Homestead- c1880s Original homestead; The Northern Road, Luddenham;
- B8: Vicary's Winery c1910 Winery Building; The Northern Road, Luddenham;
- B10: Vicary's Vineyard c1880s Shearers Quarters; The Northern Road, Luddenham; and
- B23: Original Badgerys Creek Public School Building- c1895 Public School building; Badgerys Creek Road, Badgerys Creek.

Items of Local Significance

- B6: Anchau vineyard site c1910 Archaeological Site; The Northern Road, Luddenham;
- B9: Vicary's Vineyard c1880s woolshed; The Northern Road, Luddenham;

- B11: 'Evergreen' homestead c1900 small farm house; off Derwent Road, Bringelly;
- B12: 'Mount Pleasant' homestead c1900 small farm house; Shannon Road, Bringelly;
- B16: 'Braeburn' homestead turn of the century homestead; private road off Longleys Road, Badgerys Creek;
- B17: Former Badgerys Creek butchery c1880s building; Badgerys Creek Road, Badgerys Creek;
- B18: St Johns Anglican Church Site and Cemetery approximately 30 graves; Pitt Street, Badgerys Creek;
- B19: Badgerys Creek Uniting (Methodist) Church Cemetery two graves; Pitt Street, Badgerys Creek;
- B20: Farm Cottage c.1900 weatherboard cottage; Gardiner Road, Badgerys Creek; and
- B21: Group of Farm Outbuildings c1930s timber slab buildings;
 Gardiner Road, Badgerys Creek.

Heritage Items Partly Demolished or Destroyed

Items of Regional Significance

 B24: The Northern Road (between Luddenham and Bringelly) c1820s road alignment, connecting Windsor and Camden.

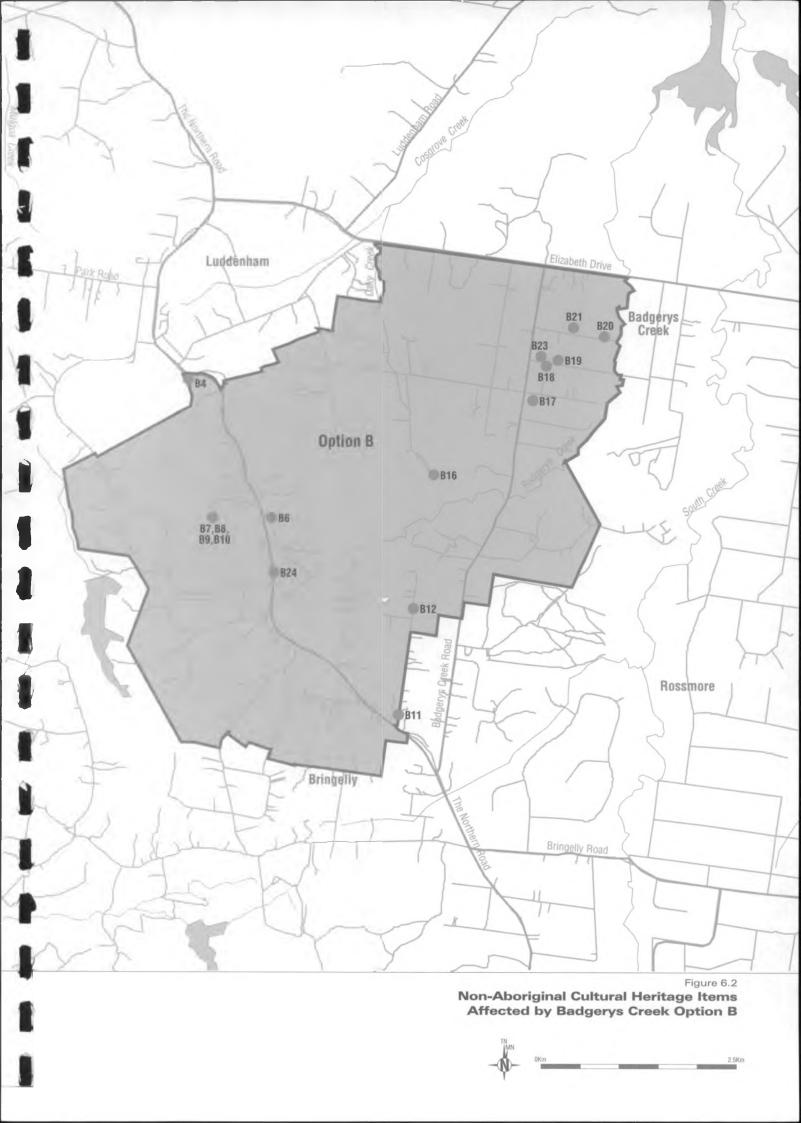
Heritage Items Retained - (with Potential Noise and/or Vibration Impacts

Items of State Significance

 B15: Kelvin Park Homestead - c1820 Estate homestead and associated buildings; off Kelvin Park Drive, Bringelly.

Items of Regional Significance

- B3: Luddenham Uniting Church, Cemetery and Progress Hall; The Northern Road, Luddenham;
- B5: Luddenham Anglican Church and Cemetery (St James); The Northern Road, Luddenham; and



 B14: Overseas Telecommunications Commission Bringelly Remote Receiving Station - c1955 overseas radio receiving station; Badgerys Creek Road, Bringelly.

Items of Local Significance

- B1: Luddenham Public School; The Northern Road, Luddenham;
- B2: Dairy Shed c1930; Lot 10 Adams Road, Badgerys Creek;
- B13: Two elevated water tanks two c1950 RAAF steel elevated water tanks; Badgerys Creek Road, Bringelly; and
- B22: Bridge over Badgerys Creek- steel truss bridge; Pitt Street, Badgerys Creek.

6.2.4 SUMMARY OF HERITAGE IMPACTS

Construction impacts associated with Option B would result in the loss of 15 of the 24 non-Aboriginal cultural heritage items which were identified from this study within the Badgerys Creek study area. Of these, five are items of regional significance and the remaining ten items are of local significance. One further item, The Northern Road, would be destroyed within the master plan area, but remain intact beyond the airport boundary.

Eight of the 15 items that would be demolished or destroyed are listed as heritage items in *Liverpool Local Environmental Plan, 1997*. These are the Site of Lawsons Inn (B4); the Vicary's Vineyard Homestead (B7), Winery (B8), Woolshed (B9) and shearers Quarters (B10); Badgerys Creek Public School (B23); Mount Pleasant homestead (B12); and St Johns Anglican Church and Cemetery (B18). There are no other heritage listings applying to items that would be destroyed for this airport option.

The demolition/destruction of these individual heritage items would, in most cases, result in the total loss of their historic, aesthetic, social and technical/research values. The loss of these items would also impact on the heritage significance of the Badgerys Creek study area as a whole, as identified in *Section 5.4*. These impacts mainly relate to the loss of evidence of aspects of the area's history and, hence, heritage significance, in particular:

- evidence of the expansion of the colony from its early centres into the rural hinterland, prior to the crossing of the Blue Mountains (Site of Lawsons Inn and a portion of The Northern Road);
- evidence of the form and materials of the homesteads and outbuildings associated with small farming properties in the late 19th century and

the development of small townships that service these communities ('Evergreen' Homestead, 'Mount Pleasant' Homestead, Vicary's Vineyard Homestead, Woolshed and Shearers Quarters; the original Badgerys Creek Public School building; St Johns Anglican Church site and Cemetery; Badgerys Creek Uniting (Methodist) Church site and Cemetery; and the Farm Cottage and Outbuildings in Gardiner Road, Badgerys Creek); and

 evidence of the gradual decline in the agricultural viability of the Cumberland Plain and the rise and fall of the grape and wine industry (Vicary's Winery; and Anchau's Vineyard).

Virtually all evidence of these three aspects of the heritage significance of the Badgerys Creek study area would be lost as a result of constructing Option B. No other items would remain which are able to demonstrate the aspects of significance currently evidenced by the above mentioned heritage items.

In addition to the above construction impacts, the ambience and historic setting of the retained heritage items and the study area as a whole would be affected to some degree by visual, noise and/or vibration impacts associated with the operation of an airport nearby. However, the magnitude of these potential impacts cannot be accurately assessed for this study. *Table 6.2* provides a summary of non-Aboriginal cultural heritage impacts for Option B.

TABLE 6.2 SUMMARY OF HERITAGE IMPACTS - BADGERYS CREEK AIRPORT OPTION B

Heritage Iten Badgerys Cr Study Are	eek				Constructio	n Impacts				Оре	erational I	mpacts	Conceptual Plan
Heritage Item	No.	Master Plan Site Works (Clearing/ Excavation/ Fill)	Construction/ Access Roads	Proposed Rail Corridor	Services	Obstacle Limitation Surface Cut	Borrow Areas	Comments	Status after Construction	Views/ Vistas	Scale	Ambience Setting	
Luddenham Public School	81	No impact	No impact	No impact	No impact	No impact	N/A	Outside master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan with potential visual impacts
Dairy Shed	B2	No impact	No impact	No impact	No impact	No impact	N/A	Outside master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan with potential visual impacts
Luddenham Uniting Church Cemetery and Progress Hall	B3	No impact	No impact	No impact	No impact	No impact	N/A	Outside master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan with potential visual impacts
Lawsons Inn Site	B4	Destroyed	Potentially destroyed by perimeter road	No impact	No impact	No impact	N/A	Potential for retention	Destroyed	N/A	N/A	N/A	As per master plan but potential for retention lost
Luddenham Anglican Church and Cemetery	B5	No impact	No impact	No impact	No impact	No impact	N/A	Outside master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	Potential physical or visual impacts
Anchau Vineyard Site	В6	Destroyed	No impact	No impact	No impact	No impact	N/A	-	Destroyed	N/A	N/A	N/A	As per master plan

TABLE 6.2 CONTINUED

Heritage Iten Badgerys Cr Study Are	eek				Constructio	n Impacts				Оре	erational I	mpacts	Conceptual Plan
Heritage Item	No.	Master Plan Site Works (Clearing/ Excavation/ Fill)	Construction/ Access Roads	Proposed Rail Corridor	Services	Obstacle Limitation Surface Cut	Borrow Areas	Comments	Status after Construction	Views/ Vistas	Scale	Ambience Setting	
Vicarys Winery - Original Homestead	B <i>7</i>	Demolished	No impact	No impact	No impact	No impact	N/A	-	Demolished	N/A	N/A	N/A	As per master plan
Vicarys Winery Building	B8	Demolished	No impact	No impact	No impact	No impact	N/A	•	Demolished	N/A	N/A	N/A	As per master plan
Vicarys Winery Woolshed	В9	Demolished	No impact	No impact	No impact	No impact	N/A		Demolished	N/A	N/A	N/A	As per master plan
Vicarys Winery Shearers Quarters	B10	Demolished	No impact	No impact	No impact	No impact	N/A	15	Demolished	N/A	N/A	N/A	As per master plan
Evergreen Homestead	B11	Demolished	No impact	No impact	No impact	No impact	N/A	Potential for retention	Demolished	N/A	N/A	N/A	As per master plan
'Mount Pleasant' Homestead	B12	Demolished	No impact	Potential impact	No impact	No impact	N/A	-1	Demolished	N/A	N/A	N/A	As per master plan but with potential visual impacts
Two Elevated Water Tanks	B13	No impact	No impact	No impact	No impact	No impact	N/A	Outside master plan area	Retained	No impact	No impact	Potential vibration impacts	Potential physical or visual impacts
OTC Bringelly Radio Receiving Station	B14	No impact	No impact	No impact	No impact	No impact	N/A	Outside master plan area	Retained	No impact	No impact	Potential vibration impacts	Item demolished

TABLE 6.2 CONTINUED

Heritage Iten Badgerys Cr Study Are	eek				Constructio	n Impacts				Оре	erational I	mpacts	Conceptual Plan
Heritage Item	No.	Master Plan Site Works (Clearing/ Excavation/ Fill)	Construction/ Access Roads	Proposed Rail Corridor	Services	Obstacle Limitation Surface Cut	Borrow Areas	Comments	Status after Construction	Views/ Vistas	Scale	Ambience Setting	
Kelvin Park Homestead	B15	No impact	No impact	No impact	No impact	No impact	N/A	Outside Master Plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan
Braeburn Homestead	B16	Demolished	No impact	No impact	Potential impact	No impact	N/A	Outside Master Plan area	Demolished	N/A	N/A	N/A	As per master plan
Former Badgerys Creek Butchery	B17	Demolished	No impact	No impact	No impact	No impact	N/A	Potential for retention	Demolished	N/A	N/A	N/A	As per master plan
St Johns Anglican Church and Cemetery Site	B18	Destroyed	Potential impact	No impact	No impact	No impact	N/A	Potential for retention	Destroyed	N/A	N/A	N/A	As per master plan
Badgerys Creek Methodist Church Site and Cemetery	B19	Destroyed	No impact	No impact	No impact	No impact	N/A	Potential for retention	Destroyed	N/A	N/A	N/A	As per master plan
Farm Cottage	B20	Demolished	Potential Impact	No impact	No impact	No impact	N/A	Potential for retention	Demolished	N/A	N/A	N/A	As per master plan
Group of Farm Outbuildings	B21	Demolished	Potential impact	No impact	No impact	No impact	N/A	Potential for retention	Demolished	N/A	N/A	N/A	As per master plan

TABLE 6.2 CONTINUED

Heritage Item Badgerys Cr Study Are	eek				Constructio	n Impacts				Оре	erational I	mpacts	Conceptual Plan
Heritage Item	No.	Master Plan Site Works (Clearing/ Excavation/ Fill)	Construction/ Access Roads	Proposed Rail Corridor	Services	Obstacle Limitation Surface Cut	Borrow Areas	Comments	Status after Construction	Views/ Vistas	Scale	Ambience Setting	
Bridge over Badgerys Creek	B22	No impact	No impact	No impact	No impact	No impact	N/A	Outside fenced area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan
Original Badgerys Creek Public School Buildings	B23	Demolished	No impact	No impact	No impact	No impact	N/A	Potential for retention	Demolished	N/A	N/A	N/A	As per master plan
The Northern Road	B24	Partly destroyed	No impact	No impact	Potential impact	No impact	N/A	Alignment deviated around master plan area	Partly destroyed	No impact	No impact	No impact	As per master plan

6.2.5 PROPOSED CONCEPTUAL PLAN

While it is not possible to determine the impacts of the conceptual plan with the same degree of accuracy as the master plan, it is nevertheless possible to make an informed assessment of the likely impacts of expanding the airport proposal to what is referred to as the conceptual plan.

The majority of impacts would be similar to those for the proposed master plan. At least one additional heritage item, the radio receiving station (Item B14), would be demolished as a result of expanding the airport further as proposed in the conceptual plan. Two further items, Luddenham Anglican Church and Cemetery (Item B5) and the elevated water tanks (Item B13), would potentially suffer physical or visual impacts as a result of the proposal. There would also be potentially greater visual impacts on three items Luddenham Public School (Item B1); the Dairy Shed (Item B2); and Luddenham Uniting Church, Cemetery and Progress Hall (Item B3).

6.3 OPTION C

6.3.1 CONSTRUCTION IMPACTS

Construction of Badgerys Creek Option C would result in a range of impacts on heritage items identified from this study within the Badgerys Creek study area.

The necessary site works within the master plan area, in particular the requirements for clearing and excavation, would result in the demolition of all standing structures and the destruction of all archaeological sites and below ground features within the master plan area. Seventeen of the 24 non-Aboriginal cultural heritage items within the Badgerys Creek study area would be demolished or destroyed as a result of clearing or excavation within the master plan area. One further item, The Northern Road (Item B24), would be partly destroyed (and is proposed to be rebuilt) within the master plan area, but would remain intact outside of the proposed airport site boundary. The remaining six items, all outside the master plan area, would be retained. However, there is some potential for the Lawsons Inn site (Item B4) and the 'Evergreen' homestead (Item B11) to be retained.

The proposed perimeter road adjacent to the proposed security fence would potentially destroy the site of the former Lawson's Inn (Item B4), although this would most likely be destroyed by clearing/excavation within the master plan area. Only one other item, the St Johns Anglican Church site and Cemetery (Item B18), would be affected by construction/access roads.

The proposed rail corridor would not impact on any of the identified heritage items within the study area.

Three heritage items, the Anchau Vineyard site (Item B6), the former Badgerys Creek butchery (Item B17) and the St Johns Anglican Church site and Cemetery (Item B18) are potentially affected by services. However, these items would already be destroyed by clearing/excavation within the master plan area.

One item, the elevated water tanks (Item B13) would be affected by the proposed Obstacle Limitation Surface cut areas, however this item is already assessed as destroyed.

6.3.2 OPERATIONAL IMPACTS

The majority of the retained non-Aboriginal cultural heritage items, that is, items not demolished or destroyed due to construction impacts, would be relatively unaffected by the airport's operation. The boundary and structures within the airport master plan area are at a sufficient distance from the retained heritage items to avoid any significant impact on existing views and vistas, that is, the heritage items would not be read against the airport structures.

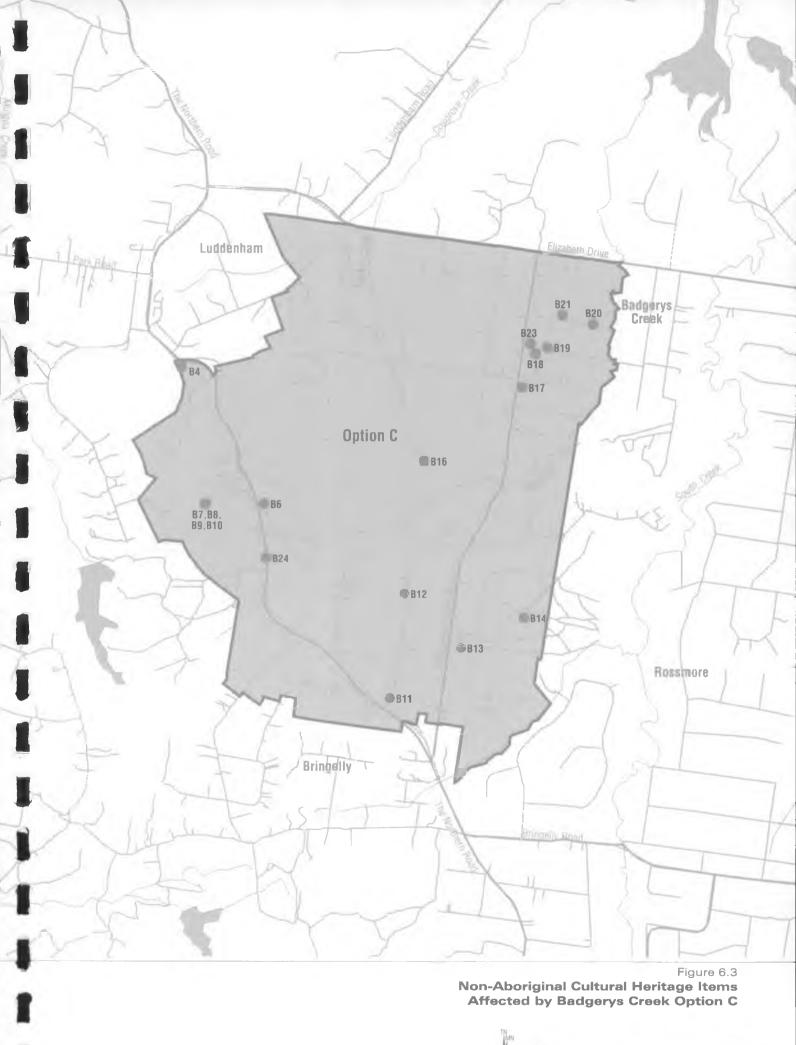
The one exception is the potential impact from the proposed security fence in the vicinity of Kelvin Park (Item B15) which is located to the east of the master plan area. The proposed security fence would potentially affect the visual setting of this historic property.

There would be no scale impact caused by the proposed airport structures on retained heritage items, as they would be visually separated from one another and would, therefore, not be read together.

The greatest operational impact that would be caused by the airport would be the likely impact on the ambience and setting of retained heritage items. The historic rural setting of all of the retained heritage items would be likely to be affected, to some degree, by aircraft noise. Additionally, some retained items may be affected by vibration impacts.

6.3.3 IMPACTS ON HERITAGE ITEMS

As described, Badgerys Creek Option C would result in a range of impacts on the non-Aboriginal cultural heritage items identified from this study in the Badgerys Creek study area. *Figure 6.3* shows the heritage items affected by Option C. The impact on each heritage item following construction of Option C is assessed as follows:





Heritage Items Demolished or Destroyed

Items of Regional Significance

- B4: Site of Lawsons Inn c1910 archaeological site; The Northern Road, Luddenham;
- B7: Vicary's Vineyard Homestead- c1880s Original homestead; The Northern Road, Luddenham;
- B8: Vicary's Winery c1910 Winery Building; The Northern Road, Luddenham;
- B10: Vicary's Vineyard c1880s Shearers Quarters; The Northern Road, Luddenham;
- B14: Overseas Telecommunications Commission Bringelly Remote Receiving Station - c1955 overseas radio receiving station; Badgerys Creek Road, Bringelly; and
- B23: Original Badgerys Creek Public School Building- c1895 Public School building; Badgerys Creek Road, Badgerys Creek.

Items of Local Significance

- B6: Anchau vineyard site c1910 Archaeological Site; The Northern Road, Luddenham;
- B9: Vicary's Vineyard c1880s woolshed; The Northern Road, Luddenham;
- B11: 'Evergreen' homestead c1900 small farm house; off Derwent Road, Bringelly;
- B12: 'Mount Pleasant' homestead c1900 small farm house; Shannon Road, Bringelly;
- B13: Two c1950 RAAF steel elevated water tanks; Badgerys Creek Road, Bringelly;
- B16: 'Braeburn' homestead turn of the century homestead; private road off Longleys Road, Badgerys Creek;
- B17: Former Badgerys Creek butchery c1880s building; Badgerys Creek Road, Badgerys Creek;

- B18: St Johns Anglican Church Site and Cemetery approximately 30 graves; Pitt Street, Badgerys Creek;
- B19: Badgerys Creek Uniting (Methodist) Church Cemetery two graves; Pitt Street, Badgerys Creek;
- B20: Farm Cottage c.1900 weatherboard cottage; Gardiner Road,
 Badgerys Creek; and
- B21: Group of Farm Outbuildings c1930s timber slab buildings;
 Gardiner Road, Badgerys Creek.

Heritage Items Partly Demolished or Destroyed

Items of Regional Significance

 B24: The Northern Road (between Luddenham and Bringelly) c1820s road alignment, connecting Windsor and Camden.

Heritage Items Retained - (with Potential Noise and/or Vibration Impacts)

Items of State Significance

 B15: Kelvin Park Homestead - c1820 Estate homestead and associated buildings; off Kelvin Park Drive, Bringelly.

Items of Regional Significance

- B3: Luddenham Uniting Church, Cemetery and Progress Hall; The Northern Road, Luddenham; and
- B5: Luddenham Anglican Church and Cemetery (St James); The Northern Road, Luddenham.

Items of Local Significance

- B1: Luddenham Public School; The Northern Road, Luddenham;
- B2: Dairy Shed c1930; Lot 10 Adams Road, Badgerys Creek; and
- B22: Bridge over Badgerys Creek- steel truss bridge; Pitt Street,
 Badgerys Creek.

6.3.4 SUMMARY OF HERITAGE IMPACTS

Construction impacts associated with Option C would result in the loss of 17 of the 24 heritage items which were identified from this study within the Badgerys Creek study area. Of these, six are items of regional significance and the remaining 11 items are of local significance. One further item, The Northern Road, would be destroyed within the master plan area, but remain intact beyond the proposed airport boundary.

Ten of the 17 items that would be demolished or destroyed are listed as heritage items in *Liverpool Local Environmental Plan, 1997*. These are the Site of Lawsons Inn (B4); the Vicary's Vineyard Homestead (B7), Winery (B8), Woolshed (B9) and Shearers Quarters (B10); Mount Pleasant homestead (B12); the elevated water tanks (B13); the Overseas Telecommunication Commission Receiving Station (B14); Badgerys Creek Public School (B23) and St Johns Anglican Church Site and Cemetery (B18). There are no other heritage listings applying to items that would be destroyed for this airport option.

The demolition/destruction of these individual heritage items would, in most cases, result in the total loss of their historic, aesthetic, social and technical/research values. The loss of these items would also impact on the heritage significance of the Badgerys Creek study area as a whole, as identified in *Section 5.4*. These impacts mainly relate to the loss of evidence of aspects of the areas history and, hence, heritage significance, in particular:

- evidence of the expansion of the colony from its early centres into the rural hinterland, prior to the crossing of the Blue Mountains (site of Lawsons Inn; and a portion of The Northern Road);
- evidence of the form and materials of the homesteads and outbuildings associated with small farming properties in the late 19th century and the development of small townships that service these communities (Vicary's Vineyard Homestead, Woolshed and Shearers Quarters; the original Badgerys Creek Public School building; St Johns Anglican Church site and Cemetery; Badgerys Creek Uniting (Methodist) Church site and Cemetery; and the Farm Cottage and Outbuildings in Gardiner Road, Badgerys Creek); and
- evidence of the gradual decline of the agricultural viability of the Cumberland Plain, the rise and fall of the wine and grape industry and the development of alternative uses for former pastoral land associated with 20th century technology (Vicary's Winery; Anchau's Vineyard; the Overseas Telecommunications Commission site; and the two elevated water tanks).

Virtually all evidence of these three aspects of the heritage significance of the Badgerys Creek study area would be lost as a result of constructing Option C. No other items would remain which are able to demonstrate the aspects of significance currently evidenced by the above mentioned heritage items.

In addition to the above construction impacts, the ambience and historic setting of the retained heritage items and the study area as a whole, would be affected to some degree by visual, noise and/or vibration impacts associated with the operation of an airport nearby. However, the magnitude of these potential impacts cannot be accurately assessed for this study. *Table 6.3* provides a summary of non-Aboriginal cultural heritage impacts of Option C.

6.3.5 PROPOSED CONCEPTUAL PLAN

While it is not possible to determine the impacts of the conceptual plan with the same degree of accuracy as the master plan, it is nevertheless possible to make an informed assessment of the likely impacts of expanding the airport proposal to what is referred to as the conceptual plan.

The majority of impacts would be similar to those for the master plan. Two additional heritage items, the Dairy Shed (Item B2) and the bridge over Badgerys Creek (Item B22) would be demolished as a result of expanding the airport further as proposed in the conceptual plan. The curtilage of Kelvin Park (Item B15) would potentially be altered as a result of the proposal and the potential for the retention of 'Evergreen' homestead (Item B11) would be removed. There would also be potentially greater visual impacts on four items, Luddenham Public School (Item B1); Luddenham Uniting Church, Cemetery and Progress Hall (Item B3); Luddenham Anglican Church and Cemetery (Item B5); and Kelvin Park (Item B15).

TABLE 6.3 SUMMARY OF HERITAGE IMPACTS - BADGERYS CREEK AIRPORT OPTION C

Badgerys Cr	Heritage Items in Badgerys Creek Study Area			-	Оре	Conceptual Plan							
Heritage Item	No.	Master Plan Site Works (Clearing/ Excavation/ Fill)	Construction/ Access Roads	Proposed Rail Corridor	Services	Obstacle Limitation Surface Cut	Borrow Areas	Comments	Status after Construction	Views/ Vistas	Scale	Ambience Setting	
Luddenham Public School	B1	No impact	No impact	No impact	No impact	No impact	N/A	Beyond master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan; additional potential visual impacts
Dairy Shed	B2	No impact	No impact	No impact	No impact	No impact	N/A	Beyond master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	Heritage item demolished
Luddenham Uniting Church Cemetery and Progress Hall	В3	No impact	No impact	No impact	No impact	No impact	N/A	Beyond master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan; additional potential visual impacts
Lawsons Inn Site	B4	Destroyed	Potentially destroyed by perimeter road	No impact	No impact	No impact	N/A	Potential for retention	Destroyed	N/A	N/A	N/A	As per master plan
Luddenham Anglican Church and Cemetery	B5	No impact	No impact	No impact	No impact	No impact	N/A	Beyond master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan; additional potential visual impacts
Anchau Vineyard Site	В6	Destroyed	No impact	No impact	Potential impact	No impact	N/A	•	Destroyed	N/A	N/A	N/A	As per master plan

TABLE 6.3 CONTINUED

Heritage Item Badgerys Cr Study Are	eek				Construction	n Impacts				Оре	rational I	mpacts	Conceptual Plan
Heritage Item	No.	Master Plan Site Works (Clearing/ Excavation/ Fill)	Construction/ Access Roads	Proposed Rail Corridor	Services	Obstacle Limitation Surface Cut	Borrow Areas	Comments	Status after Construction	Views/ Vistas	Scale	Ambience Setting	
Vicarys Winery - Original Homestead	В7	Demolished	No impact	No impact	No impact	No impact	N/A	10-	Destroyed	N/A	N/A	N/A	As per maste plan
Vicarys Winery Building	B8	Demolished	No impact	No impact	No impact	No impact	N/A	-	Destroyed	N/A	N/A	N/A	As per maste plan
Vicarys Winery Woolshed	B9	Demolished	No impact	No impact	No impact	No impact	N/A	-	Destroyed	N/A	N/A	N/A	As per maste plan
Vicarys Winery Shearers Quarters	B10	Demolished	No impact	No impact	No impact	No impact	N/A		Destroyed	N/A	N/A	N/A	As per maste plan
Evergreen Homestead	B11	Demolished	No impact	No impact	No impact	No impact	N/A	Potential for retention	Destroyed	N/A	N/A	N/A	As per maste plan but removes potential for retention
'Mount Pleasant' Homestead	B12	Demolished	No impact	No impact	No impact	No impact	N/A		Destroyed	N/A	N/A	N/A	As per maste plan
Two Elevated Water Tanks	B13	Demolished	No impact	No impact	No impact	Potential impact	N/A	-	Destroyed	N/A	N/A	N/A	As per maste plan

TABLE 6.3 CONTINUED

Heritage Iter Badgerys Ci Study Are	eek				Construction	n Impacts				Оре	rational I	Impacts	Conceptual Plan
Heritage Item	No.	Master Plan Site Works (Clearing/ Excavation/ Fill)	Construction/ Access Roads	Proposed Rail Corridor	Services	Obstacle Limitation Surface Cut	Borrow Areas	Comments	Status after Construction	Views/ Vistas	Scale	Ambience Setting	
OTC Bringelly Radio Receiving Station	B14	Demolished	No impact	No impact	No impact	No impact	N/A		Destroyed	N/A	N/A	N/A	As per master plan
Kelvin Park Homestead	B15	No impact	No impact	No impact	No impact	No impact	N/A	Beyond master plan area	Retained	Potential Impact from security fence	N/A	Potential noise and vibration impacts	Curtilage of heritage item potentially altered and potential visual impacts
Braeburn Homestead	B16	Demolished	No impact	No impact	No impact	No impact	N/A	Beyond master plan area	Destroyed	N/A	N/A	N/A	As per master plan
Former Badgerys Creek Butchery	B17	Demolished	No impact	No impact	Potential impact	No impact	N/A	Beyond master plan area	Destroyed	N/A	N/A	N/A	As per master plan
St Johns Anglican Church and Cemetery Site	B18	Destroyed	Potential impact	No impact	Potential impact	No impact	N/A	Beyond master plan area	Destroyed	N/A	N/A	N/A	As per master plan

TABLE 6.3 CONTINUED

Heritage Iten Badgerys Cr Study Are	eek				Construction	n Impacts				Оре	erational I	mpacts	Conceptual Plan
Heritage Item	No.	Master Plan Site Works (Clearing/ Excavation/ Fill)	Construction/ Access Roads	Proposed Rail Corridor	Services	Obstacle Limitation Surface Cut	Borrow Areas	Comments	Status after Construction	Views/ Vistas	Scale	Ambience Setting	
Badgerys Creek Methodist Church Site and Cemetery	B19	Destroyed	No impact	No impact	No impact	No impact	N/A	Beyond master plan area	Destroyed	N/A	N/A	N/A	As per master plan
Farm Cottage	820	Demolished	No impact	No impact	No impact	No impact	N/A	Beyond master plan area	Destroyed	N/A	N/A	N/A	As per master plan
Group of Farm Outbuildings	B21	Demolished	No impact	No impact	No impact	No impact	N/A	Beyond master plan area	Destroyed	N/A	N/A	N/A	As per master plan
Bridge over Badgerys Creek	B22	No impact	No impact	No impact	No impact	No impact	N/A	Beyond fenced area	Retained	No impact	No impact	Potential noise and vibration impacts	Heritage item destroyed
Original Badgerys Creek Public School Buildings	B23	Demolished	No impact	No impact	No impact	No impact	N/A		Destroyed	N/A	N/A	N/A	As per master plan
The Northern Road	824	Partly destroyed	No impact	No impact	Potential impact	No impact	N/A	Destroyed within master plan area	Partly destroyed	Visual impact	No impact	No impact	As per master plan

CHAPTER 7 IMPACTS OF HOLSWORTHY OPTIONS

7.1 OPTION A

7.1.1 CONSTRUCTION IMPACTS

Construction of Option A would result in a range of impacts on heritage items identified by this study within the Holsworthy study area.

The necessary site works within the master plan area, in particular, the requirements for clearing and excavation, would result in the demolition of all above ground structures and the destruction of all archaeological sites and below ground features within the master plan area. Seven of the 20 non-Aboriginal cultural heritage items within the Holsworthy study area would be demolished or destroyed as a result of clearing or excavation within the master plan area. Three further items, Grodno Settlement Dry Stone Wall and Irrigation Channels (Item H5), Old Illawarra Road (Item H19) and New Illawarra Road (formerly Eckersley Road) (Item H20) would be partly destroyed within the master plan area but would remain intact beyond the boundary of the proposed airport site. The remaining 10 items, all outside the airport site boundary area, would be retained.

Impacts of the proposed access corridors depend on the access alternative adopted. Proposed access roads to the east and west would potentially affect New Illawarra Road (Item H20), the Dry Stone Wall and Irrigation Channels at the Grodno Settlement (Item H5), Grodno Settlement Winery Cellar and Well (Item H6) and remains of the Himmelhoch property (Item H7) although these would already be destroyed or partly destroyed by clearing/excavation within the master plan area.

Two heritage items, Adams House and Well (Items H4) and a portion of the New Illawarra Road (Item H20) are potentially affected by construction of the proposed rail corridor. However, both items would already be destroyed by clearing/excavation within the master plan area.

None of the retained or partially retained heritage items would be affected by proposed services.

Three items, Eckersley Post Office site (Item H13), Eckersley House/Cellar Rock Shelter (Item H14) and the vineyard remains on Lebinski's property (Item H15), would potentially be affected by proposed Obstacle Limitation Surface cuts. However, these sites would already be destroyed by clearing/excavation within the master plan area. This also applies to sections of two roads, Old

Illawarra Road (Item H19) and New Illawarra Road (Item H20) which pass through the same Obstacle Limitation Surface cut area.

There are no heritage items affected by the proposed borrow areas.

7.1.2 OPERATIONAL IMPACTS

The majority of the retained non-Aboriginal cultural heritage items, that is, items not demolished or destroyed due to construction impacts, would be relatively unaffected by the airport's operation. The majority of retained items are at a sufficient distance from the proposed airport site boundary to avoid any significant impact on existing views and vistas, that is, these items would not be read against the airport structures. Similarly, there would be no scale impact caused by the proposed airport structures on retained heritage items, as they would be visually separated from one another and would therefore not be read together.

The greatest impact that would be caused by the airport's operation would be the likely impact on the ambience and setting of retained heritage items. The majority of the retained items would be affected to some degree by aircraft noise. Some retained items may also be affected by vibration impacts. Further, the retained sections of Old Illawarra Road (Item H19) and New Illawarra Road (Item H20) would suffer visual impacts as a result of the operation of the airport in close proximity.

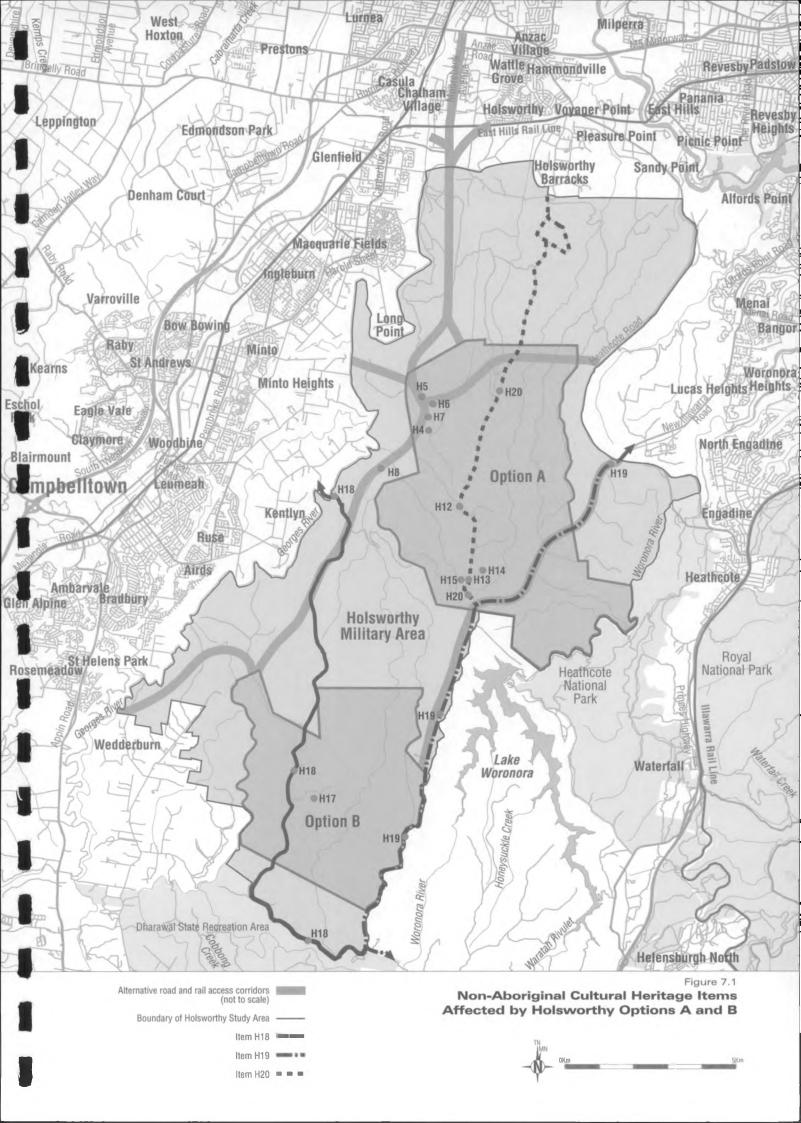
7.1.3 IMPACTS ON HERITAGE ITEMS

As described, Option A would result in a range of impacts on the non-Aboriginal cultural heritage items identified from this study in the Holsworthy study area. *Figure 7.1* shows the heritage items affected by Option A. The impacts on each heritage item following construction of this airport option are assessed as follows:

Heritage Items Demolished or Destroyed

Items of Local Significance

- H4: Adams House and well remains Ruins of homestead, c1890s;
- H6: Grodno Settlement site c1889 settlement site, including Winery Cellar, Well and cisterns;
- H7: Rubbish Dump and Well, Himmelhoch Property, Grodno settlement;
- H12: Nat Bull's House site c1884 house site and cistern:



- H13:- Eckersley Post Office Site c1891-1913 ruins;
- H14: Eckersley House Cellar/Rock Shelter site c1900 homestead site, including cellar and rock shelter; and
- H15: Vineyard remains on Lebinski's property c1890.

Heritage Items Partly Demolished or Destroyed

Items of Regional Significance

- H5: Grodno Settlement site Dry Stone Wall and Irrigation Channels
 c1889 settlement site;
- H19: Old Illawarra Road connecting road from Sydney to southern settlements c1830s; and
- H20: New Illawarra Road (formerly Eckersley Road) 1870s connecting Road to Liverpool.

Heritage Items Retained

Items of Regional Significance

- H1: Army Range Control Headquarters brick administration building;
- H11: Engineers Bridge box girder and truss bridge over Punchbowl Creek; and
- H18: Old Coach Road early bridle track c1850s.

Items of Local Significance

- H2: Harris Creek Farmhouse Ruins;
- H3: Remains of Masonry Wall circa World War 1 wall;
- H8: Remains of Kelso's Homestead house site and associated ruins c1890s;
- H9: Etchell's Hut and Dam remains c1890s house site with ruined hut;
- H10: Remains of Concrete Wine Vats ruined wine vats c1890s;

- H16: House Remains: Chimney and concrete slab c1900 homestead ruins: and
- H17: Remains of Illegal Liquor Still c1890s 'moonshine' still site.

7.1.4 SUMMARY OF HERITAGE IMPACTS

Construction impacts associated with Option A would result in the loss of seven of the 20 heritage items which were identified from this study within the Holsworthy study area. All of these items are of local significance. Three further items, Grodno Settlement Dry Stone Wall and Irrigation Channels, Old Illawarra Road and New Illawarra Road, would be destroyed within the master plan area, but remain intact beyond the proposed airport boundary. All of these items are within the Holsworthy Landscape Conservation Area which is classified by the National Trust and are also within the Cubbitch Barta National Estate Area placed on the Interim List of the Register of the National Estate. There are no other heritage listings applying to any of these items.

The demolition/destruction of these individual heritage items would, in most cases, result in the total loss of their historic, aesthetic, social and technical/ research values. The loss of these items would also impact on the heritage significance of the Holsworthy study area as a whole, as identified in Section 5.7. These impacts mainly relate to the loss of evidence of aspects of the area's history and, hence, heritage significance, in particular:

- evidence of the expansion of the colony and the early routes out of Sydney to the Illawarra and the Southern Tablelands (Old Illawarra Road and New Illawarra Road):
- evidence of the early agricultural activities of the non-English immigrants in the latter part of the 19th century, their continuing close association and the differing farm and agricultural techniques practised by such groups (Adams House and Well Remains; Grodno Settlement site - Winery Cellar and Well; Rubbish Dump and Well, Himmelhoch property, Grodno Settlement; Eckersley Post Office site; Eckersley House Cellar/Rock Shelter site; Vineyard remains on Lebinski's property);
- evidence of the release of Crown Land into small land holdings in the late 19th century and the development, or not, of these properties for market gardens and orchards (Nat Bull's house site);
- evidence of the general growth, the role of European immigrants and the unique role that this area played in the history of the Australian wine industry (Grodno settlement site - Winery, Cellar and Well;

Rubbish Dump and Well, Himmelhoch property, Grodno Settlement; and vineyard remains on Lebinski's property); and

evidence of the nature and the structures typical of subsistence farming in the late 19th century, the hardship and isolation of settlement in this area and the activities that individual settlers engaged in to survive (Adam's House and Well remains; Eckersley Post Office site and Eckersley's Cellar and Rock Shelter site).

Despite the loss of the above-mentioned items, other evidence of all of these aspects of significance would remain through the retention of heritage items not affected by Option A.

The historic (evolution and association) values of the study area (criterion A.4 under the *Australian Heritage Commission Act 1975*) recognised by the interim listing of the *Cubbitch Barta National Estate Area* on the Register of the National Estate would also be affected by Option A. Within the study area of this Draft EIS, the national estate interim listing recognises the significance of the Grodno settlement site; the transport routes of early settlers; and the use of the site for military training purposes during World War I and after World War II. Option A would destroy some of the physical evidence relating to these former uses, although other evidence would survive. Therefore, the development of Option A would cause a partial loss of national estate values.

In addition to the above construction impacts, the ambience and historic setting of the retained heritage items and the study area as a whole, would be affected to some degree by visual, noise and/or vibration impacts associated with the operation of an airport nearby.

Table 7.1 provides a summary of non-Aboriginal heritage impacts for Option A.

7.1.5 PROPOSED CONCEPTUAL PLAN

While it is not possible to determine the impacts of the conceptual plan with the same degree of accuracy as the master plan, it is nevertheless possible to make an informed assessment of the likely impacts of expanding the airport proposal to what is referred to as the conceptual plan.

Nearly all of the impacts would be identical to those in the master plan. However, one item, Old Illawarra Road (Item H19), would suffer additional physical and visual impacts as a result of expanding the airport as proposed in the conceptual plan. There would also be potential additional physical and visual impacts on New Illawarra Road (Item H20) as a result of the conceptual plan.

TABLE 7.1 SUMMARY OF HERITAGE IMPACTS - HOLSWORTHY AIRPORT OPTION A

Heritage Item Holsworthy S Area					Construction	n Impacts				Ор	erational I	mpacts	Conceptual Plan
Heritage Item	No.	Master Plan Site Works (Clearing/ Excavation/ Fill)	Construction/ Access Roads	Proposed Rail Corridor	Services	Obstacle Limitation Surface Cut	Borrow Areas	Comments	Status after Construction	Views/ Vistas	Scale	Ambience Setting	
Army Range Control Headquarters	H1	No impact	No impact	No impact	No impact	No impact	No impact	Beyond master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan
Harris Creek Farmhouse Ruins	H2	No impact	No impact	No impact	No impact	No impact	No impact	Beyond master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan
Remains of Masonry Wall	Н3	No impact	No impact	No impact	No impact	No impact	No impact	Beyond master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan
Adam's House and Well Remains	H4	Demolished	No impact	Potential impact	No impact	No impact	No impact		Demolished	N/A	N/A	N/A	As per master plan
Grodno Settlement Dry Stone Wall and Irrigation Channels	H5	Partly demolished	Potential impact	No impact	No impact	No impact	No impact	Demolished in area of master plan	Partly demolished	Visual impacts	N/A	Potential noise and vibration impacts	As per master plan

TABLE 7.1 CONTINUED

Heritage Iten Holsworthy S Area					Construction	n Impacts				Ор	erational	Impacts	Conceptual Plan
Heritage Item	No.	Master Plan Site Works (Clearing/ Excavation/ Fill)	Construction/ Access Roads	Proposed Rail Corridor	Services	Obstacle Limitation Surface Cut	Borrow Areas	Comments	Status after Construction	Views/ Vistas	Scale	Ambience Setting	
Grodno Settlement Winery Cellar and Wall	H6	Demolished	Potential impact	No impact	No impact	No impact	No impact	Within area to be cleared	Demolished	Visual impacts	N/A	Potential noise and vibration impacts	As per master plan
Grodno Settlement - Rubbish Dump and Well, Himmelhoch Property	H7	Demolished	Potential impact	No impact	No impact	No impact	No impact	Within area to be cleared	Demolished	Visual impacts	N/A	Potential noise and vibration impacts	As per master plan
Remains of Kelso's Homestead	Н8	No impact	No impact	No impact	No impact	No impact	No impact	Beyond master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan
Etchell's Hut and Dam Remains	H9	No impact	No impact	No impact	No impact	No impact	No impact	Beyond master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan
Frere's House and Winery Site	H10	No impact	No impact	No impact	No impact	No impact	No impact	Beyond master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan

TABLE 7.1 CONTINUED

Heritage Item Holsworthy S Area					Construction	n Impacts				Ор	erational I	mpacts	Conceptual Plan
Heritage Item	No.	Master Plan Site Works (Clearing/ Excavation/ Fill)	Construction/ Access Roads	Proposed Rail Corridor	Services	Obstacle Limitation Surface Cut	Borrow Areas	Comments	Status after Construction	Views/ Vistas	Scale	Ambience Setting	
Engineers Bridge	H11	No impact	No impact	No impact	No impact	No impact	No impact	Beyond master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan
Nat (Nathaniel) Bull's House Site	H12	Demolished	No impact	No impact	Potential impact	No impact	No impact		Demolished	N/A	N/A	N/A	As per master plan
Eckersley Post Office Site	H13	Demolished	No impact	No impact	Potential impact	Potential impact	No impact		Demolished	N/A	N/A	N/A	As per master plan
Eckersley House Cellar/ Rock Shelter	H14	Demolished	No impact	No impact	Potential impact	Potential impact	No impact	٠	Demolished	N/A	N/A	N/A	As per master plan
Vineyard Remains on Lebinski's Property	H15	Demolished	No impact	No impact	Potential impact	Potential impact	No impact		Demolished	N/A	N/A	N/A	As per master plan
House Remains: Chimney and Concrete Slab	H16	No impact	No impact	No impact	No impact	No impact	No impact	Beyond master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan

TABLE 7.1 CONTINUED

Heritage Iten Holsworthy S Area					Construction	n Impacts				Ot	erational	Impacts	Conceptual Plan
Heritage Item	No.	Master Plan Site Works (Clearing/ Excavation/ Fill)	Construction/ Access Roads	Proposed Rail Corridor	Services	Obstacle Limitation Surface Cut	Borrow Areas	Comments	Status after Construction	Views/ Vistas	Scale	Ambience Setting	
Remains of Illegal Liquor Still	H17	No impact	No impact	No impact	No impact	No impact	No impact	Beyond master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan
Old Coach Road	H18	No impact	No impact	No impact	No impact	No impact	No impact	Beyond master plan area	Retained	No impact	No impact	No impact	As per master plan
Old Illawarra Road Creek Methodist Church Site and Cemetery	H19	Partly destroyed	Potential impact	No impact	Potential impact	Potential impact	No impact	Destroyed in area of master plan	Partly destroyed	Visual impact	No impact	Visual impact	As per master plan, but a larger section destroyed
New Illawarra Road (formerly Eckersley Road)	H20	Partly destroyed	Potential impact	Potential impact	Potential impact	Potential impact	No impact	Destroyed in area of master plan	Partly destroyed	Visual impact	No impact	Visual impact	As per master plan, but a larger section destroyed

7.2 OPTION B

7.2.1 CONSTRUCTION IMPACTS

Construction of Option B would result in a range of impacts on heritage items identified from this study within the Holsworthy study area.

The necessary site works within the master plan area, in particular, the requirements for clearing and excavation, would result in the demolition of all above ground structures and the destruction of all archaeological sites and below ground features within the master plan area. One of the 20 heritage items within the Holsworthy study area would be destroyed as a result of clearing or excavation within the master plan area. Two further items, the Old Coach Road (Item H18) and Old Illawarra Road (Item H19) would be partly destroyed within the master plan area, but would remain intact beyond the proposed airport site boundary. The remaining 16 items, all outside the master plan area, would be retained.

Impacts of the proposed access corridors depend on the access alternatives adopted. The proposed access corridor to the north would potentially impact on five sites, Adams House and Well remains (Items H4); Grodno Settlement Dry Stone Wall and Irrigation Channels (Item H5); Grodno Settlement Winery Cellar and Well (Item H6); rubbish dump and well (Grodno settlement) (Item H7); and Kelso House site and associated ruins (Item H8). Two existing roads, the Old Coach Road (Item H18) and Old Illawarra Road (Item H19) could also be potentially affected by construction of new access roads.

The proposed rail corridor would destroy one item, the Grodno Settlement Dry Stone Wall and Irrigation Channels (Item H5) and would potentially impact on another heritage item in the vicinity, Adams House and Well Remains (Item H4). It is also likely to physically affect a section of the Old Coach Road (Item H18).

Only one heritage item, the Old Coach Road (Item H18) is assessed as being potentially affected by services.

Two heritage items, the Old Coach Road (Item H18) and Old Illawarra Road (Item H19) would be potentially affected by Obstacle Limitation Surface cut areas.

No heritage items are affected by borrow areas.

7.2.2 OPERATIONAL IMPACTS

The majority of the retained non-Aboriginal cultural heritage items, that is, items not demolished or destroyed due to construction impacts, would be

relatively unaffected by the airport's operation. The majority of retained items are at a sufficient distance from the boundary of the airport master plan area to avoid any significant impact on existing views and vistas, that is, these items would not be read against the airport structures. Similarly, there would be no scale impact caused by the proposed airport structures on retained heritage items, as they would be visually separated from one another and would therefore not be read together.

The greatest impact that would be caused by the operation of the airport would be the likely impact on the ambience and setting of retained heritage items. The majority of the retained items would be likely to be affected to some degree by aircraft noise. Some retained items may also be affected by vibration impacts. Further, the retained sections of Old Illawarra Road (Item H19) and New Illawarra Road (Item H20) would suffer visual impacts as a result of the operation of the airport in close proximity.

7.2.3 IMPACT ON HERITAGE ITEMS

As described, Option B would result in a range of impacts on the non-Aboriginal cultural heritage items identified from this study in the Holsworthy study area. *Figure 7.1* indicates the heritage items affected by Option B. The impacts on each heritage item following construction of this airport option are assessed as follows:

Heritage Items Demolished or Destroyed

Items of Local Significance

H17: Remains of Illegal Liquor Still - c1890s 'moonshine' still site.

Heritage Items Partly Demolished or Destroyed

Items of Regional Significance

- H18: Old Coach Road early bridle track c1850s; and
- H19: Old Illawarra Road connecting road from Sydney to southern settlements c1830s.

Heritage Items Retained

Items of Regional Significance

 H1: Army Range Control Headquarters - brick administration building;

- H11: Engineers Bridge box girder and truss bridge over Punchbowl Creek; and
- H20: New Illawarra Road (formerly Eckersley Road) 1870s connecting road to Liverpool.

Items of Local Significance

- H2: Harris Creek Farmhouse Ruins;
- H3: Remains of Masonry Wall circa World War 1 wall;
- H4: Adams House and well remains Ruins of homestead, c1890s;
- H5: Grodno Settlement site Dry Stone Wall and Irrigation Channels
 c1889 settlement site;
- H6: Grodno Settlement site c1889 settlement site, including Winery Cellar, Well and cisterns;
- H7: Rubbish Dump and Well, Himmelhoch Property, Grodno settlement;
- H8: Remains of Kelso's Homestead house site and associated ruins c1890s:
- H9: Etchell's Hut and Dam remains c1890s house site with ruined hut:
- H10: Remains of Concrete Wine Vats ruined wine vats c1890s;
- H12: Nat Bull's House site c1884 house site and cistern;
- H13: Eckersley Post Office site c1891-1913 ruins;
- H14:- Eckersley House Cellar/Rock Shelter site c1900 homestead site, including cellar and rock shelter;
- H15: Vineyard remains on Lebinski's property c1890; and
- H16: House Remains: Chimney and concrete slab c1900 homestead ruins.

7.2.4 SUMMARY OF HERITAGE IMPACTS

Construction impacts associated with Option B would result in the loss of one of the 20 heritage items which were identified from this study within the Holsworthy study area. This item is of local significance. Two further items, Old Coach Road and Old Illawarra Road, would be destroyed within the master plan area, but remain intact beyond the proposed airport boundary. All of these items are within the Holsworthy Landscape Conservation Area which is classified by the National Trust and are also within the Cubbitch Barta National Estate Area placed on the Interim List of the Register of the National Estate. There are no other heritage listings applying to any of these items.

The demolition/destruction of these individual heritage items would, in most cases, result in the total loss of their historic, aesthetic, social and technical/research values. The loss of these items would also impact on the heritage significance of the Holsworthy study area as a whole, as identified in *Section 5.7*. These impacts mainly relate to the loss of evidence of aspects of the area's history and, hence, heritage significance, in particular:

- evidence of the expansion of colony and the early routes out of Sydney to the Illawarra and the Southern Tablelands (Old Coach Road and Old Illawarra Road);
- evidence of the early agricultural activities of the non-English immigrants in the latter part of the 19th century, their continuing close association and the differing farm and agricultural techniques practised by such groups; Grodno Settlement site Dry Stone Walls and Irrigation Channels; rubbish dump and well);
- evidence of the general growth, the role of European immigrants and the unique role that this area played in the history of the Australian wine industry (Grodno settlement site - Dry Stone Walls and Irrigation Channels); and
- evidence of the nature and the structures typical of subsistence farming in the late 19th century, the hardship and isolation of settlement in this area and the activities that individual settlers engaged in to survive (remains of illegal liquor still).

Despite the loss of the above-mentioned items, other evidence of all of these aspects of significance would remain through the retention of heritage items not affected by Option B.

The historic (evolution and association) values of the study area (criterion A.4 under the Australian Heritage Commission Act 1975) recognised by the interim listing of the Cubbitch Barta National Estate Area on the Register of the

National Estate would also be affected by Option B. Within the study area of this Draft EIS, the national estate interim listing recognises the significance of the Grodno settlement site; the transport routes of early settlers; and the use of the site for military training purposes during World War I and after World War II. Option B would destroy some of the physical evidence relating to these former uses, although other evidence would survive. Therefore, the development of Option B would cause a partial loss of national estate values.

Table 7.2 provides a summary of non-Aboriginal cultural heritage impacts for Option B.

In addition to the above construction impacts, the ambience and historic setting of the retained heritage items and the study area as a whole, would be affected to some degree by visual, noise and/or vibration impacts associated with the operation of an airport nearby.

7.2.5 PROPOSED CONCEPTUAL PLAN

While it is not possible to determine the impacts of the conceptual plan with the same degree of accuracy as the master plan, it is nevertheless possible to make an informed assessment of the likely impacts of expanding the airport proposal to what is referred to as the conceptual plan.

Nearly all of the potential impacts would be identical to those in the master plan. However, two items, the Old Coach Road (Item H18) and Old Illawarra Road (Item H19), would suffer additional visual impacts as a result of expanding the airport as proposed in the conceptual plan.

TABLE 7.2 SUMMARY OF HERITAGE IMPACTS - HOLSWORTHY AIRPORT OPTION B

Heritage Iten Holsworthy S Area					Construction	n Impacts				Ор	erational	mpacts	Conceptual Plan
Heritage Item	No.	Master Plan Site Works (Clearing/ Excavation/ Fill)	Construction/ Access Roads	Proposed Rail Corridor	Services	Obstacle Limitation Surface Cut	Borrow Areas	Comments	Status after Construction	Views/ Vistas	Scale	Ambience Setting	
Army Range Control Headquarters	H1	No impact	No impact	No impact	No impact	No impact	No impact	Beyond master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan
Harris Creek Farmhouse Ruins	H2	No impact	No impact	No impact	No impact	No impact	No impact	Beyond master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan
Remains of Masonry Wall	H3	No impact	No impact	No impact	No impact	No impact	No impact	Beyond master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan
Adam's House and Well Remains	H4	No impact	Potential impact	Potential impact	No impact	No impact	No impact	Beyond master plan area. Potential impacts from access corridor	Retained (potential impact from rail corridor)	Potential visual impact	No impact	Potential noise and vibration impacts	As per master plan

Heritage Iten Holsworthy S Area					Construction	n Impacts				Ор	erational (mpacts	Conceptua Plan
Heritage Item	No.	Master Plan Site Works (Clearing/ Excavation/ Fill)	Construction/ Access Roads	Proposed Rail Corridor	Services	Obstacle Limitation Surface Cut	Borrow Areas	Comments	Status after Construction	Views/ Vistas	Scale	Ambience Setting	
Grodno Settlement Dry Stone Wall and Irrigation Channels	H5	No impact	Potential impact	Potential impact	No impact	No impact	No impact	Potential for retention	Destroyed	N/A	N/A	N/A	As per master plan
Grodno Settlement Winery Cellar and Wall	H6	No impact	Potential impact	Potential impact	No impact	No impact	No impact	Beyond master plan area. Potential impacts from access corridor	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan
Grodno Settlement - Rubbish Dump and Well, Himmelhoch Property	H7	No impact	Potential impact	Potential impact	No impact	No impact	No impact	Beyond master plan area. Potential impacts from access corridor.	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan

TABLE 7.2 CONTINUED

Heritage Iter Holsworthy S Area					Construction	n Impacts				Op	erational	Impacts	Conceptua Plan
Heritage Item	No.	Master Plan Site Works (Clearing/ Excavation/ Fill)	Construction/ Access Roads	Proposed Rail Corridor	Services	Obstacle Limitation Surface Cut	Borrow Areas	Comments	Status after Construction	Views/ Vistas	Scale	Ambience Setting	
Remains of Kelso's Homestead	Н8	No impact	Potential impact	Potential impact	No impact	No impact	No impact	Beyond master plan area. Potential impacts from access corridor.	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan
Etchell's Hut and Dam Remains	Н9	No impact	No impact	No impact	No impact	No impact	No impact	Beyond master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan
Frere's House and Winery Site	H10	No impact	No impact	No impact	No impact	No impact	No impact	Beyond master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan
Engineers Bridge	H11	No impact	No impact	No impact	No impact	No impact	No impact	Beyond master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan
Nat (Nathaniel) Bull's House Site	H12	No impact	No impact	No impact	No impact	No impact	No impact	Beyond master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan

TABLE 7.2 CONTINUED

Heritage Iten Holsworthy S Area					Construction	n Impacts				Ор	erational I	mpacts	Conceptua Plan
Heritage Item	No.	Master Plan Site Works (Clearing/ Excavation/ Fill)	Construction/ Access Roads	Proposed Rail Corridor	Services	Obstacle Limitation Surface Cut	Borrow Areas	Comments	Status after Construction	Views/ Vistas	Scale	Ambience Setting	
Eckersley Post Office Site	H13	No impact	No impact	No impact	No impact	No impact	No impact	Beyond master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan
Eckersley House Cellar/ Rock Shelter	H14	No impact	No impact	No impact	No impact	No impact	No impact	Beyond master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan
Vineyard Remains on Lebinski's Property	H15	No impact	No impact	No impact	No impact	No impact	No impact	Beyond master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan
House Remains: Chimney and Concrete Slab	H16	No impact	No impact	No impact	No impact	No impact	No impact	Beyond master plan area	Retained	No impact	No impact	Potential noise and vibration impacts	As per master plan
Remains of Illegal Liquor Still	H17	Destroyed	No impact	No impact	No impact	No impact	No impact	Beyond master plan area	Destroyed	N/A	N/A	N/A	As per master plan
Old Coach Road	H18	Partly destroyed	Potential impact	Potential impact	Potential impact	Potential impact	No impact	Destroyed in master plan area	Partly destroyed	Visual impact	No impact	Impact on setting	Potentially greater visual impact

TABLE 7.2 CONTINUED

Heritage Iten Holsworthy S Area		-			Construction	n Impacts				Ор	erational	Impacts	Conceptual Plan
Heritage Item	No.	Master Plan Site Works (Clearing/ Excavation/ Fill)	Construction/ Access Roads	Proposed Rail Corridor	Services	Obstacle Limitation Surface Cut	Borrow Areas	Comments	Status after Construction	Views/ Vistas	Scale	Ambience Setting	
Old Illawarra Road Creek Methodist Church Site and Cemetery	H19	Partly destroyed	Potential impact	No impact	No impact	Potential impact	No impact	Small section destroyed in master plan area	Partially destroyed	Visual impact	No impact	Impact on setting	Potentially greater visual impact
New Illawarra Road (formerly Eckersley Road)	H20	No impact	No impact	No impact	No impact	No impact	No impact	Beyond master plan area	Retained	No impact	No impact	No impact	As per master plan

Part D Environmental Management

CHAPTER 8 ENVIRONMENTAL MANAGEMENT

8.1 Overview

The heritage resource includes the fabric and physical evidence of human activity within the study areas. This fabric includes buildings and structures, works, relics, deposits and other features that provide tangible physical evidence of the history of human occupation within the two study areas.

A fundamental principle of heritage conservation is that every effort should be made to retain items of heritage significance. In cases where this is not possible, it is important that the items are recorded before they are altered or lost. The process of recording is not an alternative to retention of a heritage item, as it does not, in most cases, achieve retention of heritage significance. It nevertheless partly mitigates the impact of the loss of the heritage item. Archaeological excavation is a more definitive process as it realises the research potential of a site to a greater extent than archival recording. Therefore it is able to mitigate the impact of destroying heritage items (in particular archaeological sites) more effectively than archival recording.

The aim of this chapter is to identify appropriate strategies for mitigating the impacts on heritage resources affected by each of the five airport options.

8.2 Non-Aboriginal Archaeological Resources

8.2.1 TYPE

The heritage resources within the Holsworthy and Badgerys Creek study areas include a diverse range of elements. While some evidence, such as the range of buildings across the study area, is readily available, much is concealed or buried and is impossible to assess in a specific manner without detailed, individual site specific research and physical examination. The Holsworthy and Badgerys Creek study areas both contain areas of historical archaeological potential, especially in relation to evidence of the development of European occupation in the areas.

Archaeological resources are irreplaceable. They have the potential to contribute to our knowledge of early history with information that is unavailable from other sources such as historical documentation. It is therefore important that archaeological resources are adequately investigated and recorded, particularly in circumstances where they are to be destroyed as part of the development of a site.

Buildings and Structures

The most dominant physical historical evidence is an extensive range of buildings and structures, many of which are recorded as heritage items in the Study Inventory. In their existing fabric, many of these items provide a record of their own construction, history and use. This use may include residential, commercial and industrial or a combination of these.

Analysis of this fabric and configuration may yield information which may not be available from documentary sources. Where historic structures or elements are to be demolished, archival recording is proposed. The process of archival recording is discussed in more detail in Section 8.6.

Relics, Deposits and Subsurface Remains

The Badgerys Creek and Holsworthy study areas include a number sites of historical archaeological significance.

Material remains of European activities and occupation within the study areas are present in a number of forms such as vineyards, settlement walls, irrigation channels, domestic structures and roads. European artefact scatters, relating to single events or processes, are also present, as are stratified accumulations of cultural material in contexts such as sub-floor deposits, wells, rubbish pits and cesspits. Where stratified accumulations exist undisturbed by later events. they have extremely high scientific value.

The archaeological resource is finite and fragile. Features relating to the earliest period of European occupation in the area are rare but have, in some cases, been disturbed by later activities and occupations. Sites which are likely to contain undisturbed features are therefore considered to be of considerable heritage value.

8.2.2 EXISTING ARCHAEOLOGICAL EVIDENCE

Within the inventory of heritage items for the sites, there are at least two known or potential European archaeological sites within the Badgerys Creek study area and at least 16 within the Holsworthy study area. In addition to these sites, there may be other archaeological features which are not identified because they are buried. On the basis of available information those sites which are likely to contain archaeological features have been identified as heritage items.

8.3 ARCHAEOLOGICAL MANAGEMENT PROCEDURES

8.3.1 ARCHAEOLOGICAL ASSESSMENT

The research and evaluation completed as part of this study has identified a number of heritage items, including archaeological sites, in each study area. However, the precise nature and extent of archaeological features and the appropriate level of investigation and recording has not been determined.

Prior to construction of the proposal, each archaeological or potential archaeological site would be the subject of a detailed archaeological assessment, prepared to:

- define the probable nature and extent of archaeological resources;
- assess their significance in detail;
- determine the most appropriate archaeological management procedures; and
- define the boundaries for archaeological management procedures.

8.3.2 ARCHAEOLOGICAL MANAGEMENT

This section summarises some of the key processes described in the document titled Archaeological Assessments contained within the NSW Heritage Manual (Department of Urban Affairs and Planning and NSW Heritage Office, 1996). The level of archaeological input required for each heritage site may vary depending on the type of site and its significance. Specific action includes a range of measures such as:

- no further action;
- archaeological monitoring;
- test excavation;
- archaeological conservation; and
- retention and conservation.

8.3.3 NO FURTHER ACTION

A recommendation that no further action is necessary is made if the site is either unlikely to contain archaeological features or is likely to contain archaeological features of little or low significance.

8.3.4 ARCHAEOLOGICAL MONITORING

Archaeological monitoring is recommended where the predicted significance of features (both visible and below the ground) is unknown or low, or when a site is likely to have suffered a degree of disturbance. In this case a site may not warrant detailed recording.

Archaeological monitoring necessarily involves disturbance and the excavation of relics, and should be carried out in accordance with a research design which indicates the objectives of the monitoring process. Such objectives include the potential of information likely to be gathered from the archaeological monitoring process for the site.

In rare cases, monitoring may reveal archaeological features of considerable significance that were not identified or predicted during the initial assessment. When this occurs the site may then require test trenching or a more comprehensive archaeological excavation.

8.3.5 TEST EXCAVATION

Sometimes the potential archaeological resources of a site are unclear despite extensive historical research and surface examination. In such cases test excavation may be recommended to clarify the site's archaeological potential and to establish significance and determine appropriate further action. Test excavation is a preliminary phase which usually involves the machine or hand excavation of a small trench to determine the nature and extent of sub-surface archaeological features and deposits. It may reveal that the site holds further potential, in which case comprehensive excavation should follow. Conversely the site may show evidence of disturbance or prove to be of low significance in which case either no further action or monitoring of the site may be undertaken.

8.3.6 ARCHAEOLOGICAL EXCAVATION

Archaeological excavation necessarily involves disturbance and excavation of relics and should therefore be carried out in accordance with a research design. *Archaeological Assessment* (Department of Urban Affairs and Planning and NSW Heritage Office, 1996) states as follows:

'Archaeological excavation should reveal the research potential of an archaeological site. It involves a structured program of onsite activities including:

- site preparation;
- the excavation itself;

- sampling (if appropriate);
- artefact recovery; and
- photographic, drawing and written recording.

Archaeological excavation also involves off site activities including:

- contextual and other detailed historical research;
- documentation of the stratigraphy of the site;
- artefact cataloguing and analysis;
- preparation of graphic evidence;
- preparation of a synthesis of all of the material;
- reporting of the evidence including a response to the original project research design;
- conservation of the excavated material; and
- lodgement of artefacts and records with a public archive.

Archaeological excavation should only be undertaken under the direction of a suitably qualified and experienced archaeologist. The archaeologist is responsible for determining the methodology and sampling strategies appropriate for a particular site'.

Timing and Programming of Archaeological Involvement

Archaeology by its very nature can be labour intensive and may require extended periods of time on site. While the preferred airport site option may not require intensive archaeological work any proposed archaeological involvement would be programmed into the construction timetable at the earliest possible time so that it does not become a critical path activity.

8.4 ARTEFACT COLLECTIONS

Excavated artefacts (including samples of structures or deposits), form an integral part of the record of any excavated sites.

Prior to excavation and following recovery of artefacts, advice should be obtained from an experienced materials conservator in relation to:

- cleaning;
- short term storage;
- special treatment requirements; and
- long term storage and curation.

Arrangements should be made for the long term curation and storage of artefacts and associated material. Responsibility for collection management rests with the owner of the site.

8.5 RETENTION AND CONSERVATION

One of the reasons that places of cultural significance are retained and conserved is that they contain information that drawings, photographs or film of the item cannot capture and retain. However skilfully a place is filmed or however evocatively it may be described, it is not possible to replace the experience of the actual place.

Every effort would be made in the detailed design process for the Second Sydney Airport proposal to retain as much fabric and physical evidence of heritage items as possible. Where, for example, an above ground wall cannot remain, it would be desirable to retain the footings in situ.

Care would also be taken to protect heritage items during the construction stage. This might involve the boarding up of buildings or using hoardings to isolate items from activities which might be damaging. It would also be desirable that a dilapidation survey of retained items be undertaken prior to commencement of construction, to allow their condition to be regularly monitored during construction of the airport and, ideally, when the airport is operational.

Additionally where graves within church cemeteries are to be removed it is desirable that the original headstones and grave furniture associated with these burials are also transferred with the human remains. Where this is not possible these items would be archivally recorded and appropriate arrangements would be made for their storage.

Generally, the most appropriate management action for an historic or archaeological site and its remains is conservation in situ. Therefore,

opportunities would be investigated for the retention of heritage items currently identified as demolished or destroyed for each of the airport options.

8.6 ARCHIVAL RECORDING

The Burra Charter of Australia ICOMOS (Australia ICOMOS, 1988) sets out philosophies and principles for heritage conservation and provides a widely accepted methodology for heritage conservation. One of the principles contained in the Burra Charter is the principle of keeping records. It refers to making records of the fabric of a heritage item and of decisions and actions affecting it.

Archival records are made of heritage items as a way of understanding the item as well as recording different aspects of the item before it is lost. Archival records may be required by a consent authority as a condition of approval for work which would result in the substantial alteration or demolition of a heritage item. This is now regarded as an essential requirement in circumstances where an item cannot be retained.

The archival record will vary according to the type of heritage item and the level of significance. The brochure, *How to Prepare Archival Records of Heritage Items* (NSW Heritage Office, 1996) sets out the requirements for archival recording for items of local, regional, and State significance.

In general, an archival report should include all background information such as, the subject of the recording, why the record was made, an outline of the history, a statement of heritage significance and a location plan. The record should contain:

- an inventory of existing archival documents;
- black and white photography, including negatives and proof sheets, cross-referenced to catalogues and base plans; and
- colour slides.

The above is the minimum requirement for items of local significance.

Items of regional significance need to be recorded in the same way as items of local significance, with the added requirement for measured drawings.

Items of State significance require the above recording, including measured drawings and samples of furnishings and finishes. Photogrammetric drawings and negatives should be made where they are considered appropriate.

Archival records of items of State heritage significance should only be prepared by experienced heritage consultants and professional photographers.

Copies of all records should be lodged with local libraries and the Mitchell Library in Sydney.

8.7 SPECIFIC MANAGEMENT PROPOSALS FOR THE AIRPORT OPTIONS

Tables 8.1 and 8.2 contain specific management proposals for each heritage item identified with the study, with the view to mitigating the impact of each airport option at Badgerys Creek and the Holsworthy Military Area.

Generally the preferred option for managing identified heritage items including archaeological sites, is conservation in situ, that is, that the site should remain undisturbed by any activity, including archaeological excavation. This method retains the historic resource for future generations and provides the opportunity for more highly developed conservation techniques and management strategies to be implemented in the future. Therefore, where particular sites are assessed as having potential for retention, the mitigation proposed is that these sites be the subject of detailed investigation during the detailed design stage of the proposal with the aim of retaining the item in question.

Archaeological assessment is proposed for all sites identified as having archaeological potential as a precursor to other management procedures. This will ensure, inter alia, that the extent of archaeological management for any given site is defined in detail.

Archaeological assessment and excavation is proposed for heritage items assessed as having high archaeological potential or as having rare representation within the study area. For example, within the Holsworthy study area, archaeological excavation of the Grodno settlement area has been recommended as this site is considered to represent the local wine growing industry and its resources as well as the domestic lifestyle which existed within that community.

For other winery areas, such as Lebinski's property, archaeological assessment and test trenching is proposed as it is not known at this stage whether this site will contain a high degree of integrity or research value compared with the Grodno settlement site which is more complex and appears to retain more in situ remains.

Test trenching is proposed for sites where the amount of retrievable information likely to be gained from below ground remains is as yet unknown. A site specific archaeological assessment prior to test trenching will assist in determining the boundary of the area to be investigated as well as a more detailed search of historic records than has so far been possible. Test excavation will enable the archaeologist to determine whether the site merits any further archaeological action.

Archaeological monitoring is not proposed for any of the sites as an initial action. However, it is likely that some of the sites which undergo test excavation will not warrant a full archaeological excavation and, in these cases, archaeological monitoring of the site may be considered an adequate mitigative strategy.

Archival recording has generally been proposed in relation to buildings and other standing structures which are to be demolished. These would be managed in accordance with the standard procedures of the NSW Heritage Office. Archaeological sites would be fully recorded both graphically and photographically at the time of excavation, test trenching or monitoring.

If the Cubbitch Barta National Estate Area is listed finally on the Register of the National Estate this would invoke Section 30 of the Australian Heritage Commission Act 1975 which contains obligations for the Commonwealth Government to avoid damage to national estate places unless there are no feasible or prudent alternatives and to consult with the Commission before taking any action which could harm or affect a registered place. Principles, processes and practices contained in the Australian Natural Heritage Charter (Australian Heritage Commission, 1996) would be used to assist in the conservation of the Cubbitch Barta National Estate Area.

TABLE 8.1 SUMMARY OF HERITAGE IMPACTS AND PROPOSED MITIGATION MEASURES - BADGERYS CREEK AIRPORT OPTIONS

Heritage Item	Item No.	Option A Assessed Status	Proposed Measure(s)	Option B Assessed Status	Proposed Measure(s)	Option C Assessed Status	Proposed Measure(s)
Luddenham Public School	B1	No impact (beyond master plan area)	Protect during construction	No impact (beyond master plan area)	Protect during construction	No impact (beyond master plan area)	Protect during construction
Dairy Shed	В2	No impact (beyond master plan area)	Protect during construction	No impact (beyond master plan area)	Protect during construction	No impact (beyond master plan area)	Protect during construction
Luddenham Uniting Church Cemetery and Progress Hall	В3	No impact (beyond master plan area)	Protect during construction	No impact (beyond master plan area)	Protect during construction	No impact (beyond master plan area)	Protect during construction
Lawsons Inn Site	B4	Destroyed	 Investigate options for retention Archaeological assessment Archaeological excavation (if destroyed) 	Destroyed	 Investigate options for retention Archaeological assessment Archaeological excavation (if destroyed) 	Destroyed	 Investigate options for retention Archaeological assessment Archaeological excavation (if destroyed)
Luddenham Anglican Church and Cemetery	B5	Retained (beyond master plan area)	Protect during construction	Retained (beyond master plan area)	Protect during construction	Retained (beyond master plan area)	Protect during construction
Anchau Vineyard Site	В6	Destroyed	 Archaeological assessment Archaeological excavation Archival recording 	Destroyed	 Archaeological assessment Archaeological excavation Archival recording 	Destroyed	 Archaeological assessment Archaeological excavation Archival recording
Vicarys Winery - Original Homestead	B <i>7</i>	Demolished	Archival Recording	Demolished	Archival Recording	Demolished	Archival Recording

TABLE 8.1 CONTINUED

Heritage Item	Item No.	Option A Assessed Status	Proposed Measure(s)	Option B Assessed Status	Proposed Measure(s)	Option C Assessed Status	Proposed Measure(s)
Vicarys Winery Building	B8	Demolished	Archival Recording	Demolished	Archival Recording	Demolished	Archival Recording
Vicary Winery - Woolshed	В9	Demolished	Archival Recording	Demolished	Archival Recording	Demolished	Archival Recording
Vicary Winery - Shearers Quarters	B10	Demolished	Archival Recording	Demolished	Archival Recording	Demolished	Archival Recording`
Evergreen Homestead	B11	Retained	Protect during construction	Demolished (potential for retention)	Investigate options for retentionArchival recording if demolished	(potential for	Investigate options for retentionArchival recording if demolished
'Mount Pleasant' Homestead	B12	Retained	Protect during construction	Demolished	Archival Recording	Demolished	Archival Recording
Two Elevated Water Tanks	B13	Retained	Protect during construction	Retained	Protect during construction	Demolished	Archival Recording
OTC Bringelly Radio Receiving Station	B14	Retained	Protect during construction	Retained	Protect during construction	Demolished	Archival Recording
Kelvin Park Homestead	B15	Retained	Protect during construction	Retained	Protect during construction	Retained (potential visual impact from security fence)	 Protect during construction Investigate options to reduce visual impact of security fence
Braeburn Homestead	B16	Demolished	Archival Recording	Demolished	Archival Recording	Demolished	Archival Recording

TABLE 8.1 CONTINUED

Heritage Item	Item No.	Option A Assessed Status	Proposed Measure(s)	Option B Assessed Status	Proposed Measure(s)	Option C Assessed Status	Proposed Measure(s)
Former Badgerys Creek Butchery	B17	Demolished	Archival Recording	Demolished (potential for retention)	Investigate options for retentionArchival recording if demolished	Demolished	Archival Recording
St Johns Anglican Church and Cemetery Site	B18	Destroyed	 Archaeological assessment Relocation of headstones, grave furniture and burial remains 	Destroyed	 Archaeological assessment Relocation of headstones, grave furniture and burial remains 	Destroyed	 Archaeological assessment Relocation of headstones, grave furniture and burial remains
Badgerys Creek Methodist Church Site and Cemetery	B19	Destroyed	 Archaeological assessment Relocation of headstones, grave furniture and burial remains 	Destroyed	 Archaeological assessment Relocation of headstones, grave furniture and burial remains 	Destroyed	 Archaeological assessment Relocation of headstones, grave furniture and burial remains
Farm Cottage	B20	Demolished	Archival Recording	Demolished	Archival Recording	Demolished	Archival Recording
Group of Farm Outbuildings	B21	Demolished	Archival Recording	Demolished	Archival Recording	Demolished	Archival Recording
Bridge over Badgerys Creek	B22	Retained (outside fence area)	Protect during construction	Retained (outside fence area)	Protect during construction	Retained (outside fence area)	Protect during construction
Original Badgerys Creek Public School Buildings	823	Demolished	Archival Recording	Demolished (potential for retention)	Investigate options for retentionArchival recording if demolished	Demolished	Archival Recording

TABLE 8.1 CONTINUED

Heritage Item	Item No.	Option A Assessed Status	Proposed Measure(s)	Option B Assessed Status	Proposed Measure(s)	Option C Assessed Status	Proposed Measure(s)
The Northern Road	B24	Partly destroyed	Archival recordingArchaeological Assessment	Partly destroyed	Archival recordingArchaeological Assessment	Partly destroyed	Archival recordingArchaeological Assessment
			 Test Excavation 		Test Excavation		Test Excavation

TABLE 8.2 SUMMARY OF HERITAGE IMPACTS AND PROPOSED MITIGATION MEASURES - HOLSWORTHY AIRPORT OPTIONS

Heritage Item	Item No.	Option A Assessed Status	Proposed Measure(s)	Option B Assessed Status	Proposed Measure(s)
Army Range Control Headquarter	H1	Retained (outside master plan area)	Protect during construction	Retained (outside master plan srea)	Protect during construction
Harris Creek Farmhouse Ruins	H2	Retained (outside master plan area)	Protect during construction	Retained (outside master plan area)	Protect during construction
Remains of Masonry Wall	Н3	Retained (outside master plan area)	Protect during construction	Retained (outside master plan area)	Protect during construction
Adam's House and Well Remains	H4	Demolished	 Archaeological assessment Archaeological excavation Archival recording 	Retained (potential impact from rail corridor)	Relocate rail corridor (if necessary)Protect during construction
Grodno Settlement Dry Stone Wall and Irrigation Channels	H5	Partly demolished	 Re-position possible access road Protect during construction Archaeological assessment Archival recording 	Destroyed by rail corridor	 Relocate rail corridor (if possible) Archaeological assessment Archival recording
Grodno Settlement Winery Cellar and Well	H6	Demolished	 Archaeological assessment Archaeological excavation Archival recording 	Retained (beyond master plan area)	Protect during construction

TABLE 8.2 CONTINUED

Heritage Item	Item No.	Option A Assessed Status	Proposed Measure(s)	Option B Assessed Status	Proposed Measure(s)
Grodno Settlement - Rubbish Dump and Well, Himmelhoch Property	H7	Demolished	 Archaeological assessment Archaeological excavation Archival recording 	Retained	Protect during construction
Remains of Kelso's Homestead	Н8	Retained	Protect during construction	Retained	Protect during construction
Etchell's Hut and Dam Remains	Н9	Retained	Protect during construction	Retained (potential impact from access road)	Re-consider access road. Protect during construction
Remains of Four Concrete Wine Vats	H10	Retained	Protect during construction	Retained	Protect during construction
Engineers Bridge	H11	Retained	Protect during construction	Retained	Protect during construction
Nat (Nathaniel) Bull's House Site	H12	Demolished	Archaeological assessmentTest excavation	Retained	Protect during construction
Eckersley Post Office Site	H13	Demolished	Archaeological assessmentTest excavation	Retained	Protect during construction
Eckersley House Cellar/ Rock Shelter	H14	Demolished	Archaeological assessmentTest excavation	Retained	Protect during construction
Vineyard Remains on Lebinski's Property	H15	Demolished	Archaeological assessmentTest excavation	Retained	Protect during construction
House Remains: Chimney and Concrete Slab	H16	Retained	Protect during construction	Retained	Protect during construction

TABLE 8.2 CONTINUED

Heritage Item	Item No.	Option A Assessed Status	Proposed Measure(s)	Option B Assessed Status	Proposed Measure(s)
Remains of Illegal Liquor Still	H17	Retained	Protect during construction	Destroyed	Archaeological assessmentArchival recording
Old Coach Road	H18	Retained	Protect during construction	Partly destroyed	Archival recording
Old Illawarra Road	H19	Partly destroyed	Archival recording	Partly destroyed	Archival recording
New Illawarra Road (formerly Eckersley Road)	H20	Partly destroyed	Archival Recording	Retained	Protect during construction

Part E
Summary of Non-Aboriginal
Cultural Heritage Impacts

CHAPTER 9 SUMMARY AND COMPARISON OF IMPACTS

Following the assessment of the five proposed airport options, the various impacts associated with each option on identified heritage items and the respective areas are numerically summarised in *Table 9.1* and *9.2*.

TABLE 9.1 BADGERYS CREEK OPTIONS

	Option A	Option B	Option C
Heritage Items Demolished/Destroyed	13	15	17
Heritage Items Partially Demolished/Destroyed	1	1	1
Heritage Items Fully Retained	10	8	6
Total	24	24	24

Of the 13 heritage items that would be lost as a result of Option A, seven are listed as heritage items in *Liverpool Draft Local Environmental Plan 1997*. Five of the 13 items are also assessed in this study as being of regional significance.

Option B would destroy the same items destroyed by Option A. Two further items would also be destroyed. Both of these are of local significance. One of these two items is also listed as a heritage item in *Liverpool Draft Local Environmental Plan* 1997.

Option C would destroy all of the items destroyed by Option B (and Option A). Two further items would also be destroyed, one of which is assessed as being of regional significance. Both of these items are also listed as heritage items in *Liverpool Draft Local Environmental Plan 1997*. None of the items that would be destroyed under any of the Badgerys Creek options is listed by the National Trust, Australian Heritage Commission or the NSW Heritage Council.

If the heritage significance of the Badgerys Creek study area is regarded as a whole (as identified in the statement of heritage significance), Option A would result in the loss of evidence of three aspects of significance. However, other evidence of these aspects would remain. Options B and C would affect these same three aspects of significance but, unlike Option A, would result in the loss of virtually all evidence of these aspects.

TABLE 9.2 HOLSWORTHY AIRPORT OPTIONS

	Option A	Option B
Heritage Items Demolished	7	1
Heritage Items Partially Demolished	3	2-5 ¹
Heritage Items Fully Retained	10	14-171
Total	20	20

Note:

Depending on which access alternative is adopted.

All of the heritage items that would be lost (or retained) under either of the Holsworthy options are included within the Holsworthy Landscape Conservation Area which is classified by the National Trust. They are also located within the Cubbitch Barta National Estate Area on the Interim List of the Register of the National Trust. There are no other heritage listings applying to these items.

All of the seven items that would be destroyed by Holsworthy Option A, and the one item that would be destroyed by Option B, are assessed as being of local significance. Both options would also result in the partial destruction of two roads assessed as being of regional significance.

If the heritage significance of the Holsworthy study area is regarded as a whole (as identified in the statement of heritage significance), Option A would result in the loss of evidence of five aspects of significance. However, other evidence of all of these aspects would remain. Option B would affect four of these same aspects but more evidence of the affected aspects would remain, than would be the case with Option A. Both options would destroy some of the physical evidence of former uses recognised by the interim listing of the Military Area on the Register of the National Estate and therefore would result in partial loss of national estate values.

References

REFERENCES

Airservices Australia (1996), The Long Term Operating Plan for Sydney (Kingsford Smith) Airport and Associated Airspace - Report Summary, Commonwealth of Australia, Canberra.

Allotments of Ground in the District of Holsworthy, 1820, held at Mitchell Library, ML 2811.1141/1820/1.

Australia ICOMOS (1988), The Australia ICOMOS Charter for the Conservation of Places of Cultural Significance (The Burra Charter), Guidelines to the Burra Charter: Cultural Significance and Conservation Policy, Pamphlet, Australia ICOMOS (Inc).

Australian Archives, File PA 960: Acquisition of Site for Receiving Station. Department of Army. Australian Archives Sydney Office.

Australian Council of National Trusts (1982), Heritage Reprints. *Historic Homesteads of Australia*, Australian Council of National Trusts, Canberra, 1982.

Australian Dictionary of Biography (1968), Volume 1 1788-1850, Melbourne University Press, Carlton.

Australian Heritage Commission (1996), Australian Natural Heritage Charter-Standards and Principles for the Conservation of Places of Natural Heritage Significance, Australian Heritage Commission and Australian Committee for IUCN, Sydney.

Australian Heritage Commission (1997), National Heritage Listing for Holsworthy - Media Release, Australian Heritage Commission, Canberra.

Australian Heritage Commission Register of the National Estate Item 2: Holsworthy National Estate Area.

Australian Heritage Commission Register of the National Estate Item 3: Kelvin, Outbuildings and Curtilage.

Baillieres (1866), New South Wales, Gazetteer and Road Guide.

Bringelly File, Liverpool Local Studies Library.

Clark, CMM (1979), A History of Australia Volume 1, Melbourne University Press, Carlton.

Coalition of Liberal and National Parties (1996), Putting People First, Coalition Policy on Sydney Airport and Sydney West Airport, Commonwealth of Australia, Canberra.

Cumberland Argus (1889), Article quoted in Keating, C. (1996).

Department of Transport and Regional Development (1996), Location and Development of the Second Sydney Airport, The Proposal, 5 August 1996, Sydney West Airport Taskforce, Canberra.

Department of Urban Affairs and Planning and NSW Heritage Office (1996), NSW Heritage Manual, Department of Urban Affairs and Planning, Sydney.

Godden Mackay (1995), Bringelly Radio Receiving Station Complex Conservation Plan. Prepared for Brewster Murray Pty Ltd.

Harvard, O. *Mrs Felton Matthew's Journal*, Journal of the Royal Australian Historical Society, Volume 29, Parts 2-4.

Hopson, NC and Tobin, R (1995), NSW and ACT Post, Receiving, Telegraph and Telephone Offices, Volume 2 D-L. Hopson and Tobin, Sydney 1995.

Keating, C (1996), On the Frontier: A Social History of Liverpool Hale and Iremonger, Sydney 1996.

Kinhill Stearns (1985), Second Sydney Airport, Site Selection Programme Draft Environmental Impact Statement, Kinhill Stearns and the Department of Aviation.

Lester Firth Associates (1991), Vicary's Winery Complex Conservation Planning Study, prepared for The Federal Airports Corporation.

Longhurst H, Bairnsfather V, Fowler (1995), "The Road to Frere's Crossing", in Journal of Campbelltown and Airds Historical Society Inc. Vol.8, No.4.

Longhurst Keith pers. comm, (1996) - a member of the Campbelltown and Airds Historical Society, was consulted immediately prior to the fieldwork at the Holsworthy Military Area being started. He provided a great deal of information regarding the 1890s settlement at Eckersley.

Lowe R (1820), letter to Commissioner John Thomas Bigg 1820, Royal Australian Historical Society Library.

Major Airport Needs of Sydney Study Committee (1979), The Major Airport Needs of Sydney Study, Commonwealth Government, Canberra.

Map of Country between Georges and Cateract Rivers and South Coast Railway, NSW, 1908, held at Mitchell Library M3811.114/1908.

Minister for Transport and Regional Development (1996), *Media Release*, "Environmental Impact Statement for Holsworthy", 21 May, 1996.

National Trust (1996), Holsworthy Landscape Conservation Proposal, Draft Listing Card.

Neustein and Associates (1992), *Liverpool Heritage Study*, Final Report Part 1. Prepared for Liverpool City Council.

Norrie, P (1990), Vineyards of Sydney: Cradle of the Australian Wine Industry. From First Settlement to Today. Herwitz Graham, Sydney.

Parish of Bringelly, Archives Office of NSW, map No. 193.

Parish of Holsworthy, County of Cumberland, 1850, held at Mitchell Library, ZM2811.1141/1850/1.

Parish of Holsworthy, County of Cumberland, 1889, held at the Mitchell Library.

Plan of the Eastern Division of the Luddenham Estate (1864), held at Mitchell Library MLZ3 811.11311/1864/1.

Proudfoot, H (1990), Analysis of the History and Geography of the South Creek Catchment Area, prepared for Perumal Murphy for the Department of Planning.

Roots, MT pers. comm. (1996), former owner of Badgerys Creek Butchery.

Royal Australian Historical Society (1920), Journal Volume V.

Senate Select Committee on Aircraft Noise in Sydney (1995), Falling on Deaf Ears? Report of the Senate Select Committee on Aircraft Noise in Sydney, Commonwealth of Australia.

Survey of village of Luddenham, 1859, held at Land Titles Office, Historical Map Section.

Sydney Gazette, March 1824.

Thompson, Colonel Bob pers. comm. (1996) - provided locational information of sites in the Holsworthy Military Area and accompanied the field team for one day of field work.

Appendices

Ap	pen	dix	A
			-

Study Team

Appendix A Study Team

Non-Aboriginal Cultural Heritage

The non-Aboriginal Cultural Heritage study team comprised the following personnel from Godden Mackay Pty Ltd:

David Logan Urban Planner, Director of Godden Mackay

Project Director; impact analysis; environmental management;

recommendations.

Don Godden Industrial Archaeologist, Director of Godden Mackay

Field survey; review of inventory.

Tony Brassil Built Heritage Specialist

Field Survey co-ordination; identification of items; significance assessment;

impact analysis.

Nadia Iacono Archaeologist

Field survey; identification of items; significance assessment; impact

analysis; environmental management.

Mark Dunn Historian

Historical research and overview; project co-ordination.

Fred Yarad Historian

Historical research and overview.

Appendix B

Non-Aboriginal Cultural Heritage Inventory Forms

SECOND SYDNEY AIRPORT EIS European Cultural Sites Survey 1996							
Name: Luddenham Public School	Proposed Airport	Site: Badgerys	Creek				
No: B1	AMG Grid Reference: East:	286350	North:	6248400			
Location:							
East side of The Northern Road, between Adams Road and Blaxland Avenue							
Description: The earliest school building is a small two-roomed rectangular weatherboard building, set on brick piers, with an assymetric gabled, corrugated iron roof. It has four eighteen pane double-hung sash windows and was constructed in c1914. There is another weatherboard building which has a skillion roof and metal framed windows and is of recent construction, as well as a new brick building. The grounds have mature trees and landscaped gardens.							
History: Provision for a school house in the village of Luddenham was made in the initial subdivision of John Blaxlands property "Ludenham" by Sir Charles Nicholson in the 1850s. A weatherboard Methodist school was established by 1857 and a more substantial brick building was in its place by the early 1860s. Luddenham school served the area surrounding the village and to Badgerys Creek and Bringelly settlements till the 1890s when schools opened in these settlements. The present school building dates from 1914 and has served the Luddenham community since that time.							
Bibliography: Keating, C (1996), Neustein and Associates (1992), Baillieres New South Wales Gazetteer and Road Guide (1866).							
Historic L Aesthetic L Social L	Statement of Signific A fine and represental contains original elem century. The school hadevelopment of the arrand its setting. It has a past students and res	tive example of a lents that date ba as historic signifi rea and aesthetic social significanc	ack to the early cance as an early cance in its cance for the local	y part of the element in the s historic buildings			
Other Listings National Estate Register Liverpool Draft LEP NSW Heritage Council National Trust							

No:

Name:

B1

Luddenham Public School

Proposed **Airport Site:** **Badgerys Creek**

Additional Information:



	SECOND SYDNEY AIRPORT EIS European Cultural Sites Survey 1996							
Name:	Dairy s	hed		Proposed Airport	Site: Badgery	's Creek		
No:	B2			AMG Grid Reference: East:	287400	North:	6249100	
Locat	ion:					<u> </u>		
Lot 10	, Adams R	oad						
is held being it is appropriate six mill heavily withou	riorated for together to inscribed of roximately king rails was affected to tremnant	by an assortment of on a brick-walled we 3m in diameter and within the eastern pa by termites, with the	nails, sci ell or ciste 4m deep art of the e northern atered in	constructed of timber rews, bolts and wire a remove contained partly with and the brick lining equilibrium, intact but in partly and already collapse overgrown grass nearly new.	nd possibly da thin the north e extends 1.5m a poor condition. ed. Two piles of	tes to c.1920s o end of the buildir bove ground lev The dairy is aba hand moulded	r '30s, this date ng. The well/cistern rel. There is a set of andoned and is sandstock bricks	
Histor	v:							
The sr easter parcels whilst	The small dairy is possibly associated with the later subdivision of John Blaxland's "Luddenham" estate. The eastern portion of his land was first subdivided in 1859 into half to one acre lots for Luddenham village. Later, parcels of land of 4-19 acres were offered from 1864. Lot 10 is situated on this second subdivision and the dairy, whilst probably of early twentieth century construction, is likely to be a replacement for an earlier, similar structure on the farm.							
	graphy: g, C, (1996	5).						
Ciani	ficance	Bonzoontotivo	Rare	Statement of Signifi	cance.			
	ficance istoric	Representative		A rare survivor in the	area of a tradit			
	esthetic	L		building, unfortunately utilitarian building ma				
		L		archaeological evider				
	ocial							
	cientific	ogianal I = t acal	L					
	S= State R= Regional L= Local							
	r Listings							
	Estate Regist		LEP					
NSW Her	itage Counci	National Trust						

No:

B2

Name:

Dairy Shed

Proposed

Badgerys Creek

Airport Site:

Additional Information:



SECOND SYDNEY AIRPORT EIS							
European Cultural Sites Survey 1996							
Name: Luddenham Uniting Church, Cemetery and Progress Hall	Proposed Airport Site: Badgerys Creek						
No: B3	AMG Grid Reference: East: 286250 North: 6248450						
Location:							
West side of The Northern Road, south of R	Roots Avenue, Luddenham						
Description: Buildings and related elements which comprise the site include a church, hall and cemetery. The Church was constructed in c.1880 and the Hall, named 'Progress Hall', in 1886. Both are cement rendered brick buildings with corrugated iron clad gable roofs. The church has pointed arch window openings and buttressed walls. It is rectangular with a small enclosed porch at the east end. The Progress Hall has segmental arched windows and the rendered walls are lined to simulate ashlar construction. It has a suspended awning over the entry on the east end. The graves within the cemetery date from 1890 through to the mid-twentieth century. The earliest bears the inscription "In Memorium Annie Lucy, beloved wife of J Longley died Dec 9th 1890, aged 37 years" and also "Ivy V, died December 18th 1889, aged 3 years". The second earliest is "James Longley, died September 28th 1895, aged 93". Both graves have marble headstones. The majority of other graves in the cemetery have granite slab monuments. There is a small brick columbarium on the right side of the entrance gate to the cemetery. There are no plantings within the cemetery. The site is bound by a playing field to the south west, Sales Park to the north and bushland to the south.							
History: John Blaxland's property named 'Luddenham' was subdivided between 1859-64. Provision in this subdivision was made for a church and the area was to be called 'Luddenham'. The Uniting Church dates from the early 1880s and the Hall from 1886. A cemetery associated with the site contains graves as early as 1890.							
Bibliography: Keating, C, (1996).							
Significance Representative Rare Historic R Aesthetic R Social L Scientific S= State R= Regional L= Local Other Listings	Statement of Significance: A fine example of a rural church building, with simple gothic details, in a pleasant landscaped setting, with an associated meeting hall and cemetery. It has historic significance as an element in the social development of the region and it illustrates the nature and extent of settlement in the area in its form and siting and through the collective record of burials in the cemetery. It has social significance as a church and as a meeting place and as a cemetery for the local community.						
National Estate Register							

No:

B3

Name: Luc

Luddenham Uniting Church, Hall & Cemetery

Proposed Airport Site:

Badgerys Creek

Additional Information:





SECOND SYDNEY AIRPORT EIS European Cultural Sites Survey 1996								
Name:	Site of Lawsons Inn		Proposed Airport S	Site: Badger	ys Creek			
			AMG Grid	206650	North	6248050		
No:	B4	_	Reference: East:	286650	North:	6246050		
Locati	on:							
The No	orthern Road, Luddenham; o	pposite th	e corner of Eaton Stre	et.				
The sit 400m sitself. A through surface the Inn vicinity	Description: The site of Lawson's Inn is indicated by historic plans to be on the western side of The Northern Road, approximately 400m south of the Luddenham Post Office. Surface survey did not reveal any visible remains of the Inn structure itself. A number of pepper trees reputed to be associated with the Inn remain adjacent to the creek which runs through the area to the south west of the site. Five or six large river stones are arranged in a formation on the ground surface of the road verge, which may represent the remains of a driveway entrance to the Inn. The assumed site of the Inn is currently being used as a cattle grazing paddock. The route of The Northern Road has been altered in this vicinity in recent years but the original route survives as Eaton Road, the northern end of which rejoins the present alignment of The Northern Road almost opposite the site of Lawson's Inn.							
History: Lawson's Inn pre-dates the subdivision of the village of Luddenham, having been built to service travellers along The Northern Road which connected Camden to Windsor and Richmond. The road was constructed before 1826 while the Inn was probably built in the mid-1830s. It is known to have been demolished in the mid-twentieth Century. The site of the township of Luddenham was apparantly chosen on the basis that the Inn was already in operation and was a well known stopping place.								
Bibliography: C. Keating (1996), Neustein & Assoc (1992).								
Signif	ficance Representative	Rare	Statement of Signific					
Hi	istoric	R	Scientific/Research si archaeological remain					
A	esthetic		occupation in outlying	areas of Syd	lney.			
So	ocial		Historical significance established, it being a					
Sc	cientific	R	townships.	. John estat	Jaginnont Detwee	tro carnor		
S= S	tate R= Regional L= Local							
Othe	r Listings							
	Estate Register	tLEP 🗹						
NSW Her	itage Council National Trust	in						

No:

B4

Name:

Site of Lawson's Inn

Proposed

Badgerys Creek

Airport Site:

Additional Information:



SECOND SYDNEY AIRPORT EIS								
	European Cultural Sites Survey 1996							
Name:	Luddenham Anglican Church and Cemetery (St James's)	Proposed Airport	Site: Badger	ys Creek				
No:	B5	AMG Grid Reference: East:	286400	North:	6248250			
Location								
	n side of The Northern Road, opposite	e the intersection with	Adams Road,	Luddenham				
	7 1,							
Descri	Mion.							
Building constru (basalt) window Lachlar	Buildings and related elements which comprise the site include the church and cemetery. The Church was constructed c.1870. It is a small, rectangular building constructed of ashlar sandstone and random coursed stone (basalt) rubble, the sandstone forming the footings and the quoins at the building corners and around the pointed arch windows, with a corrugated iron clad gable roof. The graves within the cemetery date from circa 1870, with James Lachlan Lawson (1893) and James Freeburn (1895) notable. There is a variety of grave monuments, including stone obelisks, both marble and sandstone headstones and cast-iron fences.							
History: John Blaxland's property named 'Luddenham' was subdivided between 1859-64. Provision in this subdivision was made for a church and the area was to be called 'Luddenham'. The St. James's Anglican Church appears to have been established by the mid - 1860s, and this building dates from the early 1870s. A cemetery associated with the site contains graves as early as 1870.								
_	Jraphy: J, C (1996).							
Signif	icance Representative Rare	Statement of Signifi						
Ae So	storic R esthetic R ecial L eientific eate R= Regional L= Local	A fine example of a repleasant landscaped significance as an elegillustrates the nature siting and through the social significance as community.	setting, with a ement in the so and extent of se collective rec	associated cem ocial development settlement in the cord of burials in	etery. It has historic at of the region and it area in its form and the cemetery. It has			
Other	Other Listings							
	state Register Liverpool Draft LEP	-						
ISW Heri	tage Council National Trust							

No:

Name:

B5

Luddenham Anglican Church & Cemetery (St

James)

Proposed
Airport Site:

Badgerys Creek

Additional Information:



SECOND SYDNEY AIRPORT EIS European Cultural Sites Survey 1996								
Name: Anchau Vineyard Site	Proposed A							
No: B6	Reference:	East:	287	700 ————	North:	6246300		
Location:								
East side of The Northern Road, opposite Vicary's Vineyard, 2km south-east of Luddenham.								
Description: The site of Anchau's vineyard is on the easte There appears to be no building remaining froits north are distinguished by a square imprint over the area. There are visible lines of furror	om this propert it and by variat	ly, howe ions in t	ever, the co	the outline lour and d	of a structure ensity of the g	and the vineyard to rass now growing		
History: Anchau's vineyard was one of a number of small vineyards operating in the region from late last century. Anchau's vineyard was operated by a German family up until c1910. German winegrowers were first brought to the area in the 1830s by the Cox and Macarthur families to operate vineyards on their properties. It is likely that the Anchau family arrived in the Liverpool area in this manner and established this, their own vineyard, sometime later. It is an example of the progressive change of land use away from large cattle properties to small individual holdings.								
		Ü	•					
Bibliography: Norrie, P (1990).								
Significance Representative Rare Historic L Aesthetic L Social Scientific L S= State R= Regional L= Local	archaeologica immigration to Relic of the loc	/Resear I remain NSW. cality's s	rch signs rela	gnificance ating to late ment patte	e nineteenth ce	h potential intact entury European ineteenth century.		
Other Listings National Estate Register								

No:

Name:

B6

Anchau Vineyard Site

Proposed
Airport Site:

Badgerys Creek

Additional Information:



SECOND SYDNEY AIRPORT EIS								
European Cultural Sites Survey 1996								
Name: Vicary's Vineyard -Original Homestead	Proposed Airport Site: Badgerys Creek							
	AMG Grid Reference: East: 286950 North: 6246300							
No: B7	Reference: East: 286950 North: 6246300							
Location:								
West side of The Northern Road, 2km south west of Luddenham.								
clad hipped and gabled roof. Originally a small the front wall has been reclad with weather by vertical timber slabs can be seen on the north front and north sides is also relatively new. To original) and the other one on the northern sides converted into a bathroom. The interior of the	ery is a single storey timber Georgian Style cottage with a corrugated iron all hipped roofed cottage, it has been extended to the south and west. coards and modern timber windows have been fitted, however the original thern side wall and the rear (west) wall. A verandah running along the There are two rear wings, one of which is still in slab (it appears to be ide is partly fibro-clad and appears to be relatively modern, having been he house itself has been extensively modernised with a concrete and tiled and plasterboard clad walls throughout the interior.							
History: Vicary's Vineyard is situated on land used for grazing since the 1880s. Cec Vicary and family purchased the land in 1914 for grazing, sheep and dairy. In 1917, Vicary planted the first grapes and commercial production was underway by 1923. The vineyard still operates commercially and incorporates and includes an 1880s homestead and a woolshed from the same period into its operation.								
Bibliography: Lester Firth Associates Pty Ltd (1991), Norri	ie, P (1990).							
Significance Representative Rare	Statement of Significance:							
Historic R	The vineyard has historic significance as a group of structures which illustrate small scale agricultural operations and diversification of							
Aesthetic _L	farming in the region in the late nineteenth century. It provides historic associations with the former large scale wine industry within the region							
Social	and is Sydney's oldest continually operational winery. The house is a surviving traditional farm residence of the late nineteenth century and							
Scientific S= State R= Regional L= Local	despite renovation, its original mode of construction is apparant.							
Other Listings								
National Estate Register								
NSW Heritage Council National Trust								

No:

Name:

B7

P

Vicary's Vineyard - Original Homestead

Proposed Airport Site:

Badgerys Creek

Additional Information:



OF COMP CYPNEY AUDICIDE BIG									
SECOND SYDNEY AIRPORT EIS European Cultural Sites Survey 1996									
Name:		Proposed Airport	Site: Badge	erys Creek					
No:	Building B8	AMG Grid Reference: East:	286950	North:	6246300				
Locati									
West s	ide of The Northern Road Road, 2km s	south of Luddenham							
	Description: The winery is housed in a triple-gabled, single storey brick building, featuring stone quoins to the building corners and								
to door	and window openings, corrugated iron	roof cladding and se							
nosed	skillion verandah has been added to the	e front elevation.							
111 4									
History Vicary's	/: s Vineyard is situated on land used for	grazing since the 188	0s. Cec Vic	ary and family pure	chased the land in				
1914 fc	or grazing, sheep and dairy. In 1917, Vi	icary planted the first	grapes and	commercial produc	ction was underway				
	The vineyard still operates commerc ed from the same period into its operat		and include	es an 1880s nome	stead and a				
	·								
Biblioc	graphy:								
	, C (1996); Lester Firth Associates Pty	y Ltd (1991) Norrie, P	(1990).						
Signif	iodiloo itopiooolitatiro italo	Statement of Signific		<u> </u>					
His		The vineyard has histe Ilustrate small scale a							
Ae	esthetic L	farming in the region i	n the late nir	neteenth century.	t provides historic				
So		associations with the f and is Sydney's oldes							
Sc	ientific	building is a handsom	e and well p	roportioned building					
S= St	ate R= Regional L= Local	many original features	relating to i	its functions.					
Other	Listings								
	state Register Liverpool Draft LEP								
NSW Heri	tage Council National Trust								

No:

Name:

88

Vicary's Vineyard - The Winery Buildings

Proposed
Airport Site:

Badgerys Creek

Additional Information:



SECOND SYDNEY AIRPORT EIS European Cultural Sites Survey 1996						
Name: Vicary's Vineyard - The Woolshed	Proposed Airport Site: Badgerys Creek					
No: B9	AMG Grid Reference: East: 286950 North: 6246300					
Location:						
West side of The Northern Road, 2km south-	-west of Luddenham.					
Description:						
approximately 5m x 15-20m long. The originended shed with timber slab walls and appear timbers. It appears to have always been roof construction, which has been extended to the materials. The roof of the extension is a low artefacts within the shed, sourced from shear unknown. Immediately outside the shed are being slightly raised. It consists of ten bales operational. The fence to the dairy consists of new posts which also support the roof. In ge	ed has been constructed over several periods. The main section is hal fabric is obscure although it does appear to have been a small gable ars to have been constructed from some new and some recycled offed with corrugated iron rather than having shingles. Throughout the ele east and also dramatically to the west, there are lots of recycled skillion and has a rustic appearance about it. There are numerous uring sheds and harness rooms around the vicinity but their provenance is the remnants of a dairy against the wall of the shearing shed, the ground of the standard type, indicating it was a relatively large dairy when of a number of traditional rails from a post and rail fence, all inserted into eneral, the woolshed has been extended and reconstructed as an assome of its original fabric, most of the building has been added to the					
Linton						
History: Vicary's Vineyard is situated on land used for grazing since the 1880s. Cec Vicary and family purchased the land in 1914 for grazing sheep and dairy cattle. In 1917, Vicary planted the first grapes and commercial production was underway by 1923. The vineyard still operates commercially and incorporates and includes an 1880s homestead and a woolshed from the same period into its operation.						
Bibliography:						
Lester Firth Associates Pty Ltd (1991); Norrio	e, P (1990).					
	Statement of Significance:					
	An interesting but highly altered example of a traditional farm building, which has been reconfigured as a dance hall with woolshed decor. It					
	demonstrates some aspects of bush craftmanship in its structure. It is asssociated with the adjacent Vicary's Winery.					
Social L	associated with the adjacent vicary's winery.					
Scientific						
S= State R= Regional L= Local						
Other Listings	1					
lational Estate Register Liverpool Draft LEP						
ISW Heritage Council National Trust						

No:

B9

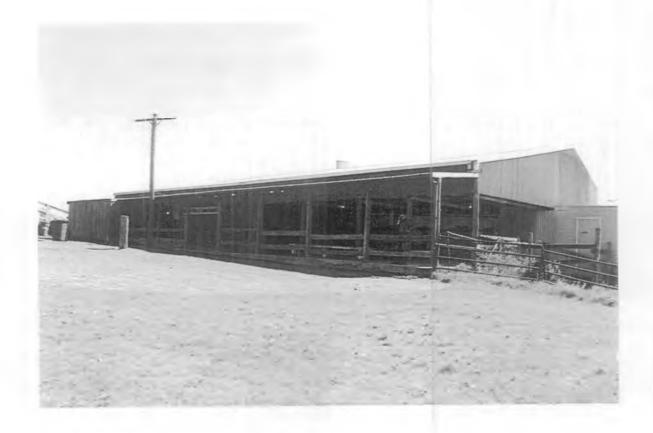
Name: Vid

Vicary's Vineyard - The Woolshed

Proposed Airport Site:

Badgerys Creek

Additional Information:



SECOND SYDNEY AIRPORT EIS									
European Cultural Sites Survey 1996									
Name:	Vicary's Vir Quarters	neyard - The She	earers	Proposed Airport	Site: Badge	erys Creek			
No:	B10			AMG Grid Reference: East:	286950	North:	6246300		
Locati									
		orthern Road, 2k	m south-	west of Luddenham.					
	West side of The Northern Road, 2km south-west of Luddenham.								
The she about 4 There is be as it round a	Description: The shearers quarters is located to the south of the shearing shed complex and consists of a single room measuring about 4 by 3.5 metres. It is a simple four post construction with beams and no girts, clad in vertical timber slabs. There is a fireplace at its west end and what was a window unglazed in its west. The original configuration appears to be as it is at present but some of the slabs have been sawn and others have been broad-axed. The top plate is in the round as are the ties. There is evidence that the ceiling was once lined with hessian. It is in poor condition but reasonably intact.								
History: Vicary's Vineyard is situated on land used for grazing since the 1880s. Cec Vicary and family purchased the land in 1914 for grazing, sheep and dairy. In 1917 Vicary planted the first grapes and commercial production was underway by 1923. The vineyard still operates commercially and incorporates and includes an 1880s homestead and a woolshed from the same period into its operation.									
Bibliography: Lester Firth Associates Pty Ltd (1991). Norne, P (1990).									
Signif	icance Re	presentative	1,441.0	Statement of Signific		buildings as 4 ·	alabad this swall		
Ae So	storic esthetic ocial eientific eate R= Regio	L L R onal L= Local	K	Associated with the adbuilding illustrates the contract shearers on a demonstrates aspects materials and design.	form and na a small farm s of bush cra	iture of the quarte in the late ninetee ftsmanship and ut	rs provided for enth century. It tilitarian use of		
Other	Listings								
	state Register	Liverpool Draft	LEP 🗹						
NSW Heri	ISW Heritage Council								

No:

Name:

B10

Vicary's Vineyard - Shearer's Quarters

Proposed Airport Site:

Badgerys Creek

Additional Information:



SECOND SYDNEY AIRPORT EIS European Cultural Sites Survey 1996									
Name:	'Evergr	een' House		Proposed Ai	rport :	Site: Badge	erys Creek		
No:	B11			Reference:	East:	289300	North:	6243800	
Locat	ion:			•			<u> </u>		
North-	North-west corner of The Northern Road and Derwent Road, Badgerys Creek								
A c190 origina The ve	Description: A c1905 weatherboard farm cottage associated with the late subdivision of smaller acreage blocks in the area. The original four roomed weatherboard cottage had a hipped roof clad in corrugated iron with a verandah on three sides. The verandah posts have decorative timber brackets. The house has been extended with a hipped roofed section to the rear and a gable roofed section to the side, both clad in fibro-cement sheeting. Palm, fruit, pine and exotic plantings grow within the property.								
History: The house 'Evergreen' sits on land that was formally part of the William Hutchinson Estate. The estate was subdivided from 1891 into lots between three and ten acres. These subdivisions were established to encourage city dwellers who were forced out of work during the Depression of the 1890s to resettle in the area. The house is dated to c1905.									
Bibliography: C Keating (1996), Nuestein and Associates (1992).									
H A S S S= S		Representative L L egional L= Local	L	farm layout which nineteenth cent pleasant, well-p	examportiury. proportion	ole of the for e typical of t ioned vernad	he development o	ce and associated If the area in the late It is a turn of the century which is a rare	
Other Listings National Estate Register Liverpool Draft LEP									

No:

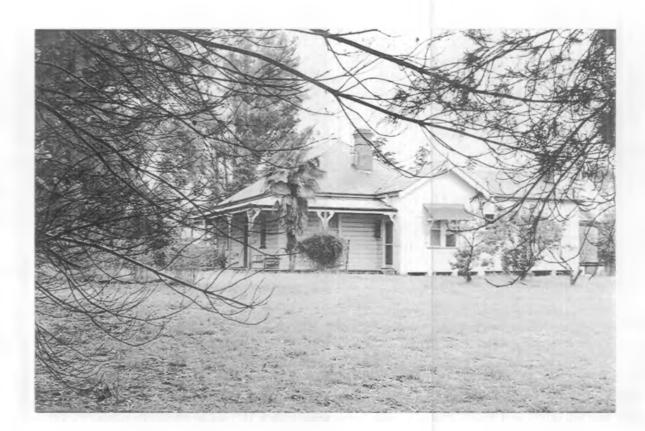
B11

Name: "Evergreen" Homestead

Proposed Airport Site:

Badgerys Creek

Additional Information:



	SECOND SYDNEY AIRPORT EIS European Cultural Sites Survey 1996									
Name:	"Mount I	Pleasant" Homeste	ad	Proposed A	\irport :	Site:	Badger	ys Cree	k	
No:	B12			AMG Grid Reference:	East:	289	500		North:	6245150
Locati	ion:									
West	West side of Derwent Road, 150m north of Shannon Road,.									
Descri	ption:									
A sma with de buildin exotic	A small weatherboard cottage with hipped roof of corrugated iron and a bell-cast verandah carried on timber posts with decorative timber brackets. It is Georgian in style with a single entry doorway flanked by French doors. The building has brick additions on the south and western (rear) sides. It is contained in a landscaped garden with many exotic plantings, including jacarandas, palms, fruit and pine trees. The front section of the house appears to be fairly briginal.									
was su	ount Pleas bdivided f	rant homestead sits rom 1891 into lots l were forced out of	between t	hree to ten acr	res. The	ese sı	ıbdivisio	ns were	establis	hed to encourage
	graphy: g, C (1996); Neustein and Ass	sociates (1992).						
Signi	ficance	Representative	Rare	Statement of				of form	residen	ce and associated
A	istoric esthetic ocial cientific	L	L	farm layout wh nineteenth cer attractive, well	nich wer ntury. I-propor ature ga	e typi tioned arden	ical of th	e develo	opment o	of the area in the late It is an
S= S	tate R= Re	gional L= Local								
National (Other Listings ational Estate Register Liverpool Draft LEP SW Heritage Council National Trust									

No:

B12

B12

Name: M

Mount Pleasant Homestead

Proposed
Airport Site:

Badgerys Creek

Additional Information:



SECOND SYDNEY AIRPORT EIS **European Cultural Sites Survey 1996** Two Elevated Water Tanks Proposed Airport Site: Badgerys Creek AMG Grid Reference: East: 290200 / 290350 North: 6244450 / 6243850 No: B13 Location: East side of Badgerys Creek Road, adjacent to the entry road to the Royal Australian Air Force Wireless Station. One tank is near to Badgerys Creek Road and serves the Bringelly Radio Receiving Station staff housing area (now Telstra) the other serves the Royal Australian Air Force complex and is near the gate at the end of the access road. Description: The two elevated water tanks date to c.1950 and are virtually identical. Each consists of eight square bolted cast iron plates per side, each plate containing a moulded diagonal cross for structural stiffening on its outer face. They stand on a square plan steel tower structure with four corner posts, three intermediate girts and diagonal bracing to each truss panel. These tanks represent a design which allows rapid assembly of modular parts to create tanks of variable sizes from components which are easily transported and handled. History: These two water towers were built in conjunction with the Overseas Telecommunications Commission Radio Receiving Station and the adjacent military radio station to provide water to the residential accomodation and to the stations themselves. They were erected in the early 1950s, the radio stations being established at this time following the significant advances in radio technology that occurred during WW2 but which could not be applied to general usage till the war was over. The Bringelly / Badgerys Creek area was chosen for its relatively flat, open landscape and low level of population. When established, the radio stations required a large staff to operate and maintain the equipment. Residences were provided for the staff on the site as there was effectively no residential area in close proximity to the stations. The development of international submarine telephone cables and satellite radio technology in the 1960s, 70s and 80s, as well as the advent of transistors and micro-chip circuits. made these radio stations redundant and by the late 1980s, much of the equipment had been dismantled and replaced by new and different technology. The resident staff was also no longer required and the houses were abandoned or, at the Bibliography: Godden Mackay Pty Ltd, (1995). Statement of Significance: Significance Rare Representative Representative examples of a modular design of water tanks, probably **Historic** developed government use, which are visible evidence of the remoteness of the area at the time of their erection and of the Aesthetic L occupation of these sites by government bodies. They have some Social technological interest in their design and aesthetic interest in their expression of their structure. **Scientific** S= State R= Regional L= Local Other Listings National Estate Register Liverpool Draft LEP NSW Heritage Council National Trust

No:

Name:

B13

Two Elevated Water Tanks

Proposed Airport Site:

Badgerys Creek

Additional Information:



SECOND SYDNEY AIRPORT EIS **European Cultural Sites Survey 1996** Overseas Telecommunications Proposed Airport Site: Badgerys Creek Commission Bringelly Remote **AMG Grid Receiving Station** 6244900 Reference: East: 290000 North: No: **B14** Location: East side of Badgerys Creek Road, 2 km north of The Northern Road. Description: The Bringelly Radio Receiving Station consists of 317.58 hectares of fenced open pasture plus the main station building and a storage building, a large number of radio masts and their connections and, near to Badgerys Creek Road, the staff housing development area containing fifteen dwellings, swimming pool, tennis court, cricket ground and water tower. The Receiving Station is a single storey brick building with a two storey office section and a three storey tower, with low-pitched gable roof clad in corrugated asbestos cement. The staff housing development consists of the remaining fifteen brick domestic dwellings, all of the same simple Post-War Sydney Regional Bungalow style (c1950s). They are single storey, constructed of face brick and the corrugated asbestos cement roofs of five houses have been replaced with concrete tiles. The staff housing is arranged in a semi-circle around the central park containing swimming pools, a cricket ground and a tennis court. Several of the houses are in poor condition and have recently been partially demolished. History: The Overseas Telecommunications Commission Remote Receiving Station was built between 1952-1955 as part of a final upgrade of Overseas Telecommunications Commission facilities. The Bringelly site had been chosen as it was remote from intensive settlements, it was free of electrical interference and it had enough space for erection of modern aerial systems. The station provided radio telephone and telegraph services between Australia and a number of countries in Asia, America, South Africa and the United Kingdom, as well as ships at sea. The station operated into the 1990s until it was superceded by improved technology. Bibliography: Godden Mackay Pty Ltd (1995). Statement of Significance: Significance Representative Rare An interesting complex of utilitarian design which has historic Historic R lassociations with an important phase of development of **Aesthetic** communications technology in Australia. Although the original technology is now missing and the facility is largely redundant, it is the Social only surviving representative of the several such facilities which have existed and which played a vital role in the linking of Australia with the **Scientific** rest of the world after WW2 S= State R= Regional L= Local **Other Listings** National Estate Register Liverpool Draft LEP NSW Heritage Council National Trust

No:

B14

Name:

OTC Bringelly Remote Receiving Station

Proposed
Airport Site:

Badgerys Creek

Additional Information:



SECOND SYDNEY AIRPORT EIS							
European Cultural Sites Survey 1996							
Name: Kelvin Park Homestead	Proposed Airport Site: Badgerys Creek						
	AMG Grid						
No: B15	Reference: East: North:						
Location:							
On private road east off Badgerys Creek Road	l; north of Bringelly Remote Receiving Station.						
Several buildings are associated with this property, the main house, the kitchen block, the Servants Quarters, the Coach House and two timber slab farm outbuildings. The main house is a single storey rendered brick Colonial Georgian style house which features expressed stone quoins to the building corners, a central entrance doorway with an arched fanlight across the top and sidelights and fifteen pane casement windows, nine on the upper sash, six on the lower, with timber louvred shutters to each window. There is a decorative timber valance to the bell-cast verandah which is carried on octagonal timber posts, paired at the main door. The verandah returns on three sides and at least one side is infilled. The roof is clad in corrugated iron. Sandstock brick paving surrounds the house and a covered walkway leads to a separate kitchen, stables and servants quarters. Mature garden plantings surrounding the main house and the rest of the property including jacarandas, poplars, eucalypts, pines, persimmons and other fruit trees. The kitchen block is of rendered brick and has double chimneys and a hipped gable corrugated iron roof with a bell-cast verandah carried on chamfered square timber posts. A small fibro addition is attached to the side furthest from the main house. The brick-paved covered walkway leads from the kitchen to the Servants Quarters. These are a single storey rendered brick cottage with a tall hipped gable roof of corrugated iron with a skillion verandah carried on chamfered square timber posts. A brick stables and coachhouse is beside the servants quarters. It has a steep pitch gable roof cald in corrugated iron and is U shaped in plan, the garages being in either furthest from the house has the remains of a dairy in its northern end. These sheds are in a dilapidated condition and have various ad-hoc additions in corrugated iron and timber.							
Retreat". The house, kitchen and servants quathen had a variety of owners and occupants, in headquarters from 1824 to 1830. The A A Cor England. For several months, the homestead supplies. The brick stables and coachhouse whecame Premier of Tasmania. The homestead	18 in the Bringelly area and he built a fine house which he called "The arters date from this period. Laycock died in 1823 and the property including being the Australian Agricultural Company's first Australian impany leased the property for the reception of it personnel from sheltered seventy people, six hundred sheep, horses, cattle and was added in 1851 under the ownership of Alfred Kennerley, who later if has remained largely intact since its establishment, however 283 construction of the Army Radio Receiving Station at Badgerys Creek.						
Bibliography: Australian Architects file PA960: Acquisition of	site for Receiving Station, Department of the Army.						
	statement of Significance:						
	One of the rare fine-quality houses surviving from the early nineteenth entury, Kelvin Park is an exceptional example of the style and form of						
Aesthetic S a	n Australian colonial homestead, with its outbuildings largely intact and						
	Ill in good condition. It is one of very few such buildings surviving from his period and it demonstrates an essential part of the European						
Scientific settlement history of this country. It has historic associations for its role							
in the settlement of the area, for the various notable occupants and as S= State R= Regional L= Local in the settlement of the area, for the various notable occupants and as the original headquarters of the Australian Agricultural Company							
Other Listings							
ational Estate Register Liverpool Draft LEP							
SW Heritage Council National Trust							

No:

Name:

B15

Kelvin Park Homestead

Proposed
Airport Site:

Badgerys Creek

Additional Information:

and barns, two of which are of timber slab construction, west of the main house. The furthest from the house has the remains of a dairy in its northern end. These sheds are in a dilapidated condition and have various ad-hoc additions in corrugated iron and timber.



	SECOND SYDNEY AIRPORT EIS European Cultural Sites Survey 1996							
Name:	'Braeburn' Homestead	Proposed Airport Site: Badgerys Creek AMG Grid						
No:	B16	Reference: East: 289750 North: 6246850						
Locati	on:							
Private Road.	Private Road off Longleys Road, Badgerys Creek. 1km south of Longleys Road and 1km west of Badgerys creek Road.							
Single- wide ve posts. shed is condition	Description: Single-storey farm homestead of timber construction built on brick piers. The main house has brick chimneys, long wide verandahs on all sides and hipped roof. Bull nosed verndah roofs are supported on square chamfeed timber posts. External walls are clad with weatherboards(some rusticated, some splayed). A simple separate weatherboard shed is located close to the house. In 1991, Braeburn had been vacant for several years and was in a derelict condition. The current lease holders for the property, Mr and Mrs D E Nowland have since added that the buildings have been demolished and removed from the site. Not surveyed as there was no access to the property.							
portion	urn is a c.1910 homestead and associate n of John Blaxland's farm named 'Ludder	ated land holdings. The farm occupies land originally within the eastern enham'. It was owned by the Longley family for many years this century.						
	graphy: ein and Associates (1992).							
Hi Ac Sc Sc S= Sc	istoric L esthetic a pocial cientific tate R= Regional L= Local	Statement of Significance: Relic of the locality's settlement pattern of the turn of the century. Indicative of form and extent of domestic structures and remains associated with isolated farming settlements and families in the late nineteenth century.						
National E	Other Listings tional Estate Register							

No:

Name:

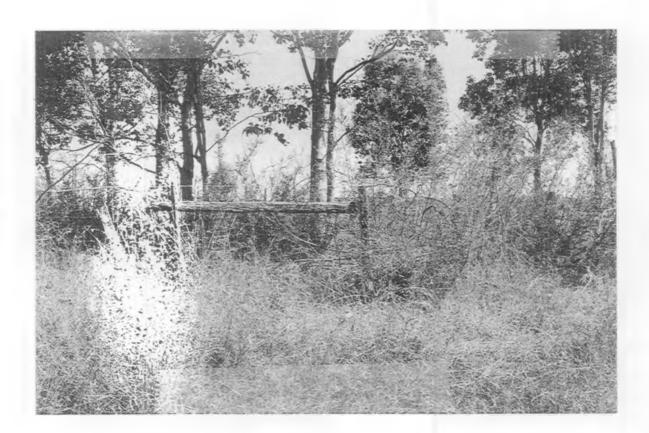
B16

"Braeburn" Homestead

Proposed
Airport Site:

Badgerys Creek

Additional Information:



	SECOND SYDNEY AIRPORT EIS European Cultural Sites Survey 1996							
Name:	Former Badgerys Creek Butchery	Proposed A	irport	Site: Badgery	's Creek			
No:	B17	AMG Grid Reference:	East:	291000	North:	6247800		
Locati	on:							
North-	North-east corner of the intersection of Badgerys Creek Road and Longleys Road, Badgerys Creek							
Description: A small brick building, now painted blue with a white painted central horizontal stripe. The site consists of the original butchery building and two later additions. All the building sections have corrugated iron roofing, with the earliest addition, on the south side, also being constructed of corrugated iron. There is a relatively recent pressed-brick addition to rear of the structure. The main building has a hipped roof, and both additions are skillion roofed. There are two pane sash windows, one on the original structure and one on the brick wing. There is also a short verandah with three supporting posts on the the north side of the building. The building is currently used as a depot by the Atomic Hire Company.								
The buconstru Shadlo remem carcas	History: The building was erected in the 1880s and served as the butchery for the Badgerys Creek inhabitants from its construction until 1994. The previous owner, Mr T Roots, suggests that it had only three owners, of which Jack Shadlow and his son were one. The Shadlows operated the business during most of the twentieth century and are remembered for delivering their meat to the individual residents in a meat cart. The cart carried whole and part carcasses and the customer's selections of meat were cut on demand in the cart. The butchery closed in 1994 and the building is currently used by Atomic Hire as its Badgerys Creek Depot office.							
	Bibliography: Personal comment. Mr T Roots (1996).							
Hi Ac Sc	Significance Representative Historic Aesthetic Social Scientific S= State R= Regional L= Local Statement of Significance: The Badgerys Creek butchery building is a typical example of a small semi-rural retail facility of the pre-WW2 period and demonstrates the form and extent of retail butchery in this context. It is a relic of the locality's settlement pattern in the late nineteenth century.							
National E	Other Listings ational Estate Register Liverpool Draft LEP SW Heritage Council National Trust							

No:

Name:

B17

Former Badgerys Creek Butchery

Proposed Airport Site: Badgerys Creek

Additional Information:



			OND SYDNEY AIR					
		Europe	an Cultural Sites	Survey 19	196			
Name:	9	urch Site &	Proposed Airport	Site: Badge	rys Creek	-		
	Cemetery		AMG Grid					
No:	B18		Reference: East:	291150	North:	6248250		
Location	on:				-			
South	side of Pitt Street, 150m	east of Bado	ervs Creek Road. Bad	daervs Creek	<	\\		
			o., o o. oo	-3,				
Descrip	otion:							
stood a	The church building has been removed from this site. Gravel has been placed over the area where the church once stood and the rest of the site is grassed. Approximately thirty graves associated with this church remain in the churchyard and are all dated to the early Twentieth Century, with none earlier than 1915. Most of the headstones are of sandstone, granite and/or concrete. There are some traditional plantings in the cemetery.							
						,		
History St. Joh	r: n's Anglican Church and	cemetery wa	s built in the early 190	Os to sevice	the small rural co	mmunity in the		
	he church building was re							
Govern	ment.							
Bibliog				<u> </u>				
	, C (1996)							
Cianif	icanac Danasantativ	. D	Statement of Signific	cance.				
_	icance Representativ	e Rare	The Church site has h		ciations as part of	the development of		
	storic R	L	the area and records					
Ae	sthetic _L		rural communities in t historic significance a					
So	cial L		development pattern					
Sc	ientific		place for the local cor	nmunity.				
S= St	ate R= Regional L= Loca	ıl						
Other	Lietinge							
	Listings state Register Liverpool	Destiled (7)						
		Draft LEP 🕡						
AOAA LIGU	age Council 🔃 National T	rust	I					

No:

B18

Name: St.

St. Johns Anglican Church Site & Cemetery

Proposed
Airport Site:

Badgerys Creek

Additional Information:



		OND SYDNEY AIR					
	•	an Cultural Sites					
Name:	(Methodist) Church Site &	Proposed Airport S	ite: Badgerys	s Creek	-		
No:	Cemetery B19	AMG Grid Reference: East:	291300	North:	6248300		
Location	on:		·-··				
	side of Pitt Street, 200m east of Badge	rvs Creek Road, Bado	ervs Creek				
		.,	2,70 0,000				
The chi the the Decem	Description: The church has been removed from this site. Two graves are enclosed within a small white picket fence north-west of the the church's original position. One of the graves has a sandstone headstone with marble name plate, dated December 1936, the other with an uncut piece of rock as a headstone has a steel plate with '1972' engraved upon it. Another space contains an depression in the ground indicating the area where a grave has been removed.						
Histon							
the are	Badgerys Creek Methodist Church and Cemetery was built in the early 1900s to service the small rural community in the area. The church was removed in the early 1990s following acquisition of the site by the Australian Government. A sign at the gate describes the church as 'The Uniting Church in Australia, Badgerys Creek'.						
	graphy:						
Keating	ı, C (1996).						
Signif	ioutioo itopioootitutiio ituio	Statement of Signific					
His		The Church site has hi the area and records to					
Ae	sthetic L	rural communities in th	e late nineteer	nth century. The	e Cemetery has		
So		historic significance as development pattern o					
Sc		place for the local com					
S= St	S= State R= Regional L= Local						
Other	Listings						
	state Register						
NSW Heri	tage Council Mational Trust						

No:

B19

Proposed Airport Site:

Badgerys Creek

Name:

Badgerys Creek Uniting (Methodist) Church Site

Additional Information:



	SECOND SYDNEY AIRPORT EIS European Cultural Sites Survey 1996							
Name:	Farm Cottage	Proposed Airport Site: Badgerys Creek						
No:	B20	AMG Grid Reference: East: 291900 North: 6248600						
Locat	ion:							
The ea	The eastern most house on the north side of Gardiner Road, Badgerys Creek.							
A sing carried	Description: A single storey weatherboard Georgian-style cottage with corrugated iron clad gable roof with skillion verandah carried on timber posts. It is small in scale but is well finished and well-preserved. It is part of a larger group of buildings which include a 1960s residence and a poultry farm.							
The sit between immigration proposed	History: The site of the cottage lies on the eastern most area of John Blaxlands former estate, "Luddenham". Subdivided between 1859-64, the eastern lots were partitioned again in the 1880s-90s. This property was owned by an Austrian immigrant, Ralph Wiener, from the 1950s and this house was his residence until the property was purchased for the proposed airport, after which it has been leased. Ralph Wiener operated the poultry farm with a partner, Roger Woods, and the second residence was built in 1963 when Roger Woods was first married.							
	graphy: g, C (1996).							
Hi Ad Se Se S= S	istoric L c	Statement of Significance: A typical turn-of-the-century modest farmhouse, apparantly in fair condition, which retains its gardens and semi-rural context. Although once common, cottages such as these have become quite rare in the vicinity during the last two decades						

No:

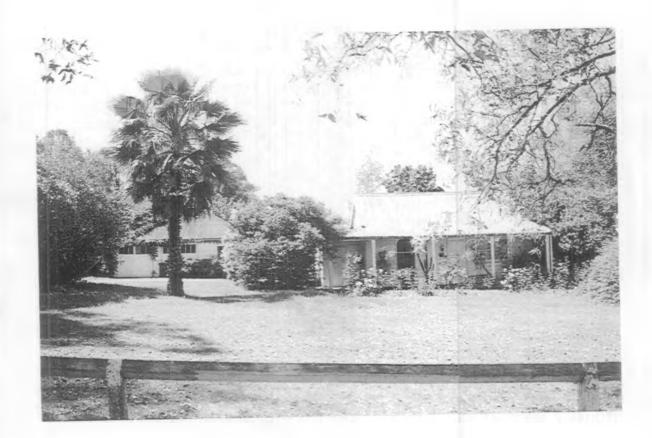
B20

Name: Farm Cottage

Proposed Airport Site:

Badgerys Creek

Additional Information:



SECOND SYDNEY AIRPORT EIS European Cultural Sites Survey 1996								
Name: Group of Farm Outbuild	ings Pr	oposed Airport	Site: Badgery	rs Creek				
No: B21		MG Grid eference: East:	291500	North:	6248700			
Location:	•							
No. 5A Gardiner's Road, on the	No. 5A Gardiner's Road, on the north side, 500m east of Badgerys Creek Road, Badgerys Creek							
Description: A group of farm outbuildings which appear to date from early to mid twentieth century. These buildings have low-pitched corrugated iron skillion and hipped roofs, bush pole framing and walls of timber slabs. All are painted white and some have later wing additions. They are typical small farm outbuildings and appear to have a range of uses, including as stables, barns, garages and possibly a former dairy.								
History: This farm was possibly associated with later subdivision of Blaxland's East Luddenham Estate. The larger lots from the 1859-64 partition were again subdivided in the 1880s-90s during land speculation ventures, with most occupied for small-scale dairy and market garden farms.								
Bibliography: Keating, C (1996).								
Significance Representative Historic L Aesthetic L Social L Scientific S= State R= Regional L= Loca Other Listings	A sn the a tech natu	area but are now niques and desi	litional farm out rare in the vicing gns for agricultu	buildings which nity. They demorate activities. The the early twent	ey illustrate the			
National Estate Register Liverpool								

No:

Name:

B21

Group of Farm Outbuildings

Proposed Airport Site:

Badgerys Creek

Additional Information:



SECOND SYDNEY AIRPORT EIS European Cultural Sites Survey 1996							
Name: Bridge over Badgerys Creek	Proposed Airport	Site: Badgery	s Creek				
No: B22	AMG Grid Reference: East:	292200	North:	6248100			
Location:							
The bridge carries Pitt Street over Badgerys Creek, 1.1 km east of Badgerys Creek Road, Badgerys Creek							
Description: This bridge is a steel Warren-truss bridge made up of twinned C-section beams as top and bottom chords and box-section steel truss members with RSJ's as cross girders carrying the roadway. The deck is made up of longitudinal timber planking over transverse timber planking laid over logitudinal stringers, with the top surface asphalted. The welded truss members are bolted to the top and bottom chords.							
History: This bridge replaced an earlier timber bridge of bridge dates from after WW2.	over the creek, believ	ed to have beer	n first built arou	nd 1910. This			
Bibliography:							
Historic L	Statement of Signifi A pleasant low-scale connects Badgerys C the creek. Typical of a	steel bridge of steek township	with properties	on the east side of			

No:

Name:

B22

Bridge over Badgerys Creek

Proposed

Badgerys Creek

Airport Site:

Additional Information:



		ND SYDNEY AIR					
	•	n Cultural Sites		-			
Name:	Original Badgerys Creek Public School Buildings	Proposed Airport	Site: [Badgerys Cree	k		
NI.		AMG Grid Reference: East:	29110	nn	North:	6248350	
No:	B23	Reference: Last.			1401111.		
Locati							
North-	east corner of the intersection of Pitt St	reet and Road, Bado	erys C	reek			
Descri	otion:						
roof an c1914 a constru	ginal school building is a small square of the half enclosed skillion verandah. It hat and now serves as an office. There is a action, as well as a new brick building. It dilapidated building also within the sch	s four pane casemen another weatherboard	t windo buildin	ows . The school ng which is sim	ool room vilar in for	was constructed in multiple but of more recent	
corruga	ated iron gable roof and bull-nosed vera ut overall it shows a mixture of material	andah. The core of the	e buildi	ng is of very tr	aditional	construction and	
Histor							
land wa	blic school was first proposed for Badg as purchased and a building erected. T	his was replaced with	the cu	rrent building,	erected in	n 1914. The village	
	gerys Creek was established following t shment of villages led to the provision o						
seen va	arying levels of enrolments but has bee	en a single teacher scl	hool fo	r most of its life	e until the	late 1960s. During	
	'0s, facilities were improved and enroln aster. The announcement of the airport						
decade	e. During the 1990s, a timber cottage from. It was repaired and the timber vera	rom a neighbouring pr	operty	was moved to	the scho		
	·						
	graphy: g, C (1996).						
					_		
Signif	ioditoo itopioooiitatiio itaio	Statement of Signific A fine and representat			all rural so	chool which	
His	storic R	contains original elem	ents th	at date back to	the turn	of the century. The	
Ae		school has historic sig area and aesthetic qu					
So	ocial L	social significance for			_	_	
So	rientific	residents of the area.					
S= St	S= State R= Regional L= Local						
Other	Listings						
	state Register 🔲 Liverpool Draft LEP 🗹						
NSW Heri	tage Council National Trust						

No:

B23

Name: Orig

Original Badgerys Creek Public School Buildings

Proposed
Airport Site:

Badgerys Creek

Additional Information:



	SECOND SYDNEY AIRPORT EIS European Cultural Sites Survey 1996							
Name:	The Nort	hern Road		Proposed Airport	Site: Badgerys Cre	ek		
No:	B24			AMG Grid Reference: East:	290300/286990	North:	6242000/6250400	
Locati	on:				-			
	Line of Road running between Bringelly Road and Elizabeth Drive along the Western side of the study area, passing through Luddenham.							
A two la	Description: A two lane sealed road that runs between Camden and the Richmond Road at Bligh Park north of the study site. The alignment of the portion of the road within the study area runs true to the original except for a small diversion in Luddenham. The original alignment remains but has had its name changed to Eaton Road.							
Richmo of the C through the roa	orthern Road ond to the Ingel of the Centre of the Centre of Served and Luddenhall	north. Originally c nt Surveyor, in 183 e of John Blaxland s the main road fo	onstructed 33 as havir I's Ludden or the new	ads int he area joining I sometime around 18 ng precipitous hollows ham estate and when village of Luddenham on from its original cou	26 it was described and being impassa this was first subdiv. It continues to ser	by Mrs Fe ble after ra vided for se ve as a ma	elton Matthews, wife hin. The road ran ettlement in 1859 ajor thoroughfare	
Keating	Bibliography: Keating (1996) Ballieres New South Wales Gazetteer and Road Guide (1866).							
Signif	icance f	Representative		Statement of Signific		is an inte	and part of the	
Ae So	storic esthetic ocial cientific	R L	i	An early road route th historic development of indicative of the nature area. It is one of the of the elevelopment of the villevelopment of the villevelopment of the villevelopment.	of the region which on e, form and context earliest road routes d a major determinir	developed of early de leading thr ng role in t	around it. It is evelopment of the ough the Badgerys	
S= St	ate R= Re	gional L= Local						
National E	Other Listings ational Estate Register Liverpool Draft LEP SW Heritage Council National Trust							

	SECOND SYDNEY AIRPORT EIS European Cultural Sites Survey 1996						
No:	B24	Proposed Airport Site:	Badgerys Creek				
Name:	The Northern Road	All port Site.					
Additio	onal Information:						
Photo							

SECOND SYDNEY AIRPORT EIS European Cultural Sites Survey 1996				
Name: Army Range Control Headquarters				
No: H1	AMG Grid Reference: East: 308300 North: 6238150			
Location:				
200m south of Artillery Road, 600m east of Moorebank Avenue, Liverpool Military District.				
Description: The Range Control Building is a circa 1980s brick building, square in plan and largely single storey but with the central section raised to two storeys as an observation room with windows on all four sides. The roof is a low-pitched, hipped and clad in corrugated metal. Windows are metal framed. It has four ancillary buildings adjacent: a brick store building and a profiled steel clad store building, both of recent vintage, a timber and CAC clad garage/store and a weatherboard clad traditional Army-pattern office building, probably dating from the 1940s/50s. Two large circular concrete water reservoirs stand on the western side of the Range Control facilities.				
History: The Holsworthy Firing Range has been in constant use by the Australian Army since it took over the area immediately prior to WW1. The operations and areas in use have varied greatly over this time. The present Range Control Building is the latest in a succession of facilities that have performed a similar function over the years.				
Bibliography:				
Historic L a	Statement of Significance: A simple modern building which is functionally designed for its purpose and has some aesthetic qualities in its proportions and materials. It has associations with the operation of the Firing Range over a long period and represents the focal point of the area's activity.			

No:

H1

Additional Information:

Name:

Army Range Control Headquarters

Proposed Airport Site: Holsworthy



SECOND SYDNEY AIRPORT EIS European Cultural Sites Survey 1996				
Name: Harris Creek Farmhouse Ruins	Proposed Airport Site: Holsworthy			
	, represent impersent in the second in the s			
No: H2	AMG Grid Reference: East: 308070 North: 6235630			
Location:				
The site is located approximately 400m west of Harris Creek, 2.75 km south of Artillery Road (within the Small Arms Danger Area)				
	and contains the wall footings and foundations of the house, including sandstone capping and garden beds with intact borders and remnant s. The site remains relatively undisturbed.			
History: This part of the Holsworthy area is the southern extremity of the Moorebank Estate which was bequeathed to the Church of England in 1840 and then subdivided for farms in 1888. By 1900, the Liverpool Progress Association estimated that seventy families were resident on the Moorebank Estate. This property appears to have been owned by Rudolph te Kloot (sic) according to a schedule drawn up in 1908 for the Commonwealth Government prior to resumption of the land for military purposes in 1913.				
Bibliography:				
Significance Representative Rare	Statement of Significance:			
Historic L Social Scientific L S= State R= Regional L= Local	This site has technological/research significance associated with potential intact archaeological remains relating to late nineteenth century European immigration to NSW. It is a relic of the locality's settlement pattern of the late nineteenth century. It is representative of the form and extent of domestic structures and remains associated with isolated farming settlements and families in the late nineteenth century.			
Other Listings				
National Trust (Landscape Cons Area) NSW Heritage Council National Estate Register				

	European Cultural Sites Survey 1996				
No:	H2		Proposed	Holsworthy	
Name:	Harris Creek Farmhouse Ruins		Airport Site:		
Additio	onal Information:				
Photo:	:				

SECOND SYDNEY AIRPORT EIS European Cultural Sites Survey 1996			
Name: Remains of Masonry Wall	Proposed Airport Site: Holsworthy		
No: H3	AMG Grid Reference: East: 311350 North: 6235770		
Location:			
Western side of the Williams River, south-east of the Holsworthy Airfield landing strip			
Description: Sandstone masonry and mortar remains. Dated to the turn of the 20th Century. These remains were not inspected but are reported as being fragmentary sections of walling.			
One.	of the vicinity by the Australian Army, particularly during World War		
Bibliography:			
Historic L ar	tatement of Significance: cientific/Research significance associated with potential intact rchaeological remains relating to late nineteenth century European ccupation of NSW. elic of the locality's settlement pattern of the late nineteenth century.		
National Trust (Landscape Cons Area) NSW Heritage Council National Estate Register			

SECOND SYDNEY AIRPORT EIS European Cultural Sites Survey 1996				
No:	Н3	Proposed	Holsworthy	
Name:	Remains of Masonry Wall	Airport Site:		
Additio	onal Information:			
Photo				

SECOND SYDNEY AIRPORT EIS European Cultural Sites Survey 1996				
Name: Adam's house and well remains	Proposed Airport Site: Holsworthy			
No: H4	AMG Grid Reference: East: 307080 North: 6231100			
Location:				
East of the River Road and 200m north of the	e No Bridge Road intersection.			
Description: The remains of a sandstone block constructed house and sandstone well are located near the north end of the Grodno settlement dry stone wall. The chimney remains consist of footings which stand to c.50mm height, consisting of dressed sandstone blocks of various sizes bonded with a sandy mud mortar. Beside the chimney, a small posthole bound with stones was visible in the ground. The remains suggest the house was constructed with a verandah on the eastern side and with the chimney at the northwest corner of the building. The ruins are deteriorated and overgrown and the outline of the structure is obscured. The well or cistern is southeast of the house and is approximately 3m by 4m wide, cut into sandstone bedrock with stone block upper courses, and still contains water.				
History: The name R.S. Adams is marked on a map of the area showing landowners associated with the Eckersley settlement. The settlement of Eckersley began in the second half of the 1880s after land in the area was opened up by The Crown Lands Alienation Act of 1884. It was a cosmopolitan settlement of mostly French and Russian Polish immigrants, whose main agricultural concern was the growing of grapes for wine. As with most other structures in the Holsworthy Firing Range, the house was probably demolished after the Army took control of the area in 1913.				
Bibliography: Keating, C (1996); National Trust (196).				
Historic L Aesthetic L Social L Scientific L	Statement of Significance: Technological/Research significance associated with potential intact archaeological remains relating to late nineteenth century European immigration to NSW. Relic of the locality's settlement pattern of the late nineteenth century. Representative of the form and extent of domestic structures and			
S= State R= Regional L= Local	remains associated with isolated farming settlements and families in the late nineteenth century.			
National Trust (Landscape Cons Area)	Historical associations with the development of the winery and grape industry in Australia.			

No:

Name:

H4

Adam's House & well remains - Grodno

Proposed
Airport Site:

Holsworthy

Additional Information:



Name: Grodno Settlement - Dry Stone Wall

and Irrigation Channels

Proposed Airport Site:

Holsworthy

H5

AMG Grid

306900 Reference: East:

North:

6231700

Location:

No:

On the east side of the River (or Greenhills) Road, 600m south of the intersection with the Long Nose Point Road, 200m north of the No Bridge Road intersection.

Description:

This dry stone wall originally surrounded the settlement of Grodno. The wall is constructed using bush stones of varying sizes, dry-laid in the manner of traditional English and European farm fences. The wall is approximately 250m long on the west side of the property and stands to a maximum height of 2m in some places. It also exists on the eastern extremity of the property, where it encircles the head of the creek valley for a distance of approximately 500m. There are the remains of a post and wire fence continuing the fence alignment on the north-east side. A return and an opening to the wall were located in the far north western end. The irrigation channels are excavated into the ground and lined with stone in places. They are extensive and continue to carry water in periods of heavy rain. One notable section dives under an existing stone shelf and reappears further east. The area generally bears traces of previous clearing and construction and may contain a range of remnant evidence of the settlement not yet identified.

History:

The Grodno Settlement was taken up under the Crown Lands Alienation Act of 1884 by L. Wroblewski. A report in the September 1889 edition of the Cumberland Argus noted a new community had established at Eckersley south of Holsworthy - "a novel settlement (of) thirteen Russian Poles, under a Russian nobleman named De Liski, who finds the money (and each has) selected 640 acres of land, and are planting it out with grapes, almonds, figs and olives. The foreigners reckon they have struck the best land in the world for vine growing and intend to show the world the best champagne yet uncorked". Other people of different origins, predominantly French, settled around the area however, from the name, it is obvious Wroblewski was associated with the Russian Poles indicated above. About 1894 the Polish-born vigneron, Isaac Himmelhock, a Sydney Financier, took over the 370 acre Grodno selection and built a magnificent free stone cellar that was 70 feet long with walls over two feet thick, plus three wells, one of cut stone, to supply gravity-fed stone irrigation channels. Grodno is indicated on a 1908 map of the area. When the Army took over in 1913 it is reported by Keith Longhurst that none of the property owners received compensation.

Bibliography:

C Keating, (1996); Keith Longhurst personal comment, (1996).

Significance	Representative	Rare
Historic		R
Aesthetic		R
Social	L	
Scientific	R	
S= State R=	Regional L= Local	

Other Listings

Y National Trust (Landscape Cons Area) **NSW Heritage Council** National Estate Register

Statement of Significance:

Technological/Research significance associated with potential intact archaeological remains relating to late nineteenth century European immigration to NSW.

Relic of the locality's settlement pattern of the late nineteenth century. Representative of the form and extent of domestic structures and remains associated with isolated farming settlements and families in the late nineteenth century.

Historical associations with the development of the winery and grape industry in Australia. An excellent example of traditional dry-stone walling construction techniques and of traditional irrigation methods.

No:

H5

Name: G

Grodno Settlement - Dry Stone Settlement Wall

Proposed
Airport Site:

Holsworthy

Additional Information:



Name: Grodno Settlement - Winery Cellar

and Well

Proposed Airport Site:

Holsworthy

and vve

H6

AMG Grid

Reference: East:

307200

North:

6231500

Location:

No:

East of the River Road and 200m north of the No Bridge Road intersection.

Description:

This site comprises the remains of a two room building with an internal dividing wall, plus a well or cistern. The remaining footings of the walls are constructed of large, dressed bush stone blocks with shell-lime mortar. These footings sit between 500mm to 1m below the current ground level. The floor would likely have been level with the existing ground surface allowing space below the floorboards to circulate cool air. this was a construction technique which enabled the rooms to be maintained at a low temperature, neccesary for keeping the grapes from ruining in the high temperatures encountered in the region. The most intact of these two rooms is c.10m wide by c.7m long. The whole structure is approximately 10m wide and 20m long. The wall remains are intact up to 1.5m high in places. The remains of the second room are obscured by overgrowth but is possibly of similar dimension. Semi-dressed stone from the building is scattered around the vicinity of the site. A number of large, mature Eucalypts are growing within the interior of the ruins. Many fragments of terracotta roofing tiles, most stamped "GRANVILLE", lie scattered and broken around the ruins. A large well or cistern is situated south of the wine cellar, cut into the natural sandstone and rendered with cement. It is approximately 5m in diameter, is of unknown depth and is currently covered with wire mesh. A few small, partially dressed sandstone blocks sit around the edge of the well. They were possibly placed there recently to mark the well. A number of machine stamped sandstock bricks, some with attached mortar bonding, lie scattered around the vicinity of these two features. They include the manufacture marks "RULLI" and "LIVERPOOL"

History:

The Grodno Settlement was taken up under the Crown Lands Alienation Act of 1884 by L Wroblewski. A report in the September 1889 edition of the Cumberland Argus noted a new community had established at Eckersley south of Holsworthy - "a novel settlement (of) thirteen Russian Poles, under a Russian nobleman named De Liski, who finds the money (and each has) selected 640 acres of land, and are planting it out with grapes, almonds, figs and olives. The foreigners reckon they have struck the best land in the world for vine growing and intend to show the world the best champagne yet uncorked". Other people of different origins, predominantly French settled around the area howeve,r it is obvious Wroblewski was associated with the Russian Poles indicated above. About 1894 the Polish born and vigneron, Isaac Himmelhock, a Sydney Financier, took over the 370 acre Grodno selection and built a magnificent free stone cellar that was 70 feet long with walls over two feet thick, plus three wells, one of cut stone, to supply gravity-fed stone irrigation channels. Grodno is indicated on a 1908 map of the area. When the Army took over in 1913 it is reported by Keith Longhurst that none of the property owners received compensation.

Bibliography:

C. Keating, (1996).

National Estate Register

Significance	Representative	Rare	Statement of Significance:
Historic	L		Archaeological remains demonstrate processes involving wine making in a small community establishment. Associated with the historic
Aesthetic	L		development of the winery and grape industry in Australia.
Social	L		Local significance associated with the social interaction of a small Eastern European wine growing community established in the mid
Scientific	L		1880s.
S= State R=	Regional L= Local		Demonstrates the combined use of local and imported materials to construct a substantial structure.
Other Listings			Scientific/Research significance associated with potential intact
National Trust (Landscape Cons Area)	~	archaeological remains relating to late nineteenth century European immigration to NSW.
NSW Heritage (NSW Heritage Council		Relic of the locality's settlement pattern of the late nineteenth century.
National Fotota			

No:

Name:

H6

Grodno Settlement - Winery Cellar and Well

Proposed Airport Site:

Holsworthy

Additional Information:



SECOND SYDNEY AIRPORT EIS **European Cultural Sites Survey 1996** Name: Rubbish Dump and Well on Proposed Airport Site: Holsworthy Himmelhoch Property, Grodno Settlement AMG Grid No: 307075 6230710 Reference: East: North: Location: East side of the River Road, 200m north of the No Bridge Road intersection. **Description:** A rubbish dump and a filled well or cistem are the only visible remains of occupation of this part of Himmelhoch's property. The dump contained fragments from condiment, pharmaceutical and other glass bottles. Ceramic shards, rusted metal pieces, "BULLI" bricks, clock parts etc were also visible. The material in the dump was significantly domestic in nature. The dump was not concentrated within a pit but rather scattered across and below a sandstone rock ledge. The well or cistern remains as a shallow circular depression in the ground to the west of the dump. It also appears to have been used as a dump, as there is similar material as found in the main dump visible amongst the soil within the circular depression. History: The Grodno Settlement was taken up under the Crown Lands Alienation Act of 1884 by L Wroblewski. A report in the September, 1889 edition of the Cumberland Argus noted a new community had established at Eckersley south of Holsworthy - "a novel settlement (of) thirteen Russian Poles, under a Russion nobleman named De Liski, who finds the money (and each has) selected 640 acres of land, and are planting it out with grapes, almonds, figs and olives. The foreigners reckon they have struck the best land in the world for vine growing and intend to show the world the best champagne yet uncorked". Other people of different origins, predominantely French, settled around the area however, from the name it is obvious Wroblewski was associated with the Russion Poles indicated above. About 1894 the Polish born and vigneron, Issac Himmelbock, a Sydney Financier, took over the 370 acre Grodno selection and built a magnificent free stone cellar that was 70 feet long with walls over two feet thick, plus three wells, one of cut stone, to supply gravity-fed stone irrigation channels. Grodno is indicated on a 1908 map of the area. When the Army took over in 1913 it is reported by Keith Longhurst that none of the property owners received compensation. Bibliography: Keating, C (1996); Keith Longhurst personal comment (1996). Significance Statement of Significance: Representative Rare Scientific/Research significance associated with potential **Historic** archaeological remains relating to late nineteenth century European **Aesthetic** immigration to NSW. Relic of the locality's settlement pattern of the late nineteenth century. Social Indicative of form and extent of domestic structures and remains associated with isolated farming settlements and families in the late Scientific nineteenth century. S= State R= Regional L= Local Associated with the historic development of the winery and grape industry in Australia. Other Listings

National Trust (Landscape Cons Area)

NSW Heritage Council
National Estate Register

V

No:

Name:

H7

Rubbish Dump and Well on Himmelhoch

Property

Proposed Airport Site: Holsworthy

Additional Information:







SECOND SYDNEY AIRPORT EIS **European Cultural Sites Survey 1996** Name: Remains of Kelso's Homestead Proposed Airport Site: Holsworthy AMG Grid No: **H8** Reference: East: 305550 North: 6229660 Location: On the western side of the road along the ridge between the Georges River and Punchbowl Creek, in the vicinity of the highest land point at the north end of this road, 1.5 km north-east of the intersection of this road with the Old Coach Road near Frere's Crossing. Description: This site includes the remains of a bush stone structure with a small oven-like feature in the exterior wall on one end, the footings of two buildings and other scattered artefacts. The bush-stone structure was described by local sources as a bread oven (Corporal Bob Thompson, personal comment, December 1996). The remains are 1.4m long by 3m wide and include a paved stone verandah which joins onto another set of building footings constructed of small sandstone aggregate pieces bonded together with mud and shell mortar with an exterior render. This building is 6m long by 4.5m wide. The remnant doorway has been blocked by sandstone blocks. Another feature nearby sits on a rock ledge, constructed of dry-laid bush stone, which appears to post-date the Kelso phase of occupation. There is a well or cistern on the east side of the "bread oven", still containing water. Scatters of rubbish were located nearby the "oven". These contain domestic refuse contemporary with the Kelso family occupation of the site, including glass, ceramic, rusted metal and other miscellaneous artefacts. History: Charles Kelso, who was involved in the wine and spirit business in London, emigrated to Australia in the late 1880s with his wife and son Edmond. Charles Kelso had met Leonce Frere in the late 1850s while learning the wine and spirit trade. When Charles emigrated to Australia, he was offered a job with Leonce Frere, who also suggested they take up some land at Eckersley. Charles Kelso selected land adjoining O'Hares Creek and the Old Coach Road, whilst Edmond Kelso's selection (the land with which this inventory sheet concerned) adjoined the George's River and Punchbowl Creek. Charles Kelso soon realised that his rocky land was useless for cultivation and forfeited it in 1892. Two houses were built on Edmond Kelso's land, each with stone walls and floors, detached kitchen and covered walkway. Edmond Kelso's property was referred to as Punchbowl whilst his father's property to the south was known as 'L Hermitage'. The family of Edmond Kelso abandoned their Eckersley property around the turn of the century. Bibliography: K Longhurst, H Bairnsfather and V Fowler (1995). Significance Statement of Significance: Representative Rare Scientific/Research significance associated with potential intact **Historic** archaeological remains relating to late nineteenth century European **Aesthetic** occupation in outlying areas of NSW. Relic of the locality's settlement pattern of the late nineteenth century. Social Indicative of form and extent of domestic structures and remains associated with isolated farming settlements and domestic occupation **Scientific** in the late nineteenth century. S= State R= Regional L= Local Possible association with the historic development of the winery and grape industry in Australia. Other Listings National Trust (Landscape Cons Area) V **NSW Heritage Council** National Estate Register

No:

Name:

H8

Remains of Kelso's Homestead

Proposed Airport Site:

Holsworthy

Additional Information:



SECOND SYDNEY AIRPORT EIS European Cultural Sites Survey 1996		
Name: Etchell's Hut and Dam remains		
No: H9	AMG Grid Reference: East: 304832 North: 6228995	
Location:		
At the head of the creek gully, on the east sid	de of the Georges River, approximately 700m ENE of Frere's Crossing.	
Description: The hut built by Frank Etchell is a four walled single room building constructed of bush stone bonded with mud mortar, located on a flat rock ledge. The south and east walls are the most intact elements of the building and the traces of an opening or entrance are visible in the eastern wall. The southern wall is approximately 3-4m high and appears to be complete. A fallen tree lies across the top of the southern wall and another is growing out of the foundations of the western wall which is causing considerable disturbance to the foundations of the remains. The structure is c5m by 5m wide. There is also evidence of a cleared area north west of the remains which may indicate the track used to reach the building and the cleared paddocks associated with the house. South-west of the hut is the remains of an earth walled dam on the head of the adjacent creek, with a carved spillway channel running along the east side to rejoin the creek.		
History: Frank Ernest Etchells selected two hundred acres to the north of George Frere on Block 36. Albert Harry Etchells owned 91 acres further to the south. These selections were made under the 1884 Crown Lands Application Act and are associated with the development of the Eckersley settlement. Frank and his brother are more known for operating illegal liquor stills which produced 'moonshine'. This moonshine was then delivered by packhorse to miners in Bulli. In the early 1890s, Frank Etchells went to the gold diggings in Western Australia and he built a stone hut with no window or chimney at this time in which to store all his possessions. The hut has been slowly falling down since the Army takeover of the area in 1913.		
Bibliography: Keith Longhurst, personal comment (1996). Col. Bob Thomspon, personal comment, (1996). K. Longhurst, H. Bairnsfather and V. Fowler (1995).		
Significance Representative Rare Statement of Significance:		
Liotorio .	Scientific/Research significance associated with potential intact archaeological remains relating to late nineteenth century European	
Aesthetic L	occupation in outlying areas of NSW.	
Conial	Relic of the locality's settlement pattern of the late nineteenth century. Indicative of form and extent of domestic structures and remains	
Scientific L	associated with isolated farming settlements and families in the late	
S= State R= Regional L= Local		
Other Listings		
National Trust (Landscape Cons Area)		
NSW Heritage Council		
National Estate Register		

No:

Name:

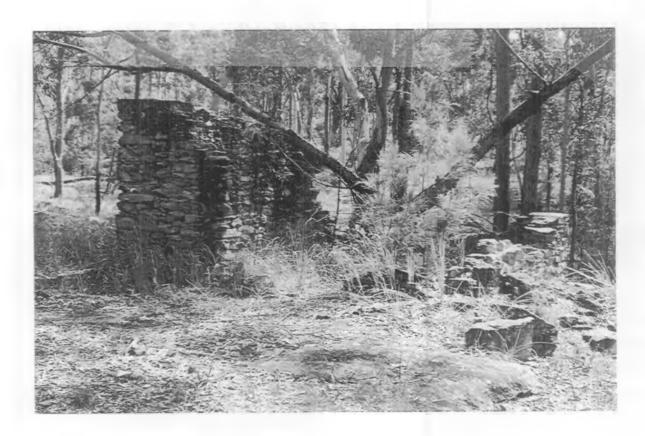
H9

Etchell's Hut and Dam remains

Proposed
Airport Site:

Holsworthy

Additional Information:



	OND SYDNEY AIRPORT EIS	
<u> </u>	ean Cultural Sites Survey 1996	
Name: Remains of four concrete wine vats	Proposed Airport Site: Holsworthy	
	AMC C-i-l	
No: H10	AMG Grid Reference: East: 304400 North: 6228400	
Location:		
Located 300m west of the Old Coach Road	, 800m south-east of Frer's Crossing.	
Description: Four vats constructed of pebble aggregate bonded with shell-lime mortar and rendered with concrete. Originally c.3m x 3m, they have recently been destroyed by army artillery activity. At least one is identifiable today, though damaged. The concrete slab of an associated shed is said to remain on the ground surface nearby, but was not located.		
History: G. P. (George) Frere selected 320 acres (Lot 34) under the Crown Land. Alienation Act of 1884. G.P. Frere migrated from France with his parents, who were were winemakers, in 1875. In France, around the early 1880s, it had been discovered that growing grapes in sandy soil destroyed one of the dangerous insects that attacked grapes. When, in the late 1880s, the Frere's heard that land was being opened up for settlement at Eckersley, they may have believed its sandy soil would render vines resistant to the insect. Large acreages were selected in the names of L'eonce, Gartare and George. George Frere is reputed to have had two houses on his property - an old slab house and one built of weatherboards. He grew grape vines and pressed the grapes on the site and the vats constructed as part of this process. No evidence suggests that wine was made on this property. After 1906 the Eckersley selections were gradually abandoned, after the area was proposed for a Military Reserve. The Army took over the area in 1913 and have progressively demolished all standing structures.		
Bibliography:	owler (1005): National Trust (1006): Keating C (1006)	
Keith Longhurst, Hugh Bairnsfather and V Fowler (1995); National Trust (1996); Keating, C (1996).		
Significance Representative Rare	Statement of Significance:	
Historic	Technological/Research significance associated with potential intact	
Aesthetic	archaeological remains relating to late nineteenth century European immigration to NSW.	
	Relic of the locality's settlement pattern of the late nineteenth century.	
Social	Representative of the form and extent of domestic structures and	
Scientific L remains associated with isolated farming settlements and families in tale nineteenth century.		
S= State R= Regional L= Local Historical associations with the development of the winery and grape		
Other Listings	industry in Australia.	
National Trust (Landscape Cons Area)		
NSW Heritage Council National Estate Register		

No:

H10

Name:

Remains of four concrete wine vats

Proposed Airport Site: Holsworthy

Additional Information:



SECOND SYDNEY AIRPORT EIS		
European Cultural Sites Survey 1996		
Name: Engineers Bridge	Proposed Airport Site: Holsworthy	
No: H11	AMG Grid Reference: East: 305100 North: 6227900	
Location:		
This bridge carries the Engineers Bridge Roa	ad over Punchbowl Creek, 500m east of the Old Coach Road.	
Description: A steel arch and box girder truss bridge of the Bailey Bridge pre-fabricated type. It comprises box truss girder sections bolted together and linked by lightweight RsJs as cross-bearers. The roadway is supported by a trussed steel arch over the river, similarily assembled, with the roadway and arch linked across two structural panels. The bridge carries a single traffic lane on a timber deck with longitudinal wheel planks laid over transverse planking. It was constructed in the 1980s by Army Reservists and is reputedly the only example where the Bailey Bridge sections have been used as a trussed arch in combination with the trussed girder roadway.		
History: The original bridge over Punchbowl Creek was replaced by the army with the bridge that currently exists after the previous bridge was destroyed, according to Keith Longhurst (local historian), when a heavy army vehicle was driven across the bridge too quickly. The road appears to have been made since the military takeover in 1913.		
Bibliography: Keith Longhurst, personal comment, (1996).		
Significance Representative Rare	Statement of Significance:	
An interesting example of the Army's traditional Bailey Bridge, a military design developed for rapid erection and portability of its components. While in common use within the army over several decades, few permanent examples exist in NSW. This is the only known example which utilises an arched structure under the roadway. Scientific A picturesque and dramatic structure in a pleasant natural bushland		
Other Listings	setting.	
National Trust (Landscape Cons Area) NSW Heritage Council		

No:

H11

Name: Engineers Bridge

Proposed
Airport Site:

Holsworthy

Additional Information:



SECOND SYDNEY AIRPORT EIS **European Cultural Sites Survey 1996** Name: Nat (Nathaniel) Bull's House Site Proposed Airport Site: Holsworthy AMG Grid No: H12 Reference: East: 307886 North: 6228407 Location: Site is approximately 150m south west of the intersection of the River Road and the New Illawarra Road, at the location known as 'Nat Bull'. Description: This site consists of the remains of stone footings of a house, which had a brick chimney, and an associated inground water cistern. The footings are constructed of dressed bush rock and shell-lime mortar and are approximately 4m-5m long and c1.5m wide. Bitumen covered some exposed footings along the west and south walls. Whilst the outline of the structure was visible, much of it is concealed below accumulated soils and fallen foliage of the surrounding Casurina trees which also grow through the foundations. The cistern, which still contains water, is located north-east of the building remains, cut into sandstone bedrock and approximately 4.5m - 5m wide. One course of dressed bush stone blocks remains in place around part of the edge of the cistern. Other such blocks are scattered around the vicinity of the site, as well as some hand-moulded sandstock bricks. History: The house built for Nathanial Bull is contemporaneous with the settlement at Eckersley which begain in 1884. Nathanial George Bull and Sons established the Commercial Stores in 1880 in Liverpool. In the 1880s, Bull's store was one of the two premier emporiums in the town of Liverpool. Bull, a prominent local citizen, was Liverpool's mayor in 1887 and 1888 and, as president of the Liverpool Protectionist Association, had been elected in 1886 as the only protectionist for the seat of Central Cumberland. It is unknown whether Bull still owned the house at the time of the military takeover of the area in 1913, however, a 1908 map of the area marks the site with "Nat Bull -Large Underground Tank". Bibliography: 1908 Map of the Holsworthy area held in Mitchell Library. C Keating (1996). **Significance** Statement of Significance: Representative Rare Scientific/Research significance associated with potential intact **Historic** archaeological remains relating to late nineteenth century European Aesthetic immigration to NSW. L Relic of the locality's settlement pattern of the late nineteenth century. Social L Indicative of form and extent of domestic structures and remains associated with isolated farming settlements and families in the late Scientific nineteenth century. S= State R= Regional L= Local Associated with the historic development of the winery and grape industry in Australia. Other Listings National Trust (Landscape Cons Area) V **NSW Heritage Council** National Estate Register

No:

H12

Name: Nat Bull House Site

Proposed **Airport Site:** Holsworthy

Additional Information:



OF COMP OVENEY AIRPORT FIG		
SECOND SYDNEY AIRPORT EIS European Cultural Sites Survey 1996		
Name: Eckersley Post Office Site		
No: H13	AMG Grid Reference: East: 308235 North: 6226260	
Location:		
Along the army road between Nat Bull and	Giles Junction	
Description: Site inspection revealed a line of approximately thirty upended and undressed bush stone boulders lining the road edge. According to oral history information, these boulders distinguish the driveway entrance into the Post Office (Keith Longhurst, personal comment, November 1996). Remains of at least three different structures, all heavily obscured by overgrowth, were located in the vicinity of the Post Office site. It is not known which of these represents the remains of the Post Office itself. The first structure consisted of rectangular shaped footings of well dressed sandstone blocks, approximately 5m wide by 9m long. The blocks visible within the remains were an average size of 500mm x 20mm x 30mm. Remnant fragments of corrugated iron were visible nearby the structure. The second structure comprised walls of sandstone blocks with yellowed mud mortar bonding, approximately 8m long by 4m wide, with a sloped interior depression. These remains resemble the many army tank pads encountered during survey, however the depth of the central depression would not have adequately covered and protected a tank. In addition the stones associated with such army sites are generally dry-laid, unlike these which were bonded with mud mortar. It is possible that the remains of an early structure have been adapted for military use. The third feature consisted of a circular stone wall, the remains varying between 2-3 courses high of roughly cut, flat sandstone blocks. Approximately ten metres of the feature's length was visible, also highly obscured by bush overgrowth.		
History: The settlement of Eckersley began in the second half of the 1880s after land in the area was opened up by The Crown Lands Alienation Act of 1884. It was a cosmopolitan settlement with people of mostly French and Russian Polish descent whose main concern was the growing of grapes for wine. In 1891 the residents of Eckersley petitioned successfully for a Post Office to be constructed. The Post Office is marked on a 1908 map of the area, however, it most probably was destroyed soon after the army took over the area in 1913.		
Bibliography: C. Keating, (1996). 1908 Map of Area in Mitchell Library.		
Significance Representative Rare Statement of Significance:		
Historic L	Local significance associated with the social interaction of a small Eastern European wine growing community established in the mid	
Aesthetic	1880s.	
Social Scientific/Research significance associated with potential intact archaeological remains relating to late nineteenth century European		
Scientific L immigration to NSW.		
S= State R= Regional L= Local Relic of the locality's settlement pattern of the late nineteenth century. Indicative of form and extent of domestic structures and remains		
Other Listings	associated with isolated farming settlements and families in the late	
National Trust (Landscape Cons Area) Associated with the historic development of the winery and grape		
NSW Heritage Council industry in Australia. National Estate Register		

No:

H13

Name:

Eckersley Post Office Site

Proposed
Airport Site:

Holsworthy

Additional Information:



SECOND SYDNEY AIRPORT EIS **European Cultural Sites Survey 1996** Name: Eckersley House Cellar / Rock Proposed Airport Site: Holsworthy Shelter AMG Grid H14 No: 308660 North: 6226550 Reference: East: Location: Site is approximately 350m east of the New Illawarra Road, approximately north of the intersection with Engineer's Bridge Road. Description: A rock shelter constructed of sandstone with elevated dressed bush stone walls bonded with mud and shell-lime mortar. These walls support a large overhanging rock at the entrance. The rear "roof" of the shelter is missing. The sandstone of the interior is fretted and deteriorated. The entrance to the shelter is approximately 1.5m high. The rear wall is c.2m high. The internal area is c.3m long by 2m wide. A scatter of semi-dressed bush stones lie around the entrance. The rear wall of the shelter bears the engraving/graffitti "E W 1953 5/2/584". A set of three stairs have been carved into the rock leading down to the entrance. The shelter may represent a depression but of the c.1920-30 period. However it is more likely that this feature is the cellar associated with the house on the Eckersley property. Fragments of glazed household ceramic and glass were encountered in a shallow rubbish dump northwest of the "cellar". Another engraving "EW" appears on a rock further west behind the shelter opening. Nearby this engraving is a small carved square hole, c.250mm deep and 500mm wide and of unknown function, within the exposed natural sandstone. A large well or cistern was recorded further north-west of these areas. Cut into the natural sandstone with a low surmounting wall, it is approximately 5m in diameter. Around the top are 1-2 courses of dressed sandstone blocks, with one edge collapsed into the "well". Earthenware pipes have been fitted into the top course of the wall. West of the "well" are the remains of dressed sandstone blocks approximately 7m in length and 3m wide, which may be footings for Eckersley House. Eckersley House was built on land owned by Lebinski who was one of the Russian Polish immigrants who settled in the area in the late 1880s and early 1890s. The community was mostly involved with wine growing and orcharding. The community declined after 1906 prior to the military takeover in 1913. Eckersley House is marked on a 1908 map of the area. Bibliography: Keith Longhurst, personal comment, (1996). C. Keating, (1996). Significance Statement of Significance: Representative Rare Local significance associated with the social interaction of a small **Historic** Eastern European wine growing community established in the mid **Aesthetic** 1880s.. Scientific/Research significance associated with potential intact Social archaeological remains relating to late nineteenth century European immigration to NSW. **Scientific** Relic of the locality's settlement pattern of the late nineteenth century. S= State R= Regional L= Local Indicative of form and extent of domestic structures and remains associated with isolated farming settlements and families in the late Other Listings nineteenth century. Y National Trust (Landscape Cons Area)

industry in Australia.

NSW Heritage Council

National Estate Register

Associated with the historic development of the winery and grape

No:

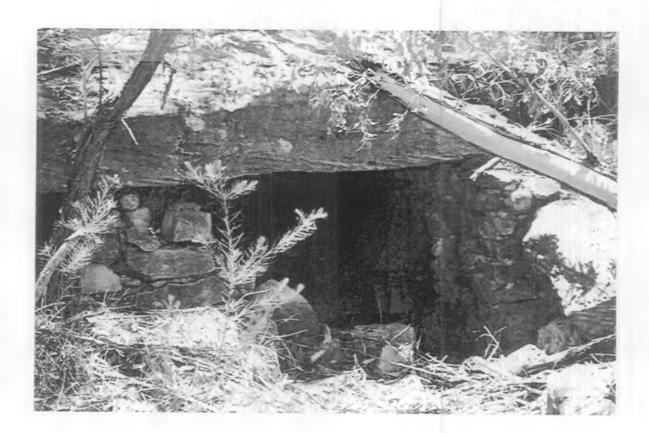
Name:

H14

Eckersley House: Cellar / Rock Shelter

Proposed Airport Site: Holsworthy

Additional Information:



	SECO	OND SYDNEY AIRPORT I	EIS
	Europe	an Cultural Sites Survey	1996
Name	Vineyard remains on Lebinski's property	Proposed Airport Site:	Holsworthy
No:	H15	AMG Grid Reference: East:	North:
Locati	on:		
Likely 1	to be in the vicinity of the site of the Ed	ckersley Post Office, west of the	New Illawarra Road.
Descri No phy	ption: sical evidence of these vineyard remains	ains was discovered in this surv	еу.
History: C.C. J. De L. Lebinski owned the property to the west of the junction of the Old Illawarra Road and the New Illawarra Road. This selection was made c1889. Lebinski's name is only one of two Russian Polish names that appear on the 1891 petition for the construction of the Eckersley Post Office. This is interesting as in 1889 the Cumberland Argus had noted that Eckersley was a new community of 13 Russian Poles under a Russian nobleman named De Liski. Lebinski operated a vineyard however, his name is not marked on a 1908 map of the area which shows other properties.			
Bibliog Keating	(1996).		
Signifi	reprosentative rais	Statement of Significance: Technological/Research significance	cance associated with potential intact
	listoric L	archaeological remains relating immigration to NSW.	to late nineteenth century European
8	Social	Historical associations with the	t pattern of the late nineteenth century. development of the winery and grape
	Scientific L industry in Australia.		
	= State R= Regional L= Local		
N	Other Listings National Trust (Landscape Cons Area) NSW Heritage Council		
N	ational Estate Register		

No:	H15	Proposed	Holsworthy	
Name:	Vineyard remains on Lebinski's property	Airport Site:	,	
Additio	onal Information:			
Photo				

		OND SYDNEY AIRPORT EIS	
	•	an Cultural Sites Survey 1996	
Name	: House Remains: Chimney and concrete slab	Proposed Airport Site: Holsworthy	
No:	H16	AMG Grid Reference: East: 307870 North: 6224430	
Locati	ion:		
Approx	kimately 150m west of the Old Illawarra	a Road, 1.1km south of Giles Junction.	
Descr	iption:		
Remains of a standing chimney of dressed sandstone blocks bonded with shell-lime mortar and rendered on all sides. The room is approximately 12m x10m. The chimney/fireplace is 2.5m by 1.5m by 3.4m. The individual blocks which make up the lower courses of the chimney are the most substantial of those seen in the Holsworthy area. They are approximately 500mm by 500mm by 300mm in dimension. The higher courses comprise various smaller dressed blocks. More of the house remains of bonded and dressed sandstone blocks are visible in overgrowth a metre or so south of the chimney remains. A concrete floor lies in fragments nearby. A number of other dressed sandstone blocks lie scattered around the site. These are a different size to those which comprise the chimney.			
History			
C.C.J. De L. Lebinski owned the property to the west of where the Old Illawarra Road and the New Illawarra Road join. This selection was made c1889. Lebinski's name is only one of two Russian Polish names that appear on the 1891 petition for the construction of the Eckersley Post Office. This is interesting as in 1889 the Cumberland Argus had noted that Eckersley was a new community of 13 Russian Poles under a Russian nobleman named De Liski. Lebinski operated a vineyard however, his name is not marked on a 1908 map of the area which shows other properties. It is unclear whether these remains are of Lebinski's homestead but the location is suggestive of these origins.			
_	raphy:		
Keating, C (1996)			
Signif	representative reare	Statement of Significance:	
ŀ	diataria .	Scientific/Research significance associated with potential intact archaeological remains relating to late nineteenth century European	
A	Aesthetic	occupation in outlying areas of NSW.	
ç		Relic of the locality's settlement pattern of the late nineteenth century.	
	Social Indicative of form and extent of domestic structures and remains associated with isolated farming settlements and domestic occupation		
	in the late nineteenth century.		
	S= State R= Regional L= Local Possible association with the historic development of the winery and grape industry in Australia.		
	ational Trust (Landscape Cons Area) SW Heritage Council		
National Estate Register			

No:

Name:

H16

House Remains: Chimney & Concrete Slab

Proposed Airport Site: Holsworthy

Additional Information:



SECOND SYDNEY AIRPORT EIS **European Cultural Sites Survey 1996** Name: Remains of Illegal Liquor Still Proposed Airport Site: Holsworthy AMG Grid No: H17 Reference: East: 303700 North: 6219800 Location: Located under an overhanging rock ledge within the course of the creek (unnamed), approximately 700m east of the Old Coach Road, 2.5 km south of the Woolwash Road intersection. Description: The site comprises a still stand constructed of flat sandstone pieces five courses high. It is horse shoe shaped and once contained a copper boiling vessel. The sandstone ledge over which the water course runs has been grooved to guide the flow of the water towards the assumed position of the condenser tank on the ledge below. The components of the still itself are no longer extant. A flat bench to the left of the boiling vessel stand, constructed of rough dressed sandstone blocks, is where the rum was left to stand and ferment. There reputedly are two more stills on the Holsworthy site which were not inspected or photographed. This still is described as the most intact example. History: Frank Ernest Etchells selected two hundred acres to the north of George Frere's property on Block 36. Albert Harry Etchells owned 91 acres further to the south. These selections were made under the 1884 Crown Lands Application Act and are associated with the development of the Eckersley settlement. Frank Etchell had extensive vegetable gardens on his property. Local history records that Frank and his brother operated stills which produced 'moonshine'. This moonshine was then delivered by packhorse to miners in Bulli, at one pound per gallon. Neither of the Etchells were drinkers and rarely sampled their brew themselves, but it was well regarded and sold as the 3P's Brand, apparantly standing for "Profitable Private and Pure " Bibliography: Keith Longhurst, personal comment (1996); Col. Bob Thompson, personal comment, (1996). K. Longhurst, H. Bairnsfather and V. Fowler (1995). Significance Statement of Significance: Representative Rare Scientific/Research significance associated with intact archaeological Historic R evidence relating to late nineteenth century European distilling and **Aesthetic** R production of locally produced rum in NSW. Relic of the locality's settlement pattern of the late nineteenth century. R Social Indicative of form and extent of features associated with isolated farming settlements and families in the late nineteenth century. **Scientific** ı Rare surviving evidence of Victorian era (1880s) illicit social practices S= State R= Regional L= Local and production of alcohol, which also was an important supplement to the income of the inhabitants of this agriculturally unproductive land. Other Listings V National Trust (Landscape Cons Area) **NSW Heritage Council**

National Estate Register

No:

Name:

H17

Remains of Illegal Liquor Still

Proposed
Airport Site:

Holsworthy

Additional Information:



SECOND SYDNEY AIRPORT EIS European Cultural Sites Survey 1996		
Name: Old Coach Road	Proposed Airport Site: Holsworthy	
No: H18	AMG Grid Reference: East: 304200 / 305250 North: 6228900 / 6215400	
Location:		
	es Creek and Punchbowl Creek, connecting Frere's Crossing of the the section of the Old Illawarra Road that runs through the military es Forest (via Darkes Forest Road)	
Description: A single lane gravel surface road which connects Frere's Crossing with the Old Illawarra Road near Darkes Forest, following the ridge between O'Hares Creek and Punchbowl Creek.		
History: Despite its name, this road was only a roadway between Frere's Crossing and the entrance to G.P. Frere's property, approximately 1 km east of the Crossing. Beyond this, it was a bridle track used for trips to the Illawarra, via Darkes Forest. In the 1890s, it gave access to several grants of land south of Frere's property but these were notably remote and were soon abandoned. It probably dates from the 1880s however it could date from the earlier settlement along the Georges River or was first made and used by surveyors in the 1850s. In the 1950s it was enlarged by the Army and made into a road along its full length.		
Bibliography: Keith Thompson, personal comment, (1996).		
	Statement of Significance:	
Historic L Aesthetic G	An early road route through the area which is an integral part of the historic development of the vicinity. It is indicative of the nature, form and context of early development of the area and, while its bushland context remains, it is evocative of the isolation and hardship associated with nineteenth century settlement of NSW	
S= State R= Regional L= Local		
Other Listings National Trust (Landscape Cons Area) NSW Heritage Council National Estate Register		

No:

H18

Name:

Old Coach Road

Proposed Airport Site:

Holsworthy

Additional Information:



SECOND SYDNEY AIRPORT EIS European Cultural Sites Survey 1996			
Name:	Old Illawarra Road	Proposed Airport Site: Holsworthy	
No:	H19	AMG Grid Reference: East: 312550 / 306900 North: 6229800 / 6212350	
Locati	on:		
	Road which runs north from Darkes Forth-east from Giles Junction to interse	Forest, following the ridge on the west side of the Woronora River, then ect with the Heathcote Road	
Description: A two-lane gravel surface road for most of its length, the Old Illawarra Road within the military reserve is one the main roads through the reserve. Its original line can be traced eastwards through Lucas Heights, Menai and Illawong to the river crossing at Lugarno. The name is common throughout the vicinity and represents various routes from different periods.			
History: The earliest road through the study area is the Old Illawarra Road. The section of this road which lies within the study area runs from the south through Giles Junction then NE through Lucas Heights to Lugarno. There is confusion as another road is known as the Old Illawarra Road. A card in the Liverpool City Council's local history library refers to a road running from Liverpool to Hammondville built by convicts in 1850, becoming 'Army Road' in 1930. The road which today is known as the New Illawarra Road appears to be the one referred to in the Council's card reference (or an extension of this road into the study area). This road is marked on a 1908 plan of the area as Eckersley Road. New Illawarra Road joins Old Illawarra Road at Giles Junction. It is probable that the Old Illawarra Road, surveyed by Mitchell in 1843 and which runs through part of the study area, traces an Aboriginal migration route which was later used as a track for the early Georges River settlers.			
Bibliography: The National Trust (1996).			
Signifi	representative itale	Statement of Significance: An early road route through the area which is an integral part of the	
A S S	Historic R Aesthetic L Social L Scientific S= State R= Regional L= Local historic development of the vicinity. It is indicative of the nature, form and context of early development of the area and, while its bushland context remains, it is evocative of the isolation and hardship associate with nineteenth century settlement of NSW. It is one of the earliest road routes leading out of Sydney and played a role in the historic development of both the southern suburbs through which it passed and the Illawarra region. It is associated with the early survey		
Other Listings National Trust (Landscape Cons Area) NSW Heritage Council		WORK OF OIL THOMAS MILLERS AND WILL CONVICTION YOUNGS.	

No:

H19

Name: Old Illawarra Road

Proposed
Airport Site:

Holsworthy

Additional Information:



SECOND SYDNEY AIRPORT EIS European Cultural Sites Survey 1996		
Name: New Illawarra Road (formerly Eckersley Road)	Proposed Airport Site: Holsworthy	
No: H20	AMG Grid Reference: East: 308450 / 311450 North: 6225500 / 624000	
Location:		
intersection with the present Heathcote Roathe Heathcote Road is currently known as	with the Old Illawarra Raod at Giles Junction northwards to the ad at Holsworthy; the section from the military airfield at Holsworthy to 'Old Illawarra Road"	
Description: A two-lane gravel surface road for most of its length, the New Illawarra Road within the military reserve is one the main roads through the reserve. Its original line can be traced further along the alignment of the Heathcote Road to Liverpool and it appears that at various times, it has been known, as far as the residents of Liverpool are concerned, as the Old Illawarra Road. This name is common throughout the vicinity and represents various routes from different periods. The present road is faithful to the original alignment except where it currently diverts around the military airfield at Holsworthy.		
History: The earliest road through the study area is the Old Illawarra Road. The section of this road which lies within the study area runs from the south through Giles Junction then NE through Lucas Heights to Lugarno. There is confusion as another road is known as the Old Illawarra Road. A card in the Liverpool City Council's local history library refers to a road running from Liverpool to Hammondville built by convicts in 1850, becoming 'Army Road' in 1930. The road which today is known as the New Illawarra Road appears to be the one referred to in the Council's card reference (or an extension of this road into the study area). This road is marked on a 1908 plan of the area as Eckersley Road. New Illawarra Road joins Old Illawarra Road at Giles Junction.		
Bibliography: K Longhurst, H Bairnsfather and V Fowler (1995).		
Significance Representative Rare	Statement of Significance:	
Historic R Aesthetic L Social L Scientific	An early road route through the area which is an integral part of the historic development of the vicinity. It is indicative of the nature, form and context of early development of the area and, while its bushland context remains, it is evocative of the isolation and hardship associated with nineteenth century settlement of NSW. It is one of the earliest road routes leading out of Liverpool and played a role in the	
S= State R= Regional L= Local historic development of both the southern suburbs and the Illawarra region. It is associated with the last activities of the convict road gangs		
Other Listings	of colonial NSW.	
National Trust (Landscape Cons Area)		
NSW Heritage Council		
National Estate Register		

No:

H20

Name:

New Illawarra Road (formerly Eckersley Road)

Proposed
Airport Site:

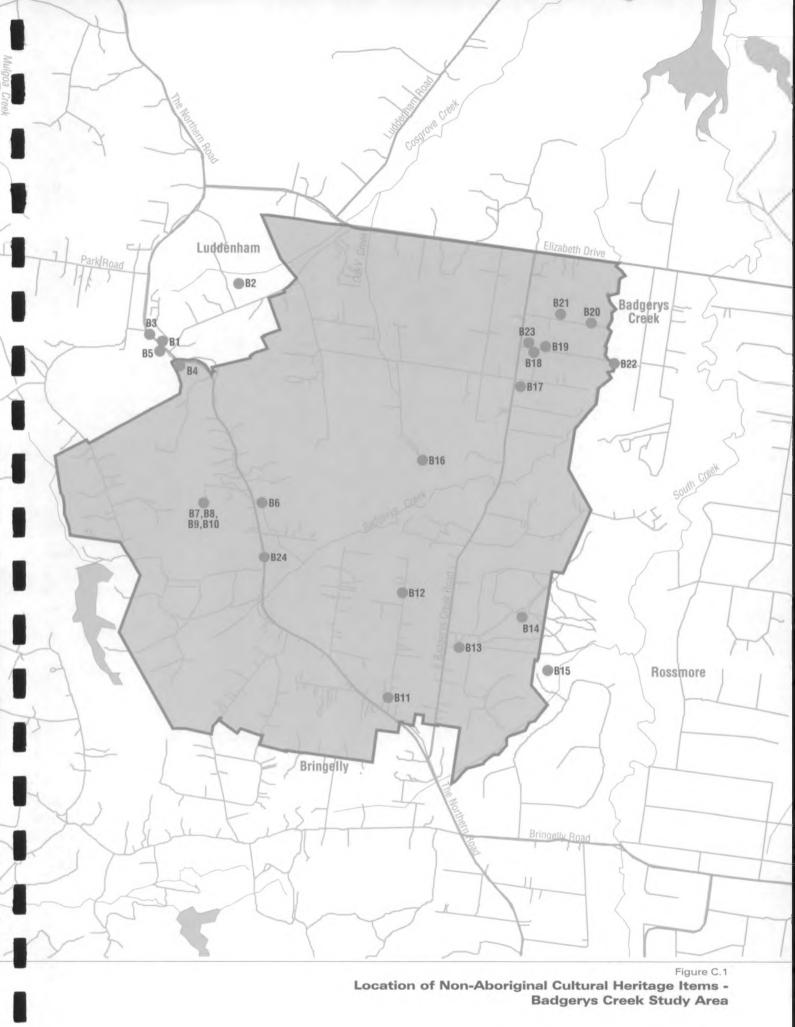
Holsworthy

Additional Information:



Appendix C

Location of Non-Aboriginal Cultural Heritage Items



TN MN OKm 2.50

