



COMMONWEALTH DEPARTMENT OF
**TRANSPORT AND REGIONAL
DEVELOPMENT**

Noise

Volume 3: Noise Impacts on Community Assessment Areas

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

3

Technical Paper

PPK
Environment & Infrastructure

Prepared for:



COMMONWEALTH DEPARTMENT OF
**TRANSPORT AND REGIONAL
DEVELOPMENT**

GPO Box 594
Canberra ACT 2601

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Volume 3: Noise Impacts on Community Assessment Areas

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

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Technical Paper

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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.

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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.

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INTRODUCTION

1.1 INTRODUCTION

This volume forms part of *Technical Paper No. 3 - Noise* examining the *Second Sydney Airport Proposal*. It contains noise and predictions from aircraft overflights for each of the three airport options considered.

Detailed noise level calculations were undertaken for 108 Community Assessment Areas as generally shown in *Figure 1.1* and shown in more detail in *Figures 1.2 to 1.11*. These same areas have also been used for definition of demographic population characteristics and assessment of existing noise exposure.

The concept of Community Assessment Areas was introduced to allow noise impacts on individual communities to be described and to relate the noise impacts to estimates of 1996 population, forecasts of 2006 and 2016 populations and to the number of noise sensitive land uses, such as educational facilities. Where these Community Assessment Areas are close to the proposed airport sites, they have been subdivided into smaller areas to give more accuracy to the noise assessment.

For further details on methods used to develop these Areas and forecasts, and for a detailed assessment of potential impacts, reference should be made to *Chapters 11 and 12* of the Draft EIS and/or *Technical Paper No. 3 Noise - Main Volume*.

1.2 USERS GUIDE TO COMMUNITY ASSESSMENT AREA SHEETS

This volume shows potential noise impacts on land uses within Community Assessment Areas. *Figures 1.2 to 1.11* indicate the Community Assessment Area that contains the property you are interested in.

To provide a more accurate description of potential noise impacts, some of these Community Assessment Areas have been subdivided into smaller areas. Reference should be made to *Figures 1.2 to 1.11* to determine whether the property you are interested in is located within a sub-community assessment area.

Social characteristics, existing noise levels and potential noise impacts for each Community Assessment Area are set out on the sheets in *Chapter 2*. They are provided in numeric order.

For each Community Assessment Area:

- Sheet 1 gives an estimate of the 1996 population and forecasts of 2006 and 2016 populations and shows the number of educational facilities and other noise sensitive land uses within the Area. Sheet 1 also presents the results of the background noise measurements within that

Community Assessment Area. These measurements are provided as L_{Aeq} which converts varying noise to an equivalent continuous noise level for a specified period of time, and L_{A90} which is the level of noise which is exceeded 90 percent of the time; and

- Sheet 2 shows the noise levels anticipated from each airport option for each of the two key years assessed, that is, 2006 and 2016. The Table in the bottom half of Sheet 2 shows the range of noise levels resulting from the range of assumptions about aircraft movements and airport operations that were made as part of the noise assessment studies. The source information is shown again in graphic form on the top half of Sheet 3 as this provides a quicker means of comparing the impacts of each airport option on a particular Community Assessment Area.

If the Table in the bottom half of Sheet 2 says Refer over page, this means that the Community Assessment Area has been subdivided into smaller areas ('sub-community assessment areas') to provide a more accurate description of potential noise impacts for a particular airport option.

ANEC levels are shown; information on how to interpret these levels is provided in *Figures 5.28 and 5.29 of Technical Paper No. 3, Noise - Main Volume*.

Additional noise indicators used include the number of noise events expected on an average day that would be over 60 dBA, 70 dBA, 80 dBA and 90 dBA. Noise events over 70 dBA are loud enough to disturb normal conversation and other quieter activities, such as television viewing at home.

The Table also shows the number of noise events in the night-time (10.00 pm to 6.00 am) and gives a Sleep Disturbance Index. This Index tells how many times a night (between 10.00 pm and 6.00 am) the average sleeper is likely to be awakened by aircraft noise. In most cases, it is less than once a night. Some examples of how to interpret these figures:

- a Sleep Disturbance Index of 0.1 means, on average, one awakening every 10 nights;
- a Sleep Disturbance Index of 0.2 means, on average, one awakening every five nights;
- a Sleep Disturbance Index of 0.5 means, on average, one awakening every two nights;
- a Sleep Disturbance Index of one means, on average, one awakening every night; and
- a Sleep Disturbance Index of 1.5 means, on average, three awakenings every two nights.

The impacts of aircraft overflight noise on sleeping patterns, however, need to be considered in the context of current understanding of sleeping patterns which indicate that, on average, people have about 1.5 awakenings each night for reasons unrelated to noise (Bullen, Hede and Williams, 1996).

The number of noise events over 65 dBA that would occur, on average, between 9.00 am and 3.00 pm each day has been shown. This level of noise would be likely to disturb teaching activities.

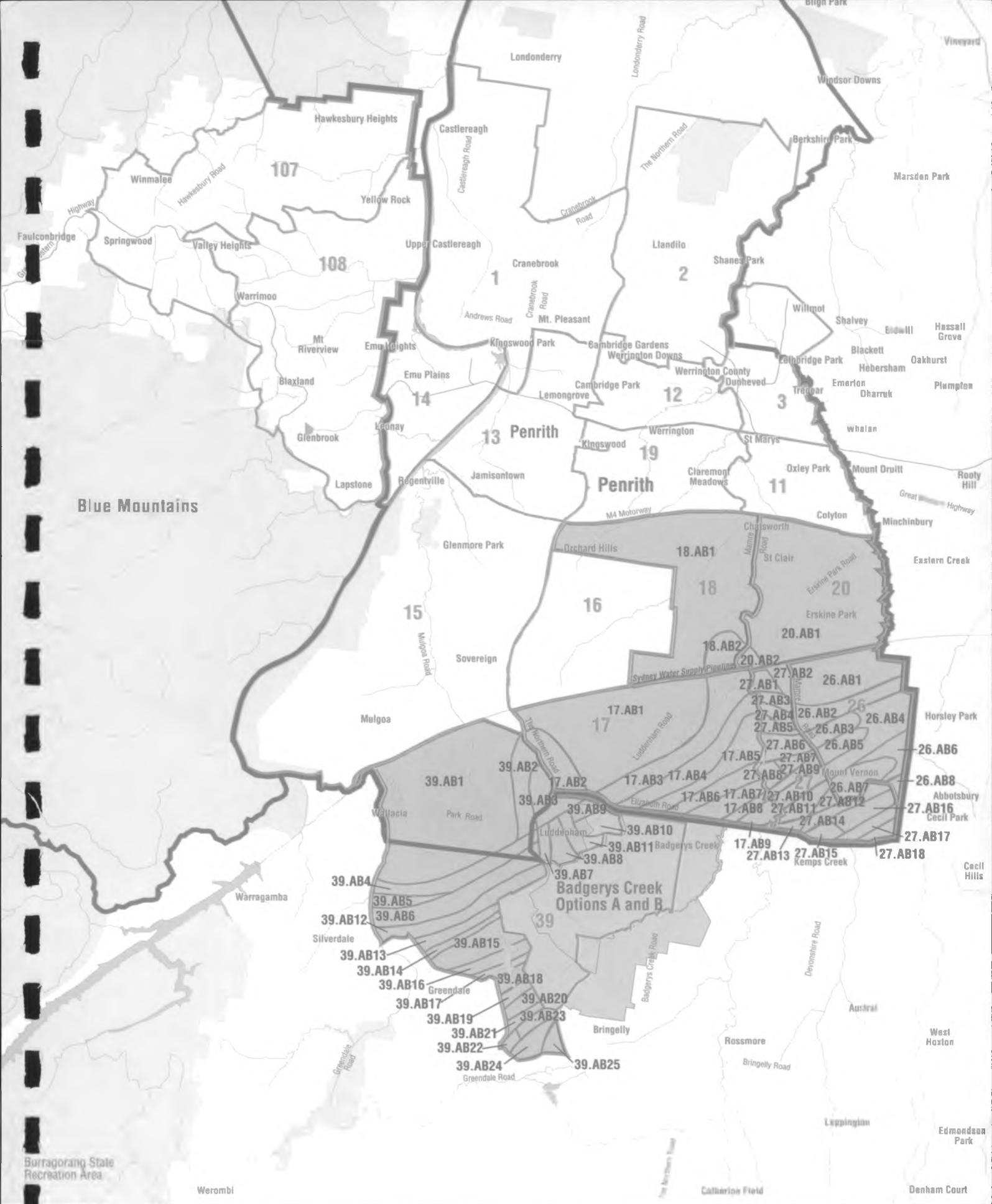


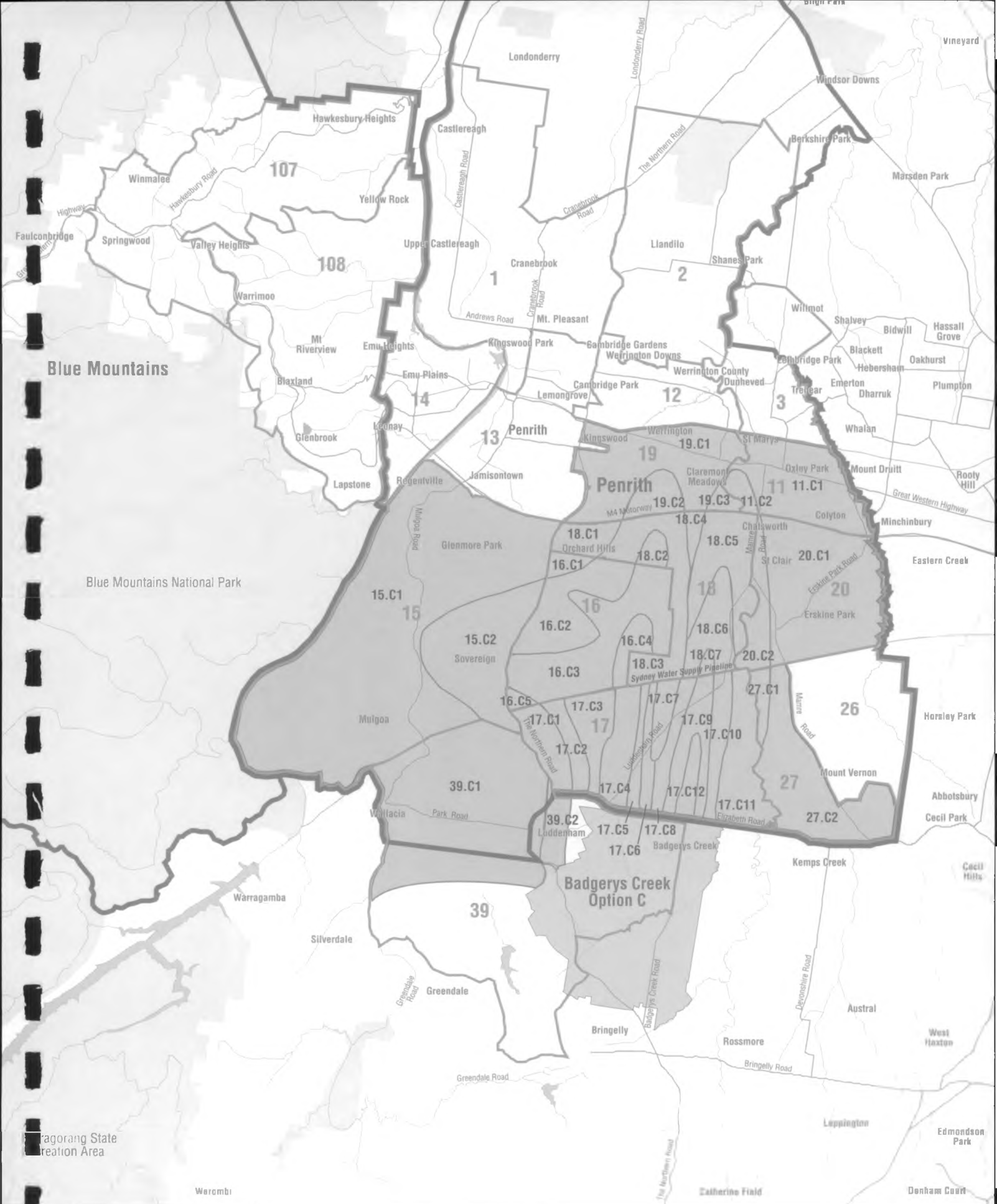
Urban Areas (indicated by local roads)
Indicates Density of Dwellings in 1996

Figure 1.1
Community Assessment Areas



0km 10km 20km





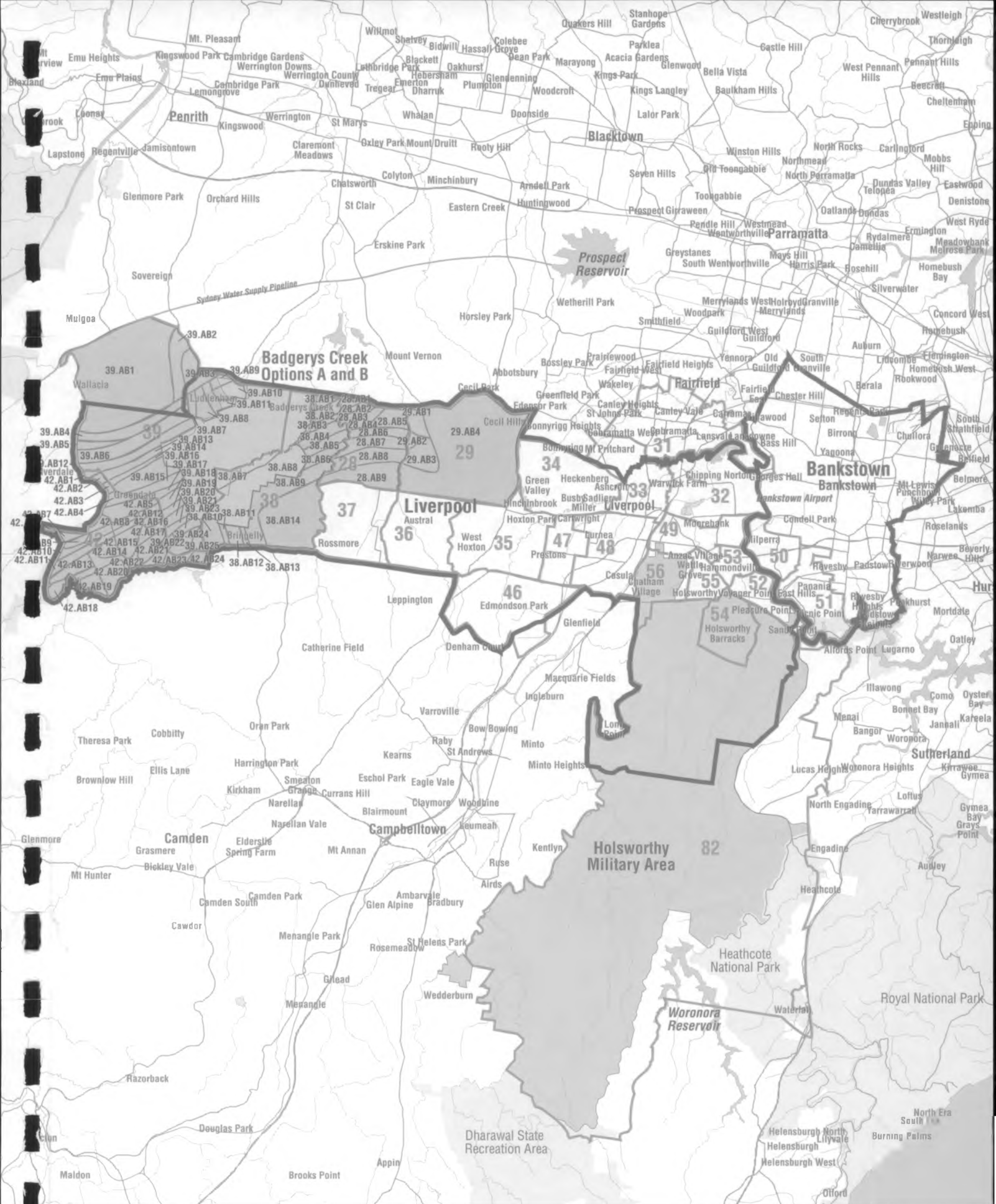
Local government area boundary ———

Community Assessment Area 15

Sub-Community Assessment Area (for Badgerys Creek Option C only) 17.C2

Figure 1.3
**Community Assessment Areas and Sub Areas
 (for Badgerys Creek Option C) in
 Blue Mountains and Penrith Local Government Areas**





Local government area boundary ———

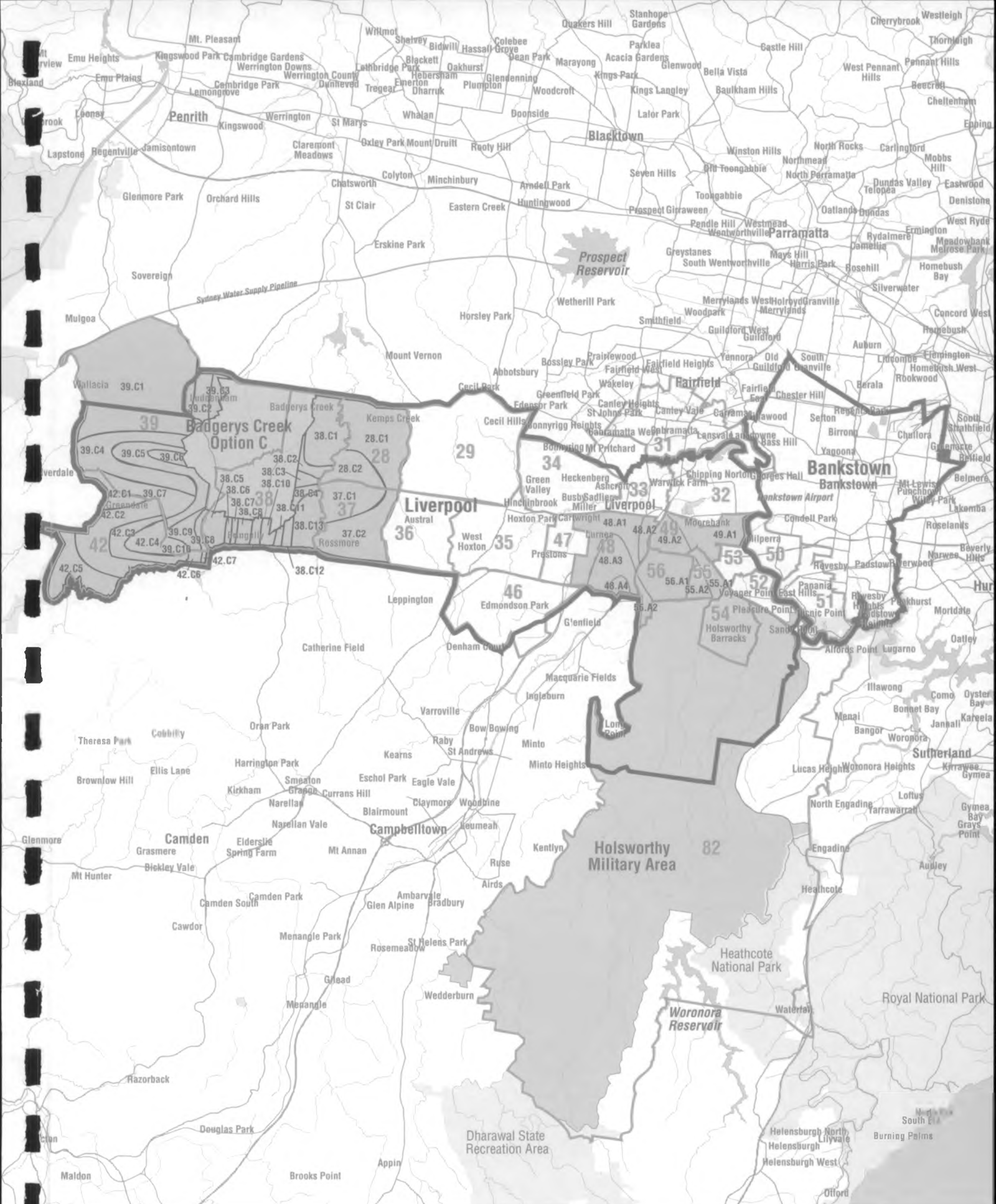
Community Assessment Area 29

Sub-Community Assessment Area (for Badgerys Creek Options A and B) 29.AB3

Figure 1.5
**Community Assessment Areas and Sub Areas
 (for Badgerys Creek Options A and B) in
 Liverpool and Bankstown Local Government Areas**



0 5km 10km



Local government area boundary

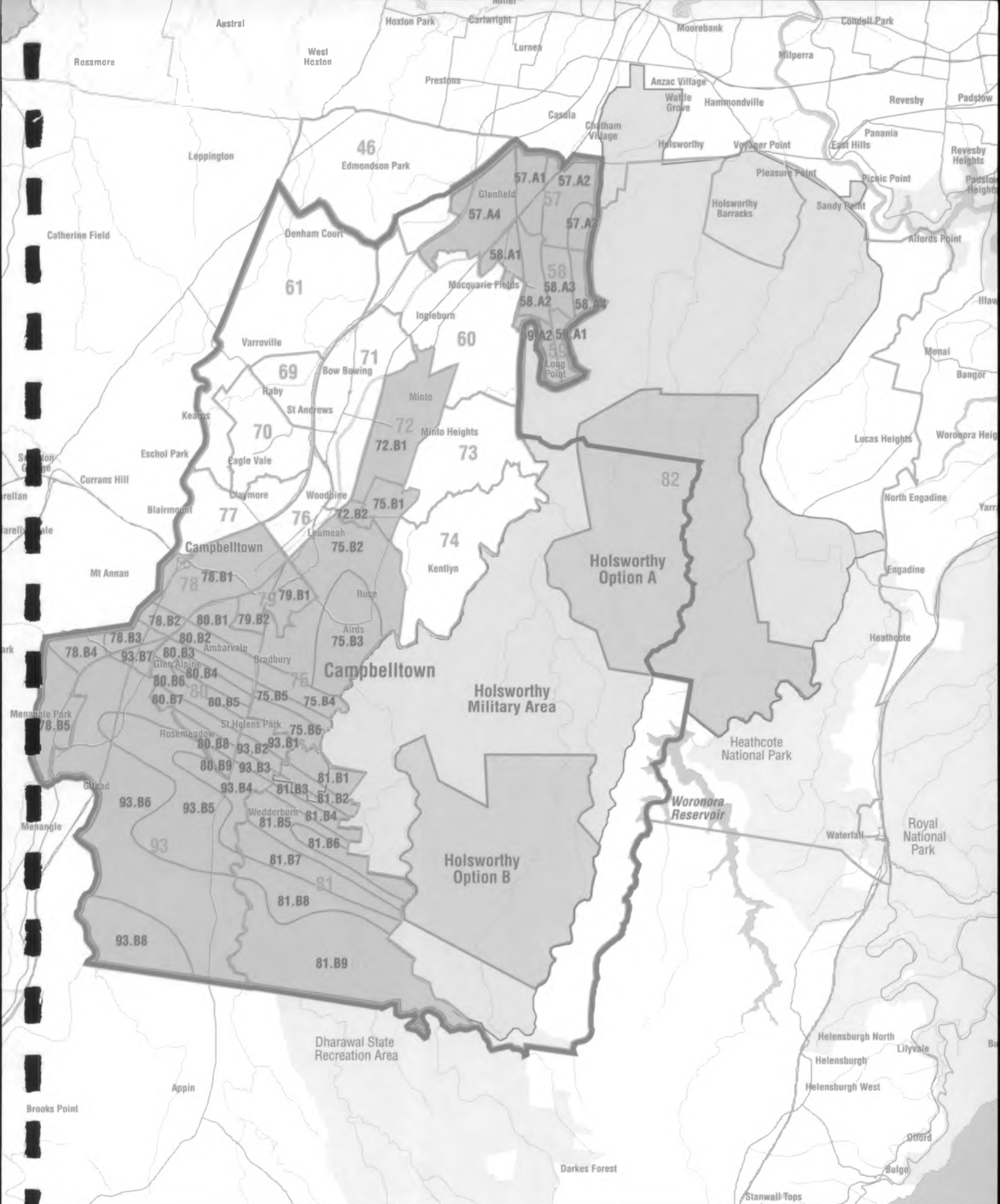
Community Assessment Area

Sub-Community Assessment Area
(for Badgerys Creek Option C and
Holsworthy Option A only)

Figure 1.6
Community Assessment Areas and Sub Areas
(for Badgerys Creek Option C and Holsworthy Option A) in
Liverpool and Bankstown Local Government Areas



0 500 1000 1500



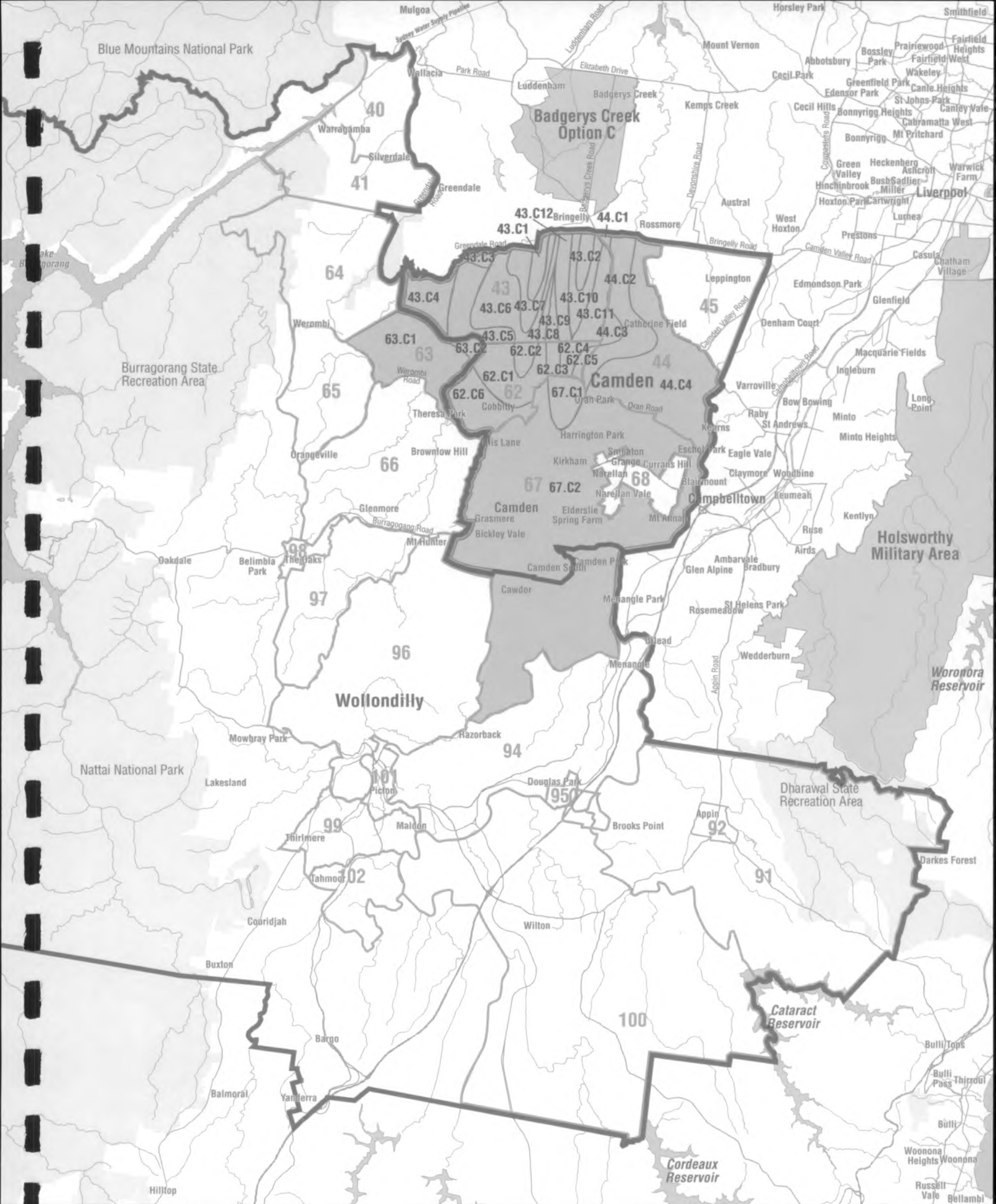
Local government area boundary ———

Community Assessment Area 76

Sub-Community Assessment Area 76.B4 (for Holsworthy Options A and B)

Figure 1.7
**Community Assessment Areas and Sub Areas
 (for Holsworthy Options A and B) in
 Campbelltown Local Government Area**





Local government area boundary ———
 Community Assessment Area 45
 Sub-Community Assessment Area (for Badgerys Creek Option C only) 62.C1

Figure 1.9
**Community Assessment Areas and Sub Areas
 (for Badgerys Creek Option C) in
 Camden and Wollondilly Local Government Areas**





Local government area boundary
 Community Assessment Area
 Sub-Community Assessment Area
 (for Holsworthy Option A only)

Figure 1.12
**Community Assessment Areas and Sub Areas
 (for Holsworthy Option A) in
 Wollongong and Sutherland Local Government Areas**



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PREDICTED AIRCRAFT OVERFLIGHT NOISE FOR COMMUNITY ASSESSMENT AREAS

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006	2016	2006	2016	2006	2016	2006	2016
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	11055	15130 ¹	15990	15990	16140	16140	15990	15990	16140	16140
Educational Facilities ²		7	7	7	7	7	7	7	7	7
Other Noise Sensitive ³ Land Uses		14	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	50	L _{A90}	7am to 7pm	32
	7pm to 10pm	50		7pm to 10pm	30
	10pm to 7am	43		10pm to 7am	26

Monitored at: 21 Arafura Ave, Mount Pleasant

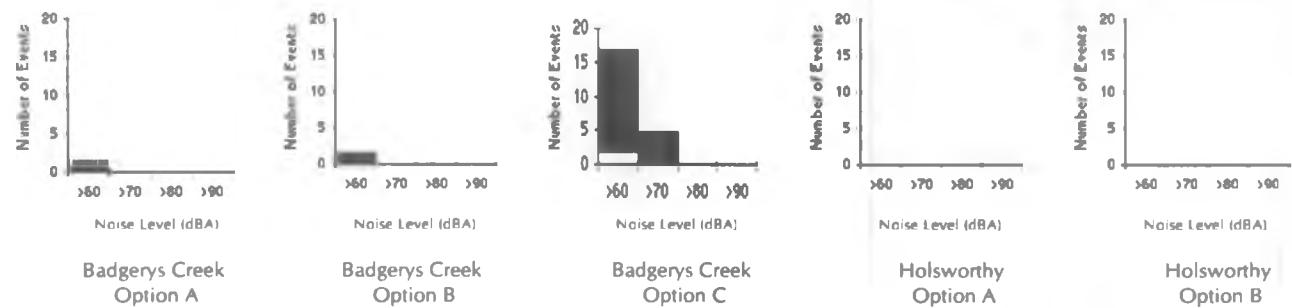
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L _{Aeq} 24 Hour ¹	22 - 30	21 - 30	29 - 41	27 - 32	26 - 32	34 - 42	-3 - 13	3 - 16	2 - 17	10 - 18
L _{Aeq} 10pm-6am ¹	11 - 19	10 - 19	14 - 29	14 - 19	13 - 19	19 - 28	-14 - 6	-6 - 10	-11 - 7	0 - 9
ANEC ²	-12 --7	-11 --6	-7 - 5	-6 --4	-6 --4	-2 - 7	19 --1	20 --1	-15 --8	-15 --9
Number of Noise Events										
Over 60 dBA per 24 Hours	0 - 1	0 - 1	1 - 13	0 - 2	0 - 2	2 - 17	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 3	0 - 0	0 - 0	1 - 5	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 4	0 - 0	0 - 0	1 - 6	0 - 0	0 - 0	0 - 0	0 - 0
Sleep Disturbance Index	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

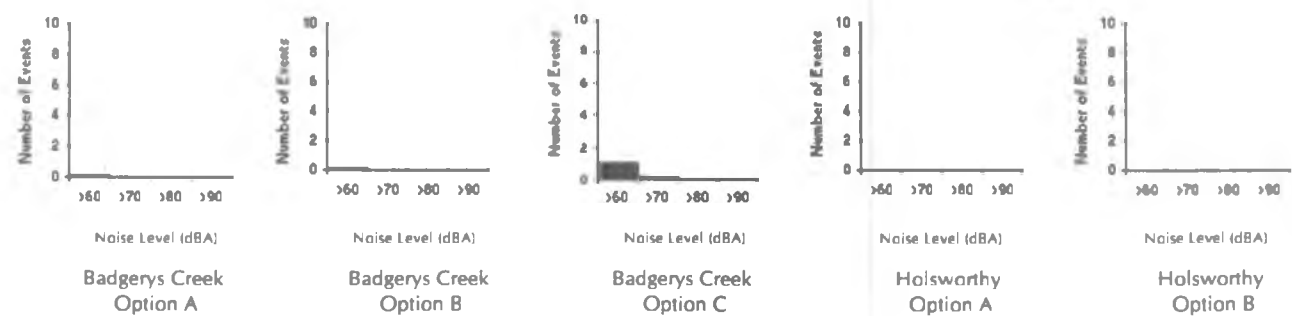
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	3102	3020 ¹	5070	5070	10390	10390	5070	5070	10390	10390
Educational Facilities ²		1	1	1	2	2	1	1	2	2
Other Noise Sensitive Land Uses ³		1	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	49	L _{A90}	7am to 7pm	37
	7pm to 10pm	46		7pm to 10pm	36
	10pm to 7am	46		10pm to 7am	30

Monitored at: 231 Seventh Ave, Llandillo

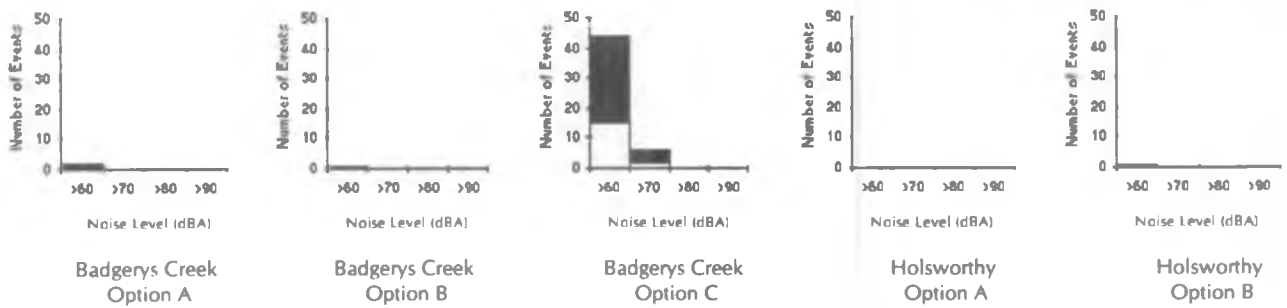
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour ¹	22 - 29	20 - 27	38 - 46	26 - 31	25 - 29	41 - 45	4 - 19	9 - 22	6 - 19	16 - 24
L_{Aeq} 10pm-6am ¹	12 - 16	10 - 14	29 - 35	14 - 19	12 - 17	31 - 34	-7 - 12	0 - 15	-5 - 9	7 - 16
ANEC ²	-14 - -8	-12 - -7	3 - 10	-6 - -5	-8 - -5	5 - 9	18 - -1	18 - -1	-14 - -8	-12 - -9
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 0	0 - 0	8 - 49	0 - 2	0 - 1	15 - 44	0 - 0	0 - 0	0 - 0	0 - 1
Over 70 dBA per 24 Hours	0 - 0	0 - 0	1 - 8	0 - 0	0 - 0	2 - 6	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	1 - 4	0 - 0	0 - 0	1 - 3	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	2 - 14	0 - 0	0 - 0	3 - 11	0 - 0	0 - 0	0 - 0	0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0.1	0 - 0	0 - 0	0 - 0.1	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

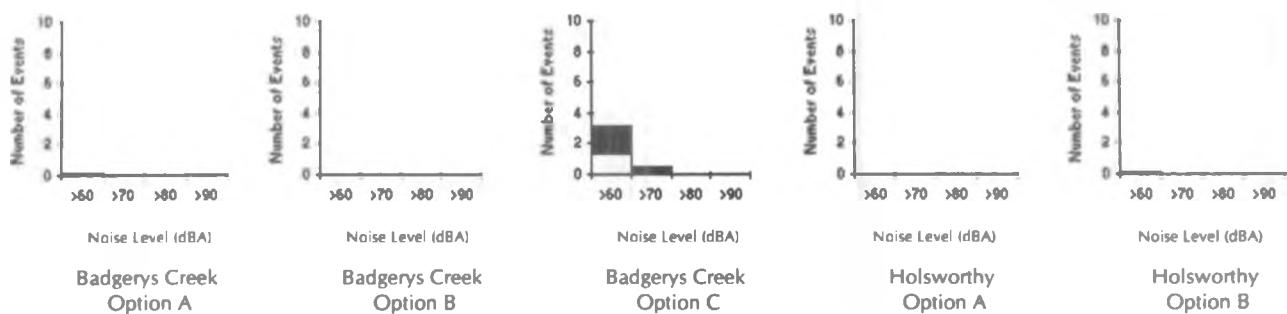
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek				Holsworthy			
	1991	1996	2006	2016	2006	2016	2006	2016
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B
Estimated Population	4327	4350 ¹	4470	4470	4590	4590	4470	4470
Educational Facilities ²		2	2	2	2	2	2	2
Other Noise Sensitive Land Uses ³		1	N/E ⁴	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	49	L _{A90}	7am to 7pm	35
	7pm to 10pm	42		7pm to 10pm	36
	10pm to 7am	42		10pm to 7am	29

Monitored at: 14 Willow Road, St Marys North

Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour ¹	28 - 36	27 - 35	28 - 37	33 - 39	32 - 38	43 - 46	11 - 25	16 - 29	14 - 25	22 - 31
L_{Aeq} 10pm-6am ¹	15 - 24	14 - 23	18 - 25	19 - 27	17 - 25	32 - 35	1 - 17	6 - 22	3 - 14	13 - 22
ANEC ²	-8 - -3	-7 - -1	-7 - 3	-2 - 3	-3 - 1	6 - 13	15 - -1	-14 - -6	-13 - -8	-9 - -4
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 3	1 - 5	0 - 5	3 - 13	2 - 9	22 - 43	0 - 0	0 - 1	0 - 0	0 - 2
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	3 - 8	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	2 - 3	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 1	0 - 1	0 - 1	0 - 2	0 - 2	5 - 12	0 - 0	0 - 0	0 - 0	0 - 1
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0.1	0 - 0	0 - 0	0 - 0	0 - 0

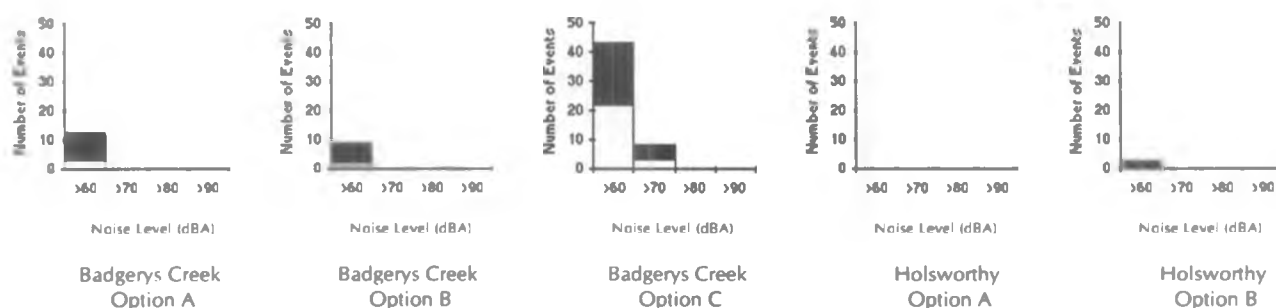
Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

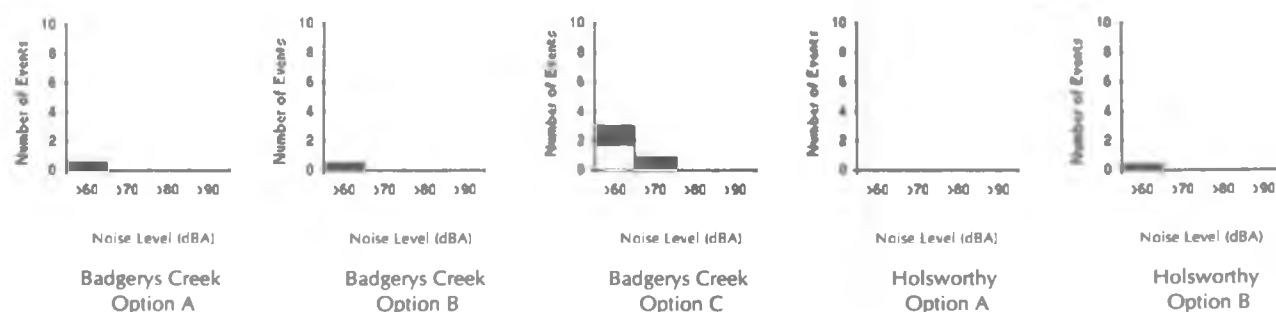
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

 Potential Range of Events


2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

 Potential Range of Events


AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	45912	50730 ¹	52220	52220	55370	55370	52220	52220	55370	55370
Educational Facilities ²		18	18	18	19	19	18	18	19	19
Other Noise Sensitive ³ Land Uses		35	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres
4. Not estimated for future years

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	51	L _{A90}	7am to 7pm	35
	7pm to 10pm	50		7pm to 10pm	38
	10pm to 7am	40		10pm to 7am	32

Monitored at: 60 Tarawa Road, Lethbridge Park

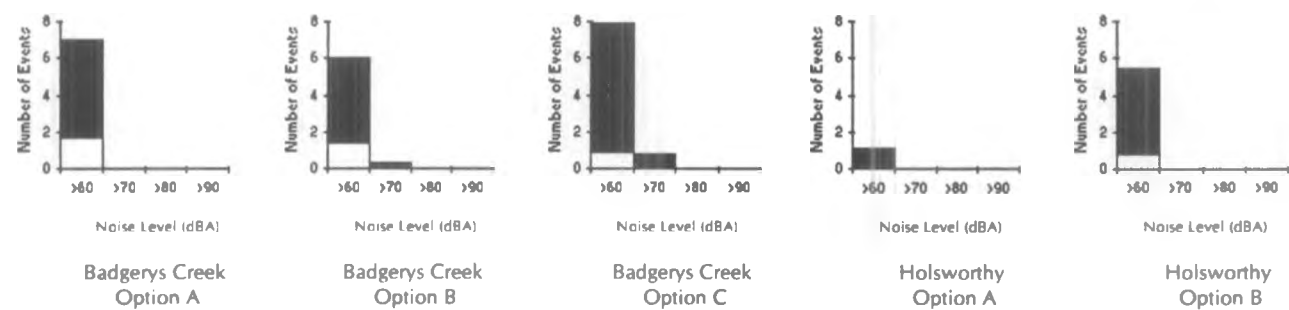
Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour	26 - 34	26 - 34	22 - 29	31 - 37	31 - 36	32 - 38	18 - 30	18 - 30	21 - 29	24 - 32
L _{Aeq} 10pm-6am ¹	13 - 22	13 - 21	12 - 17	18 - 24	17 - 25	20 - 27	8 - 22	8 - 24	10 - 19	14 - 23
ANEC ²	-8 - -2	-8 - -2	-9 - 0	-3 - 1	-3 - 1	-2 - 5	-13 - -4	-13 - -4	-9 - -6	-8 - -2
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 4	0 - 3	0 - 0	2 - 7	1 - 6	1 - 8	0 - 1	0 - 3	0 - 1	1 - 5
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1	0 - 0	0 - 1
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 1	0 - 1	0 - 0	0 - 1	0 - 1	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

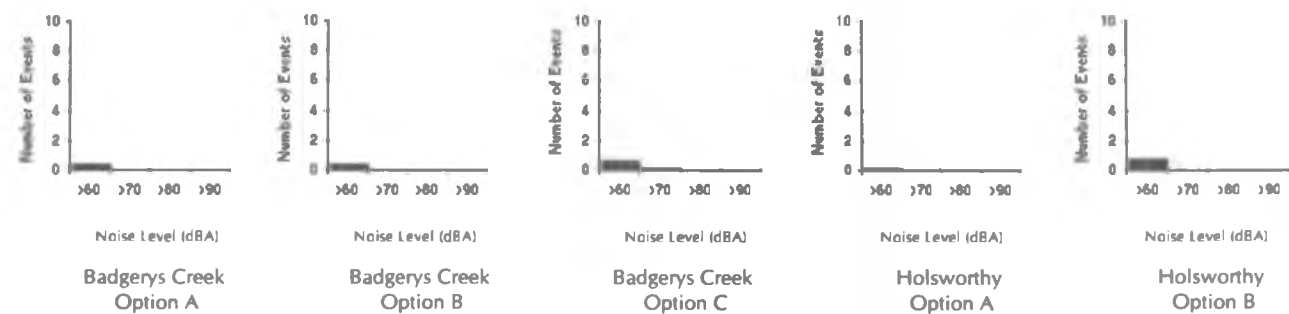
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	13626	22620 ¹	24660	24660	24830	24830	24660	24660	24830	24830
Educational Facilities ²		10	10	10	10	10	10	10	10	10
Other Noise Sensitive Land Uses ³		12	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	52	L _{A90}	7am to 7pm	34
	7pm to 10pm	49		7pm to 10pm	38
	10pm to 7am	43		10pm to 7am	33

Monitored at: 24 Adrienne Road, Glendenning

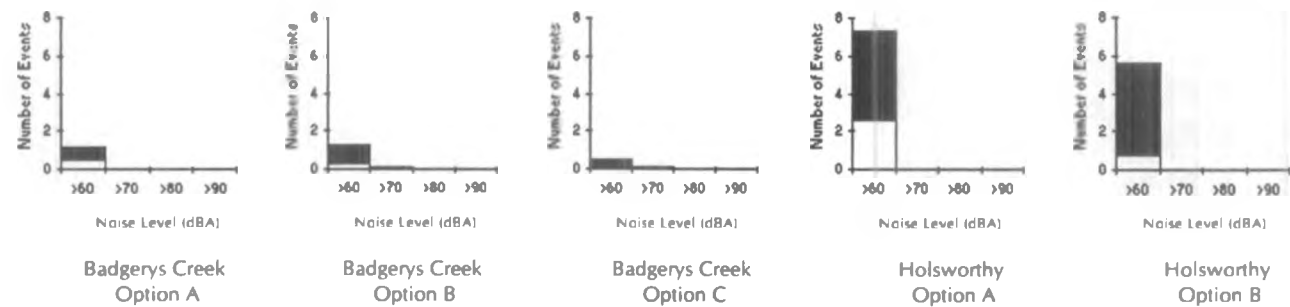
Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹	21 - 28	20 - 28	15 - 22	27 - 31	26 - 31	23 - 30	30 - 37	18 - 30	33 - 36	25 - 33
L _{Aeq} 10pm-6am ¹	11 - 19	10 - 17	6 - 10	17 - 19	15 - 20	13 - 19	21 - 27	8 - 24	23 - 25	15 - 24
ANEC ²	-11 - -7	-12 - -7	-15 - -8	-7 - -4	-7 - -3	-9 - -4	-6 - 0	-13 - -4	-3 - 0	-8 - -2
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 1	0 - 0	0 - 0	0 - 1	0 - 1	0 - 1	1 - 12	0 - 3	3 - 7	1 - 6
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 1	0 - 1	0 - 1
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1	0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

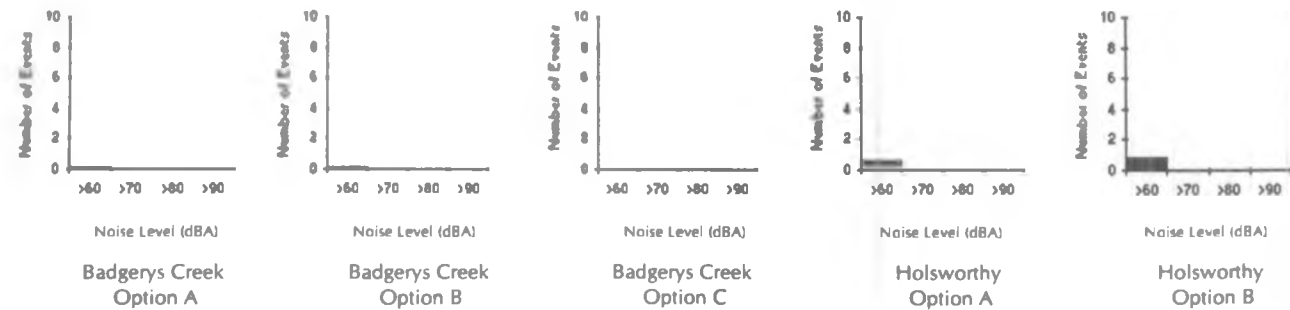
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	13541	16370 ¹	17660	17660	17660	17660	17660	17660	17660	17660
Educational Facilities ²		8	8	8	8	8	8	8	8	8
Other Noise Sensitive Land Uses ³		18	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes

1.

2.

3.

4.

Rounded to nearest 10.

Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years

Includes hospitals, churches, aged persons facilities and child care centres

Not estimated for future years

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	52	L _{A90}	7am to 7pm	43
	7pm to 10pm	51		7pm to 10pm	41
	10pm to 7am	47		10pm to 7am	37

Monitored at: 39 Birdwood Ave, Doonside

Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour	23 - 31	22 - 29	11 - 18	29 - 33	27 - 31	20 - 26	33 - 42	17 - 29	37 - 42	24 - 32
L_{Aeq} 10pm-6am ¹	13 - 21	12 - 19	2 - 7	19 - 21	17 - 20	10 - 16	24 - 31	7 - 22	27 - 30	14 - 23
ANEC ²	-14 --7	-13 --7	-16 --8	-6 --3	-7 --4	-11 --5	-2 - 5	-13 --6	1 - 5	-8 --3
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 1	0 - 1	0 - 0	1 - 2	0 - 1	0 - 0	3 - 33	0 - 2	8 - 28	0 - 3
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 3	0 - 0	1 - 2	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 3	0 - 0	1 - 4	0 - 1
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

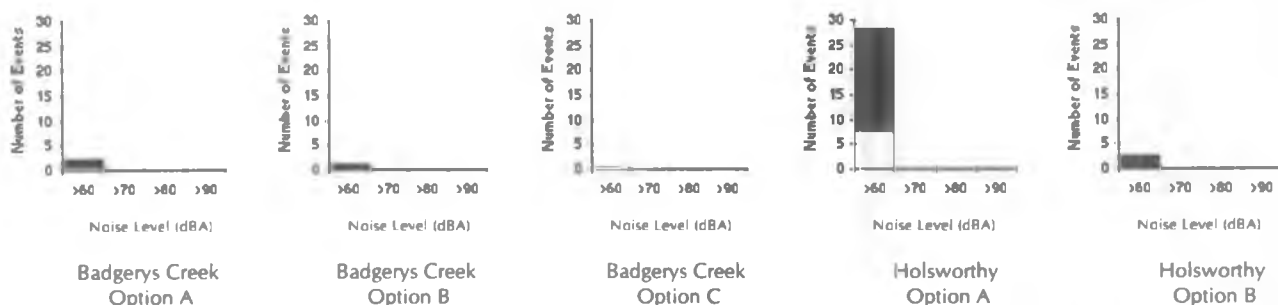
Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

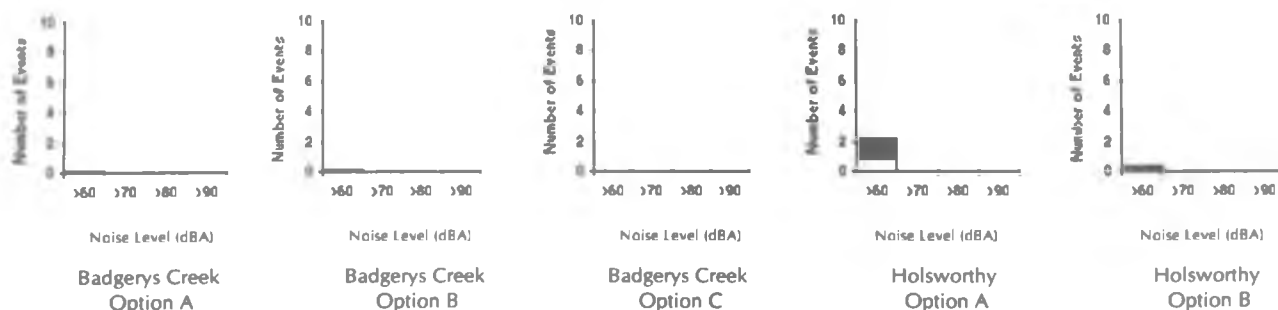
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

 Potential Range of Events


2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

 Potential Range of Events


AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	18696	19530 ¹	20370	20370	20660	20660	20370	20370	20660	20660
Educational Facilities ²		10	10	10	10	10	10	10	10	10
Other Noise Sensitive ³ Land Uses		20	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes

1.

2.

3.

4.

Rounded to nearest 10.

Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.

Includes hospitals, churches, aged persons facilities and child care centres.

Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	48	L _{A90}	7am to 7pm	38
	7pm to 10pm	47		7pm to 10pm	37
	10pm to 7am	41		10pm to 7am	36

Monitored at: 11 Finn Place, Maryong

Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour ¹	24 - 33	23 - 31	4 - 13	30 - 35	28 - 33	14 - 24	27 - 34	13 - 26	36 - 40	20 - 29
L_{Aeq} 10pm-6am ¹	13 - 22	13 - 21	-3 - 3	19 - 24	17 - 22	5 - 14	17 - 25	4 - 19	27 - 29	11 - 20
ANEC ²	-14 - -8	-11 - -5	-16 - -8	-5 - -1	-6 - -3	-12 - -6	-9 - -2	-15 - -9	1 - 3	-9 - -6
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 0	0 - 1	0 - 0	1 - 4	0 - 2	0 - 0	0 - 4	0 - 1	7 - 27	0 - 1
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	1 - 2	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 2	0 - 0	0 - 3	0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

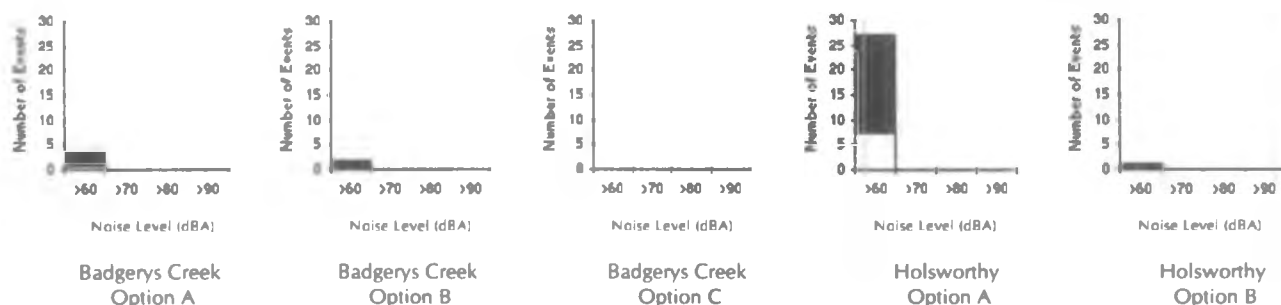
Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

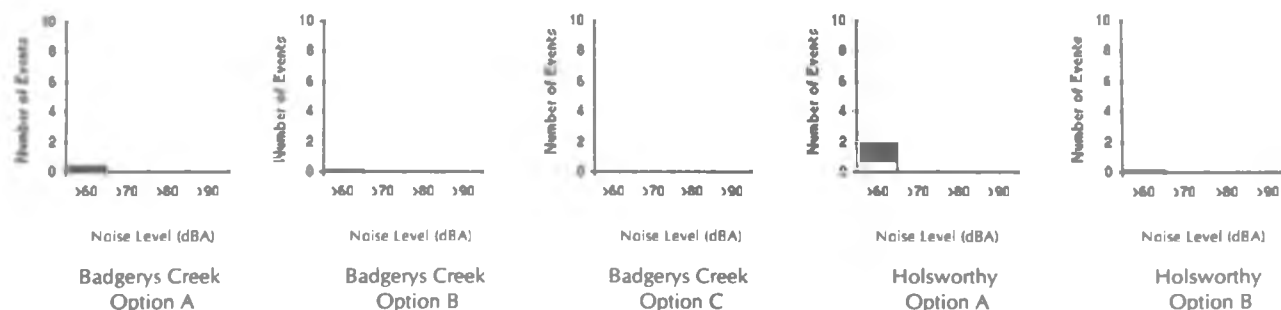
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

 Potential Range of Events


2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

 Potential Range of Events


AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	31834	35190 ¹	36850	36850	36980	36980	36850	36850	36980	36980
Educational Facilities ²		16	16	16	16	16	16	16	16	16
Other Noise Sensitive Land Uses ³		34	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	50	L _{A90}	7am to 7pm	36
	7pm to 10pm	48		7pm to 10pm	37
	10pm to 7am	44		10pm to 7am	35

Monitored at: 66 Joseph Street, Blacktown

Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour	34 - 41	33 - 40	7 - 14	40 - 43	37 - 41	16 - 24	30 - 37	15 - 27	39 - 44	22 - 30
L_{Aeq} 10pm-6am ¹	25 - 31	23 - 30	-2 - 6	30 - 32	26 - 30	6 - 13	22 - 27	6 - 20	29 - 32	12 - 22
ANEC ²	-8 - 1	-3 - 5	-16 - -8	4 - 9	1 - 7	-11 - -5	-5 - 2	-14 - -7	4 - 7	-8 - -4
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 4	1 - 12	0 - 0	11 - 24	5 - 16	0 - 0	1 - 8	0 - 1	11 - 38	0 - 1
Over 70 dBA per 24 Hours	0 - 1	0 - 2	0 - 0	0 - 3	0 - 3	0 - 0	0 - 1	0 - 0	0 - 2	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 1	0 - 0	1 - 2	0 - 1	0 - 0	0 - 1	0 - 0	1 - 3	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 1	0 - 2	0 - 0	2 - 5	0 - 3	0 - 0	0 - 1	0 - 0	2 - 7	0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0.1	0 - 0

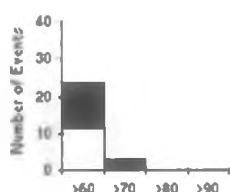
Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

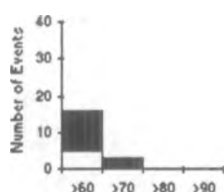
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

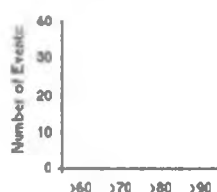
2016 - Number of Noise Events per 24 Hours (on average):

 Potential Range of Events


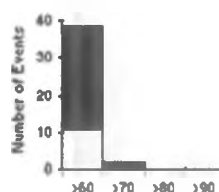
Badgerys Creek
Option A



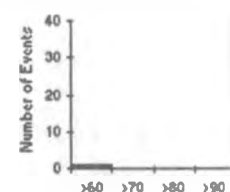
Badgerys Creek
Option B



Badgerys Creek
Option C

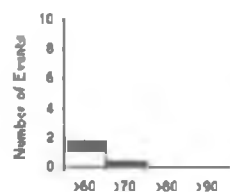


Holsworthy
Option A

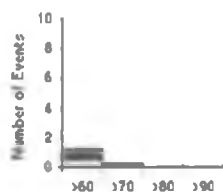


Holsworthy
Option B

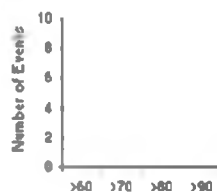
2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

 Potential Range of Events


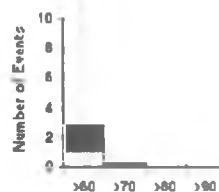
Badgerys Creek
Option A



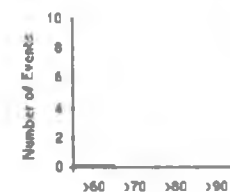
Badgerys Creek
Option B



Badgerys Creek
Option C



Holsworthy
Option A



Holsworthy
Option B

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	8799	10350 ¹	11870	11870	12460	12460	11870	11870	12460	12460
Educational Facilities ²		5	5	5	5	5	5	5	5	5
Other Noise Sensitive ³ Land Uses		11	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	46	L _{A90}	7am to 7pm	36
	7pm to 10pm	43		7pm to 10pm	37
	10pm to 7am	40		10pm to 7am	30

Monitored at: 6 Catherine Crescent, Rooty Hill

Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour ¹	25 - 32	24 - 31	16 - 22	31 - 34	30 - 33	24 - 30	30 - 36	19 - 32	32 - 35	26 - 35
L_{Aeq} 10pm-6am ¹	15 - 23	14 - 22	6 - 11	21 - 23	20 - 22	14 - 18	21 - 27	10 - 25	22 - 25	16 - 26
ANEC ²	-10 --5	-10 --5	-14 --7	-4 --2	-5 --2	-9 --4	-6 - 1	-12 --3	-4 --1	-7 - 0
Number of Noise Events										
Over 60 dBA per 24 Hours	0 - 1	0 - 1	0 - 0	1 - 3	0 - 1	0 - 1	1 - 4	0 - 4	1 - 4	1 - 6
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

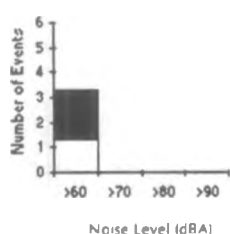
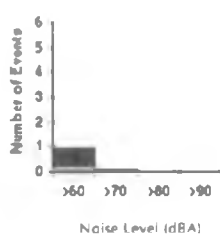
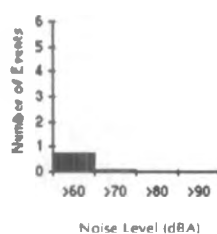
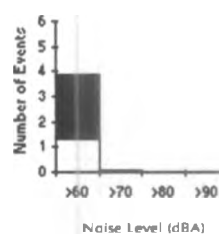
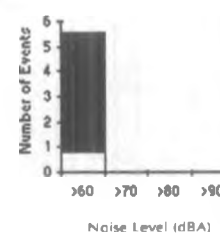
Note: 1. These forecast L_{Aeq} noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

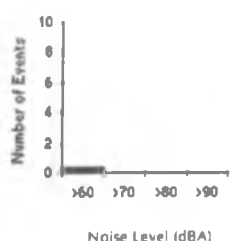
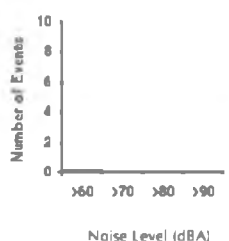
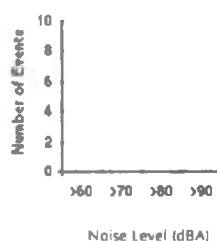
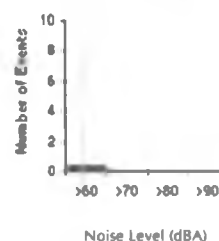
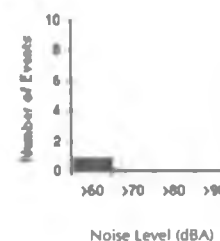
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

 Potential Range of Events
Badgerys Creek
Option ABadgerys Creek
Option BBadgerys Creek
Option CHolsworthy
Option AHolsworthy
Option B

2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

 Potential Range of Events
Badgerys Creek
Option ABadgerys Creek
Option BBadgerys Creek
Option CHolsworthy
Option AHolsworthy
Option B

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	11789	13390 ¹	13740	13740	13880	13880	13740	13740	13880	13880
Educational Facilities ²		7	7	7	7	7	7	7	7	7
Other Noise Sensitive Land Uses ³		22	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes

1.

2.

3.

4.

Rounded to nearest 10.

Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.

Includes hospitals, churches, aged persons facilities and child care centres.

Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	56, 48	L _{A90}	7am to 7pm	39, 37
	7pm to 10pm	59, 45		7pm to 10pm	39, 39
	10pm to 7am	56, 42		10pm to 7am	33, 30

Monitored at: 58 Fuller Street, Mount Druitt, 192 McFarlane Drive, Minchinbury

Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L_{Aeq} 24 Hour	26 - 34	26 - 34	20 - 25	32 - 36	32 - 36	27 - 33	23 - 33	20 - 33	25 - 31	27 - 35
L_{Aeq} 10pm-6am ¹	16 - 23	15 - 22	10 - 14	22 - 24	21 - 24	16 - 21	13 - 24	11 - 26	15 - 21	17 - 26
ANEC ²	-7 --1	-8 --3	-13 --6	-2 - 0	-3 - 0	-6 --2	-11 --2	-12 --2	-7 --4	-6 - 1
Number of Noise Events										
Over 60 dBA per 24 Hours	1 - 5	0 - 2	0 - 0	2 - 4	2 - 4	0 - 1	0 - 1	0 - 3	0 - 1	1 - 5
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 1	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 2
Sleep Disturbance Index	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

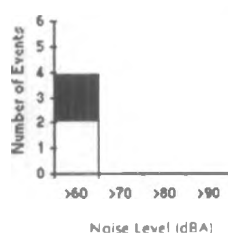
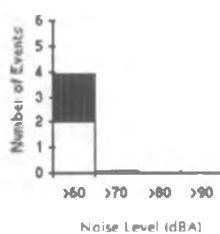
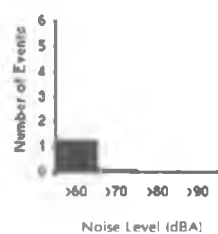
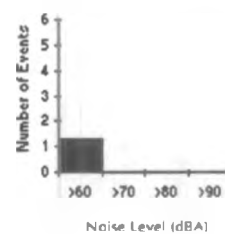
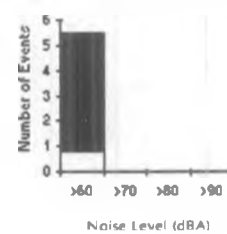
Note: 1. These forecast L_{Aeq} noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

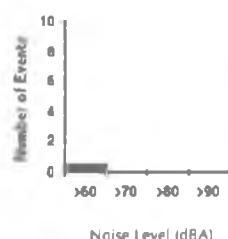
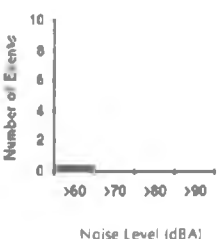
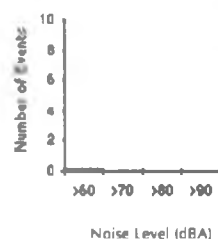
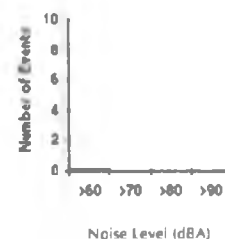
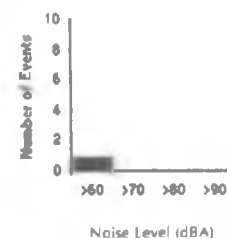
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

 Potential Range of Events
Badgerys Creek
Option ABadgerys Creek
Option BBadgerys Creek
Option CHolsworthy
Option AHolsworthy
Option B

2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

 Potential Range of Events
Badgerys Creek
Option ABadgerys Creek
Option BBadgerys Creek
Option CHolsworthy
Option AHolsworthy
Option B

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 11

SHEET 1 / 3

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	19867	21470 ¹	22160	22160	22730	22730	22160	22160	22730	22730
Educational Facilities ²		9	9	9	9	9	9	9	9	9
Other Noise Sensitive ³ Land Uses		20	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	47	L _{A90}	7am to 7pm	34
	7pm to 10pm	41		7pm to 10pm	34
	10pm to 7am	41		10pm to 7am	27

Monitored at: 1 Arnold Avenue, St Marys

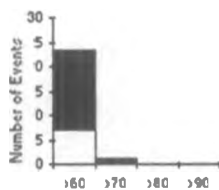
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L_{Aeq} 24 Hour ¹	31 - 39	30 - 38		36 - 42	35 - 41		12 - 25	18 - 30	15 - 25	24 - 32
L_{Aeq} 10pm-6am ¹	18 - 27	17 - 26		23 - 30	22 - 29		2 - 16	8 - 23	5 - 14	14 - 24
ANEC ²	-6 - 1	-5 - 3		1 - 6	0 - 5		-16 --10	-13 --4	-13 --7	-8 --2
Number of Noise Events ³			Refer Following Pages			Refer Following Pages				
Over 60 dBA per 24 Hours	1 - 7	2 - 10		7 - 23	5 - 19		0 - 0	0 - 2	0 - 0	0 - 3
Over 70 dBA per 24 Hours	0 - 0	0 - 1		0 - 1	0 - 1		0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 1		0 - 1	0 - 1		0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 1	0 - 2		1 - 4	1 - 3		0 - 0	0 - 0	0 - 0	0 - 1
Sleep Disturbance Index ⁴	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0

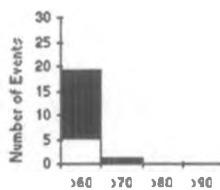
- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



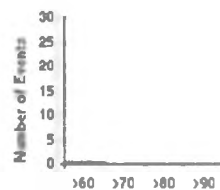
Noise Level (dBA)
Badgerys Creek
Option A



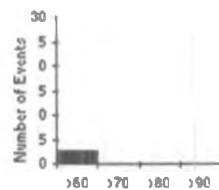
Noise Level (dBA)
Badgerys Creek
Option B

Refer Following
Pages

Badgerys Creek
Option C



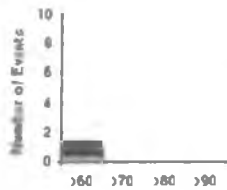
Noise Level (dBA)
Holsworthy
Option A



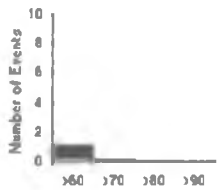
Noise Level (dBA)
Holsworthy
Option B

2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

Potential Range of Events



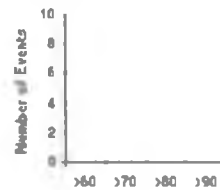
Noise Level (dBA)
Badgerys Creek
Option A



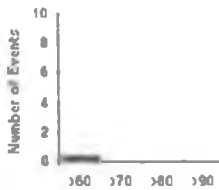
Noise Level (dBA)
Badgerys Creek
Option B

Refer Following
Pages

Badgerys Creek
Option C



Noise Level (dBA)
Holsworthy
Option A



Noise Level (dBA)
Holsworthy
Option B

Social Characteristics for Badgerys Creek Option C:

	Sub Area: 11.C1			Sub Area: 11.C2		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	21010	21690	22240	460	470	490
Educational Facilities ²	9	9	9	0	0	0
Other Noise Sensitive ³ Land Uses	20			0		

- Notes:
- 1. Rounded to nearest 10
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 11.C1		Sub Area: 11.C2	
	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	25 - 33	37 - 44	33 - 41	49 - 53
L _{Aeq} 10pm-6am ¹	15 - 21	26 - 33	23 - 30	39 - 42
ANEC ²	-5 - -2	2 - 9	2 - 6	14 - 17
Number of Noise Events ³				
Over 60 dBA per 24 Hours	0 - 0	4 - 25	0 - 1	52 - 84
Over 70 dBA per 24 Hours	0 - 0	0 - 4	0 - 0	14 - 37
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 2
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 2	0 - 0	4 - 6
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	1 - 3
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 0	0 - 4	0 - 0	14 - 31
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0.1 - 0.2

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	20759	21790 ¹	22120	22120	23100	23100	22120	22120	23100	23100
Educational Facilities ²		7	7	7	7	7	7	7	7	7
Other Noise Sensitive Land Uses ³		13	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	54	L _{A90}	7am to 7pm	35
	7pm to 10pm	48		7pm to 10pm	33
	10pm to 7am	36		10pm to 7am	25

Monitored at: 3 Loxwood Avenue, Camebridge Park

Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour ¹	26 - 34	25 - 33	42 - 51	31 - 36	30 - 36	45 - 50	2 - 18	12 - 25	6 - 21	18 - 26
L_{Aeq} 10pm-6am ¹	15 - 21	14 - 21	33 - 40	19 - 24	18 - 23	35 - 39	-9 - 9	3 - 19	-7 - 10	8 - 17
ANEC ²	-8 - -3	-8 - -4	8 - 15	-3 - 0	-3 - -1	9 - 15	18 - -1	-16 - -9	-14 - -8	-11 - -8
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 3	0 - 2	20 - 92	1 - 3	1 - 3	38 - 97	0 - 0	0 - 1	0 - 0	0 - 1
Over 70 dBA per 24 Hours	0 - 0	0 - 0	3 - 26	0 - 0	0 - 0	4 - 19	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	2 - 6	0 - 0	0 - 0	3 - 7	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 3	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	4 - 30	0 - 0	0 - 0	8 - 27	0 - 0	0 - 0	0 - 0	0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0.1 - 0.2	0 - 0	0 - 0	0.1 - 0.2	0 - 0	0 - 0	0 - 0	0 - 0

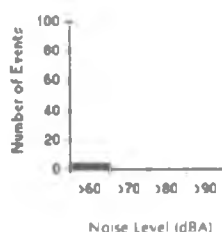
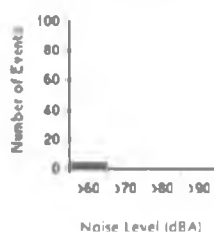
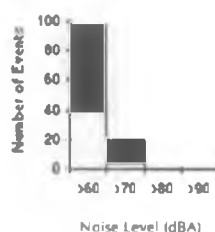
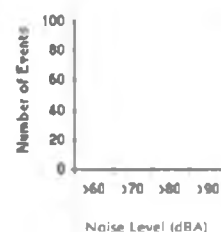
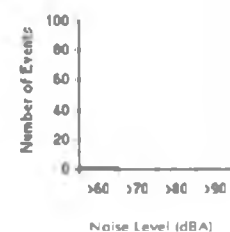
Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

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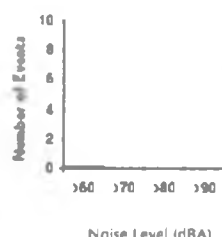
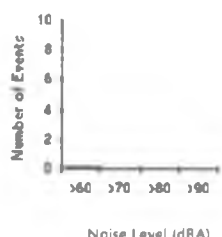
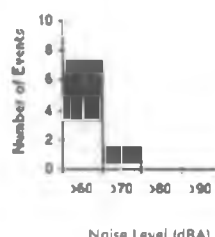
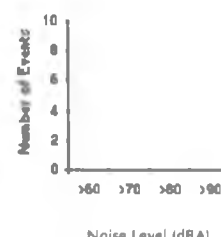
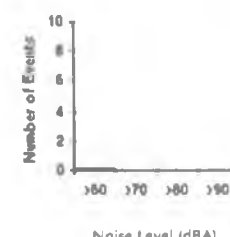
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

 Potential Range of Events
Badgerys Creek
Option ABadgerys Creek
Option BBadgerys Creek
Option CHolsworthy
Option AHolsworthy
Option B

2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

 Potential Range of Events
Badgerys Creek
Option ABadgerys Creek
Option BBadgerys Creek
Option CHolsworthy
Option AHolsworthy
Option B

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	29243	30910 ¹	30910	30910	30910	30910	30910	30910	30910	30910
Educational Facilities ²		11	11	11	11	11	11	11	11	11
Other Noise Sensitive Land Uses ³		26	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	49	L _{A90}	7am to 7pm	34
	7pm to 10pm	46		7pm to 10pm	35
	10pm to 7am	42		10pm to 7am	28

Monitored at: 20 Treetops Ave, Penrith

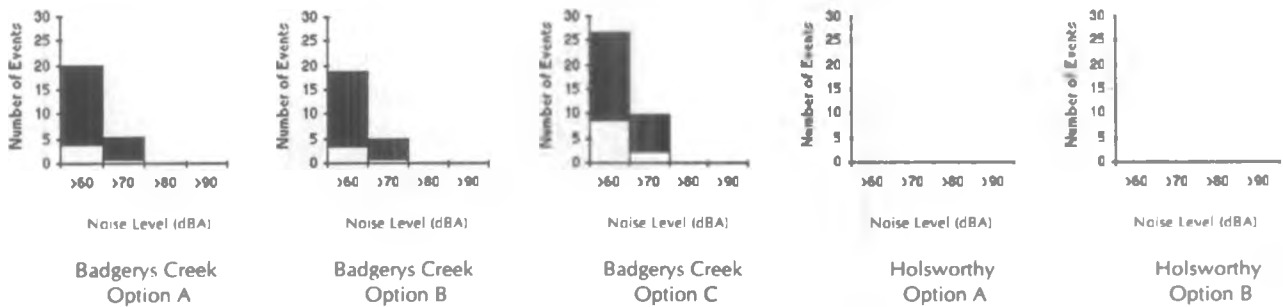
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹	32 - 41	31 - 41	35 - 45	37 - 43	36 - 43	40 - 46	-1 - 15	4 - 17	5 - 20	10 - 18
L _{Aeq} 10pm-6am ¹	18 - 29	16 - 28	23 - 33	22 - 29	21 - 29	28 - 32	-15 - 5	-5 - 10	-10 - 10	0 - 9
ANEC ²	-5 - 5	-4 - 6	-1 - 9	2 - 9	1 - 8	4 - 10	19 --1	19 --1	-14 - -8	-15 --9
Number of Noise Events ³										
Over 60 dBA per 24 Hours	1 - 12	1 - 13	2 - 19	4 - 20	3 - 19	9 - 27	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per 24 Hours	0 - 3	0 - 3	0 - 6	1 - 5	1 - 5	2 - 10	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1 - 2	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 4	0 - 4	1 - 7	1 - 7	1 - 6	3 - 10	0 - 0	0 - 0	0 - 0	0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	14509	15550 ¹	16820	16820	17810	17810	16820	16820	17810	17810
Educational Facilities ²		7	7	7	7	7	7	7	7	7
Other Noise Sensitive Land Uses ³		15	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	56	L _{A90}	7am to 7pm	36
	7pm to 10pm	46		7pm to 10pm	31
	10pm to 7am	58		10pm to 7am	28

Monitored at: 18 McAuley Cres., Emu Plains

Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour ¹	30 - 40	29 - 40	31 - 41	35 - 42	35 - 42	37 - 43	-3 - 13	6 - 12	4 - 20	5 - 13
L_{Aeq} 10pm-6am ¹	15 - 28	14 - 27	20 - 30	20 - 28	19 - 29	26 - 31	-19 - 2	-10 - 5	-13 - 10	-2 - 4
ANEC ²	-6 - 4	-5 - 5	-5 - 5	0 - 8	0 - 7	1 - 6	19 -- 1	20 -- 1	-14 - -8	-15 - -9
Number of Noise Events ³										
Over 60 dBA per 24 Hours	1 - 10	1 - 11	1 - 9	3 - 17	3 - 17	5 - 14	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per 24 Hours	0 - 2	0 - 3	0 - 4	1 - 5	1 - 5	2 - 7	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 4	0 - 4	0 - 4	1 - 6	1 - 5	1 - 5	0 - 0	0 - 0	0 - 0	0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

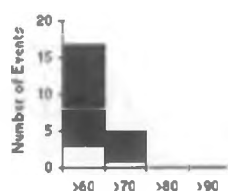
Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

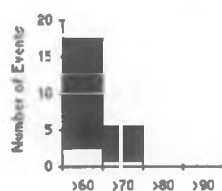
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

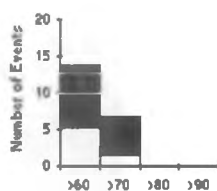
2016 - Number of Noise Events per 24 Hours (on average):

 Potential Range of Events


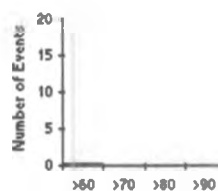
Noise Level (dBA)

Badgerys Creek
Option A

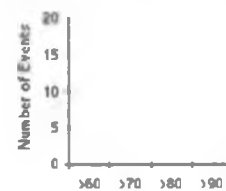
Noise Level (dBA)

Badgerys Creek
Option B

Noise Level (dBA)

Badgerys Creek
Option C

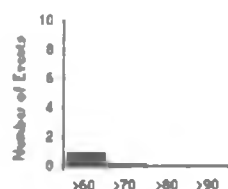
Noise Level (dBA)

Holsworthy
Option A

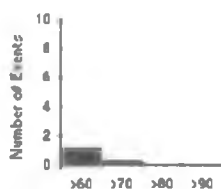
Noise Level (dBA)

Holsworthy
Option B

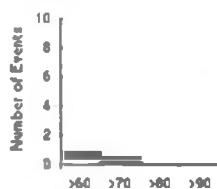
2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

 Potential Range of Events


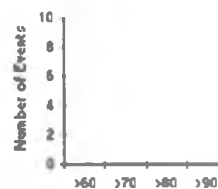
Noise Level (dBA)

Badgerys Creek
Option A

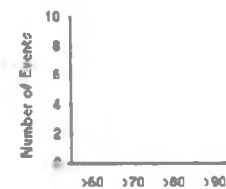
Noise Level (dBA)

Badgerys Creek
Option B

Noise Level (dBA)

Badgerys Creek
Option C

Noise Level (dBA)

Holsworthy
Option A

Noise Level (dBA)

Holsworthy
Option B

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 15

SHEET 1 / 3

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	2720	10500 ¹	19420	19420	20440	20440	19420	19420	20440	20440
Educational Facilities ²		8	9	9	10	10	9	9	10	10
Other Noise Sensitive Land Uses ³		9	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	53, 51	L _{A90}	7am to 7pm	36, 33
	7pm to 10pm	44, 42		7pm to 10pm	34, 32
	10pm to 7am	45, 41		10pm to 7am	26, 27

Monitored at: 1209 Mulgoa Road, Mulgoa, 5 Bulu Drive, Glenmore Park

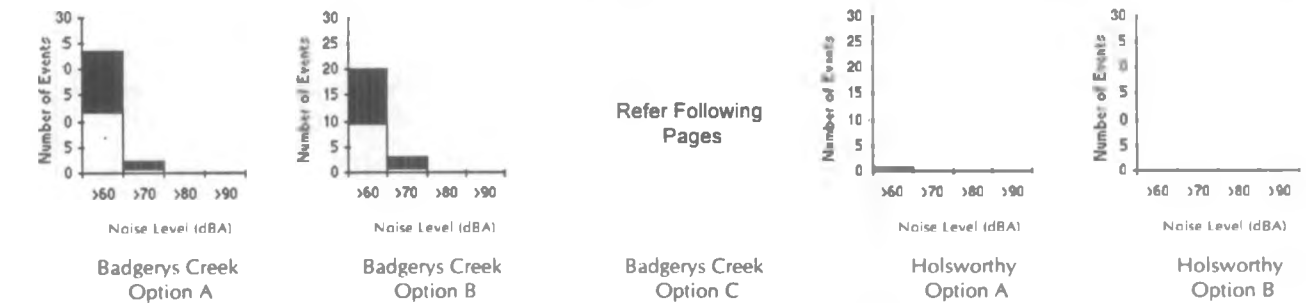
Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹	34 - 40	33 - 39		39 - 42	38 - 43		19 - 25	17 - 21	21 - 27	5 - 13
L _{Aeq} 10pm-6am ¹	25 - 30	24 - 29		28 - 32	27 - 31		-4 - 12	-3 - 5	1 - 13	1 - 4
ANEC ²	-5 - -2	-3 - -5		4 - 8	3 - 8		-15 - -9	-16 - -10	-10 - -7	-15 - -9
Number of Noise Events ³			Refer Following Pages			Refer Following Pages				
Over 60 dBA per 24 Hours	1 - 8	2 - 10		12 - 23	10 - 20		0 - 1	0 - 0	0 - 1	0 - 0
Over 70 dBA per 24 Hours	0 - 1	0 - 1		1 - 2	1 - 3		0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 1		1 - 1	1 - 1		0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 1	0 - 2		2 - 5	1 - 4		0 - 0	0 - 0	0 - 0	0 - 0
Sleep Disturbance Index	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

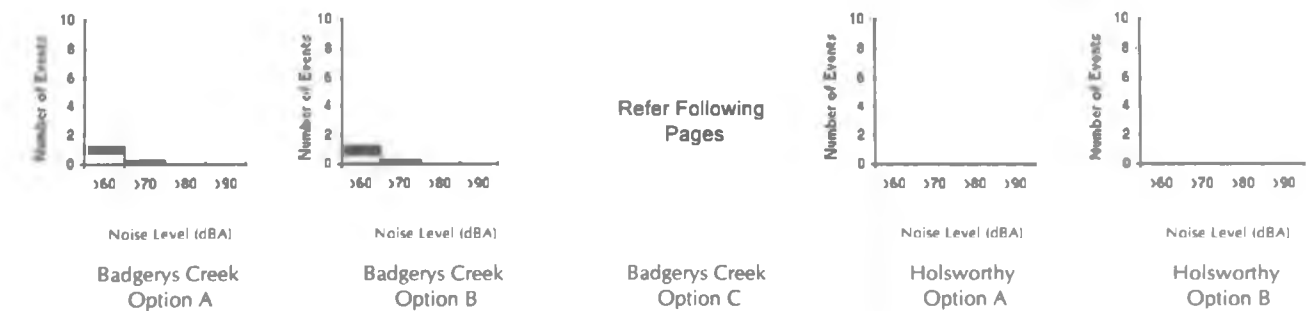
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

Potential Range of Events



Social Characteristics for Badgerys Creek Option C:

	Sub Area: 15.C1			Sub Area: 15.C2		
	1996	2006	2016	1996	2006	2016
Estimated Population	10170	18800	19800	330	600	650
Educational Facilities ²	8	9	10	0	0	0
Other Noise Sensitive ³ Land Uses	9			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 15.C1		Sub Area: 15.C2	
	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	34 - 41	39 - 43	37 - 49	43 - 52
L _{Aeq} 10pm-6am ¹	24 - 32	29 - 33	25 - 41	30 - 41
ANEC ²	-2 - 6	4 - 9	3 - 17	8 - 19
Number of Noise Events ³				
Over 60 dBA per 24 Hours	2 - 14	9 - 25	4 - 43	13 - 86
Over 70 dBA per 24 Hours	0 - 2	1 - 3	1 - 18	3 - 29
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 2	0 - 4
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 2	1 - 2	0 - 4	0 - 7
Over 70 dBA per Night	0 - 0	0 - 0	0 - 2	0 - 3
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 4	1 - 7	1 - 14	3 - 26
Sleep Disturbance Index ⁴	0 - 0	0 - 0.1	0 - 0.1	0 - 0.2

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 16

SHEET 1 / 3

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	207	260 ¹	270	270	280	270	270	270	280	280
Educational Facilities ²		0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses		0	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	46	L _{A90}	7am to 7pm	37
	7pm to 10pm	43		7pm to 10pm	35
	10pm to 7am	41		10pm to 7am	27

Monitored at: 18 Claremont Road, RAAF Base

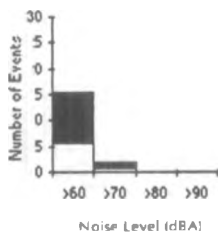
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹	31 - 39	31 - 39		37 - 41	37 - 41		17 - 25	7 - 19	23 - 28	12 - 20
L _{Aeq} 10pm-6am ¹	21 - 28	21 - 28		27 - 29	27 - 29		5 - 14	-2 - 12	12 - 16	2 - 11
ANEC ²	-2 - 5	-3 - 4		4 - 7	3 - 6		-16 - -9	-18 - -11	-10 - -6	-14 - -8
Number of Noise Events ³			Refer Following Pages			Refer Following Pages				
Over 60 dBA per 24 Hours	1 - 10	1 - 10		6 - 15	5 - 14		0 - 0	0 - 0	0 - 1	0 - 0
Over 70 dBA per 24 Hours	0 - 2	0 - 1		1 - 2	1 - 2		0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 1	0 - 1		0 - 1	0 - 1		0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 2	0 - 2		1 - 3	1 - 3		0 - 0	0 - 0	0 - 0	0 - 0
Sleep Disturbance Index	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0

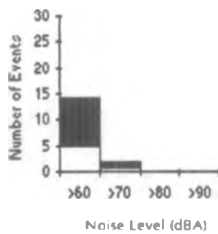
- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



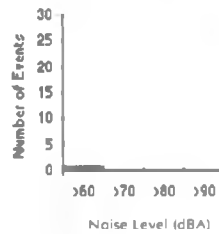
Badgerys Creek
Option A



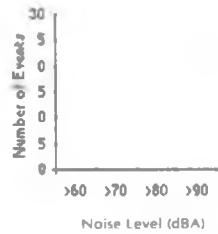
Badgerys Creek
Option B

Refer Following
Pages

Badgerys Creek
Option C



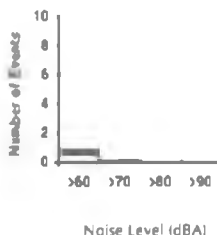
Holsworthy
Option A



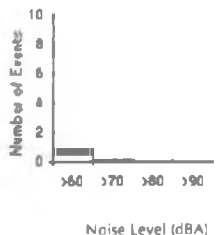
Holsworthy
Option B

2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

Potential Range of Events



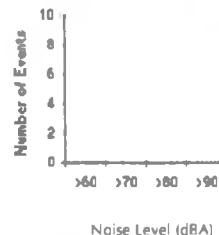
Badgerys Creek
Option A



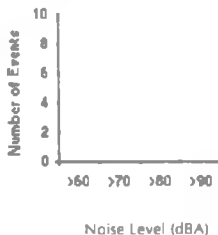
Badgerys Creek
Option B

Refer Following
Pages

Badgerys Creek
Option C



Holsworthy
Option A



Holsworthy
Option B

Social Characteristics for Badgerys Creek Option C:

	Sub Area: 16.C1			Sub Area: 16.C2			Sub Area: 16.C3			Sub Area: 16.C4			Sub Area: 16.C5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	80	80	80	180	190	190	0	0	0	0	0	0	0	0	0
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 16.C1		Sub Area: 16.C2		Sub Area: 16.C3		Sub Area: 16.C4		Sub Area: 16.C5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	40 - 49	46 - 50	43 - 49	48 - 51	42 - 53	47 - 54	52 - 61	55 - 61	38 - 50	43 - 52
L _{Aeq} 10pm-6am ¹	31 - 37	36 - 37	33 - 39	38 - 40	31 - 42	34 - 41	43 - 51	45 - 50	25 - 41	30 - 41
ANEC ²	6 - 15	11 - 17	9 - 15	15 - 17	8 - 19	12 - 21	17 - 26	22 - 29	3 - 17	9 - 19
Number of Noise Events ³										
Over 60 dBA per 24 Hours	9 - 32	29 - 59	14 - 42	47 - 73	9 - 61	35 - 114	22 - 104	85 - 202	4 - 50	14 - 94
Over 70 dBA per 24 Hours	2 - 13	7 - 18	3 - 15	13 - 26	1 - 22	4 - 34	13 - 85	47 - 167	1 - 15	3 - 25
Over 80 dBA per 24 Hours	0 - 2	0 - 4	0 - 2	1 - 3	0 - 6	1 - 9	2 - 33	10 - 53	0 - 2	0 - 3
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	1 - 3	2 - 4	2 - 4	4 - 5	1 - 5	3 - 8	3 - 9	8 - 17	0 - 4	0 - 7
Over 70 dBA per Night	0 - 1	1 - 1	0 - 1	1 - 2	0 - 2	0 - 2	2 - 6	4 - 13	0 - 2	0 - 2
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 4	1 - 4	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	3 - 10	9 - 16	3 - 13	13 - 22	1 - 19	5 - 31	9 - 47	30 - 87	1 - 16	4 - 29
Sleep Disturbance Index ⁴	0 - 0.1	0.1 - 0.1	0 - 0.1	0.1 - 0.2	0 - 0.2	0.1 - 0.2	0.1 - 0.5	0.3 - 0.9	0 - 0.1	0 - 0.2

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 17

SHEET 1 / 9

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	177	190	200	190	200	190	200	200	200	200
Educational Facilities ²		1	1	1	1	1	1	1	1	1
Other Noise Sensitive Land Uses ³		0	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	50, 49	L _{A90}	7am to 7pm	29, 38
	7pm to 10pm	41, 46		7pm to 10pm	31, 36
	10pm to 7am	42, 47		10pm to 7am	26, 31

Monitored at: 130 Gates Road, Luddenham, Roseland Lodge, Badgerys Creek

Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006		2016	
	A	B	C	A	B	C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour ¹							27 - 36	11 - 22	33 - 38	15 - 23
L_{Aeq} 10pm-6am ¹							15 - 27	1 - 15	21 - 27	8 - 14
ANEC ²							-8 - 0	-17 --10	-3 - 2	-12 --8
Number of Noise Events ³										
Over 60 dBA per 24 Hours	Refer Following Pages			Refer Following Pages			1 - 10	0 - 0	4 - 16	0 - 0
Over 70 dBA per 24 Hours							0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours							0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours							0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night							0 - 1	0 - 0	0 - 1	0 - 0
Over 70 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm							0 - 0	0 - 0	0 - 1	0 - 0
Sleep Disturbance Index ⁴							0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

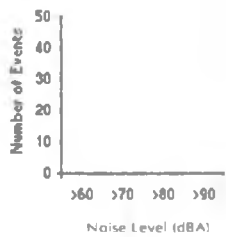
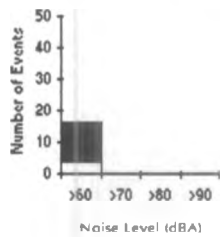
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events

Refer Following Pages

Refer Following Pages

Refer Following Pages



Badgerys Creek Option A

Badgerys Creek Option B

Badgerys Creek Option C

Holsworthy Option A

Holsworthy Option B

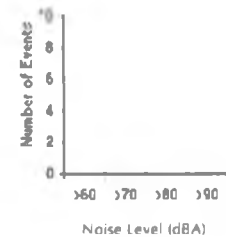
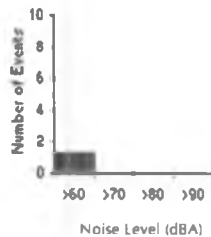
2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

Potential Range of Events

Refer Following Pages

Refer Following Pages

Refer Following Pages



Badgerys Creek Option A

Badgerys Creek Option B

Badgerys Creek Option C

Holsworthy Option A

Holsworthy Option B

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 17.AB1			Sub Area: 17.AB2			Sub Area: 17.AB3			Sub Area: 17.AB4			Sub Area: 17.AB5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	110	120	120	20	20	20	40	40	40	10	10	10	0	0	0
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 17.AB1		Sub Area: 17.AB2		Sub Area: 17.AB3		Sub Area: 17.AB4		Sub Area: 17.AB5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	31 - 38	47 - 52	29 - 37	44 - 47	34 - 42	47 - 52	35 - 44	50 - 56	36 - 46	52 - 59
L _{Aeq} 10pm-6am ¹	22 - 28	36 - 41	20 - 28	33 - 36	23 - 31	36 - 39	25 - 33	38 - 43	24 - 35	38 - 46
ANEC ²	-4 - 3	6 - 9	-7 - 2	2 - 5	-1 - 6	10 - 17	1 - 8	14 - 22	1 - 11	18 - 26
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 3	13 - 35	0 - 2	11 - 23	1 - 12	26 - 93	2 - 24	53 - 139	2 - 32	76 - 155
Over 70 dBA per 24 Hours	0 - 1	3 - 18	0 - 0	1 - 5	0 - 0	3 - 18	0 - 1	17 - 53	0 - 5	16 - 70
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	1 - 6	0 - 0	3 - 19
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	1 - 2	0 - 0	1 - 1	0 - 1	1 - 5	0 - 2	4 - 9	0 - 3	5 - 11
Over 70 dBA per Night	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	1 - 3	0 - 0	1 - 4
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 1	4 - 10	0 - 1	5 - 11	0 - 1	9 - 27	0 - 3	12 - 41	1 - 7	19 - 53
Sleep Disturbance Index ⁴	0 - 0	0 - 0.1	0 - 0	0 - 0	0 - 0	0 - 0.1	0 - 0	0.1 - 0.2	0 - 0.1	0.1 - 0.3

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 17.AB6			Sub Area: 17.AB7			Sub Area: 17.AB8			Sub Area: 17.AB9		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	10	10	10	0	0	0	10	10	10
Educational Facilities ²	1	1	1	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option A:

	Sub Area 17.AB6		Sub Area 17.AB7		Sub Area: 17.AB8		Sub Area: 17.AB9	
	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	40 - 49	63 - 67	44 - 52	59 - 62	47 - 56	53 - 57	53 - 60	55 - 58
L _{Aeq} 10pm-6am ¹	30 - 38	53 - 56	34 - 42	48 - 51	36 - 45	42 - 46	44 - 50	45 - 47
ANEC ²	4 - 14	31 - 34	7 - 18	24 - 29	12 - 23	17 - 23	20 - 28	21 - 24
Number of Noise Events ³								
Over 60 dBA per 24 Hours	6 - 62	139 - 207	17 - 106	153 - 248	50 - 143	176 - 270	74 - 166	158 - 257
Over 70 dBA per 24 Hours	1 - 8	105 - 175	2 - 31	99 - 157	6 - 57	24 - 85	36 - 121	58 - 108
Over 80 dBA per 24 Hours	0 - 0	49 - 114	0 - 0	19 - 44	1 - 10	1 - 8	5 - 33	5 - 16
Over 90 dBA per 24 Hours	0 - 0	11 - 29	0 - 0	0 - 3	0 - 0	0 - 0	0 - 1	0 - 0
Over 60 dBA per Night	0 - 5	12 - 15	1 - 8	14 - 18	5 - 10	14 - 19	11 - 13	14 - 19
Over 70 dBA per Night	0 - 1	9 - 14	0 - 3	9 - 11	0 - 5	2 - 6	4 - 8	5 - 8
Over 80 dBA per Night	0 - 0	4 - 8	0 - 0	2 - 3	0 - 1	0 - 1	1 - 3	1 - 1
Over 90 dBA per Night	0 - 0	1 - 2	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	1 - 19	57 - 85	2 - 30	57 - 90	9 - 49	37 - 82	26 - 71	48 - 80
Sleep Disturbance Index ⁴	0 - 0.1	0.7 - 1	0 - 0.2	0.5 - 0.7	0.1 - 0.3	0.3 - 0.5	0.3 - 0.6	0.4 - 0.5

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 17.AB1			Sub Area: 17.AB2			Sub Area: 17.AB3			Sub Area: 17.AB4			Sub Area: 17.AB5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	110	120	120	20	20	20	40	40	40	10	10	10	0	0	0
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³	0			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 17.AB1		Sub Area: 17.AB2		Sub Area: 17.AB3		Sub Area: 17.AB4		Sub Area: 17.AB5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	37 - 46	43 - 48	34 - 42	40 - 50	40 - 48	46 - 49	42 - 51	48 - 52	43 - 54	49 - 56
L _{Aeq} 10pm-6am ¹	27 - 38	32 - 36	25 - 33	29 - 38	29 - 38	34 - 37	32 - 40	37 - 40	30 - 42	34 - 42
ANEC ²	-2 - 4	1 - 5	-4 - 2	-1 - 14	1 - 10	4 - 10	4 - 14	7 - 13	7 - 17	10 - 18
Number of Noise Events ³										
Over 60 dBA per 24 Hours	2 - 14	11 - 24	1 - 10	3 - 31	5 - 52	19 - 59	9 - 80	27 - 96	18 - 102	46 - 123
Over 70 dBA per 24 Hours	0 - 0	0 - 1	0 - 0	0 - 11	0 - 4	1 - 7	3 - 20	12 - 29	2 - 29	7 - 40
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0	0 - 0	0 - 0	0 - 1	0 - 5	1 - 8
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 2	1 - 1	0 - 2	0 - 2	0 - 5	1 - 4	0 - 6	1 - 6	1 - 8	3 - 8
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 2	1 - 2	0 - 3	0 - 3
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 5	2 - 9	0 - 0	0 - 8	1 - 13	7 - 17	2 - 25	9 - 28	2 - 27	6 - 32
Sleep Disturbance Index ⁴	0 - 0.1	0 - 0	0 - 0	0 - 0.1	0 - 0.1	0 - 0.1	0 - 0.2	0 - 0.1	0 - 0.2	0 - 0.2

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 17.AB6			Sub Area: 17.AB7			Sub Area: 17.AB8			Sub Area: 17.AB9		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	10	10	10	0	0	0	10	10	10
Educational Facilities ²	1	1	1	0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³	0			0			0			0		

Notes: 1. Rounded to nearest 10.

2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.

3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 17.AB6		Sub Area: 17.AB7		Sub Area: 17.AB8		Sub Area: 17.AB9	
	2006	2016	2006	2016	2006	2016	2006	2016
L_{Aeq} 24 Hour	51 - 59	55 - 60	60 - 68	63 - 68	54 - 61	57 - 60	47 - 57	51 - 55
L_{Aeq} 10pm-6am	40 - 49	43 - 48	51 - 59	53 - 57	44 - 51	46 - 49	36 - 48	39 - 44
ANEC²	16 - 24	19 - 23	28 - 37	30 - 36	20 - 28	22 - 25	13 - 24	16 - 19
Number of Noise Events								
Over 60 dBA per 24 Hours	70 - 166	114 - 176	82 - 184	126 - 193	78 - 175	121 - 191	56 - 155	119 - 200
Over 70 dBA per 24 Hours	21 - 96	51 - 109	57 - 168	101 - 169	44 - 140	81 - 142	10 - 74	19 - 65
Over 80 dBA per 24 Hours	1 - 23	5 - 30	25 - 127	51 - 122	7 - 40	13 - 33	1 - 13	1 - 7
Over 90 dBA per 24 Hours	0 - 1	0 - 2	6 - 55	15 - 45	0 - 1	0 - 1	0 - 0	0 - 0
Over 60 dBA per Night	10 - 12	10 - 13	11 - 14	11 - 14	11 - 14	11 - 14	6 - 11	10 - 14
Over 70 dBA per Night	2 - 8	4 - 7	8 - 14	9 - 13	6 - 11	7 - 10	1 - 6	1 - 4
Over 80 dBA per Night	0 - 2	0 - 2	4 - 10	5 - 10	1 - 4	1 - 2	0 - 2	0 - 1
Over 90 dBA per Night	0 - 0	0 - 0	1 - 6	2 - 4	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	23 - 68	43 - 70	33 - 85	52 - 84	29 - 77	47 - 76	11 - 56	24 - 59
Sleep Disturbance Index⁴	0.2 - 0.5	0.3 - 0.5	0.6 - 1.3	0.7 - 1.2	0.4 - 0.7	0.4 - 0.6	0.1 - 0.4	0.2 - 0.4

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option C:

	Sub Area: 17.C1			Sub Area: 17.C2			Sub Area: 17.C3			Sub Area: 17.C4			Sub Area: 17.C5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	60	60	60	30	30	30	10	10	10	40	40	40	10	10	10
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 17.C1		Sub Area: 17.C2		Sub Area: 17.C3		Sub Area: 17.C4		Sub Area: 17.C5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	39 - 49	45 - 51	47 - 55	53 - 57	47 - 59	52 - 61	58 - 67	62 - 67	54 - 61	57 - 62
L _{Aeq} 10pm-6am ¹	29 - 40	33 - 39	37 - 46	41 - 45	35 - 49	39 - 49	49 - 57	52 - 56	45 - 51	47 - 50
ANEC ²	4 - 14	7 - 16	10 - 21	13 - 23	13 - 26	18 - 28	24 - 33	30 - 36	19 - 27	24 - 29
Number of Noise Events ³										
Over 60 dBA per 24 Hours	4 - 50	19 - 91	8 - 67	33 - 132	16 - 85	62 - 163	121 - 272	164 - 255	114 - 265	160 - 245
Over 70 dBA per 24 Hours	0 - 9	1 - 15	3 - 38	14 - 65	4 - 53	14 - 100	36 - 115	115 - 221	22 - 97	82 - 192
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 3	1 - 6	1 - 23	4 - 36	13 - 76	49 - 146	4 - 37	18 - 62
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	2 - 25	8 - 40	0 - 0	0 - 1
Over 60 dBA per Night	0 - 4	1 - 7	1 - 6	2 - 10	1 - 7	5 - 13	17 - 20	15 - 19	16 - 20	15 - 19
Over 70 dBA per Night	0 - 1	0 - 1	0 - 4	1 - 4	0 - 5	1 - 8	5 - 10	11 - 18	3 - 8	8 - 14
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 3	0 - 3	2 - 6	5 - 11	0 - 4	2 - 4
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 3	1 - 3	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	1 - 16	6 - 26	2 - 26	9 - 46	4 - 33	16 - 57	20 - 57	61 - 106	17 - 54	59 - 106
Sleep Disturbance Index ⁴	0 - 0.1	0 - 0.1	0 - 0.2	0.1 - 0.3	0 - 0.4	0.1 - 0.5	0.4 - 0.9	0.8 - 1.4	0.4 - 0.7	0.6 - 0.9

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option C:

	Sub Area: 17.C6			Sub Area: 17.C7			Sub Area: 17.C8			Sub Area: 17.C9			Sub Area: 17.C10		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	10	20	20	10	10	10	10	10	10	10	10	10
Educational Facilities ²	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 17.C6		Sub Area: 17.C7		Sub Area: 17.C8		Sub Area: 17.C9		Sub Area: 17.C10	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour	50 - 57	54 - 57	44 - 52	48 - 52	39 - 48	51 - 56	35 - 44	58 - 62	32 - 41	50 - 56
L _{Aeq} 10pm-6am ¹	40 - 47	43 - 45	34 - 42	38 - 41	29 - 38	40 - 46	24 - 34	48 - 51	22 - 31	39 - 45
ANEC	15 - 21	19 - 22	11 - 15	14 - 18	7 - 12	15 - 23	4 - 8	25 - 29	1 - 5	16 - 23
Number of Noise Events ³										
Over 60 dBA per 24 Hours	110 - 259	162 - 242	84 - 216	09 - 18	3 - 33	79 - 170	0 - 9	66 - 132	0 - 5	61 - 122
Over 70 dBA per 24 Hours	10 - 52	43 - 90	1 - 7	8 - 30	0 - 1	18 - 58	0 - 0	54 - 87	0 - 0	19 - 55
Over 80 dBA per 24 Hours	0 - 2	1 - 4	0 - 0	0 - 1	0 - 0	1 - 10	0 - 0	20 - 56	0 - 0	1 - 9
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	2 - 10	0 - 0	0 - 0
Over 60 dBA per Night	15 - 18	14 - 18	11 - 14	9 - 13	0 - 4	6 - 12	0 - 1	5 - 10	0 - 1	5 - 9
Over 70 dBA per Night	1 - 5	4 - 6	0 - 1	1 - 2	0 - 0	1 - 4	0 - 0	5 - 6	0 - 0	1 - 4
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	2 - 4	0 - 0	0 - 1
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	12 - 44	50 - 91	3 - 20	19 - 45	1 - 9	23 - 56	0 - 2	26 - 46	0 - 0	18 - 38
Sleep Disturbance Index ⁴	0.3 - 0.4	0.4 - 0.5	0.1 - 0.2	0.2 - 0.3	0 - 0.1	0.2 - 0.4	0 - 0	0.3 - 0.5	0 - 0	0.1 - 0.3

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option C:

	Sub Area: 17.C11			Sub Area: 17.C12		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	10	10	10
Educational Facilities ²	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 17.C11		Sub Area: 17.C12	
	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	31 - 39	45 - 50	41 - 50	64 - 69
L _{Aeq} 10pm-6am ¹	22 - 29	35 - 40	31 - 43	54 - 58
ANEC ²	-2 - 3	8 - 16	4 - 9	32 - 37
Number of Noise Events ³				
Over 60 dBA per 24 Hours	0 - 2	28 - 94	2 - 28	83 - 169
Over 70 dBA per 24 Hours	0 - 0	2 - 18	0 - 6	68 - 114
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	31 - 77
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	15 - 53
Over 60 dBA per Night	0 - 0	2 - 7	0 - 3	7 - 12
Over 70 dBA per Night	0 - 0	0 - 1	0 - 1	6 - 8
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	3 - 6
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	2 - 4
Over 65 dBA (9am-3pm)	0 - 0	5 - 22	1 - 4	36 - 61
Sleep Disturbance Index ⁴	0 - 0	0 - 0.1	0 - 0.1	0.5 - 0.9

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 18

SHEET 1 / 6

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	875	890	920	910	930	910	920	920	930	930
Educational Facilities ²		0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses		1	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	44	L _{A90}	7am to 7pm	34
	7pm to 10pm	44		7pm to 10pm	36
	10pm to 7am	40		10pm to 7am	33

Monitored at: 68 Homestead Road, Orchard Hills

Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L _{Aeq} 24 Hour ¹							9 - 21	16 - 28	15 - 24	21 - 29
L _{Aeq} 10pm-6am ¹							-2 - 11	6 - 21	5 - 12	11 - 20
ANEC ²							-18 - -9	-13 - -7	-13 - -7	-9 - -6
Number of Noise Events ³										
Over 60 dBA per 24 Hours	Refer Following Pages			Refer Following Pages			0 - 0	0 - 1	0 - 0	0 - 1
Over 70 dBA per 24 Hours							0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours							0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours							0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm							0 - 0	0 - 0	0 - 0	0 - 0
Sleep Disturbance Index ⁴							0 - 0	0 - 0	0 - 0	0 - 0

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

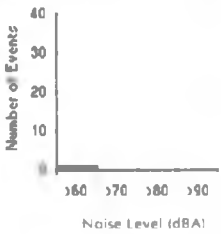
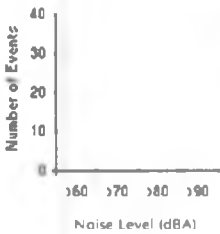
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events

Refer Following Pages

Refer Following Pages

Refer Following Pages



Badgerys Creek Option A

Badgerys Creek Option B

Badgerys Creek Option C

Holsworthy Option A

Holsworthy Option B

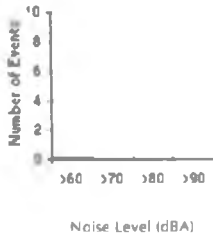
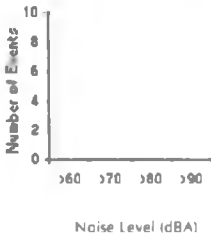
2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

Potential Range of Events

Refer Following Pages

Refer Following Pages

Refer Following Pages



Badgerys Creek Option A

Badgerys Creek Option B

Badgerys Creek Option C

Holsworthy Option A

Holsworthy Option B

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 18.AB1			Sub Area: 18.AB2		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	830	850	870	60	60	60
Educational Facilities ²	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	1			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 18.AB1		Sub Area: 18.AB2	
	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	31 - 41	38 - 44	36 - 47	44 - 52
L _{Aeq} 10pm-6am ¹	18 - 29	26 - 31	21 - 35	28 - 38
ANEC ²	-3 - 6	4 - 10	2 - 13	10 - 18
Number of Noise Events ³				
Over 60 dBA per 24 Hours	1 - 11	7 - 27	2 - 19	12 - 49
Over 70 dBA per 24 Hours	0 - 2	1 - 5	1 - 11	4 - 21
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 2	1 - 6
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 1	0 - 2	0 - 1	0 - 3
Over 70 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 3	2 - 7	1 - 8	3 - 15
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0.1

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 18.AB1			Sub Area: 18.AB2		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	830	850	870	60	60	60
Educational Facilities ²	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³	1			0		

Notes: 1. Rounded to nearest 10.

2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.

3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 18.AB1		Sub Area: 18.AB2	
	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	31 - 41	37 - 43	38 - 49	43 - 50
L _{Aeq} 10pm-6am ¹	19 - 30	25 - 30	22 - 36	28 - 37
ANEC ²	-6 - 4	-3 - 5	0 - 12	4 - 12
Number of Noise Events ³				
Over 60 dBA per 24 Hours	1 - 14	5 - 21	3 - 23	10 - 38
Over 70 dBA per 24 Hours	0 - 3	1 - 4	1 - 13	3 - 18
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 2	0 - 3
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 1	0 - 1	0 - 1	0 - 2
Over 70 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 4	2 - 6	1 - 9	3 - 13
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0.1	0 - 0.1

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option C:

	Sub Area: 18.C1			Sub Area: 18.C2			Sub Area: 18.C3			Sub Area: 18.C4			Sub Area: 18.C5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	170	180	180	90	90	90	360	370	370	70	70	70	110	110	110
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	1			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 18.C1		Sub Area: 18.C2		Sub Area: 18.C3		Sub Area: 18.C4		Sub Area: 18.C5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	42 - 49	47 - 50	48 - 57	50 - 56	44 - 51	49 - 52	41 - 47	47 - 50	36 - 44	50 - 53
L _{Aeq} 10pm-6am ¹	30 - 38	35 - 38	39 - 46	40 - 45	35 - 41	38 - 40	32 - 37	37 - 39	26 - 33	40 - 42
ANEC ²	7 - 14	12 - 16	11 - 20	16 - 22	10 - 15	14 - 18	6 - 11	12 - 16	5 - 8	16 - 19
Number of Noise Events ³										
Over 60 dBA per 24 Hours	5 - 21	16 - 33	13 - 68	58 - 134	11 - 68	93 - 168	4 - 30	57 - 109	1 - 6	61 - 97
Over 70 dBA per 24 Hours	2 - 13	9 - 18	7 - 45	24 - 89	1 - 10	10 - 25	0 - 4	7 - 18	0 - 0	18 - 44
Over 80 dBA per 24 Hours	0 - 3	1 - 4	1 - 11	3 - 17	0 - 0	0 - 1	0 - 0	0 - 1	0 - 0	2 - 5
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 2	1 - 2	2 - 6	5 - 11	1 - 5	8 - 12	0 - 2	5 - 8	0 - 1	5 - 7
Over 70 dBA per Night	0 - 1	1 - 1	1 - 3	2 - 6	0 - 1	1 - 2	0 - 0	1 - 1	0 - 0	2 - 3
Over 80 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	1 - 8	5 - 12	4 - 28	17 - 54	2 - 21	19 - 39	1 - 7	11 - 24	0 - 0	17 - 31
Sleep Disturbance Index ⁴	0 - 0.1	0 - 0.1	0.1 - 0.2	0.2 - 0.4	0.1 - 0.2	0.2 - 0.3	0 - 0.1	0.1 - 0.2	0 - 0	0.2 - 0.2

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option C:

	Sub Area: 18.C6			Sub Area: 18.C7		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	80	90	90	0	0	0
Educational Facilities ²	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0		

- Notes:
- 1. Rounded to nearest 10
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 18.C6		Sub Area: 18.C7	
	2006	2016	2006	2016
L _{Aeq} 24 Hour	33 - 42	53 - 57	33 - 42	56 - 60
L _{Aeq} 10pm-6am ¹	23 - 31	43 - 46	23 - 32	46 - 49
ANEC	4 - 7	19 - 23	4 - 7	23 - 27
Number of Noise Events ³				
Over 60 dBA per 24 Hours	0 - 1	62 - 111	0 - 4	63 - 119
Over 70 dBA per 24 Hours	0 - 0	29 - 71	0 - 0	39 - 79
Over 80 dBA per 24 Hours	0 - 0	7 - 24	0 - 0	12 - 39
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	5 - 8	0 - 0	5 - 8
Over 70 dBA per Night	0 - 0	2 - 5	0 - 0	3 - 6
Over 80 dBA per Night	0 - 0	1 - 2	0 - 0	1 - 3
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 0	23 - 38	0 - 0	26 - 42
Sleep Disturbance Index ⁴	0 - 0	0.2 - 0.3	0 - 0	0.3 - 0.4

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 19

SHEET 1 / 3

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	9407	12220 ¹	14480	14480	16270	16270	14480	14480	16270	16270
Educational Facilities ²		13	13	13	13	13	13	13	13	13
Other Noise Sensitive Land Uses ³		11	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	53, 53	L _{A90}	7am to 7pm	35, 38
	7pm to 10pm	49, 47		7pm to 10pm	37, 37
	10pm to 7am	47, 39		10pm to 7am	33, 36

Monitored at: 8 Vivaldi Crescent, Claremont Meadows, 55 Manning Street, Kingswood

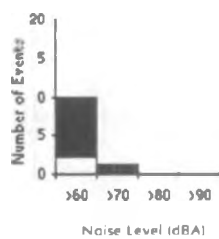
Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour	28 - 37	28 - 37		34 - 40	34 - 39		3 - 18	13 - 25	10 - 22	18 - 26
L_{Aeq} 10pm-6am	17 - 26	16 - 26		23 - 27	22 - 26		-9 - 9	3 - 19	-3 - 11	8 - 17
ANEC	-6 - 2	-6 - 2		0 - 5	-1 - 4		-18 --10	-15 --9	-14 --7	-11 - 8
Number of Noise Events	Refer Following Pages			Refer Following Pages						
Over 60 dBA per 24 Hours	0 - 4	1 - 7		2 - 10	2 - 11		0 - 0	0 - 1	0 - 0	0 - 1
Over 70 dBA per 24 Hours	0 - 1	0 - 1		0 - 1	0 - 1		0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 1		0 - 0	0 - 1		0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 1	0 - 2		1 - 2	1 - 2		0 - 0	0 - 0	0 - 0	0 - 0
Sleep Disturbance Index	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0

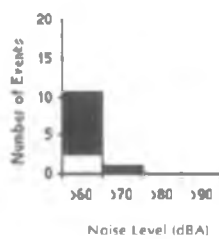
- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



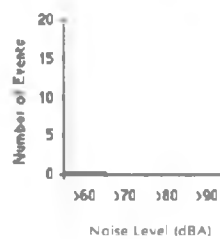
Badgerys Creek
Option A



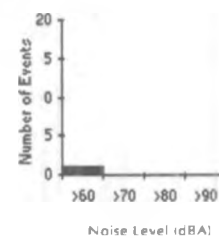
Badgerys Creek
Option B

Refer Following
Pages

Badgerys Creek
Option C



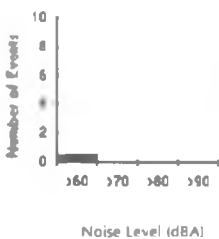
Holsworthy
Option A



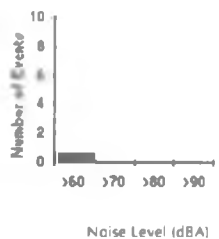
Holsworthy
Option B

2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

Potential Range of Events



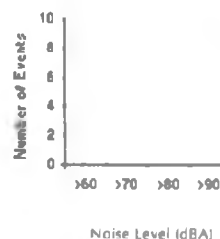
Badgerys Creek
Option A



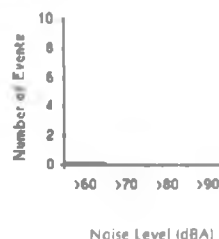
Badgerys Creek
Option B

Refer Following
Pages

Badgerys Creek
Option C



Holsworthy
Option A



Holsworthy
Option B

Social Characteristics for Badgerys Creek Option C:

	Sub Area: 19.C1			Sub Area: 19.C2			Sub Area: 19.C3		
	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	11940	14140	15890	260	310	350	30	30	40
Educational Facilities ²	13	13	13	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	11			0			0		

- Notes:
- 1. Rounded to nearest 10
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 19.C1		Sub Area: 19.C2		Sub Area: 19.C3	
	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	42 - 50	47 - 50	45 - 54	48 - 53	35 - 43	49 - 52
L _{Aeq} 10pm-6am ¹	33 - 39	36 - 39	36 - 43	37 - 42	26 - 33	39 - 41
ANEC ²	6 - 13	12 - 15	8 - 17	13 - 19	4 - 8	14 - 17
Number of Noise Events ³						
Over 60 dBA per 24 Hours	7 - 43	50 - 114	11 - 57	48 - 117	1 - 6	56 - 92
Over 70 dBA per 24 Hours	1 - 13	7 - 22	3 - 27	12 - 49	0 - 0	14 - 31
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 2	1 - 3	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	1 - 3	4 - 8	1 - 5	4 - 9	0 - 1	5 - 7
Over 70 dBA per Night	0 - 1	1 - 2	0 - 2	1 - 3	0 - 0	1 - 2
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	1 - 13	10 - 27	3 - 20	12 - 38	0 - 1	14 - 30
Sleep Disturbance Index ⁴	0 - 0.1	0.1 - 0.2	0 - 0.2	0.1 - 0.3	0 - 0	0.1 - 0.2

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 20

SHEET 1 / 5

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	26354	30700 ¹	31320	31320	31710	31710	31320	31320	31710	31710
Educational Facilities ²		8	8	8	8	8	8	8	8	8
Other Noise Sensitive ³ Land Uses		13	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	51	L _{A90}	7am to 7pm	33
	7pm to 10pm	41		7pm to 10pm	31
	10pm to 7am	44		10pm to 7am	27

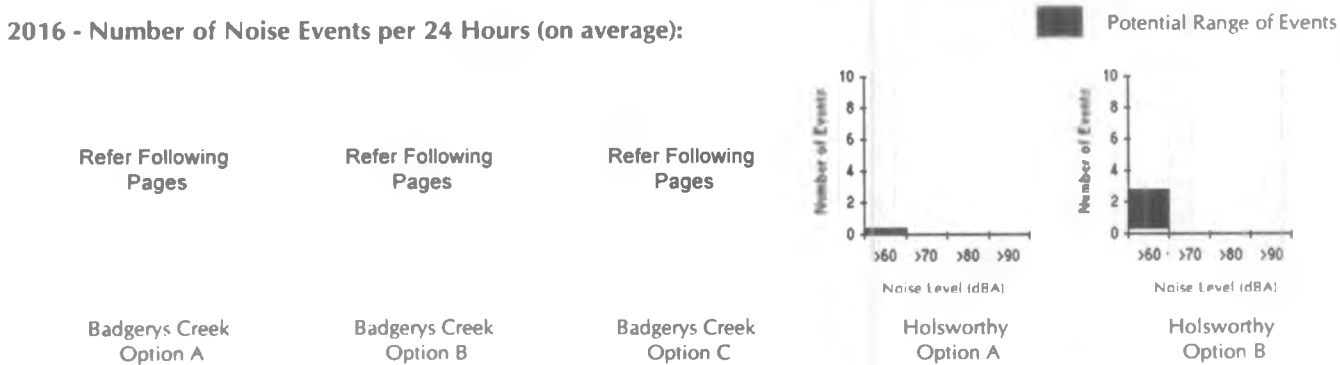
Monitored at: 28 Pine Creek Circuit, St Clair

Noise Indicators:

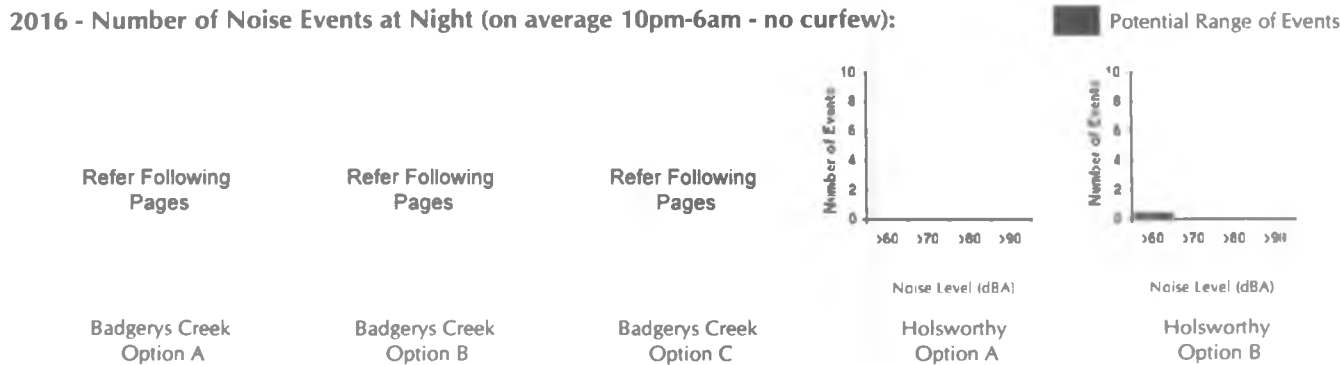
Badgerys Creek						Holsworthy				
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L _{Aeq} 24 Hour							13 - 25	19 - 31	17 - 26	25 - 33
L _{Aeq} 10pm-6am ¹							3 - 15	10 - 24	7 - 14	15 - 24
ANEC ²							-16 - -9	-12 - -3	-13 - -7	-7 - -1
Number of Noise Events ³										
Over 60 dBA per 24 Hours	Refer Following Pages			Refer Following Pages			0 - 0	0 - 2	0 - 0	0 - 3
Over 70 dBA per 24 Hours							0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours							0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours							0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm							0 - 0	0 - 1	0 - 0	0 - 1
Sleep Disturbance Index ⁴							0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):



2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):



Social Characteristics for Badgerys Creek Option A:

	Sub Area: 20.AB1			Sub Area: 20.AB2		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	30690	31310	31700	10	10	10
Educational Facilities ²	8	8	8	0	0	0
Other Noise Sensitive ³ Land Uses	13			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 20.AB1		Sub Area: 20.AB2	
	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	32 - 40	39 - 44	36 - 47	44 - 51
L _{Aeq} 10pm-6am ¹	19 - 27	26 - 32	21 - 35	29 - 38
ANEC ²	-3 - 4	3 - 9	2 - 13	9 - 18
Number of Noise Events ³				
Over 60 dBA per 24 Hours	2 - 13	11 - 37	3 - 22	18 - 73
Over 70 dBA per 24 Hours	0 - 2	1 - 3	1 - 10	4 - 23
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 1	1 - 3
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 1	0 - 2	0 - 1	1 - 5
Over 70 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 3	2 - 7	1 - 8	4 - 20
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0.1

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 20.AB1			Sub Area: 20.AB2		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	30690	31310	31700	10	10	10
Educational Facilities ²	8	8	8	0	0	0
Other Noise Sensitive ³ Land Uses	13			0		

- Notes:
- 1. Rounded to nearest 10
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 20.AB1		Sub Area: 20.AB2	
	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	33 - 41	38 - 44	38 - 48	43 - 50
L _{Aeq} 10pm-6am ¹	20 - 29	25 - 31	22 - 36	28 - 37
ANEC ²	-5 - 4	-1 - 6	0 - 12	4 - 12
Number of Noise Events ³				
Over 60 dBA per 24 Hours	3 - 18	11 - 38	4 - 32	14 - 57
Over 70 dBA per 24 Hours	0 - 2	1 - 4	1 - 13	3 - 19
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 2	1 - 4
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 1	0 - 2	0 - 2	1 - 3
Over 70 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 3	2 - 5	1 - 10	3 - 15
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0.1	0 - 0.1

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option C:

	Sub Area: 20.C1			Sub Area: 20.C2		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	27560	28120	28470	3140	3200	3240
Educational Facilities ²	8	8	8	0	0	0
Other Noise Sensitive ³ Land Uses	13			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 20.C1		Sub Area: 20.C2	
	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	25 - 31	35 - 41	28 - 36	44 - 49
L _{Aeq} 10pm-6am ¹	15 - 20	23 - 30	18 - 25	33 - 38
ANEC ²	-6 - -2	-1 - 6	-1 - 3	9 - 15
Number of Noise Events ³				
Over 60 dBA per 24 Hours	0 - 0	2 - 15	0 - 0	34 - 74
Over 70 dBA per 24 Hours	0 - 0	0 - 1	0 - 0	4 - 15
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 1
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 1	0 - 0	3 - 5
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 0	0 - 2	0 - 0	7 - 18
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0.1 - 0.1

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	350	50 ¹	60	60	60	60	60	60	60	60
Educational Facilities ²		0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses		0	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	57	L _{A90}	7am to 7pm	44
	7pm to 10pm	55		7pm to 10pm	38
	10pm to 7am	53		10pm to 7am	35

Monitored at: Lot 8, Ferrer Road, Eastern Creek

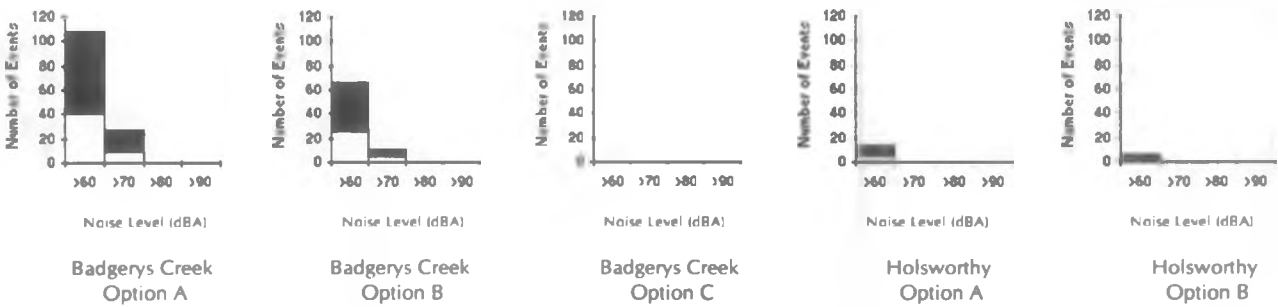
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	2006 Option A	2006 Option B	2016 Option A	2016 Option B
L _{Aeq} 24 Hour	41 - 49	40 - 48	14 - 21	47 - 51	44 - 48	22 - 28	33 - 41	20 - 32	36 - 40	26 - 34
L _{Aeq} 10pm-6am ¹	32 - 39	31 - 38	4 - 11	37 - 40	35 - 37	11 - 16	24 - 31	10 - 24	26 - 28	16 - 26
ANEC ²	-2 - 7	5 - 12	-14 - -7	13 - 16	10 - 13	-9 - -4	-2 - 5	-12 - -3	0 - 3	-6 - 0
Number of Noise Events ³										
Over 60 dBA per 24 Hours	2 - 13	10 - 70	0 - 0	40 - 108	26 - 66	0 - 0	2 - 23	0 - 3	4 - 14	1 - 6
Over 70 dBA per 24 Hours	0 - 2	2 - 11	0 - 0	9 - 27	5 - 10	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 1	1 - 6	0 - 0	4 - 9	3 - 5	0 - 0	0 - 2	0 - 1	0 - 1	0 - 1
Over 70 dBA per Night	0 - 0	0 - 1	0 - 0	1 - 2	1 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 2	2 - 19	0 - 0	12 - 34	7 - 17	0 - 0	0 - 5	0 - 1	1 - 3	0 - 1
Sleep Disturbance Index ⁴	0 - 0	0 - 0.1	0 - 0	0.1 - 0.2	0 - 0.1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

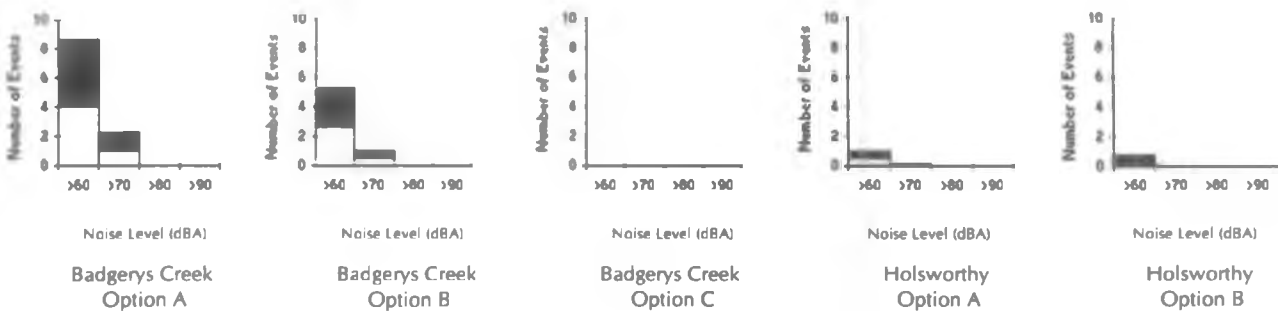
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No.22SHEET 1 / 6

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	21951	23730 ¹	24590	24590	25330	25330	24590	24590	25330	25370
Educational Facilities ²		8	8	8	8	8	8	8	8	8
Other Noise Sensitive Land Uses ³		16	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years
3. Includes hospitals, churches, aged persons facilities and child care centres
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	54, 56, 57	L _{A90}	7am to 7pm	42, 39, 38
	7pm to 10pm	50, 45, 52		7pm to 10pm	36, 34, 38
	10pm to 7am	48, 53, 42		10pm to 7am	29, 29, 31

Monitored at: 67-71 Felton Street, Horsley Park, Lot 7 Chandos Road, Horsley Park, 6 Hopkins Street, Wetherill Park

Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L _{Aeq} 24 Hour ¹			10 - 20			18 - 33	37 - 45	17 - 29	41 - 46	24 - 32
L _{Aeq} 10pm-6am ¹			1 - 11			8 - 23	28 - 35	7 - 21	31 - 35	13 - 23
ANEC ²			-15 --7			-10 - 0	1 - 9	-13 - -5	6 - 10	-7 - -2
Number of Noise Events ³										
Over 60 dBA per 24 Hours	Refer Following Pages		0 - 0	Refer Following Pages		0 - 2	6 - 49	0 - 1	20 - 64	0 - 2
Over 70 dBA per 24 Hours			0 - 0			0 - 0	0 - 2	0 - 0	1 - 3	0 - 0
Over 80 dBA per 24 Hours			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night			0 - 0			0 - 0	1 - 4	0 - 0	2 - 4	0 - 0
Over 70 dBA per Night			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm			0 - 0			0 - 0	1 - 16	0 - 0	4 - 15	0 - 0
Sleep Disturbance Index ⁴			0 - 0			0 - 0	0 - 0.1	0 - 0	0 - 0.1	0 - 0

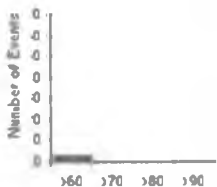
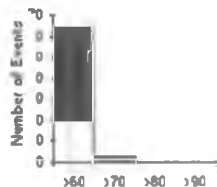
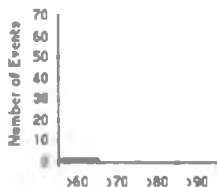
Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events

Refer Following Pages

Refer Following Pages



Badgerys Creek Option A

Badgerys Creek Option B

Badgerys Creek Option C

Holsworthy Option A

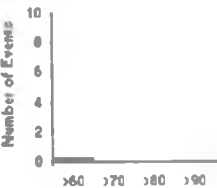
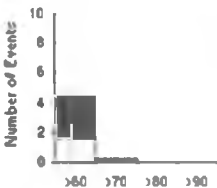
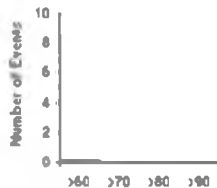
Holsworthy Option B

2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

Potential Range of Events

Refer Following Pages

Refer Following Pages



Badgerys Creek Option A

Badgerys Creek Option B

Badgerys Creek Option C

Holsworthy Option A

Holsworthy Option B

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 22.AB1			Sub Area: 22.AB2			Sub Area: 22.AB3			Sub Area: 22.AB4			Sub Area: 22.AB5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	22610	23430	24150	140	140	150	100	100	100	100	110	110	100	100	110
Educational Facilities ²	9	9	9	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	16			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 22.AB1		Sub Area: 22.AB2		Sub Area: 22.AB3		Sub Area: 22.AB4		Sub Area: 22.AB5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour	34 - 41	36 - 41	41 - 49	50 - 54	41 - 48	50 - 55	41 - 49	51 - 55	47 - 57	51 - 57
L _{Aeq} 10pm-6am ¹	25 - 31	26 - 30	32 - 39	40 - 44	32 - 38	41 - 44	32 - 38	41 - 45	39 - 47	41 - 46
ANEC ²	-1 - 7	0 - 4	7 - 13	15 - 19	7 - 13	16 - 20	7 - 14	17 - 20	13 - 22	16 - 21
Number of Noise Events ³										
Over 60 dBA per 24 Hours	2 - 14	4 - 10	12 - 77	59 - 175	11 - 73	57 - 168	12 - 77	60 - 176	27 - 138	53 - 156
Over 70 dBA per 24 Hours	0 - 2	0 - 0	2 - 10	17 - 49	2 - 10	19 - 54	2 - 10	20 - 58	14 - 94	25 - 86
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 1	1 - 2	0 - 1	2 - 4	0 - 1	3 - 7	1 - 14	3 - 13
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 1	0 - 1	1 - 7	6 - 14	1 - 7	6 - 14	2 - 7	6 - 14	4 - 12	5 - 14
Over 70 dBA per Night	0 - 0	0 - 0	0 - 1	2 - 4	0 - 1	2 - 4	0 - 1	2 - 4	2 - 7	2 - 7
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 2	0 - 1
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 2	0 - 1	3 - 21	15 - 47	2 - 19	18 - 55	3 - 22	19 - 56	9 - 57	18 - 54
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0.1	0.1 - 0.3	0 - 0.1	0.2 - 0.4	0 - 0.1	0.2 - 0.4	0.1 - 0.5	0.2 - 0.4

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 22.AB6			Sub Area: 22.AB7			Sub Area: 22.AB8		
	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	320	330	340	110	120	120	250	260	260
Educational Facilities ²	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 22.AB6		Sub Area: 22.AB7		Sub Area: 22.AB8	
	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	49 - 59	53 - 59	41 - 48	43 - 48	40 - 47	42 - 47
L _{Aeq} 10pm-6am ¹	41 - 49	43 - 48	32 - 38	33 - 37	31 - 37	32 - 36
ANEC ²	15 - 24	18 - 24	7 - 14	7 - 12	5 - 13	6 - 11
Number of Noise Events ³						
Over 60 dBA per 24 Hours	28 - 139	52 - 150	11 - 72	22 - 69	8 - 59	14 - 50
Over 70 dBA per 24 Hours	17 - 107	30 - 101	2 - 10	2 - 8	1 - 7	1 - 4
Over 80 dBA per 24 Hours	3 - 36	6 - 28	0 - 1	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	4 - 12	5 - 13	1 - 6	2 - 5	1 - 6	1 - 4
Over 70 dBA per Night	2 - 8	3 - 8	0 - 1	0 - 1	0 - 1	0 - 0
Over 80 dBA per Night	0 - 4	1 - 2	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	11 - 62	19 - 57	2 - 19	4 - 15	2 - 14	3 - 12
Sleep Disturbance Index ⁴	0.2 - 0.6	0.2 - 0.5	0 - 0.1	0 - 0.1	0 - 0.1	0 - 0.1

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 22.AB1			Sub Area: 22.AB2			Sub Area: 22.AB3			Sub Area: 22.AB4			Sub Area: 22.AB5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	22610	23430	24150	140	140	150	100	100	100	100	110	110	100	100	110
Educational Facilities ²	9	9	9	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³	16			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 22.AB1		Sub Area: 22.AB2		Sub Area: 22.AB3		Sub Area: 22.AB4		Sub Area: 22.AB5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour	28 - 36	41 - 47	46 - 56	50 - 55	47 - 56	51 - 56	48 - 57	52 - 57	40 - 48	46 - 50
L _{Aeq} 10pm-6am ¹	19 - 25	31 - 36	37 - 46	40 - 44	38 - 47	41 - 45	39 - 48	42 - 46	32 - 38	37 - 39
ANEC ²	-2 - 1	7 - 12	12 - 21	15 - 20	12 - 22	16 - 21	14 - 23	17 - 22	6 - 13	11 - 15
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 5	17 - 59	27 - 137	50 - 134	27 - 138	50 - 133	28 - 139	51 - 134	12 - 80	41 - 124
Over 70 dBA per 24 Hours	0 - 0	2 - 8	10 - 80	23 - 71	13 - 91	28 - 84	16 - 103	33 - 97	2 - 12	7 - 16
Over 80 dBA per 24 Hours	0 - 0	0 - 0	1 - 4	2 - 5	1 - 13	4 - 11	2 - 29	6 - 24	0 - 0	0 - 1
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	2 - 5	4 - 12	5 - 12	4 - 12	5 - 12	4 - 12	5 - 12	2 - 7	4 - 10
Over 70 dBA per Night	0 - 0	0 - 1	1 - 7	2 - 5	2 - 7	3 - 6	2 - 8	3 - 8	0 - 1	1 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 0	0 - 2	0 - 1	0 - 3	1 - 2	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 1	3 - 15	9 - 56	18 - 51	10 - 58	20 - 54	11 - 60	21 - 56	3 - 22	10 - 30
Sleep Disturbance Index ⁴	0 - 0	0 - 0.1	0.1 - 0.4	0.2 - 0.4	0.1 - 0.5	0.2 - 0.4	0.1 - 0.5	0.2 - 0.5	0 - 0.1	0.1 - 0.2

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 22.AB6			Sub Area: 22.AB7			Sub Area: 22.AB8		
	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	320	330	340	110	120	120	250	260	260
Educational Facilities ²	0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³	0			0			0		

- Notes:
- 1. Rounded to nearest 10
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 22.AB6		Sub Area: 22.AB7		Sub Area: 22.AB8	
	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	40 - 47	46 - 50	33 - 40	50 - 56	32 - 39	49 - 55
L _{Aeq} 10pm-6am ¹	31 - 37	37 - 39	23 - 30	40 - 46	23 - 29	39 - 44
ANEC ²	6 - 12	12 - 15	1 - 5	16 - 22	0 - 5	14 - 20
Number of Noise Events ³						
Over 60 dBA per 24 Hours	9 - 62	40 - 121	1 - 12	43 - 127	1 - 11	42 - 125
Over 70 dBA per 24 Hours	1 - 7	7 - 15	0 - 1	25 - 91	0 - 1	17 - 65
Over 80 dBA per 24 Hours	0 - 1	0 - 1	0 - 0	4 - 20	0 - 0	1 - 4
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	1 - 6	4 - 10	0 - 1	4 - 12	0 - 1	4 - 11
Over 70 dBA per Night	0 - 1	1 - 1	0 - 0	2 - 7	0 - 0	2 - 5
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	2 - 17	11 - 34	0 - 2	16 - 52	0 - 2	14 - 47
Sleep Disturbance Index ⁴	0 - 0.1	0.1 - 0.2	0 - 0	0.1 - 0.4	0 - 0	0.1 - 0.4

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No.23SHEET 1 / 2

Social Characteristics:

Year	Badgerys Creek				Holsworthy			
	1991 Census	1996	2006 Options A and B	2016 Option C	2006 Options A and B	2016 Option C	2006 Option A	2016 Option B
Estimated Population	31825	31810	33480	33480	34690	34690	33480	33480
Educational Facilities ²		14	14	14	14	14	14	14
Other Noise Sensitive ³ Land Uses		41	N/E ⁴	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	52	L _{A90}	7am to 7pm	38
	7pm to 10pm	47		7pm to 10pm	37
	10pm to 7am	45		10pm to 7am	30

Monitored at: 5A Evans Street, Fairfield Heights

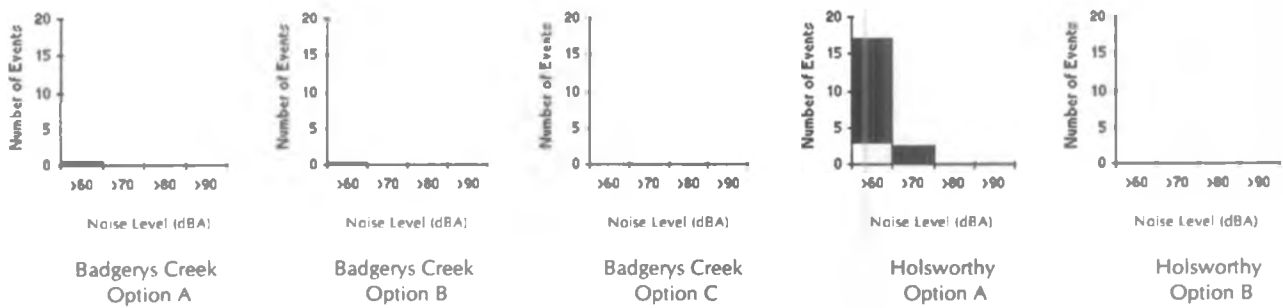
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour	17 - 26	17 - 26	11 - 23	24 - 28	25 - 29	17 - 24	22 - 32	7 - 19	36 - 41	14 - 23
L _{Aeq} 10pm-6am ¹	8 - 18	8 - 18	3 - 15	14 - 18	15 - 19	7 - 14	13 - 21	-3 - 11	26 - 30	3 - 13
ANEC ²	-14 - -7	-14 - -7	-16 - -8	-10 - -5	-9 - -5	-11 - -5	-10 - -4	18 - -1	0 - 6	-13 - -7
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 10	0 - 0	3 - 17	0 - 0
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 3	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0	0 - 3	0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

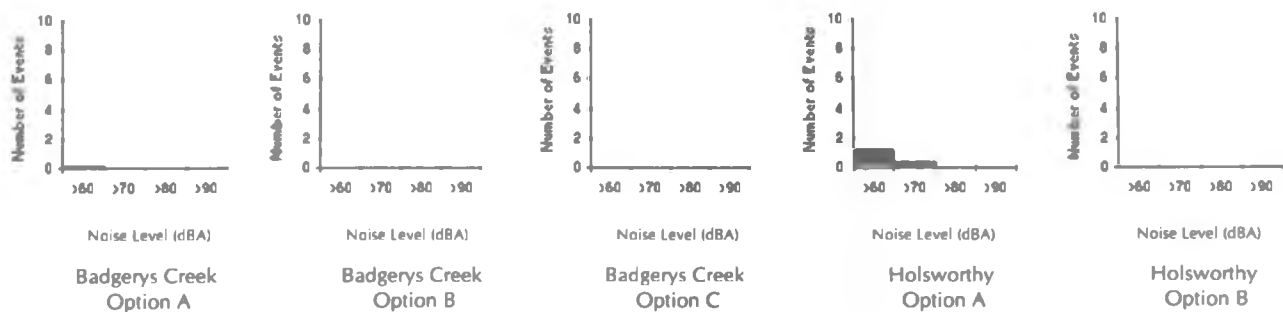
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	40389	45750 ¹	49290	49290	51180	51180	49290	49290	51180	51180
Educational Facilities ²		11	11	11	12	12	11	11	12	12
Other Noise Sensitive Land Uses ³		36	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	53	L _{A90}	7am to 7pm	40
	7pm to 10pm	49		7pm to 10pm	39
	10pm to 7am	45		10pm to 7am	33

Monitored at: 15 Allambie Road, Edensor Park

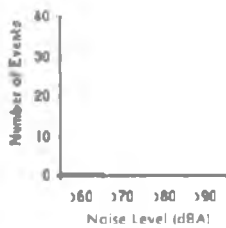
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	2006 Option A	2006 Option B	2016 Option A	2016 Option B
L_{Aeq} 24 Hour	27 - 34	23 - 31	13 - 23	30 - 34	33 - 37	21 - 32	37 - 45	20 - 32	43 - 47	27 - 36
L_{Aeq} 10pm-6am ¹	18 - 24	14 - 21	4 - 14	21 - 23	23 - 26	10 - 21	28 - 34	10 - 24	33 - 36	16 - 26
ANEC ²	-8 - -2	-8 - -5	-19 - -11	-6 - -2	-2 - 1	-9 - -2	2 - 9	-11 - -3	4 - 7	-6 - 1
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 2	0 - 0	0 - 0	0 - 1	0 - 1	0 - 2	7 - 46	0 - 2	10 - 30	1 - 6
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	1 - 4	0 - 0	1 - 2	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	1 - 4	0 - 0	1 - 2	0 - 1
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	1 - 9	0 - 0	2 - 6	0 - 2
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0.1	0 - 0	0 - 0	0 - 0

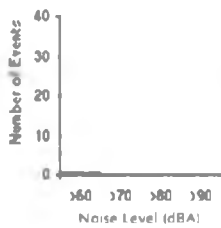
- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

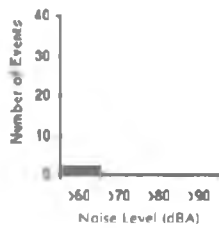
Potential Range of Events



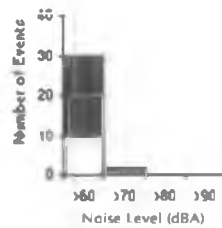
Badgerys Creek Option A



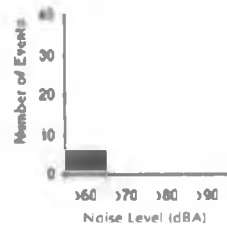
Badgerys Creek Option B



Badgerys Creek Option C



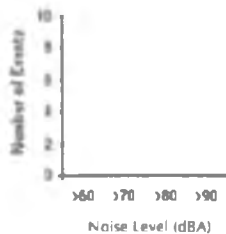
Holsworthy Option A



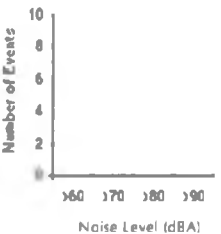
Holsworthy Option B

2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

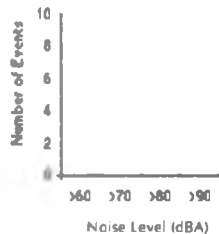
Potential Range of Events



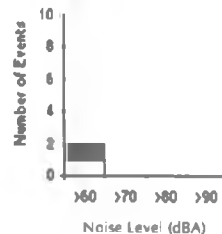
Badgerys Creek Option A



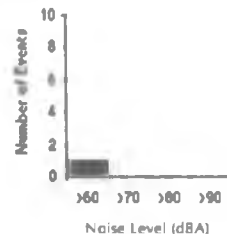
Badgerys Creek Option B



Badgerys Creek Option C



Holsworthy Option A



Holsworthy Option B

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 25

SHEET 1 / 4

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	470	450	470	500	470	500	500	500	500	500
Educational Facilities ²		0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³		0	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	55	L _{A90}	7am to 7pm	37
	7pm to 10pm	43		7pm to 10pm	31
	10pm to 7am	54		10pm to 7am	31

Monitored at: 93/108 Goodrich Road, Cecil Park

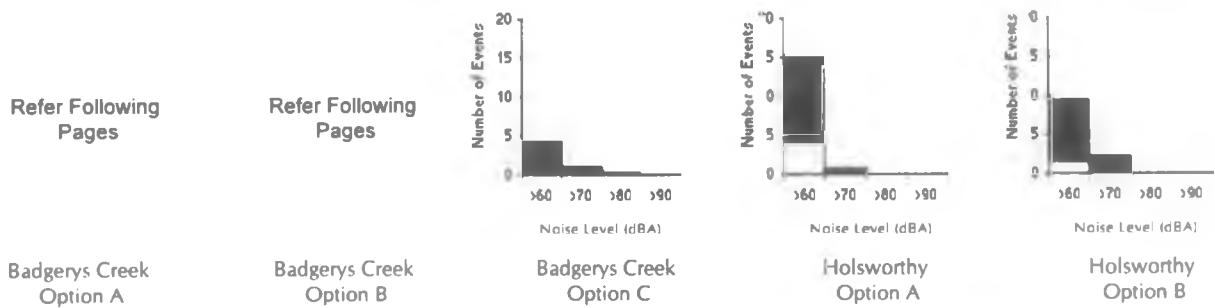
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L_{Aeq} 24 Hour ¹			19 - 27			28 - 39	30 - 38	26 - 36	35 - 40	31 - 39
L_{Aeq} 10pm-6am ¹			9 - 17			17 - 28	19 - 28	14 - 28	24 - 28	20 - 30
ANEC ²			-12 - -5			-6 - 5	-6 - 1	-8 - 3	-1 - 4	-3 - 5
Number of Noise Events ³										
Over 60 dBA per 24 Hours	Refer Following Pages		0 - 0	Refer Following Pages		0 - 4	1 - 9	0 - 6	4 - 15	1 - 10
Over 70 dBA per 24 Hours			0 - 0			0 - 1	0 - 0	0 - 1	0 - 1	0 - 2
Over 80 dBA per 24 Hours			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night			0 - 0			0 - 0	0 - 1	0 - 1	0 - 1	0 - 1
Over 70 dBA per Night			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm			0 - 0			0 - 1	0 - 2	0 - 2	1 - 3	0 - 3
Sleep Disturbance Index ⁴			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

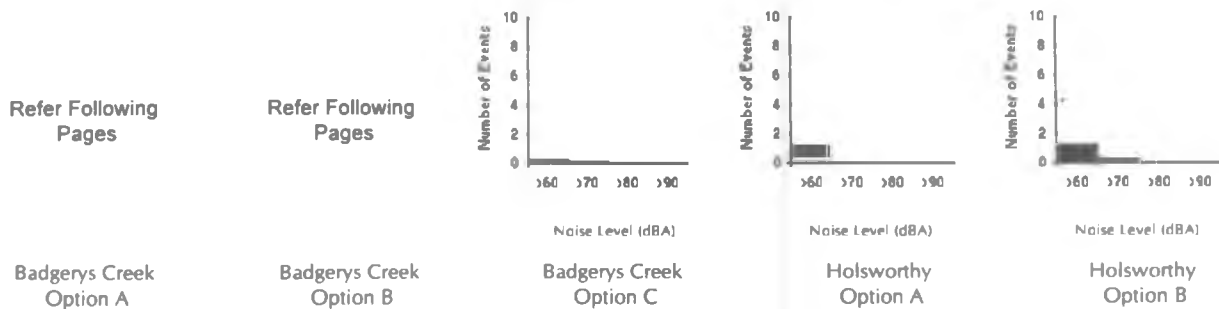
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

Potential Range of Events



Social Characteristics for Badgerys Creek Option A:

	Sub Area: 25.AB1			Sub Area: 25.AB2			Sub Area: 25.AB3			Sub Area: 25.AB4		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	20	20	90	100	100	80	80	80	260	280	280
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 25.AB1		Sub Area: 25.AB2		Sub Area: 25.AB3		Sub Area: 25.AB4	
	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	49 - 58	52 - 58	44 - 52	46 - 52	40 - 46	42 - 46	36 - 43	39 - 42
L _{Aeq} 10pm-6am ¹	40 - 48	42 - 47	35 - 41	36 - 41	31 - 36	32 - 35	26 - 33	29 - 31
ANEC ²	15 - 23	17 - 23	10 - 17	11 - 16	5 - 13	6 - 10	0 - 8	3 - 6
Number of Noise Events ³								
Over 60 dBA per 24 Hours	28 - 137	47 - 131	19 - 108	38 - 101	8 - 51	19 - 46	2 - 23	7 - 21
Over 70 dBA per 24 Hours	13 - 87	25 - 87	3 - 25	5 - 23	0 - 6	0 - 0	0 - 2	0 - 0
Over 80 dBA per 24 Hours	2 - 19	4 - 19	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	4 - 12	5 - 11	3 - 8	4 - 8	1 - 5	2 - 4	0 - 2	1 - 2
Over 70 dBA per Night	2 - 7	2 - 7	0 - 3	1 - 2	0 - 1	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 2	0 - 2	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	10 - 57	17 - 52	5 - 34	9 - 29	2 - 10	2 - 7	0 - 5	0 - 2
Sleep Disturbance Index ⁴	0.1 - 0.4	0.1 - 0.4	0 - 0.2	0 - 0.1	0 - 0	0 - 0	0 - 0	0 - 0

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 25.AB1			Sub Area: 25.AB2			Sub Area: 25.AB3			Sub Area: 25.AB4		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	20	20	90	100	100	80	80	80	260	280	280
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³	0			0			0			0		

Notes: 1. Rounded to nearest 10.

2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.

3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 25.AB1		Sub Area: 25.AB2		Sub Area: 25.AB3		Sub Area: 25.AB4	
	2006	2016	2006	2016	2006	2016	2006	2016
L_{Aeq} 24 Hour¹	38 - 45	47 - 53	35 - 42	51 - 57	32 - 41	50 - 56	31 - 40	44 - 50
L_{Aeq} 10pm-6am¹	28 - 35	38 - 42	25 - 33	41 - 46	22 - 31	40 - 46	20 - 30	35 - 39
ANEC²	5 - 10	13 - 18	3 - 8	17 - 23	0 - 6	16 - 22	-2 - 5	10 - 15
Number of Noise Events³								
Over 60 dBA per 24 Hours	7 - 36	46 - 133	2 - 26	46 - 130	1 - 21	42 - 125	1 - 15	30 - 95
Over 70 dBA per 24 Hours	0 - 4	11 - 39	0 - 2	25 - 90	0 - 1	24 - 88	0 - 0	4 - 21
Over 80 dBA per 24 Hours	0 - 0	1 - 2	0 - 0	5 - 24	0 - 0	4 - 19	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	1 - 4	5 - 11	0 - 3	5 - 12	0 - 2	4 - 11	0 - 2	3 - 8
Over 70 dBA per Night	0 - 0	1 - 3	0 - 0	2 - 7	0 - 0	2 - 7	0 - 0	0 - 2
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	1 - 2	0 - 0	0 - 2	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	1 - 7	12 - 35	0 - 5	17 - 54	0 - 4	15 - 50	0 - 2	6 - 26
Sleep Disturbance Index⁴	0 - 0	0.1 - 0.2	0 - 0	0.1 - 0.4	0 - 0	0.1 - 0.4	0 - 0	0 - 0.1

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	394	570	580	580	580	590	580	580	590	590
Educational Facilities ²		3	3	3	3	3	3	3	3	3
Other Noise Sensitive ³ Land Uses		1	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes 1. Rounded to nearest 10
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	52	L _{A90}	7am to 7pm	38
	7pm to 10pm	44		7pm to 10pm	32
	10pm to 7am	51		10pm to 7am	28

Monitored at: 114 Mount Vernon Road, Mount Vernon

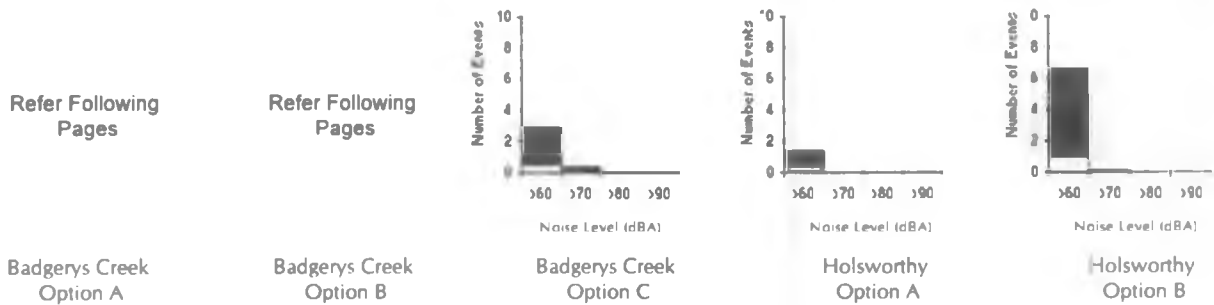
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L_{Aeq} 24 Hour			24 - 30			32 - 37	23 - 30	21 - 33	28 - 32	27 - 35
L_{Aeq} 10pm-6am ¹			14 - 20			21 - 25	12 - 20	12 - 26	17 - 20	17 - 26
ANEC ²			-10 - -3			-2 - 2	-13 - -6	-11 - -1	-8 - -4	-6 - 1
Number of Noise Events ³										
Over 60 dBA per 24 Hours	Refer Following Pages		0 - 0	Refer Following Pages		0 - 3	0 - 1	0 - 4	0 - 1	1 - 7
Over 70 dBA per 24 Hours			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night			0 - 0			0 - 0	0 - 0	0 - 1	0 - 0	0 - 1
Over 70 dBA per Night			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm			0 - 0			0 - 0	0 - 0	0 - 1	0 - 0	0 - 1
Sleep Disturbance Index ⁴			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

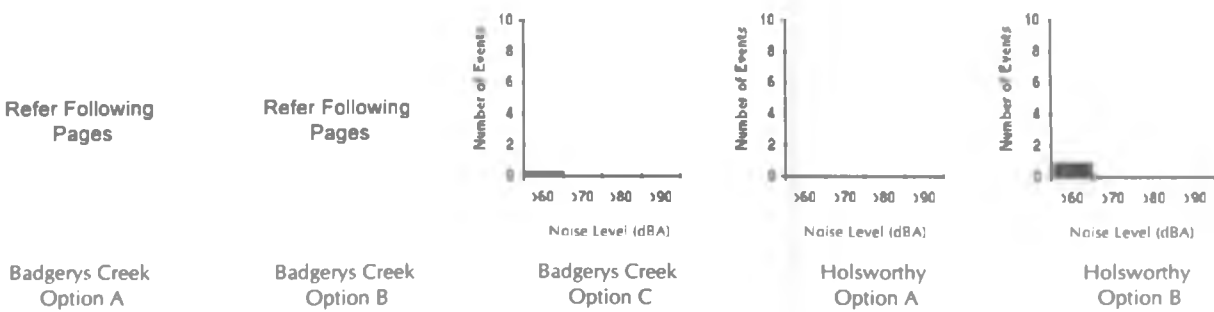
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

Potential Range of Events



Social Characteristics for Badgerys Creek Option A:

	Sub Area: 26.AB1			Sub Area: 26.AB2			Sub Area: 26.AB3			Sub Area: 26.AB4			Sub Area: 26.AB5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	60	60	60	60	60	60	50	50	50	40	40	40	30	30	30
Educational Facilities ²	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	1			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 26.AB1		Sub Area: 26.AB2		Sub Area: 26.AB3		Sub Area: 26.AB4		Sub Area: 26.AB5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	36 - 44	44 - 49	38 - 46	53 - 56	39 - 48	56 - 61	41 - 48	52 - 57	43 - 50	54 - 57
L _{Aeq} 10pm-6am ¹	23 - 32	33 - 38	26 - 34	43 - 45	29 - 36	47 - 51	32 - 38	42 - 46	33 - 40	44 - 46
ANEC ²	0 - 9	8 - 15	2 - 12	19 - 22	4 - 13	23 - 28	7 - 14	18 - 21	8 - 16	20 - 23
Number of Noise Events ³										
Over 60 dBA per 24 Hours	4 - 33	30 - 83	6 - 51	84 - 143	10 - 64	80 - 154	13 - 68	61 - 175	21 - 84	88 - 189
Over 70 dBA per 24 Hours	0 - 5	2 - 11	1 - 8	29 - 72	1 - 11	46 - 122	1 - 9	25 - 71	2 - 21	29 - 76
Over 80 dBA per 24 Hours	0 - 0	0 - 1	0 - 0	5 - 9	0 - 0	14 - 47	0 - 1	4 - 9	0 - 1	6 - 13
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 2	2 - 5	0 - 3	7 - 11	1 - 4	7 - 13	1 - 6	6 - 14	2 - 6	8 - 15
Over 70 dBA per Night	0 - 0	0 - 1	0 - 0	3 - 5	0 - 1	4 - 10	0 - 1	2 - 5	0 - 1	3 - 6
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	1 - 1	0 - 0	2 - 4	0 - 0	0 - 1	0 - 0	1 - 1
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	1 - 8	4 - 20	1 - 14	24 - 50	2 - 18	27 - 62	3 - 19	20 - 58	5 - 28	26 - 66
Sleep Disturbance Index ⁴	0 - 0	0 - 0.1	0 - 0.1	0.2 - 0.3	0 - 0.1	0.3 - 0.7	0 - 0.1	0.2 - 0.4	0 - 0.1	0.2 - 0.4

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 26.AB6			Sub Area: 26.AB7			Sub Area: 26.AB8		
	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	120	120	120	170	170	170	40	40	40
Educational Facilities ²	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0		

- Notes:
1. Rounded to nearest 10.
 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 26.AB6		Sub Area: 26.AB7		Sub Area: 26.AB8	
	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	50 - 60	53 - 59	53 - 63	56 - 63	45 - 53	47 - 53
L _{Aeq} 10pm-6am ¹	41 - 50	44 - 49	45 - 53	47 - 52	36 - 43	38 - 42
ANEC ²	17 - 26	19 - 25	21 - 30	23 - 29	11 - 18	12 - 18
Number of Noise Events ³						
Over 60 dBA per 24 Hours	29 - 141	54 - 152	42 - 151	65 - 152	23 - 117	45 - 116
Over 70 dBA per 24 Hours	18 - 112	32 - 105	25 - 132	38 - 121	5 - 39	10 - 38
Over 80 dBA per 24 Hours	3 - 39	6 - 29	7 - 66	12 - 55	0 - 2	0 - 2
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	5 - 12	6 - 13	6 - 13	7 - 13	3 - 9	5 - 9
Over 70 dBA per Night	3 - 8	3 - 8	4 - 11	4 - 11	1 - 4	1 - 3
Over 80 dBA per Night	0 - 4	1 - 3	1 - 6	1 - 4	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	12 - 64	20 - 58	15 - 67	22 - 59	6 - 39	11 - 34
Sleep Disturbance Index ⁴	0.2 - 0.6	0.2 - 0.5	0.2 - 0.8	0.3 - 0.7	0.1 - 0.2	0.1 - 0.2

- Note:
1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 26.AB1			Sub Area: 26.AB2			Sub Area: 26.AB3			Sub Area: 26.AB4			Sub Area: 26.AB5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	60	60	60	60	60	60	50	50	50	40	40	40	30	30	30
Educational Facilities ²	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³	1			0			0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 26.AB1		Sub Area: 26.AB2		Sub Area: 26.AB3		Sub Area: 26.AB4		Sub Area: 26.AB5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	37 - 45	42 - 47	43 - 50	47 - 51	49 - 57	53 - 57	49 - 59	53 - 58	52 - 61	56 - 60
L _{Aeq} 10pm-6am ¹	26 - 33	29 - 35	34 - 40	36 - 40	40 - 47	43 - 46	40 - 49	43 - 47	43 - 51	46 - 50
ANEC ²	0 - 9	4 - 10	8 - 15	12 - 15	15 - 23	18 - 23	15 - 25	19 - 24	19 - 28	22 - 28
Number of Noise Events ³										
Over 60 dBA per 24 Hours	5 - 44	18 - 75	25 - 93	59 - 108	40 - 146	88 - 146	29 - 140	53 - 134	45 - 152	88 - 148
Over 70 dBA per 24 Hours	0 - 5	2 - 8	2 - 18	7 - 24	13 - 83	31 - 78	18 - 111	38 - 109	23 - 125	45 - 121
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 1	0 - 3	2 - 15	6 - 12	3 - 39	8 - 29	6 - 58	14 - 47
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 3	1 - 5	3 - 7	5 - 7	6 - 12	8 - 12	5 - 12	5 - 12	6 - 13	8 - 12
Over 70 dBA per Night	0 - 0	0 - 1	0 - 1	1 - 2	2 - 7	3 - 6	2 - 8	4 - 9	3 - 9	4 - 10
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	1 - 1	0 - 4	1 - 2	1 - 6	2 - 4
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	1 - 11	4 - 18	5 - 27	13 - 31	12 - 59	26 - 55	12 - 63	21 - 58	15 - 68	29 - 63
Sleep Disturbance Index ⁴	0 - 0	0 - 0.1	0 - 0.1	0.1 - 0.2	0.1 - 0.4	0.2 - 0.4	0.2 - 0.6	0.2 - 0.5	0.2 - 0.7	0.3 - 0.7

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 26.AB6			Sub Area: 26.AB7			Sub Area: 26.AB8		
	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	120	120	120	170	170	170	40	40	40
Educational Facilities ²	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 26.AB6		Sub Area: 26.AB7		Sub Area: 26.AB8	
	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	41 - 48	47 - 50	41 - 49	47 - 50	36 - 44	51 - 57
L _{Aeq} 10pm-6am ¹	32 - 38	37 - 39	32 - 40	37 - 39	26 - 34	41 - 46
ANEC ²	7 - 13	12 - 15	8 - 15	13 - 16	3 - 9	17 - 23
Number of Noise Events ³						
Over 60 dBA per 24 Hours	13 - 83	42 - 122	18 - 75	52 - 125	3 - 31	48 - 130
Over 70 dBA per 24 Hours	2 - 10	6 - 14	1 - 16	6 - 15	0 - 4	25 - 90
Over 80 dBA per 24 Hours	0 - 1	0 - 1	0 - 1	0 - 1	0 - 0	5 - 24
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	2 - 7	4 - 10	2 - 6	5 - 9	0 - 3	5 - 11
Over 70 dBA per Night	0 - 1	1 - 1	0 - 2	1 - 1	0 - 1	2 - 7
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	1 - 2
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	3 - 23	10 - 30	4 - 22	12 - 32	0 - 8	17 - 52
Sleep Disturbance Index ⁴	0 - 0.1	0.1 - 0.1	0 - 0.1	0.1 - 0.1	0 - 0.1	0.2 - 0.5

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 27

SHEET 1 / 11

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006	2016	2006	2016	2006	2016	2006	2016
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	646	580	590	600	590	610	600	600	610	610
Educational Facilities ²		1	1	1	1	1	1	1	1	1
Other Noise Sensitive ³ Land Uses		0	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	52	L _{A90}	7am to 7pm	36
	7pm to 10pm	44		7pm to 10pm	34
	10pm to 7am	46		10pm to 7am	30

Monitored at: 55 Clifton Avenue, Kemps Creek

Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L _{Aeq} 24 Hour							32 - 40	22 - 34	37 - 42	27 - 36
L _{Aeq} 10pm-6am ¹							19 - 30	12 - 26	25 - 31	17 - 27
ANEC ²							-4 - -4	-10 - 0	1 - 6	-5 - 1
Number of Noise Events ³										
Over 60 dBA per 24 Hours	Refer Following Pages			Refer Following Pages			1 - 14	0 - 2	6 - 22	1 - 4
Over 70 dBA per 24 Hours							0 - 1	0 - 0	0 - 1	0 - 0
Over 80 dBA per 24 Hours							0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours							0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night							0 - 2	0 - 0	0 - 2	0 - 0
Over 70 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm							1 - 6	0 - 1	2 - 8	0 - 1
Sleep Disturbance Index ⁴							0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

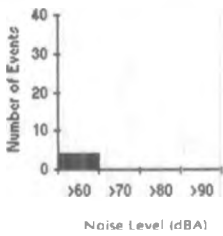
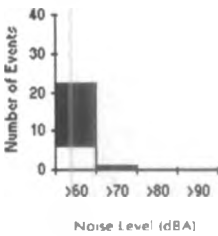
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events

Refer Following Pages

Refer Following Pages

Refer Following Pages



Badgerys Creek Option A

Badgerys Creek Option B

Badgerys Creek Option C

Holsworthy Option A

Holsworthy Option B

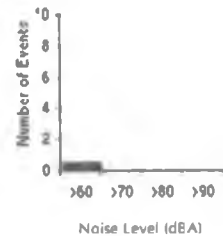
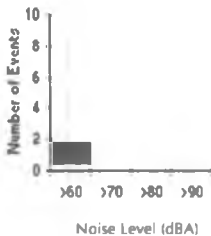
2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

Potential Range of Events

Refer Following Pages

Refer Following Pages

Refer Following Pages



Badgerys Creek Option A

Badgerys Creek Option B

Badgerys Creek Option C

Holsworthy Option A

Holsworthy Option B

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 27.AB1			Sub Area: 27.AB2			Sub Area: 27.AB3			Sub Area: 27.AB4			Sub Area: 27.AB5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	0	0	0	10	10	10	10	10	10	10	10	10	10	10	10
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 27.AB1		Sub Area: 27.AB2		Sub Area: 27.AB3		Sub Area: 27.AB4		Sub Area: 27.AB5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	37 - 48	45 - 52	36 - 47	44 - 50	38 - 49	46 - 53	39 - 50	48 - 54	40 - 50	50 - 56
L _{Aeq} 10pm-6am ¹	22 - 36	30 - 39	22 - 35	29 - 38	23 - 37	32 - 40	24 - 38	34 - 42	24 - 38	37 - 43
ANEC ²	2 - 14	10 - 18	1 - 13	8 - 16	4 - 16	11 - 19	4 - 16	13 - 21	5 - 17	15 - 22
Number of Noise Events ³										
Over 60 dBA per 24 Hours	3 - 25	21 - 91	4 - 29	22 - 95	4 - 30	26 - 108	4 - 35	41 - 124	4 - 37	63 - 141
Over 70 dBA per 24 Hours	1 - 12	5 - 28	1 - 10	4 - 22	1 - 14	7 - 37	1 - 14	9 - 46	1 - 15	13 - 60
Over 80 dBA per 24 Hours	0 - 2	1 - 6	0 - 1	0 - 1	0 - 3	0 - 3	0 - 4	1 - 5	0 - 4	2 - 11
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 1	0 - 6	0 - 2	1 - 6	0 - 2	1 - 7	0 - 2	3 - 8	0 - 3	4 - 10
Over 70 dBA per Night	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 2	0 - 1	0 - 3	0 - 1	0 - 4
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	1 - 9	6 - 29	1 - 10	6 - 28	1 - 10	7 - 33	1 - 11	8 - 38	1 - 11	16 - 46
Sleep Disturbance Index ⁴	0 - 0.1	0 - 0.1	0 - 0.1	0 - 0.1	0 - 0.1	0 - 0.2	0 - 0.1	0 - 0.2	0 - 0.1	0.1 - 0.3

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 27.AB6			Sub Area: 27.AB7			Sub Area: 27.AB8			Sub Area: 27.AB9			Sub Area: 27.AB10		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	20	20	20	10	10	10	10	10	10	30	30	30	0	0	0
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option A:

	Sub Area 27.AB6		Sub Area 27.AB7		Sub Area: 27.AB8		Sub Area: 27.AB9		Sub Area: 27.AB10	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour	41 - 52	57 - 60	43 - 54	58 - 62	43 - 54	59 - 63	45 - 54	53 - 56	50 - 57	52 - 55
L _{Aeq} 10pm-6am ¹	27 - 40	47 - 48	30 - 42	48 - 51	30 - 42	49 - 52	34 - 43	43 - 46	41 - 46	42 - 44
ANEC ²	6 - 18	23 - 26	8 - 20	25 - 29	8 - 20	26 - 30	10 - 21	19 - 23	16 - 24	18 - 21
Number of Noise Events ³										
Over 60 dBA per 24 Hours	6 - 53	117 - 169	14 - 82	123 - 183	14 - 86	131 - 194	31 - 107	127 - 216	55 - 151	126 - 211
Over 70 dBA per 24 Hours	1 - 17	72 - 115	2 - 27	62 - 131	2 - 25	76 - 138	4 - 37	30 - 59	19 - 77	25 - 56
Over 80 dBA per 24 Hours	0 - 6	12 - 26	0 - 7	18 - 49	0 - 7	20 - 55	0 - 8	2 - 9	1 - 13	1 - 4
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	1 - 2	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 4	10 - 12	1 - 6	11 - 14	1 - 6	12 - 14	3 - 8	11 - 16	7 - 11	11 - 15
Over 70 dBA per Night	0 - 1	6 - 8	0 - 2	5 - 10	0 - 2	7 - 11	0 - 2	3 - 4	2 - 6	2 - 4
Over 80 dBA per Night	0 - 0	1 - 2	0 - 0	2 - 4	0 - 0	2 - 4	0 - 1	0 - 1	0 - 1	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	2 - 16	41 - 65	2 - 23	40 - 67	2 - 24	46 - 70	7 - 37	34 - 68	16 - 58	32 - 67
Sleep Disturbance Index ⁴	0 - 0.1	0.4 - 0.5	0 - 0.2	0.4 - 0.7	0 - 0.2	0.5 - 0.7	0.1 - 0.2	0.3 - 0.4	0.2 - 0.4	0.3 - 0.4

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 27.AB11			Sub Area: 27.AB12			Sub Area: 27.AB13			Sub Area: 27.AB14			Sub Area: 27.AB15		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	30	30	30	0	0	0	100	110	110	50	60	60
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 27.AB11		Sub Area: 27.AB12		Sub Area: 27.AB13		Sub Area: 27.AB14		Sub Area: 27.AB15	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	56 - 65	58 - 64	54 - 63	57 - 63	54 - 62	57 - 62	49 - 56	51 - 56	45 - 54	49 - 55
L _{Aeq} 10pm-6am ¹	47 - 55	49 - 54	45 - 53	47 - 52	45 - 51	48 - 51	40 - 46	41 - 45	34 - 45	37 - 44
ANEC ²	24 - 33	25 - 32	21 - 30	23 - 30	22 - 29	24 - 29	15 - 22	17 - 22	10 - 21	14 - 23
Number of Noise Events ³										
Over 60 dBA per 24 Hours	65 - 165	116 - 178	57 - 159	92 - 153	74 - 167	123 - 187	47 - 146	81 - 140	27 - 114	59 - 118
Over 70 dBA per 24 Hours	37 - 147	47 - 128	28 - 133	41 - 122	39 - 135	63 - 124	12 - 72	22 - 68	3 - 36	8 - 41
Over 80 dBA per 24 Hours	14 - 96	22 - 84	8 - 64	15 - 61	8 - 53	15 - 46	1 - 7	2 - 8	0 - 7	1 - 10
Over 90 dBA per 24 Hours	1 - 18	3 - 16	0 - 1	0 - 2	0 - 2	1 - 4	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	9 - 13	11 - 14	8 - 13	9 - 12	10 - 13	11 - 14	6 - 11	8 - 11	3 - 8	5 - 9
Over 70 dBA per Night	5 - 12	5 - 11	4 - 10	4 - 11	5 - 9	6 - 10	1 - 6	2 - 5	0 - 3	0 - 3
Over 80 dBA per Night	2 - 7	2 - 6	1 - 6	1 - 5	1 - 5	2 - 4	0 - 1	0 - 1	0 - 1	0 - 1
Over 90 dBA per Night	0 - 2	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	21 - 73	33 - 64	19 - 71	28 - 62	26 - 74	42 - 67	12 - 56	22 - 50	6 - 38	13 - 35
Sleep Disturbance Index ⁴	0.4 - 0.9	0.4 - 0.8	0.3 - 0.8	0.3 - 0.7	0.4 - 0.7	0.5 - 0.7	0.2 - 0.4	0.2 - 0.4	0.1 - 0.3	0.1 - 0.3

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 27.AB16			Sub Area: 27.AB17			Sub Area: 27.AB18		
	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	100	110	110	100	100	100	90	90	90
Educational Facilities ²	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0		

- Notes
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 27.AB16		Sub Area: 27.AB17		Sub Area: 27.AB18	
	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	43 - 50	46 - 49	40 - 48	44 - 49	38 - 48	43 - 50
L _{Aeq} 10pm-6am ¹	33 - 41	36 - 38	29 - 39	32 - 38	27 - 39	30 - 39
ANEC ²	8 - 17	11 - 15	5 - 15	8 - 16	3 - 15	8 - 17
Number of Noise Events ³						
Over 60 dBA per 24 Hours	23 - 86	52 - 87	10 - 64	26 - 71	5 - 46	13 - 63
Over 70 dBA per 24 Hours	2 - 19	3 - 13	1 - 15	2 - 15	1 - 13	3 - 18
Over 80 dBA per 24 Hours	0 - 1	0 - 0	0 - 1	0 - 1	0 - 1	0 - 2
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	2 - 7	4 - 7	1 - 5	2 - 6	0 - 4	0 - 5
Over 70 dBA per Night	0 - 2	0 - 1	0 - 2	0 - 1	0 - 2	0 - 2
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	4 - 25	11 - 23	1 - 17	4 - 18	1 - 14	3 - 18
Sleep Disturbance Index ⁴	0 - 0.2	0.1 - 0.1	0 - 0.1	0 - 0.1	0 - 0.1	0 - 0.1

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 27.AB1			Sub Area: 27.AB2			Sub Area: 27.AB3			Sub Area: 27.AB4			Sub Area: 27.AB5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	0	0	0	10	10	10	10	10	10	10	10	10	10	10	10
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³	0			0			0			0			0		

- Notes: 1. Rounded to nearest 10
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 27.AB1		Sub Area: 27.AB2		Sub Area: 27.AB3		Sub Area: 27.AB4		Sub Area: 27.AB5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	39 - 49	44 - 51	37 - 47	43 - 50	40 - 50	45 - 52	41 - 51	46 - 53	42 - 52	47 - 54
L _{Aeq} 10pm-6am ¹	24 - 37	29 - 38	24 - 35	28 - 37	26 - 38	30 - 39	28 - 39	31 - 40	29 - 41	33 - 41
ANEC ²	1 - 13	5 - 14	0 - 11	5 - 12	2 - 13	7 - 15	4 - 15	8 - 16	6 - 16	10 - 17
Number of Noise Events ³										
Over 60 dBA per 24 Hours	6 - 43	18 - 76	6 - 46	21 - 85	7 - 56	21 - 93	8 - 66	24 - 101	13 - 84	35 - 116
Over 70 dBA per 24 Hours	1 - 14	4 - 21	1 - 12	3 - 18	1 - 17	5 - 27	2 - 22	7 - 36	2 - 26	7 - 41
Over 80 dBA per 24 Hours	0 - 3	1 - 6	0 - 1	0 - 1	0 - 2	1 - 3	0 - 3	1 - 6	0 - 5	1 - 8
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 3	1 - 5	0 - 3	1 - 6	0 - 4	0 - 6	0 - 5	1 - 6	1 - 6	2 - 7
Over 70 dBA per Night	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 2	0 - 2	0 - 2	0 - 2	0 - 3
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	1 - 13	4 - 21	1 - 13	5 - 23	2 - 16	6 - 27	2 - 21	7 - 33	2 - 24	7 - 36
Sleep Disturbance Index ⁴	0 - 0.1	0 - 0.1	0 - 0.1	0 - 0.1	0 - 0.1	0 - 0.1	0 - 0.1	0 - 0.2	0 - 0.2	0 - 0.2

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 27.AB6			Sub Area: 27.AB7			Sub Area: 27.AB8			Sub Area: 27.AB9			Sub Area: 27.AB10		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	20	20	20	10	10	10	10	10	10	30	30	30	0	0	0
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Other Noise Sensitive Land Uses ³	0			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 27.AB6		Sub Area: 27.AB7		Sub Area: 27.AB8		Sub Area: 27.AB9		Sub Area: 27.AB10	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	46 - 54	50 - 56	53 - 62	57 - 61	55 - 63	59 - 62	54 - 62	57 - 61	49 - 56	52 - 55
L _{Aeq} 10pm-6am ¹	36 - 44	39 - 44	44 - 52	48 - 50	46 - 53	49 - 51	45 - 52	47 - 50	40 - 47	41 - 45
ANEC ²	11 - 19	15 - 19	20 - 29	23 - 29	22 - 30	25 - 30	21 - 30	23 - 29	15 - 23	17 - 20
Number of Noise Events ³										
Over 60 dBA per 24 Hours	48 - 132	95 - 151	61 - 160	107 - 162	67 - 163	111 - 170	62 - 160	106 - 161	57 - 149	103 - 163
Over 70 dBA per 24 Hours	7 - 47	20 - 63	32 - 136	69 - 134	40 - 144	85 - 142	31 - 136	59 - 130	17 - 69	28 - 57
Over 80 dBA per 24 Hours	0 - 6	2 - 11	7 - 56	17 - 49	11 - 75	26 - 67	8 - 68	18 - 56	1 - 12	2 - 8
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 1	0 - 4	1 - 4	0 - 0	0 - 1	0 - 0	0 - 0
Over 60 dBA per Night	6 - 9	7 - 10	9 - 13	9 - 12	10 - 13	10 - 13	9 - 13	9 - 12	8 - 10	9 - 12
Over 70 dBA per Night	1 - 4	1 - 4	4 - 10	6 - 10	6 - 11	7 - 11	4 - 11	5 - 11	2 - 6	2 - 4
Over 80 dBA per Night	0 - 1	0 - 1	1 - 5	2 - 4	1 - 6	2 - 5	1 - 6	2 - 4	0 - 2	0 - 1
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	10 - 43	21 - 49	21 - 72	41 - 68	24 - 73	42 - 68	22 - 72	39 - 67	17 - 57	29 - 52
Sleep Disturbance Index ⁴	0.1 - 0.3	0.2 - 0.3	0.3 - 0.7	0.4 - 0.7	0.4 - 0.8	0.5 - 0.7	0.3 - 0.8	0.4 - 0.7	0.2 - 0.4	0.2 - 0.3

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 27.AB11			Sub Area: 27.AB12			Sub Area: 27.AB13			Sub Area: 27.AB14			Sub Area: 27.AB15		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	30	30	30	0	0	0	100	110	110	50	60	60
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 27.AB11		Sub Area: 27.AB12		Sub Area: 27.AB13		Sub Area: 27.AB14		Sub Area: 27.AB15	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	44 - 54	48 - 52	42 - 52	48 - 51	42 - 52	49 - 52	41 - 51	50 - 56	40 - 50	56 - 62
L _{Aeq} 10pm-6am ¹	33 - 45	37 - 41	31 - 43	38 - 39	30 - 43	39 - 41	28 - 42	40 - 45	27 - 41	46 - 51
ANEC ³	11 - 21	14 - 16	9 - 19	13 - 17	7 - 19	15 - 18	7 - 18	16 - 22	5 - 18	24 - 30
Number of Noise Events ³										
Over 60 dBA per 24 Hours	22 - 108	73 - 145	14 - 82	73 - 144	13 - 91	103 - 167	7 - 60	71 - 143	5 - 51	89 - 147
Over 70 dBA per 24 Hours	3 - 36	4 - 22	2 - 27	10 - 22	2 - 24	17 - 38	1 - 20	20 - 68	1 - 16	43 - 124
Over 80 dBA per 24 Hours	0 - 8	0 - 1	0 - 6	0 - 1	0 - 2	0 - 1	0 - 4	2 - 10	0 - 3	14 - 58
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	2 - 8	6 - 10	1 - 6	7 - 10	1 - 7	9 - 12	0 - 5	7 - 12	0 - 4	8 - 12
Over 70 dBA per Night	0 - 3	0 - 2	0 - 3	1 - 2	0 - 3	2 - 3	0 - 2	2 - 5	0 - 2	5 - 11
Over 80 dBA per Night	0 - 1	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 1	0 - 1	0 - 0	1 - 5
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	5 - 34	16 - 36	2 - 24	15 - 30	2 - 26	22 - 43	2 - 19	20 - 52	1 - 16	29 - 61
Sleep Disturbance Index ⁴	0 - 0.3	0.1 - 0.2	0 - 0.2	0.1 - 0.2	0 - 0.2	0.2 - 0.3	0 - 0.2	0.2 - 0.4	0 - 0.1	0.4 - 0.8

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 27.AB16			Sub Area: 27.AB17			Sub Area: 27.AB18		
	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	100	110	110	100	100	100	90	90	90
Educational Facilities ²	0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³	0			0			0		

- Notes:
1. Rounded to nearest 10.
 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 27.AB16		Sub Area: 27.AB17		Sub Area: 27.AB18	
	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	39 - 49	54 - 60	38 - 49	50 - 56	37 - 49	46 - 50
L _{Aeq} 10pm-6am ¹	26 - 41	44 - 49	25 - 40	40 - 45	24 - 40	36 - 39
ANEC ²	5 - 17	21 - 27	4 - 16	16 - 22	3 - 16	11 - 15
Number of Noise Events ³						
Over 60 dBA per 24 Hours	5 - 45	60 - 135	5 - 39	58 - 131	4 - 35	53 - 104
Over 70 dBA per 24 Hours	1 - 15	33 - 113	1 - 15	18 - 67	1 - 14	6 - 20
Over 80 dBA per 24 Hours	0 - 3	7 - 35	0 - 3	2 - 10	0 - 2	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 4	6 - 12	0 - 4	6 - 11	0 - 3	5 - 8
Over 70 dBA per Night	0 - 2	3 - 10	0 - 2	2 - 5	0 - 2	1 - 2
Over 80 dBA per Night	0 - 1	1 - 3	0 - 1	0 - 1	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm) ⁴	1 - 14	20 - 58	1 - 13	18 - 50	1 - 12	10 - 26
Sleep Disturbance Index ⁴	0 - 0.1	0.2 - 0.6	0 - 0.1	0.2 - 0.4	0 - 0.1	0.1 - 0.2

- Note:
1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option C:

	Sub Area: 27.C1			Sub Area: 27.C2		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	0	0	0	580	600	610
Educational Facilities ²	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 27.C1		Sub Area: 27.C2	
	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	29 - 35	40 - 46	24 - 32	33 - 41
L _{Aeq} 10pm-6am ¹	18 - 25	28 - 36	15 - 21	22 - 30
ANEC ²	-3 - 0	5 - 12	-15 - -7	-2 - 8
Number of Noise Events ³				
Over 60 dBA per 24 Hours	0 - 0	10 - 51	0 - 0	1 - 8
Over 70 dBA per 24 Hours	0 - 0	1 - 7	0 - 0	0 - 2
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 3	0 - 0	0 - 1
Over 70 dBA per Night	0 - 0	0 - 1	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 0	1 - 12	0 - 0	0 - 2
Sleep Disturbance Index ⁴	0 - 0	0 - 0.1	0 - 0	0 - 0

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 28

SHEET 1 / 7

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	1356	1530 ¹	1540	1540	1560	1560	1540	1540	1560	1560
Educational Facilities ²		1	1	1	1	1	1	1	1	1
Other Noise Sensitive Land Uses ³		2	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	46, 49	L _{A90}	7am to 7pm	36, 37
	7pm to 10pm	43, 49		7pm to 10pm	34, 37
	10pm to 7am	38, 46		10pm to 7am	30, 32

Monitored at: 50B Ramsay Road, Kemps Creek, 616 Devonshire Road, Kemps Creek

Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹							27 - 39	21 - 33	33 - 40	27 - 35
L _{Aeq} 10pm-6am ¹							16 - 27	11 - 25	22 - 27	16 - 26
ANEC ²							-7 - 3	-11 - -1	-2 - 6	-5 - 1
Number of Noise Events ³										
Over 60 dBA per 24 Hours	Refer Following Pages			Refer Following Pages			0 - 10	0 - 3	2 - 15	1 - 4
Over 70 dBA per 24 Hours							0 - 2	0 - 0	0 - 3	0 - 1
Over 80 dBA per 24 Hours							0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours							0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night							0 - 1	0 - 0	0 - 1	0 - 0
Over 70 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm							0 - 2	0 - 0	0 - 3	0 - 1
Sleep Disturbance Index ⁴							0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

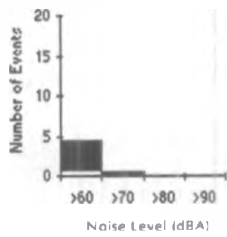
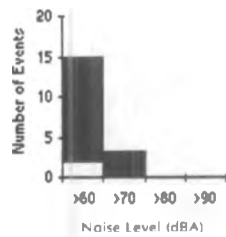
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events

Refer Following Pages

Refer Following Pages

Refer Following Pages



Badgerys Creek Option A

Badgerys Creek Option B

Badgerys Creek Option C

Holsworthy Option A

Holsworthy Option B

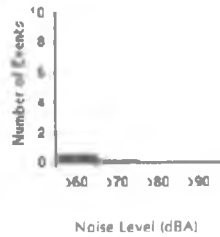
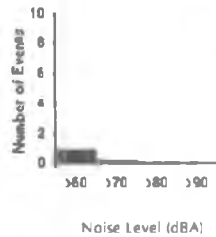
2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

Potential Range of Events

Refer Following Pages

Refer Following Pages

Refer Following Pages



Badgerys Creek Option A

Badgerys Creek Option B

Badgerys Creek Option C

Holsworthy Option A

Holsworthy Option B

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 28.AB1			Sub Area: 28.AB2			Sub Area: 28.AB3			Sub Area: 28.AB4			Sub Area: 28.AB5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	100	110	110	60	60	60	60	60	60	80	80	80	160	160	160
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 28.AB1		Sub Area: 28.AB2		Sub Area: 28.AB3		Sub Area: 28.AB4		Sub Area: 28.AB5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	54 - 61	58 - 61	49 - 58	53 - 59	46 - 56	51 - 58	43 - 54	48 - 55	42 - 53	47 - 55
L _{Aeq} 10pm-6am ¹	45 - 52	48 - 50	38 - 49	41 - 48	34 - 47	38 - 47	31 - 44	35 - 44	29 - 44	33 - 44
ANEC ²	21 - 29	24 - 29	14 - 26	18 - 27	11 - 24	16 - 25	8 - 21	13 - 23	7 - 20	13 - 23
Number of Noise Events ³										
Over 60 dBA per 24 Hours	78 - 169	134 - 206	56 - 156	105 - 181	23 - 129	48 - 145	15 - 105	33 - 117	7 - 67	18 - 84
Over 70 dBA per 24 Hours	46 - 134	80 - 128	11 - 81	27 - 81	6 - 62	16 - 70	3 - 38	11 - 53	2 - 22	7 - 39
Over 80 dBA per 24 Hours	7 - 43	16 - 35	1 - 18	3 - 21	1 - 10	2 - 15	0 - 4	1 - 7	0 - 6	1 - 10
Over 90 dBA per 24 Hours	0 - 2	0 - 3	0 - 0	0 - 2	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	11 - 13	12 - 16	7 - 11	8 - 13	2 - 10	3 - 11	1 - 8	2 - 9	0 - 5	0 - 7
Over 70 dBA per Night	6 - 9	8 - 10	1 - 7	2 - 6	0 - 5	1 - 6	0 - 3	0 - 4	0 - 2	0 - 3
Over 80 dBA per Night	1 - 4	2 - 3	0 - 2	0 - 2	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Over 90 dBA per Night	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	30 - 74	50 - 73	11 - 57	23 - 55	7 - 46	15 - 49	3 - 34	8 - 36	2 - 19	5 - 27
Sleep Disturbance Index ⁴	0.4 - 0.7	0.5 - 0.6	0.1 - 0.5	0.2 - 0.5	0 - 0.4	0.1 - 0.4	0 - 0.3	0 - 0.3	0 - 0.2	0 - 0.2

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 28.AB6			Sub Area: 28.AB7			Sub Area: 28.AB8			Sub Area: 28.AB9		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	150	150	150	200	200	200	280	280	290	440	440	450
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			2			0			0		

- Notes:
1. Rounded to nearest 10.
 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 28.AB6		Sub Area: 28.AB7		Sub Area: 28.AB8		Sub Area: 28.AB9	
	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour	40 - 50	45 - 52	37 - 47	42 - 49	38 - 47	44 - 49	36 - 45	41 - 47
L _{Aeq} 10pm-6am ¹	27 - 41	32 - 41	25 - 38	29 - 38	27 - 37	32 - 38	24 - 35	27 - 35
ANEC ²	5 - 17	10 - 19	2 - 13	7 - 16	3 - 13	8 - 15	1 - 10	6 - 13
Number of Noise Events ³								
Over 60 dBA per 24 Hours	8 - 70	21 - 89	5 - 49	15 - 70	4 - 42	11 - 47	2 - 15	6 - 31
Over 70 dBA per 24 Hours	1 - 18	6 - 32	1 - 8	2 - 15	1 - 7	3 - 15	1 - 5	2 - 10
Over 80 dBA per 24 Hours	0 - 1	0 - 2	0 - 0	0 - 1	0 - 1	0 - 1	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 6	1 - 7	0 - 4	0 - 5	0 - 4	1 - 4	0 - 2	0 - 2
Over 70 dBA per Night	0 - 2	0 - 2	0 - 1	0 - 1	0 - 0	0 - 1	0 - 0	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	2 - 19	5 - 26	1 - 11	4 - 19	1 - 7	4 - 14	1 - 5	2 - 11
Sleep Disturbance Index ⁴	0 - 0.2	0 - 0.2	0 - 0.1	0 - 0.1	0 - 0.1	0 - 0.1	0 - 0.1	0 - 0.1

- Note:
1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 28.AB1			Sub Area: 28.AB2			Sub Area: 28.AB3			Sub Area: 28.AB4			Sub Area: 28.AB5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	100	110	110	60	60	60	60	60	60	80	80	80	160	160	160
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Other Noise Sensitive Land Uses ³	0			0			0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 28.AB1		Sub Area: 28.AB2		Sub Area: 28.AB3		Sub Area: 28.AB4		Sub Area: 28.AB5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	41 - 51	51 - 54	39 - 49	56 - 61	38 - 48	60 - 65	37 - 46	56 - 59	37 - 47	49 - 55
L _{Aeq} 10pm-6am ¹	30 - 41	41 - 43	28 - 39	46 - 50	26 - 38	50 - 54	24 - 37	46 - 48	23 - 38	37 - 44
ANEC ²	6 - 17	16 - 19	4 - 14	23 - 28	3 - 13	27 - 33	1 - 11	22 - 24	2 - 14	13 - 20
Number of Noise Events ³										
Over 60 dBA per 24 Hours	11 - 90	120 - 195	8 - 71	118 - 181	7 - 59	123 - 188	3 - 39	108 - 158	3 - 34	71 - 108
Over 70 dBA per 24 Hours	2 - 22	23 - 46	1 - 13	53 - 121	1 - 8	67 - 134	0 - 4	62 - 105	0 - 9	10 - 39
Over 80 dBA per 24 Hours	0 - 1	0 - 2	0 - 0	12 - 45	0 - 0	34 - 104	0 - 0	11 - 23	0 - 1	1 - 9
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0	6 - 30	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	1 - 7	10 - 14	0 - 6	11 - 13	0 - 5	11 - 14	0 - 3	10 - 12	0 - 3	6 - 9
Over 70 dBA per Night	0 - 2	2 - 4	0 - 1	5 - 10	0 - 1	7 - 12	0 - 0	6 - 8	0 - 1	1 - 3
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	1 - 4	0 - 0	4 - 8	0 - 0	1 - 2	0 - 0	0 - 1
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	1 - 3	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	3 - 30	32 - 58	1 - 18	38 - 65	1 - 13	40 - 66	1 - 10	38 - 62	1 - 9	15 - 33
Sleep Disturbance Index ⁴	0 - 0.2	0.3 - 0.4	0 - 0.1	0.4 - 0.7	0 - 0.1	0.6 - 1	0 - 0.1	0.4 - 0.5	0 - 0.1	0.1 - 0.3

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 28.AB6			Sub Area: 28.AB7			Sub Area: 28.AB8			Sub Area: 28.AB9		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	150	150	150	200	200	200	280	280	290	440	440	450
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³	0			2			0			0		

Notes: 1. Rounded to nearest 10.

2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.

3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 28.AB6		Sub Area: 28.AB7		Sub Area: 28.AB8		Sub Area: 28.AB9	
	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	35 - 44	49 - 56	34 - 44	46 - 54	35 - 45	45 - 51	34 - 45	42 - 48
L _{Aeq} 10pm-6am ¹	22 - 35	37 - 45	22 - 35	33 - 43	23 - 35	33 - 40	21 - 36	29 - 37
ANEC ²	-1 - 9	13 - 21	-2 - 10	9 - 19	-1 - 10	8 - 16	-1 - 11	4 - 12
Number of Noise Events ³								
Over 60 dBA per 24 Hours	3 - 28	52 - 119	2 - 22	20 - 82	2 - 19	18 - 77	2 - 23	11 - 47
Over 70 dBA per 24 Hours	0 - 2	9 - 46	0 - 3	5 - 31	0 - 4	6 - 30	0 - 5	2 - 12
Over 80 dBA per 24 Hours	0 - 0	2 - 13	0 - 0	1 - 7	0 - 0	0 - 1	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 3	4 - 9	0 - 2	1 - 6	0 - 2	1 - 6	0 - 2	1 - 4
Over 70 dBA per Night	0 - 0	0 - 4	0 - 0	0 - 3	0 - 0	0 - 2	0 - 1	0 - 1
Over 80 dBA per Night	0 - 0	0 - 1	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 5	13 - 34	0 - 4	5 - 24	1 - 6	5 - 23	0 - 6	3 - 13
Sleep Disturbance Index ⁴	0 - 0.1	0.1 - 0.3	0 - 0.1	0 - 0.2	0 - 0	0 - 0.2	0 - 0.1	0 - 0.1

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option C:

	Sub Area: 28.C1			Sub Area: 28.C2		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	1090	1110	1120	430	440	440
Educational Facilities ²	1	1	1	0	0	0
Other Noise Sensitive ³ Land Uses	2			0		

- Notes: 1 Rounded to nearest 10.
2 Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3 Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 28.C1		Sub Area: 28.C2	
	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	27 - 34	36 - 48	29 - 37	40 - 50
L _{Aeq} 10pm-6am ¹	17 - 23	25 - 37	19 - 24	31 - 39
ANEC ²	-18 - -10	-1 - 15	-13 - -8	2 - 17
Number of Noise Events ³				
Over 60 dBA per 24 Hours	0 - 0	2 - 15	0 - 0	7 - 32
Over 70 dBA per 24 Hours	0 - 0	0 - 5	0 - 0	0 - 7
Over 80 dBA per 24 Hours	0 - 0	0 - 1	0 - 0	0 - 2
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 1	0 - 0	1 - 3
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm) ⁴	0 - 0	0 - 4	0 - 0	3 - 11
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0.1

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006 Options A and B	Option C	2016 Options A and B	Option C	2006 Option A	Option B	2016 Option A	Option B
Estimated Population	791	2500 ¹	8510	8510	14070	14070	8510	8510	14070	14070
Educational Facilities ²		1	2	2	3	3	2	2	3	3
Other Noise Sensitive Land Uses ³		3	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	53, 53	L _{A90}	7am to 7pm	36, 40
	7pm to 10pm	46, 56		7pm to 10pm	35, 42
	10pm to 7am	43, 57		10pm to 7am	29, 33

Monitored at: 175 Sixteenth Ave, West Hoxton, 12 Margaret Way, Cecil Hills

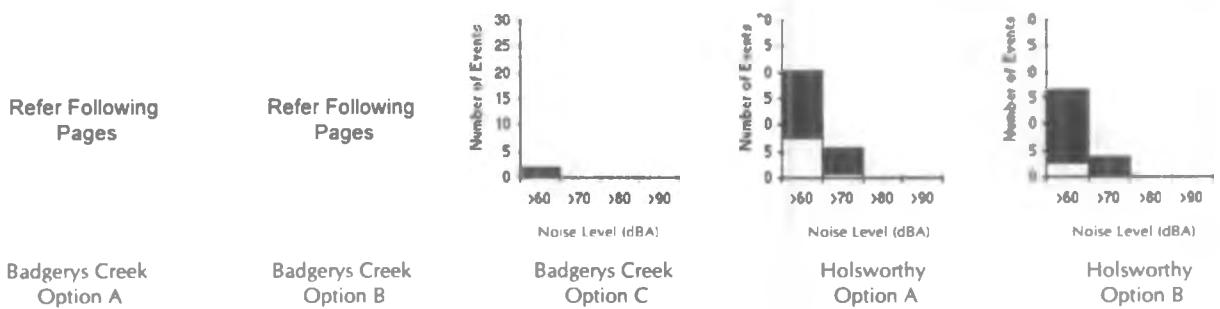
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L _{Aeq} 24 Hour ¹			19 - 29			27 - 34	31 - 41	25 - 37	37 - 43	33 - 41
L _{Aeq} 10pm-6am ¹			9 - 18			16 - 22	21 - 30	16 - 29	27 - 29	22 - 31
ANEC ²			-20 - -10			-10 - -3	-4 - 6	-8 - 4	2 - 8	-1 - 7
Number of Noise Events ³										
Over 60 dBA per 24 Hours	Refer Following Pages		0 - 0	Refer Following Pages		0 - 2	2 - 14	0 - 7	7 - 20	3 - 17
Over 70 dBA per 24 Hours			0 - 0			0 - 0	0 - 3	0 - 2	1 - 6	1 - 4
Over 80 dBA per 24 Hours			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night			0 - 0			0 - 0	0 - 1	0 - 1	1 - 1	0 - 2
Over 70 dBA per Night			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 1
Over 80 dBA per Night			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm			0 - 0			0 - 0	0 - 4	0 - 2	2 - 6	0 - 3
Sleep Disturbance Index ⁴			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

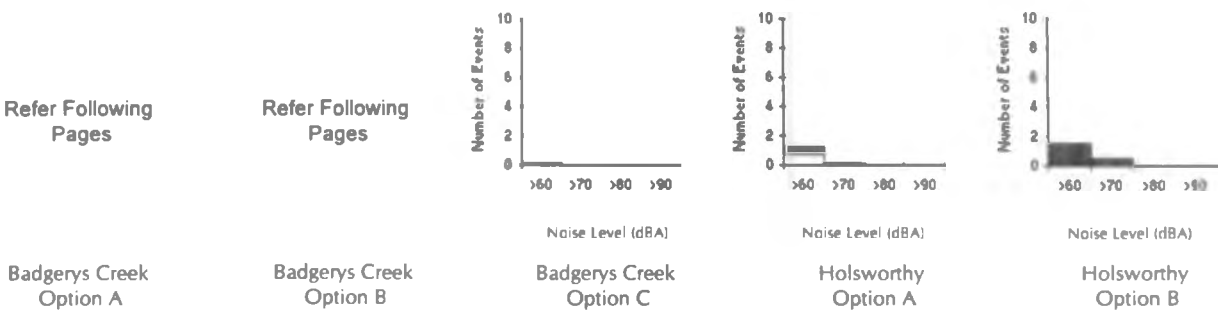
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

Potential Range of Events



Social Characteristics for Badgerys Creek Option A:

	Sub Area: 29.AB1			Sub Area: 29.AB2			Sub Area: 29.AB3			Sub Area: 29.AB4		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	20	60	90	0	0	0	0	0	0	2480	8460	13970
Educational Facilities ²	0	0	0	0	0	0	0	0	0	1	2	3
Other Noise Sensitive ³ Land Uses	0			0			0			3		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 29.AB1		Sub Area: 29.AB2		Sub Area: 29.AB3		Sub Area: 29.AB4	
	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour	40 - 51	45 - 53	38 - 49	43 - 51	37 - 48	42 - 50	34 - 45	39 - 47
L _{Aeq} 10pm-6am ¹	26 - 42	31 - 42	24 - 40	29 - 40	23 - 39	28 - 39	20 - 36	25 - 36
ANEC ²	5 - 18	11 - 21	3 - 16	9 - 19	2 - 15	7 - 17	-1 - 12	4 - 14
Number of Noise Events ³								
Over 60 dBA per 24 Hours	5 - 43	13 - 65	4 - 36	13 - 64	3 - 28	11 - 53	3 - 25	9 - 48
Over 70 dBA per 24 Hours	1 - 18	5 - 32	1 - 12	3 - 21	1 - 10	2 - 17	0 - 6	1 - 10
Over 80 dBA per 24 Hours	0 - 4	1 - 7	0 - 2	0 - 3	0 - 2	0 - 3	0 - 0	0 - 1
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 4	0 - 5	0 - 3	0 - 5	0 - 3	0 - 4	0 - 2	0 - 4
Over 70 dBA per Night	0 - 2	0 - 3	0 - 1	0 - 2	0 - 1	0 - 1	0 - 1	0 - 1
Over 80 dBA per Night	0 - 1	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	2 - 14	5 - 24	1 - 11	4 - 19	1 - 9	3 - 16	0 - 7	2 - 11
Sleep Disturbance Index ⁴	0 - 0.2	0 - 0.2	0 - 0.1	0 - 0.2	0 - 0.1	0 - 0.1	0 - 0.1	0 - 0.1

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 29.AB1			Sub Area: 29.AB2			Sub Area: 29.AB3			Sub Area: 29.AB4		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	20	60	90	0	0	0	0	0	0	2480	8460	13970
Educational Facilities ²	0	0	0	0	0	0	0	0	0	1	2	3
Other Noise Sensitive Land Uses ³	0			0			0			3		

Notes: 1 Rounded to nearest 10

2 Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.

3 Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 29.AB1		Sub Area: 29.AB2		Sub Area: 29.AB3		Sub Area: 29.AB4	
	2006	2016	2006	2016	2006	2016	2006	2016
L_{Aeq} 24 Hour ¹	38 - 49	44 - 51	36 - 47	45 - 53	36 - 47	44 - 52	28 - 39	35 - 42
L_{Aeq} 10pm-6am ¹	24 - 40	32 - 40	23 - 39	31 - 42	22 - 39	30 - 41	15 - 29	22 - 32
ANEC ²	3 - 16	8 - 16	1 - 15	8 - 19	1 - 15	7 - 17	-7 - 4	-3 - 6
Number of Noise Events ³								
Over 60 dBA per 24 Hours	4 - 32	23 - 70	3 - 27	13 - 63	3 - 28	13 - 61	1 - 11	4 - 25
Over 70 dBA per 24 Hours	1 - 14	3 - 21	1 - 10	5 - 30	1 - 11	4 - 25	0 - 1	0 - 3
Over 80 dBA per 24 Hours	0 - 3	0 - 3	0 - 1	1 - 7	0 - 2	1 - 5	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 3	2 - 6	0 - 3	0 - 5	0 - 3	0 - 5	0 - 1	0 - 2
Over 70 dBA per Night	0 - 2	0 - 2	0 - 1	0 - 3	0 - 1	0 - 2	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm) ⁴	1 - 11	4 - 19	1 - 9	5 - 24	1 - 9	4 - 22	0 - 2	1 - 5
Sleep Disturbance Index	0 - 0.1	0 - 0.2	0 - 0.1	0 - 0.2	0 - 0.1	0 - 0.2	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	12996	15080 ¹	18010	18010	18590	18590	18010	18010	18590	18590
Educational Facilities ²		9	9	9	9	9	9	9	9	9
Other Noise Sensitive ³ Land Uses		10	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	51	L _{A90}	7am to 7pm	39
	7pm to 10pm	47		7pm to 10pm	39
	10pm to 7am	43		10pm to 7am	32

Monitored at: 51 Marriott Road, Bonnyrigg

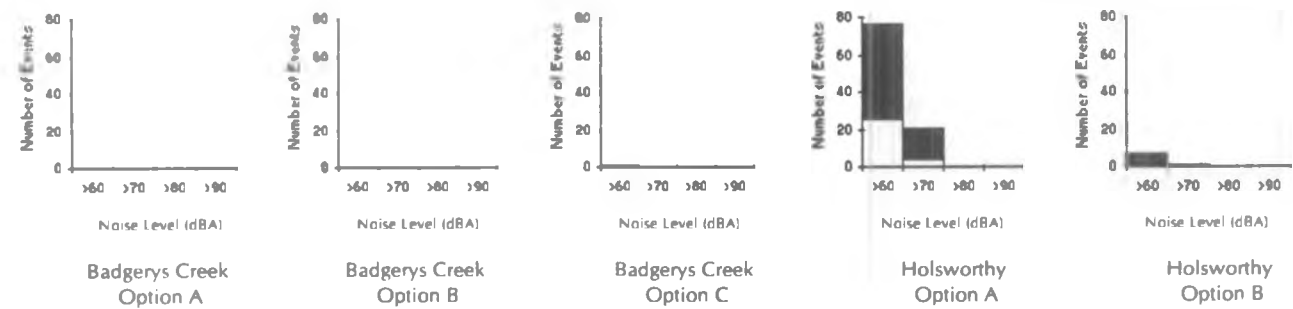
Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹	19 - 27	18 - 26	16 - 28	26 - 30	26 - 29	22 - 30	40 - 49	19 - 31	43 - 48	27 - 37
L _{Aeq} 10pm-6am ¹	9 - 18	9 - 16	7 - 18	15 - 19	16 - 18	12 - 18	31 - 38	10 - 23	33 - 37	16 - 26
ANEC ²	-11 - -6	-13 - -6	-14 - -6	-7 - -4	-8 - -4	-9 - -3	5 - 13	-11 - -3	8 - 13	-5 - 2
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 1	10 - 78	0 - 2	25 - 76	1 - 7
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	1 - 20	0 - 0	4 - 20	0 - 1
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	1 - 6	0 - 0	2 - 5	0 - 1
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0	0 - 2	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	2 - 24	0 - 0	5 - 20	0 - 2
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0.2	0 - 0	0 - 0.1	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

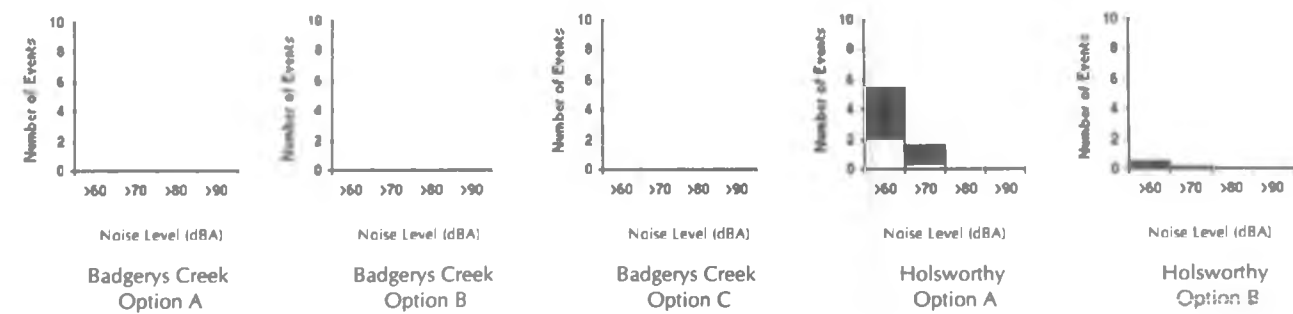
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	53003	50050 ¹	53560	53560	56350	56350	53560	53560	56350	56350
Educational Facilities ²		15	15	15	16	16	15	15	16	16
Other Noise Sensitive ³ Land Uses		57	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	52	L _{A90}	7am to 7pm	38
	7pm to 10pm	46		7pm to 10pm	37
	10pm to 7am	50		10pm to 7am	32

Monitored at: 113 McBurney Road, Cabramatta

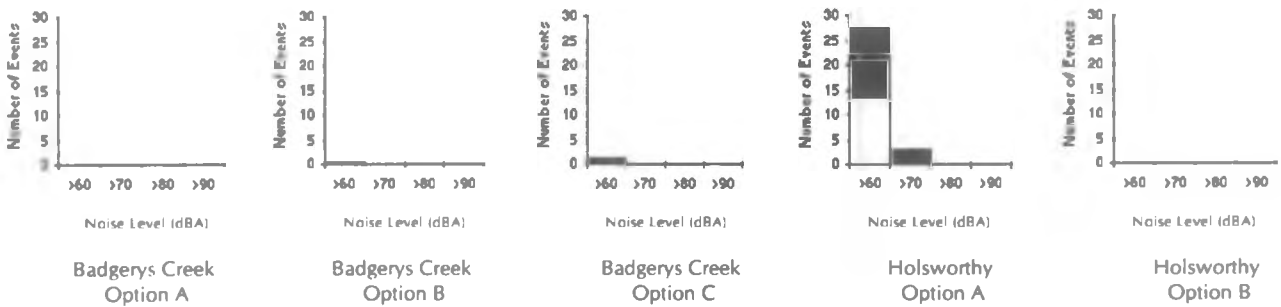
Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour	14 - 22	14 - 23	18 - 29	21 - 25	21 - 25	21 - 29	25 - 35	7 - 19	40 - 44	15 - 24
L _{Aeq} 10pm-6am ¹	5 - 15	5 - 15	10 - 21	11 - 15	11 - 15	12 - 19	15 - 24	-3 - 11	30 - 33	3 - 13
ANEC ²	-15 --7	-15 --7	-14 --4	-10 --5	-10 --5	-10 --4	-9 --1	18 --1	4 - 9	-12 --7
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 1	0 - 12	0 - 0	13 - 28	0 - 0
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0	0 - 3	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	1 - 2	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 3	0 - 0	1 - 6	0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

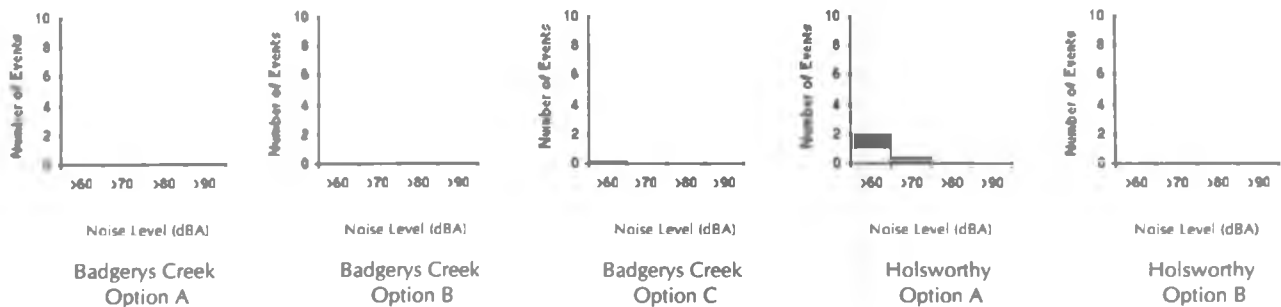
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991 Census	1996	2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	10802	11170 ¹	11820	11820	12410	12410	11820	11820	12410	12410
Educational Facilities ²		10	10	10	10	10	10	10	10	10
Other Noise Sensitive ³ Land Uses		15	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	54	L _{A90}	7am to 7pm	44
	7pm to 10pm	50		7pm to 10pm	39
	10pm to 7am	48		10pm to 7am	38

Monitored at: 62 Bungara Road, Chipping Norton

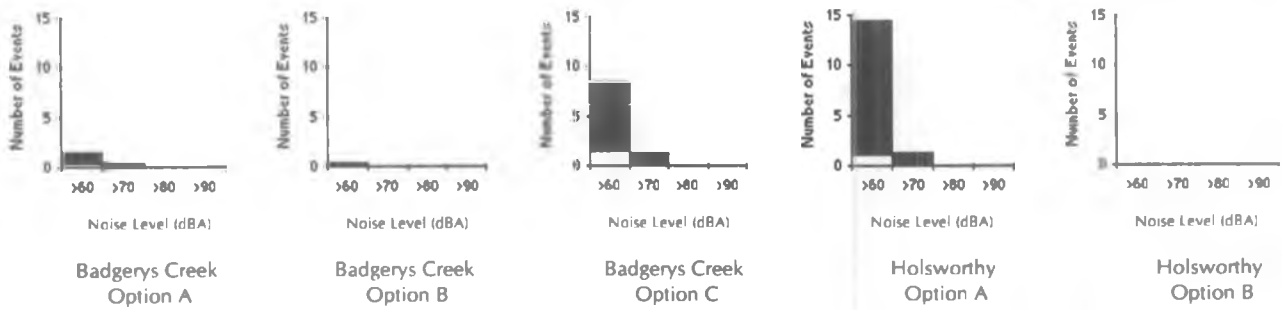
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour	17 - 28	16 - 27	23 - 35	23 - 30	19 - 24	29 - 37	22 - 32	5 - 17	35 - 42	12 - 21
L _{Aeq} 10pm-6am ¹	9 - 20	9 - 20	15 - 27	15 - 21	10 - 15	21 - 28	12 - 21	-6 - 7	25 - 31	0 - 10
ANEC ²	-13 - -4	-14 - -5	-11 - 1	-8 - -2	-11 - -5	-6 - 2	-10 - -5	-17 - -9	0 - 7	-13 - -7
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 1	0 - 1	0 - 5	0 - 2	0 - 0	1 - 8	0 - 8	0 - 0	1 - 14	0 - 0
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 1	0 - 0	0 - 1	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 1	0 - 1	0 - 0	0 - 1	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 2	0 - 0	0 - 0	0 - 1	0 - 2	0 - 0	0 - 3	0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

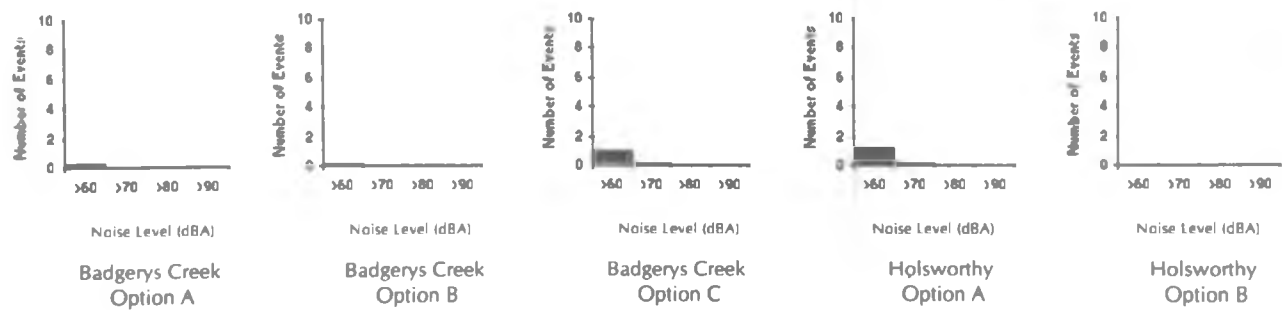
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	24893	21960 ¹	24030	24030	25820	25820	24030	24030	25820	25820
Educational Facilities ²		13	13	13	13	13	13	13	13	13
Other Noise Sensitive Land Uses ³		35	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	50	L _{A90}	7am to 7pm	39
	7pm to 10pm	45		7pm to 10pm	36
	10pm to 7am	44		10pm to 7am	31

Monitored at: 4 Phillis Street, Mount Pritchard

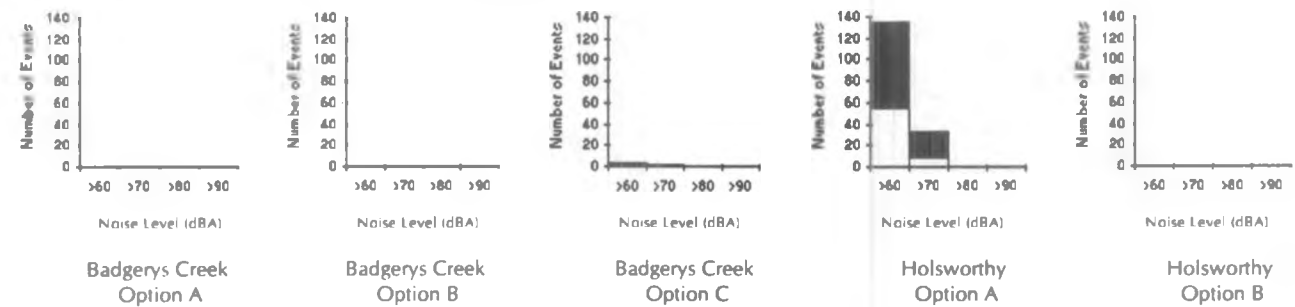
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour ¹	16 - 25	15 - 24	22 - 34	23 - 27	20 - 24	27 - 35	36 - 43	11 - 23	47 - 51	18 - 28
L_{Aeq} 10pm-6am ¹	8 - 17	6 - 16	14 - 25	13 - 18	11 - 14	18 - 25	26 - 33	1 - 14	37 - 40	7 - 17
ANEC ²	-14 - -7	-14 - -7	-13 - 0	-9 - -4	-10 - -5	-7 - 1	0 - 9	-16 - -9	12 - 15	-11 - -6
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 0	0 - 0	0 - 3	0 - 1	0 - 0	1 - 4	4 - 34	0 - 0	55 - 136	0 - 0
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 5	0 - 0	9 - 32	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0	4 - 10	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	1 - 2	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 1	1 - 8	0 - 0	12 - 32	0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0.1	0 - 0	0.1 - 0.2	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

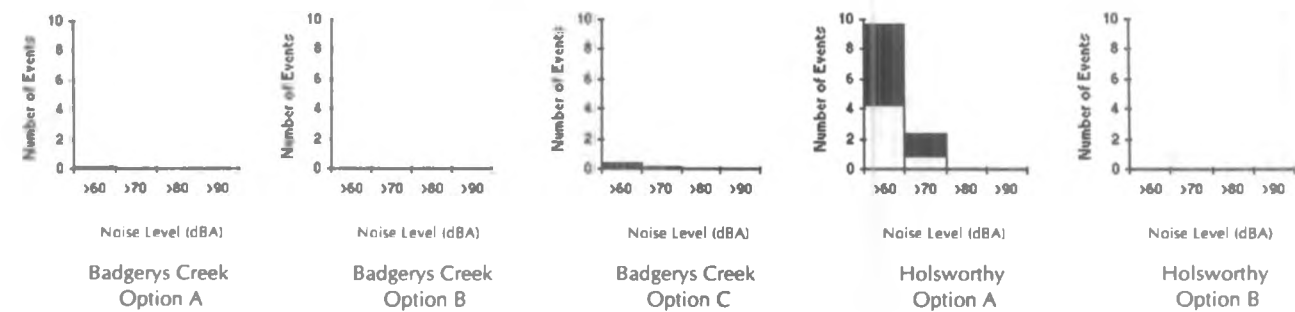
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	25037	35670 ¹	42340	42340	43890	43890	42340	42340	43890	43890
Educational Facilities ²		15	16	16	17	17	16	16	17	17
Other Noise Sensitive ³ Land Uses		26	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	50	L _{A90}	7am to 7pm	40
	7pm to 10pm	49		7pm to 10pm	37
	10pm to 7am	41		10pm to 7am	34

Monitored at: 4 Lyndley Street, Busby

Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour ¹	21 - 28	19 - 26	23 - 35	27 - 30	24 - 27	27 - 34	42 - 50	18 - 30	46 - 49	26 - 37
L_{Aeq} 10pm-6am ¹	11 - 18	10 - 17	14 - 26	17 - 19	13 - 16	17 - 24	33 - 39	8 - 22	34 - 38	15 - 26
ANEC ²	-11 - -6	-13 - -6	-11 - 1	-6 - -3	-8 - -4	-9 - -1	8 - 14	-11 - -4	11 - 14	-6 - 1
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 1	0 - 0	0 - 4	0 - 1	0 - 0	0 - 2	14 - 90	0 - 2	33 - 78	1 - 6
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	2 - 16	0 - 0	6 - 14	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	1 - 7	0 - 0	3 - 6	0 - 1
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0	0 - 1	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 1	3 - 30	0 - 0	9 - 25	0 - 1
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0.2	0 - 0	0.1 - 0.1	0 - 0

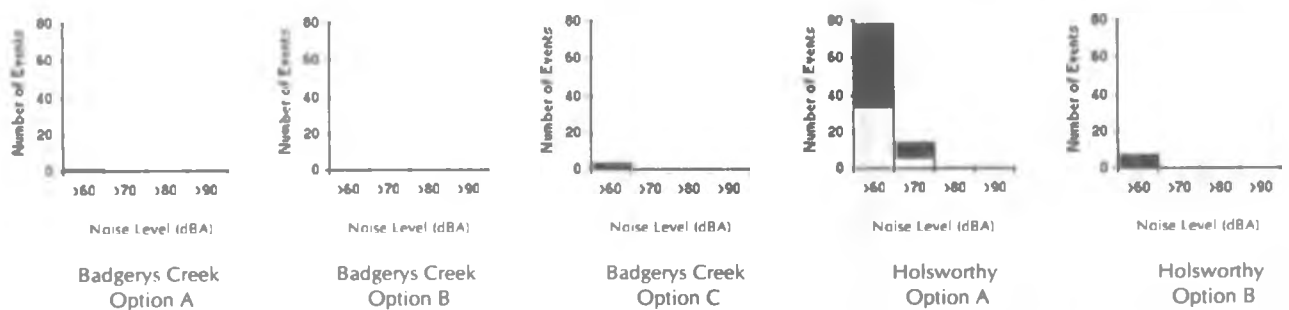
Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

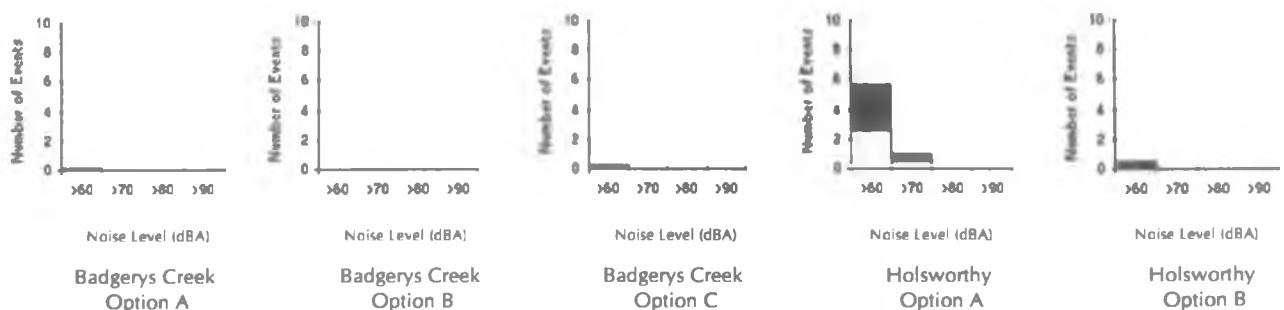
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

 Potential Range of Events


2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

 Potential Range of Events


AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	1498	3780 ¹	20000	20000	25070	25070	20000	20000	25070	25070
Educational Facilities ²		2	6	6	8	8	6	6	8	8
Other Noise Sensitive ³ Land Uses		5	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes

1.

2.

3.

4.

Rounded to nearest 10.

Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.

Includes hospitals, churches, aged persons facilities and child care centres.

Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	52	L _{A90}	7am to 7pm	36
	7pm to 10pm	45		7pm to 10pm	34
	10pm to 7am	42		10pm to 7am	29

Monitored at: Lot 56, First Ave, Hoxton Park

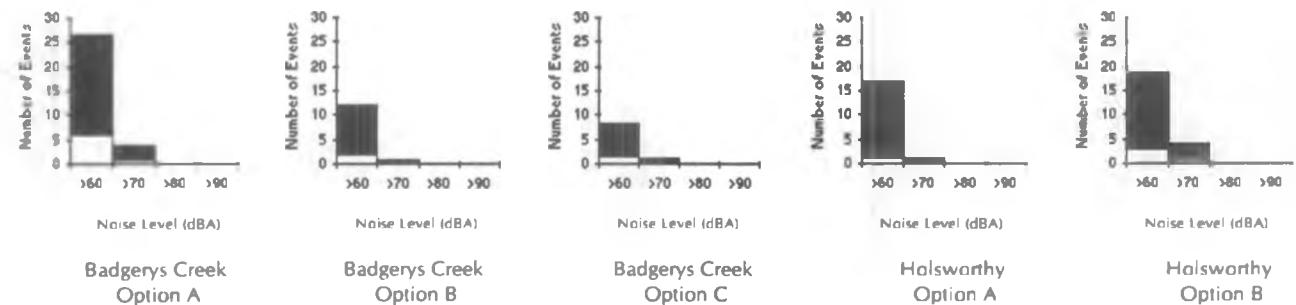
Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour	31 - 41	26 - 33	27 - 38	37 - 43	32 - 39	32 - 39	27 - 40	26 - 38	32 - 42	34 - 42
L _{Aeq} 10pm-6am ¹	20 - 32	17 - 24	18 - 29	26 - 32	19 - 28	23 - 29	15 - 29	16 - 29	19 - 29	23 - 32
ANEC ²	-3 - 7	-7 - 0	-6 - 5	3 - 10	-2 - 4	0 - 6	-7 - 5	-7 - 4	-2 - 7	0 - 8
Number of Noise Events ³										
Over 60 dBA per 24 Hours	2 - 15	0 - 2	1 - 10	6 - 27	2 - 12	1 - 8	0 - 11	1 - 11	1 - 17	3 - 19
Over 70 dBA per 24 Hours	0 - 2	0 - 0	0 - 2	1 - 4	0 - 1	0 - 1	0 - 1	0 - 2	0 - 1	1 - 4
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 2	0 - 0	0 - 1	0 - 2	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 2
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 3	0 - 0	0 - 2	1 - 6	0 - 2	0 - 2	0 - 2	0 - 2	0 - 3	1 - 4
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0.1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

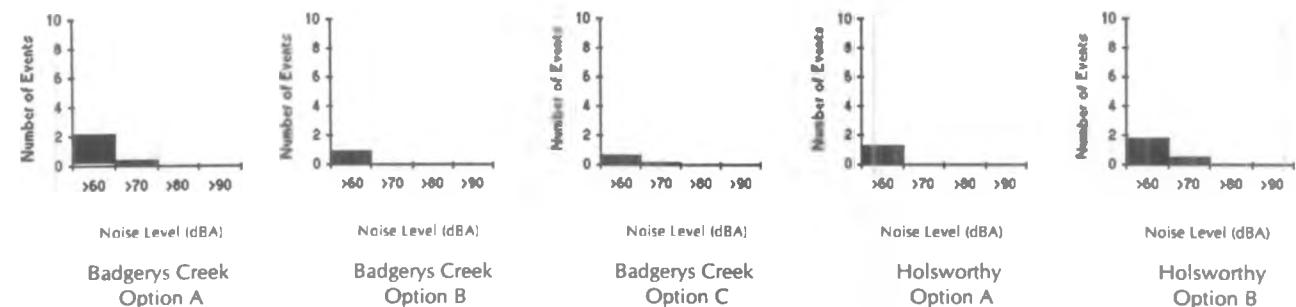
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	2021	2230 ¹	2360	3280	2410	6110	2360	2360	2410	2410
Educational Facilities ²		1	1	1	1	1	1	1	1	1
Other Noise Sensitive Land Uses ³		4	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	49	L _{A90}	7am to 7pm	37
	7pm to 10pm	44		7pm to 10pm	36
	10pm to 7am	44		10pm to 7am	35

Monitored at: 275 Twelfth Avenue, Austral

Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour	34 - 44	31 - 42	27 - 37	40 - 47	41 - 49	34 - 40	25 - 39	26 - 38	30 - 41	32 - 40
L_{Aeq} 10pm-6am ¹	22 - 36	19 - 32	18 - 27	27 - 36	26 - 38	23 - 28	11 - 28	16 - 29	17 - 28	21 - 30
ANEC ²	0 - 11	-3 - 8	-6 - 3	5 - 14	6 - 16	0 - 4	-7 - 4	-7 - 4	-3 - 6	-2 - 6
Number of Noise Events ³										
Over 60 dBA per 24 Hours	2 - 21	2 - 18	0 - 6	8 - 37	9 - 47	3 - 11	0 - 7	1 - 10	1 - 12	3 - 17
Over 70 dBA per 24 Hours	0 - 6	0 - 3	0 - 1	1 - 9	2 - 14	0 - 0	0 - 1	0 - 1	0 - 1	0 - 2
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 1	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 2	0 - 2	0 - 0	0 - 3	0 - 4	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Over 70 dBA per Night	0 - 1	0 - 0	0 - 0	0 - 1	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 5	0 - 5	0 - 1	2 - 8	2 - 12	1 - 3	0 - 2	0 - 2	0 - 3	0 - 2
Sleep Disturbance Index ⁴	0 - 0.1	0 - 0	0 - 0	0 - 0.1	0 - 0.1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

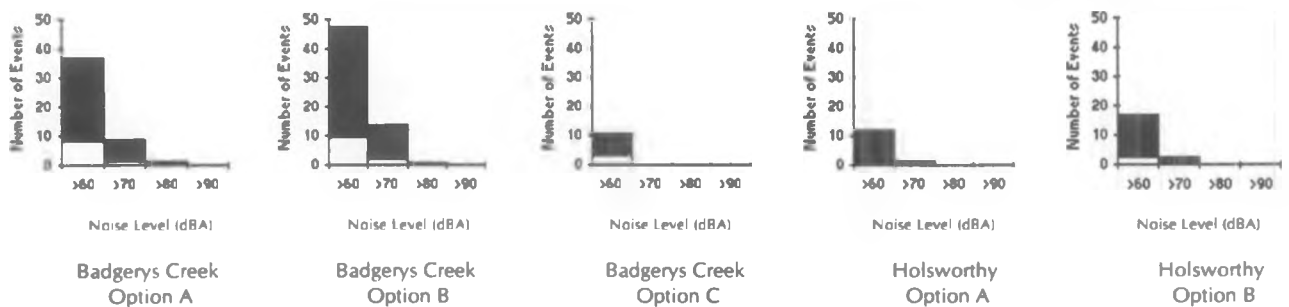
Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

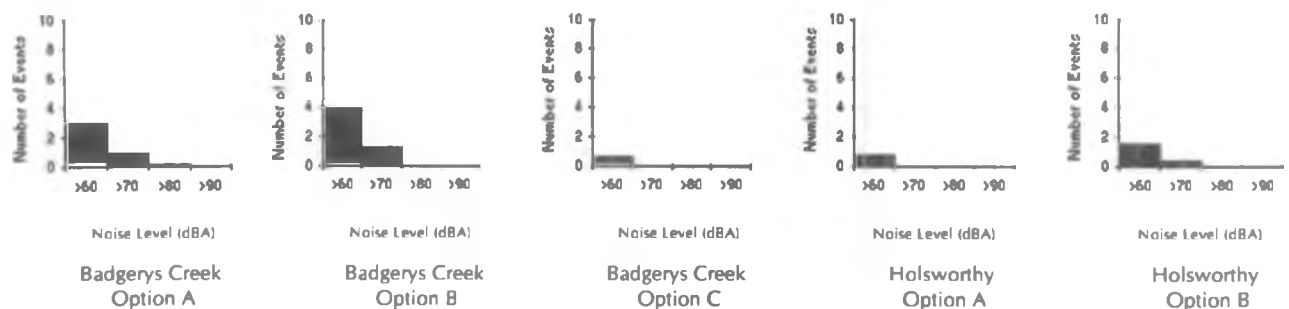
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

 Potential Range of Events


2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

 Potential Range of Events


AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 37

SHEET 1 / 3

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	1558	1620 ¹	1640	2560	1660	5670	1640	1640	1660	1660
Educational Facilities ²		0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³		2	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	48	L _{A90}	7am to 7pm	34
	7pm to 10pm	43		7pm to 10pm	33
	10pm to 7am	40		10pm to 7am	29

Monitored at: 27 Emmetts Farm Road, Rossmore

Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour ¹	34 - 44	34 - 45		40 - 46	41 - 48		22 - 37	21 - 33	28 - 39	25 - 33
L_{Aeq} 10pm-6am ¹	21 - 34	21 - 35		27 - 35	27 - 37		9 - 27	11 - 24	15 - 27	14 - 23
ANEC ²	0 - 10	-1 - 11		5 - 12	6 - 14		-9 - 2	-10 --1	-4 - 4	-6 --2
Number of Noise Events ³	Refer Following Pages			Refer Following Pages						
Over 60 dBA per 24 Hours							0 - 5	0 - 1	1 - 8	0 - 2
Over 70 dBA per 24 Hours							0 - 1	0 - 0	0 - 1	0 - 0
Over 80 dBA per 24 Hours							0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours							0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 2	0 - 2		0 - 3	0 - 3		0 - 1	0 - 0	0 - 1	0 - 0
Over 70 dBA per Night	0 - 1	0 - 1		0 - 1	0 - 1		0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	1 - 5	1 - 8		2 - 10	3 - 13		0 - 1	0 - 0	0 - 2	0 - 0
Sleep Disturbance Index	0 - 0	0 - 0.1		0 - 0.1	0 - 0.1		0 - 0	0 - 0	0 - 0	0 - 0

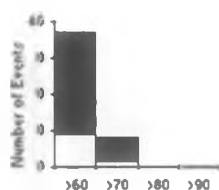
Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

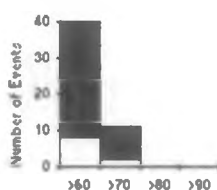
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

 Potential Range of Events


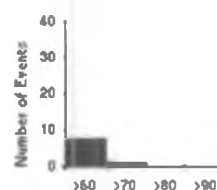
Noise Level (dBA)
Badgerys Creek
Option A



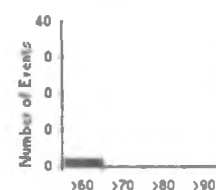
Noise Level (dBA)
Badgerys Creek
Option B

Refer Following Pages

Badgerys Creek
Option C

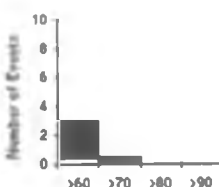


Noise Level (dBA)
Holsworthy
Option A

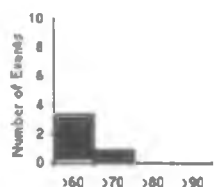


Noise Level (dBA)
Holsworthy
Option B

2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

 Potential Range of Events


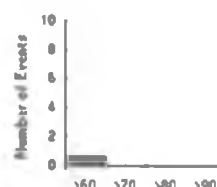
Noise Level (dBA)
Badgerys Creek
Option A



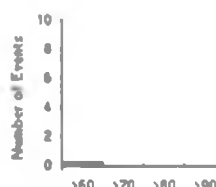
Noise Level (dBA)
Badgerys Creek
Option B

Refer Following Pages

Badgerys Creek
Option C



Noise Level (dBA)
Holsworthy
Option A



Noise Level (dBA)
Holsworthy
Option B

Social Characteristics for Badgerys Creek Option C:

	Sub Area: 37.C1			Sub Area: 37.C2		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	520	830	1730	1100	1740	3640
Educational Facilities ²	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			2		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 37.C1		Sub Area: 37.C2	
	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	34 - 40	44 - 50	33 - 39	42 - 48
L _{Aeq} 10pm-6am ¹	20 - 26	30 - 36	20 - 26	28 - 31
ANEC ²	-5 - 6	9 - 17	-5 - 5	9 - 16
Number of Noise Events ³				
Over 60 dBA per 24 Hours	0 - 0	6 - 31	0 - 0	7 - 16
Over 70 dBA per 24 Hours	0 - 0	0 - 8	0 - 0	0 - 1
Over 80 dBA per 24 Hours	0 - 0	0 - 1	0 - 0	0 - 1
Over 90 dBA per 24 Hours	0 - 0	0 - 1	0 - 0	0 - 1
Over 60 dBA per Night	0 - 0	0 - 2	0 - 0	0 - 1
Over 70 dBA per Night	0 - 0	0 - 1	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 0	1 - 10	0 - 0	0 - 2
Sleep Disturbance Index ⁴	0 - 0	0 - 0.1	0 - 0	0 - 0

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 38

SHEET 1 / 11

Social Characteristics:

Year	Badgerys Creek									Holsworthy				
	1996			2006			2016			1996	2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option C	Options A&B	Option A	Option B	Option A	Option B
Estimated Population ²	1680	1250	1050	1700	1270	1070	1700	1270	1070	1930	1960	1960	2000	2000
Educational Facilities ³	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Other Noise Sensitive Land Uses ⁴	0	0	0	N/E ⁵	N/E	N/E	N/E	N/E	N/E	0	N/E ⁵	N/E	N/E	N/E

- Notes:
- 1. Population estimates for 1996 are different for each option because they exclude the area of the option which differs between Option A, B and C.
 - 2. Rounded to nearest 10.
 - 3. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 4. Includes hospitals, churches, aged persons facilities and child care centres.
 - 5. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	48, 53	L _{A90}	7am to 7pm	36, 38
	7pm to 10pm	44, 47		7pm to 10pm	35, 32
	10pm to 7am	43, 47		10pm to 7am	34, 28

Monitored at: 61 Kelvin Park Road, Bringelly, Lot 3, Lawson Road, Badgerys Creek

Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour							20 - 35	17 - 24	26 - 37	15 - 23
L _{Aeq} 10pm-6am							6 - 24	7 - 14	13 - 25	13 - 20
ANEC							-10 - 0	-17 --9	-5 - 2	-12 --7
Number of Noise Events										
Over 60 dBA per 24 Hours	Refer Following Pages			Refer Following Pages			0 - 5	0 - 0	1 - 9	0 - 0
Over 70 dBA per 24 Hours							0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours							0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours							0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm							0 - 1	0 - 0	0 - 2	0 - 0
Sleep Disturbance Index							0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

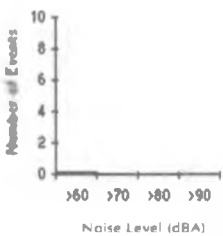
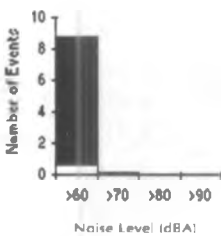
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events

Refer Following Pages

Refer Following Pages

Refer Following Pages



Badgerys Creek Option A

Badgerys Creek Option B

Badgerys Creek Option C

Holsworthy Option A

Holsworthy Option B

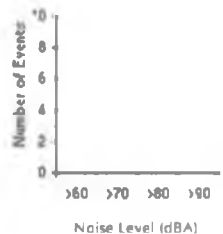
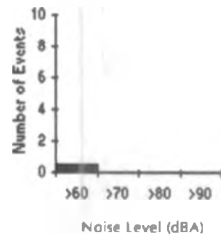
2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

Potential Range of Events

Refer Following Pages

Refer Following Pages

Refer Following Pages



Badgerys Creek Option A

Badgerys Creek Option B

Badgerys Creek Option C

Holsworthy Option A

Holsworthy Option B

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 38.AB1			Sub Area: 38.AB2			Sub Area: 38.AB3			Sub Area: 38.AB4			Sub Area: 38.AB5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	70	80	80	70	80	80	40	40	40	40	40	40	10	10	10
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 38.AB1		Sub Area: 38.AB2		Sub Area: 38.AB3		Sub Area: 38.AB4		Sub Area: 38.AB5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour	57 - 63	59 - 63	57 - 64	61 - 63	50 - 60	56 - 60	45 - 54	52 - 55	43 - 51	49 - 52
L _{Aeq} 10pm-6am ¹	48 - 53	50 - 52	47 - 54	51 - 53	39 - 50	45 - 49	35 - 44	41 - 44	33 - 41	38 - 40
ANEC	24 - 31	26 - 29	24 - 32	27 - 31	15 - 27	19 - 27	11 - 21	14 - 20	9 - 17	11 - 16
Number of Noise Events ³										
Over 60 dBA per 24 Hours	79 - 170	154 - 265	79 - 173	136 - 214	64 - 174	123 - 198	28 - 138	60 - 150	18 - 108	38 - 112
Over 70 dBA per 24 Hours	57 - 149	110 - 167	58 - 148	98 - 161	17 - 107	43 - 98	3 - 47	16 - 40	2 - 36	5 - 23
Over 80 dBA per 24 Hours	13 - 73	19 - 50	14 - 68	30 - 55	2 - 35	3 - 23	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	1 - 7	1 - 1	1 - 9	1 - 7	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	12 - 13	13 - 20	12 - 13	12 - 16	8 - 13	10 - 14	3 - 11	5 - 11	1 - 8	3 - 8
Over 70 dBA per Night	8 - 11	10 - 12	8 - 10	9 - 12	1 - 8	4 - 8	0 - 4	1 - 3	0 - 3	0 - 2
Over 80 dBA per Night	1 - 6	2 - 4	2 - 6	3 - 4	0 - 3	0 - 2	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 1	0 - 0	0 - 2	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	32 - 78	59 - 91	33 - 78	57 - 85	14 - 64	32 - 66	5 - 42	13 - 45	2 - 28	8 - 21
Sleep Disturbance Index ⁴	0.5 - 0.8	0.7 - 0.8	0.5 - 0.8	0.7 - 0.8	0.1 - 0.5	0.3 - 0.5	0 - 0.3	0.1 - 0.3	0 - 0.2	0.1 - 0.2

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 38.AB6			Sub Area: 38.AB7			Sub Area: 38.AB8			Sub Area: 38.AB9			Sub Area: 38.AB10		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	50	50	50	380	380	380	310	320	320	90	90	90
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 38.AB6		Sub Area: 38.AB7		Sub Area: 38.AB8		Sub Area: 38.AB9		Sub Area: 38.AB10	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	42 - 49	47 - 49	50 - 58	53 - 56	44 - 50	49 - 51	39 - 45	43 - 46	39 - 47	45 - 50
L _{Aeq} 10pm-6am ¹	32 - 39	37 - 38	42 - 47	43 - 44	35 - 39	38 - 40	29 - 35	32 - 34	30 - 41	34 - 39
ANEC ²	7 - 14	10 - 13	17 - 24	19 - 22	9 - 16	12 - 15	4 - 9	6 - 9	3 - 9	7 - 10
Number of Noise Events ³										
Over 60 dBA per 24 Hours	9 - 66	25 - 65	78 - 206	108 - 191	32 - 119	57 - 98	6 - 35	14 - 39	4 - 43	10 - 25
Over 70 dBA per 24 Hours	0 - 2	1 - 4	21 - 110	39 - 91	1 - 20	11 - 22	0 - 3	3 - 7	0 - 3	1 - 6
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 6	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	1 - 6	2 - 5	11 - 15	10 - 14	4 - 9	5 - 7	1 - 3	1 - 3	1 - 5	1 - 2
Over 70 dBA per Night	0 - 0	0 - 1	3 - 9	4 - 6	0 - 2	1 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	1 - 23	7 - 18	23 - 73	36 - 56	4 - 32	12 - 30	0 - 2	1 - 4	0 - 3	2 - 5
Sleep Disturbance Index ⁴	0 - 0.1	0.1 - 0.1	0.3 - 0.5	0.3 - 0.4	0.1 - 0.2	0.1 - 0.2	0 - 0.1	0 - 0.1	0 - 0.1	0 - 0.1

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 38.AB11			Sub Area: 38.AB12			Sub Area: 38.AB13			Sub Area: 38.AB14		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	20	20	20	10	10	10	550	560	560
Educational Facilities ²	0	0	0	0	0	0	0	0	0	1	1	1
Other Noise Sensitive ³ Land Uses	0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 38.AB11		Sub Area: 38.AB12		Sub Area: 38.AB13		Sub Area: 38.AB14	
	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	38 - 46	43 - 49	37 - 45	42 - 48	35 - 43	40 - 45	33 - 41	38 - 43
L _{Aeq} 10pm-6am ¹	28 - 39	32 - 38	27 - 38	31 - 37	26 - 35	30 - 34	23 - 32	27 - 32
ANEC ²	2 - 8	6 - 10	1 - 8	5 - 9	0 - 8	4 - 9	-3 - 6	1 - 8
Number of Noise Events ³								
Over 60 dBA per 24 Hours	2 - 17	9 - 18	1 - 9	5 - 16	1 - 10	5 - 17	1 - 7	4 - 12
Over 70 dBA per 24 Hours	0 - 3	1 - 6	0 - 3	1 - 6	0 - 1	1 - 2	0 - 1	0 - 2
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 2	1 - 2	0 - 1	1 - 2	0 - 1	0 - 2	0 - 1	0 - 1
Over 70 dBA per Night	0 - 1	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 3	1 - 5	0 - 3	1 - 5	0 - 3	1 - 5	0 - 2	0 - 2
Sleep Disturbance Index ⁴	0 - 0.1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 38.AB1			Sub Area: 38.AB2			Sub Area: 38.AB3			Sub Area: 38.AB4			Sub Area: 38.AB5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	70	80	80	70	80	80	40	40	40	40	40	40	10	10	10
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³	0			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 38.AB1		Sub Area: 38.AB2		Sub Area: 38.AB3		Sub Area: 38.AB4		Sub Area: 38.AB5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour	47 - 56	52 - 56	46 - 53	54 - 57	45 - 53	57 - 60	45 - 54	64 - 70	43 - 52	56 - 60
L _{Aeq} 10pm-6am ¹	36 - 46	41 - 44	36 - 45	44 - 46	36 - 45	47 - 49	36 - 47	55 - 59	34 - 45	46 - 49
ANEC	11 - 22	14 - 19	7 - 17	15 - 20	5 - 14	22 - 25	3 - 12	32 - 38	2 - 11	20 - 26
Number of Noise Events										
Over 60 dBA per 24 Hours	27 - 135	84 - 208	12 - 97	123 - 227	8 - 70	133 - 209	6 - 55	133 - 202	5 - 49	126 - 194
Over 70 dBA per 24 Hours	7 - 63	21 - 68	4 - 31	30 - 68	2 - 11	77 - 138	2 - 11	100 - 169	2 - 11	59 - 107
Over 80 dBA per 24 Hours	0 - 7	0 - 1	0 - 1	0 - 4	0 - 0	12 - 25	0 - 0	50 - 124	0 - 0	4 - 26
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	18 - 64	0 - 0	0 - 1
Over 60 dBA per Night	2 - 10	6 - 14	1 - 7	9 - 16	0 - 6	12 - 16	0 - 5	12 - 15	0 - 5	12 - 15
Over 70 dBA per Night	0 - 5	1 - 5	0 - 3	3 - 5	0 - 2	7 - 10	0 - 2	10 - 14	0 - 2	5 - 9
Over 80 dBA per Night	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	1 - 2	0 - 0	6 - 11	0 - 0	0 - 2
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	2 - 5	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	9 - 52	22 - 64	3 - 31	27 - 65	3 - 28	51 - 83	2 - 11	51 - 83	2 - 10	44 - 71
Sleep Disturbance Index	0.1 - 0.4	0.1 - 0.4	0 - 0.2	0.2 - 0.4	0 - 0.2	0.5 - 0.6	0 - 0.1	0.8 - 1.4	0 - 0.1	0.4 - 0.6

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 38.AB6			Sub Area: 38.AB7			Sub Area: 38.AB8			Sub Area: 38.AB9			Sub Area: 38.AB10		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	50	0	0	380	0	0	310	320	320	90	90	90
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 38.AB6		Sub Area: 38.AB7		Sub Area: 38.AB8		Sub Area: 38.AB9		Sub Area: 38.AB10	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	41 - 49	51 - 56	41 - 47	68 - 70	40 - 47	60 - 62	36 - 44	47 - 51	34 - 42	45 - 49
L _{Aeq} 10pm-6am ¹	32 - 41	40 - 45	32 - 38	58 - 59	30 - 39	49 - 50	25 - 35	36 - 39	24 - 33	35 - 38
ANEC ²	1 - 10	13 - 21	6 - 11	35 - 37	1 - 9	26 - 28	-2 - 8	11 - 15	-3 - 6	9 - 13
Number of Noise Events ³										
Over 60 dBA per 24 Hours	4 - 32	62 - 144	12 - 70	190 - 302	4 - 25	134 - 237	3 - 22	76 - 130	1 - 17	32 - 71
Over 70 dBA per 24 Hours	2 - 11	22 - 65	1 - 10	131 - 226	1 - 11	87 - 159	0 - 4	2 - 15	0 - 1	1 - 9
Over 80 dBA per 24 Hours	0 - 0	0 - 4	0 - 0	99 - 164	0 - 0	34 - 49	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	40 - 69	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 4	5 - 11	1 - 6	17 - 22	0 - 3	12 - 18	0 - 3	5 - 9	0 - 2	3 - 5
Over 70 dBA per Night	0 - 2	1 - 5	0 - 2	12 - 17	0 - 2	8 - 13	0 - 1	0 - 1	0 - 0	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	9 - 13	0 - 0	3 - 4	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	3 - 5	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm) ⁴	1 - 7	20 - 46	2 - 10	68 - 118	1 - 9	56 - 96	0 - 3	13 - 26	0 - 3	5 - 15
Sleep Disturbance Index ⁴	0 - 0.1	0.1 - 0.4	0 - 0.2	1.2 - 1.6	0 - 0.1	0.6 - 0.8	0 - 0.1	0.1 - 0.2	0 - 0	0.1 - 0.1

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 38.AB11			Sub Area: 38.AB12			Sub Area: 38.AB13			Sub Area: 38.AB14		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	20	20	20	10	10	10	550	560	560
Educational Facilities ²	0	0	0	0	0	0	0	0	0	1	1	1
Other Noise Sensitive Land Uses ³	0			0			0			0		

Notes: 1. Rounded to nearest 10.

2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.

3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 38.AB11		Sub Area: 38.AB12		Sub Area: 38.AB13		Sub Area: 38.AB14	
	2006	2016	2006	2016	2006	2016	2006	2016
L_{Aeq} 24 Hour ¹	33 - 41	44 - 54	32 - 41	43 - 68	32 - 40	42 - 55	32 - 42	43 - 49
L_{Aeq} 10pm-6am ¹	23 - 33	33 - 43	22 - 32	32 - 56	21 - 32	31 - 43	20 - 34	34 - 38
ANEC ²	-4 - 6	7 - 19	-4 - 6	5 - 35	-5 - 6	3 - 20	-4 - 8	1 - 8
Number of Noise Events ³								
Over 60 dBA per 24 Hours	1 - 10	16 - 53	1 - 10	13 - 48	1 - 10	11 - 44	1 - 15	5 - 22
Over 70 dBA per 24 Hours	0 - 1	0 - 17	0 - 3	0 - 23	0 - 2	1 - 24	0 - 3	3 - 6
Over 80 dBA per 24 Hours	0 - 0	0 - 5	0 - 0	0 - 20	0 - 0	0 - 7	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 13	0 - 0	0 - 1	0 - 0	0 - 0
Over 60 dBA per Night	0 - 1	2 - 4	0 - 1	1 - 4	0 - 1	1 - 3	0 - 2	0 - 2
Over 70 dBA per Night	0 - 0	0 - 1	0 - 0	0 - 2	0 - 0	0 - 2	0 - 1	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm) ⁴	0 - 3	4 - 18	0 - 3	2 - 16	0 - 3	2 - 15	0 - 5	1 - 4
Sleep Disturbance Index	0 - 0	0 - 0.1	0 - 0	0 - 0.3	0 - 0	0 - 0.1	0 - 0	0 - 0.1

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option C:

	Sub Area: 38.C1			Sub Area: 38.C2			Sub Area: 38.C3			Sub Area: 38.C4			Sub Area: 38.C5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	250	260	260	10	10	10	0	0	0	0	0	0	120	120	120
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 38.C1		Sub Area: 38.C2		Sub Area: 38.C3		Sub Area: 38.C4		Sub Area: 38.C5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	34 - 41	46 - 50	35 - 42	47 - 55	39 - 53	53 - 64	39 - 44	50 - 57	62 - 72	65 - 71
L _{Aeq} 10pm-6am ¹	24 - 32	35 - 38	24 - 31	36 - 43	26 - 33	38 - 53	27 - 35	38 - 45	52 - 62	55 - 60
ANEC ²	-4 - 1	11 - 14	-3 - 3	13 - 22	6 - 19	19 - 33	1 - 9	16 - 24	27 - 37	33 - 40
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 6	41 - 87	0 - 5	79 - 136	0 - 5	79 - 156	0 - 5	78 - 150	41 - 102	139 - 213
Over 70 dBA per 24 Hours	0 - 0	2 - 19	0 - 0	4 - 27	0 - 0	8 - 44	0 - 0	8 - 40	29 - 90	92 - 177
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 4	0 - 0	0 - 18	0 - 0	0 - 5	16 - 79	56 - 146
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 12	0 - 0	0 - 1	5 - 48	20 - 86
Over 60 dBA per Night	0 - 1	3 - 6	0 - 1	6 - 9	0 - 1	7 - 13	0 - 1	6 - 11	5 - 9	12 - 16
Over 70 dBA per Night	0 - 0	0 - 1	0 - 0	0 - 2	0 - 0	1 - 3	0 - 0	1 - 3	4 - 8	9 - 14
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	2 - 7	6 - 11
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 4	2 - 6
Over 65 dBA (9am-3pm)	0 - 0	5 - 20	0 - 0	13 - 35	0 - 3	18 - 46	0 - 3	22 - 48	17 - 48	53 - 93
Sleep Disturbance Index ⁴	0 - 0	0 - 0.1	0 - 0	0.1 - 0.2	0 - 0	0.1 - 0.4	0 - 0	0.1 - 0.3	0.3 - 0.9	0.8 - 1.5

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option C:

	Sub Area: 38.C6			Sub Area: 38.C7			Sub Area: 38.C8			Sub Area: 38.C9			Sub Area: 38.C10		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	10	10	10	40	40	40	90	90	90	110	120	120
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

Notes: 1. Rounded to nearest 10.

2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.

3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 38.C6		Sub Area: 38.C7		Sub Area: 38.C8		Sub Area: 38.C9		Sub Area: 38.C10	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L_{Aeq} 24 Hour	52 - 61	55 - 59	49 - 58	53 - 57	45 - 54	51 - 56	44 - 51	54 - 59	42 - 52	63 - 66
L_{Aeq} 10pm-6am ¹	43 - 51	46 - 49	40 - 48	44 - 47	36 - 44	41 - 45	34 - 42	43 - 48	32 - 44	53 - 55
ANEC	16 - 25	22 - 27	12 - 22	19 - 25	8 - 17	16 - 22	5 - 12	20 - 26	2 - 9	31 - 34
Number of Noise Events ¹										
Over 60 dBA per 24 Hours	37 - 95	147 - 231	32 - 83	44 - 24	15 - 66	108 - 256	8 - 50	131 - 247	3 - 31	130 - 224
Over 70 dBA per 24 Hours	16 - 59	63 - 112	10 - 53	48 - 113	3 - 30	25 - 87	1 - 7	45 - 121	0 - 5	93 - 141
Over 80 dBA per 24 Hours	1 - 17	5 - 27	1 - 9	2 - 14	0 - 0	0 - 0	0 - 0	4 - 21	0 - 0	40 - 98
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	8 - 26
Over 60 dBA per Night	5 - 8	13 - 17	4 - 7	13 - 18	2 - 7	11 - 20	1 - 5	11 - 20	0 - 4	11 - 17
Over 70 dBA per Night	2 - 5	6 - 9	1 - 5	5 - 9	0 - 4	2 - 6	0 - 1	4 - 10	0 - 1	8 - 10
Over 80 dBA per Night	0 - 2	1 - 2	0 - 2	0 - 2	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0	4 - 7
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	1 - 2
Over 65 dBA (9am-3pm)	13 - 38	49 - 81	8 - 31	35 - 76	3 - 24	22 - 78	1 - 17	32 - 88	1 - 7	51 - 83
Sleep Disturbance Index	0.2 - 0.4	0.5 - 0.7	0.1 - 0.3	0.4 - 0.6	0 - 0.2	0.3 - 0.6	0 - 0.1	0.3 - 0.7	0 - 0.1	0.7 - 0.9

Note: 1. These forecast L_{Aeq} noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option C:

	Sub Area: 38.C11			Sub Area: 38.C12			Sub Area: 38.C13		
	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	40	40	40	360	360	360
Educational Facilities ²	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 38.C11		Sub Area: 38.C12		Sub Area: 38.C13	
	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	40 - 49	56 - 61	38 - 47	51 - 56	36 - 42	47 - 51
L _{Aeq} 10pm-6am ¹	30 - 41	46 - 51	29 - 39	40 - 45	26 - 33	36 - 40
ANEC ²	-1 - 4	23 - 28	-3 - 3	16 - 22	-5 - 1	12 - 17
Number of Noise Events ³						
Over 60 dBA per 24 Hours	2 - 20	119 - 201	1 - 8	72 - 167	0 - 5	43 - 109
Over 70 dBA per 24 Hours	0 - 5	65 - 124	0 - 5	25 - 74	0 - 0	8 - 27
Over 80 dBA per 24 Hours	0 - 0	7 - 34	0 - 0	1 - 6	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	1 - 3	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 3	10 - 16	0 - 1	6 - 13	0 - 1	3 - 8
Over 70 dBA per Night	0 - 1	5 - 9	0 - 1	2 - 5	0 - 0	1 - 2
Over 80 dBA per Night	0 - 0	1 - 3	0 - 0	0 - 1	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	1 - 4	47 - 76	0 - 3	24 - 59	0 - 0	6 - 23
Sleep Disturbance Index ⁴	0 - 0.1	0.4 - 0.7	0 - 0	0.2 - 0.4	0 - 0	0.1 - 0.2

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 39

SHEET 1 / 14

Social Characteristics:

Year	Badgerys Creek									Holsworthy				
	1996			2006			2016			1996	2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option C	Options A&B	Option A	Option B	Option A	Option B
Estimated Population ²	2510	2370	2430	2550	2410	2540	2550	2410	2600	2820	2960	2960	3090	3090
Educational Facilities ³	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Other Noise Sensitive Land Uses ⁴	6	6	6	N/E ⁵	N/E	N/E	N/E	N/E	N/E	6	N/E ⁵	N/E	N/E	N/E

- Notes:
- 1. Population estimates for 1996 are different for each option because they exclude the area of the option which differs between Option A, B and C.
 - 2. Rounded to nearest 10.
 - 3. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 4. Includes hospitals, churches, aged persons facilities and child care centres.
 - 5. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	56, 55	L _{A90}	7am to 7pm	41, 37
	7pm to 10pm	45, 54		7pm to 10pm	35, 35
	10pm to 7am	52, 48		10pm to 7am	28, 30

Monitored at: 43 Blaxland Ave, Luddenham, 38 Greendale Road, Wallacia

Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹							20 - 34	21 - 29	26 - 36	9 - 17
L _{Aeq} 10pm-6am ¹							5 - 22	6 - 18	11 - 21	17 - 26
ANEC ²							-11 - -2	-14 - -7	-6 - 1	-14 - -8
Number of Noise Events										
Over 60 dBA per 24 Hours	Refer Following Pages			Refer Following Pages			0 - 4	0 - 5	1 - 7	0 - 0
Over 70 dBA per 24 Hours							0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours							0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours							0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night							0 - 0	0 - 1	0 - 0	0 - 1
Over 70 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm							0 - 1	0 - 0	0 - 2	0 - 0
Sleep Disturbance Index							0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

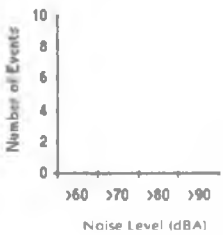
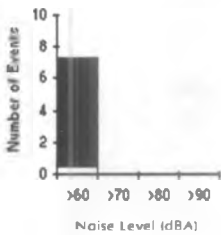
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events

Refer Following Pages

Refer Following Pages

Refer Following Pages



Badgerys Creek Option A

Badgerys Creek Option B

Badgerys Creek Option C

Holsworthy Option A

Holsworthy Option B

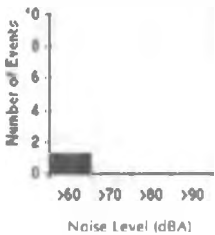
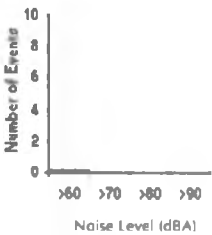
2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

Potential Range of Events

Refer Following Pages

Refer Following Pages

Refer Following Pages



Badgerys Creek Option A

Badgerys Creek Option B

Badgerys Creek Option C

Holsworthy Option A

Holsworthy Option B

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 39.AB1			Sub Area: 39.AB2			Sub Area: 39.AB3			Sub Area: 39.AB4			Sub Area: 39.AB5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	1440	1460	1460	20	20	20	50	50	50	330	330	330	10	10	10
Educational Facilities ²	1	1	1	0	0	0	0	0	0	1	1	1	0	0	0
Other Noise Sensitive ³ Land Uses	2			0			0			2			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option A:

	Sub Area 39.AB1		Sub Area 39.AB2		Sub Area: 39.AB3		Sub Area: 39.AB4		Sub Area: 39.AB5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	30 - 37	36 - 41	29 - 37	47 - 51	32 - 38	44 - 47	36 - 43	50 - 53	34 - 42	49 - 56
L _{Aeq} 10pm-6am ¹	20 - 27	26 - 30	20 - 27	35 - 39	22 - 28	34 - 35	27 - 36	40 - 41	25 - 33	39 - 45
ANEC ²	-5 - 1	1 - 4	-8 - 1	4 - 7	-5 - 2	7 - 10	0 - 6	12 - 17	-1 - 7	16 - 23
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 3	1 - 5	0 - 1	11 - 22	0 - 2	19 - 45	1 - 6	51 - 145	2 - 20	40 - 143
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	2 - 14	0 - 0	11 - 22	0 - 2	15 - 34	0 - 0	12 - 55
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	1 - 8
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	1 - 1	0 - 1	2 - 3	0 - 1	5 - 12	0 - 2	4 - 12
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	1 - 1	0 - 1	1 - 3	0 - 0	1 - 5
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 0	0 - 0	0 - 0	5 - 11	0 - 0	5 - 11	0 - 1	11 - 33	0 - 2	11 - 46
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0.1	0 - 0	0 - 0.1	0 - 0	0.1 - 0.2	0 - 0	0.1 - 0.3

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 39.AB6			Sub Area: 39.AB7			Sub Area: 39.AB8			Sub Area: 39.AB9			Sub Area: 39.AB10		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population	150	150	150	40	40	40	20	20	20	10	10	10	20	20	20
Educational Facilities ²	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	2			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 39.AB6		Sub Area: 39.AB7		Sub Area: 39.AB8		Sub Area: 39.AB9		Sub Area: 39.AB10	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	36 - 44	52 - 57	37 - 43	50 - 53	37 - 43	51 - 54	35 - 41	47 - 49	37 - 44	53 - 56
L _{Aeq} 10pm-6am ¹	26 - 34	42 - 47	27 - 36	39 - 41	28 - 34	40 - 42	26 - 33	37 - 38	28 - 35	42 - 44
ANEC ²	1 - 8	18 - 25	-1 - 6	15 - 18	1 - 7	17 - 20	-2 - 4	12 - 15	1 - 8	19 - 22
Number of Noise Events ³										
Over 60 dBA per 24 Hours	3 - 32	71 - 181	1 - 8	94 - 196	1 - 14	107 - 208	1 - 3	47 - 109	2 - 27	126 - 199
Over 70 dBA per 24 Hours	0 - 0	19 - 83	0 - 2	9 - 38	0 - 2	11 - 38	0 - 0	2 - 15	0 - 2	23 - 71
Over 80 dBA per 24 Hours	0 - 0	2 - 11	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 4	7 - 15	0 - 1	8 - 15	0 - 2	10 - 16	0 - 1	4 - 7	0 - 2	12 - 15
Over 70 dBA per Night	0 - 0	2 - 7	0 - 1	1 - 3	0 - 1	1 - 3	0 - 0	0 - 1	0 - 0	1 - 4
Over 80 dBA per Night	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 2	21 - 63	0 - 1	21 - 46	0 - 1	28 - 64	0 - 1	9 - 25	0 - 1	28 - 59
Sleep Disturbance Index ⁴	0 - 0	0.2 - 0.5	0 - 0	0.1 - 0.2	0 - 0	0.1 - 0.3	0 - 0	0 - 0.1	0 - 0	0.2 - 0.3

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 39.AB11			Sub Area: 39.AB12			Sub Area: 39.AB13			Sub Area: 39.AB14			Sub Area: 39.AB15		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	20	30	30	20	30	30	20	30	30	10	10	10	10	10	10
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 39.AB11		Sub Area: 39.AB12		Sub Area: 39.AB13		Sub Area: 39.AB14		Sub Area: 39.AB15	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour	38 - 44	52 - 54	38 - 46	56 - 62	40 - 49	60 - 64	42 - 51	62 - 66	45 - 54	57 - 61
L _{Aeq} 10pm-6am ¹	28 - 34	41 - 43	28 - 36	47 - 52	31 - 39	50 - 53	33 - 42	51 - 54	36 - 45	47 - 50
ANEC ²	2 - 8	18 - 21	3 - 12	24 - 30	5 - 15	27 - 32	8 - 18	29 - 33	11 - 21	23 - 29
Number of Noise Events ³										
Over 60 dBA per 24 Hours	3 - 22	144 - 233	5 - 49	134 - 216	9 - 73	139 - 225	14 - 91	150 - 234	27 - 129	173 - 274
Over 70 dBA per 24 Hours	0 - 2	23 - 58	0 - 1	45 - 130	1 - 9	106 - 158	2 - 26	107 - 155	4 - 44	63 - 121
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	8 - 43	0 - 0	29 - 62	0 - 0	43 - 105	0 - 2	9 - 32
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	1 - 7	0 - 0	3 - 12	0 - 0	7 - 23	0 - 0	0 - 1
Over 60 dBA per Night	0 - 2	13 - 17	1 - 5	11 - 16	1 - 7	12 - 17	2 - 8	13 - 18	4 - 10	15 - 20
Over 70 dBA per Night	0 - 1	2 - 4	0 - 0	4 - 11	0 - 1	9 - 12	0 - 3	9 - 11	1 - 5	5 - 9
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	1 - 4	0 - 0	3 - 5	0 - 0	4 - 7	0 - 0	1 - 3
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1	0 - 0	0 - 1	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 1	40 - 79	1 - 11	37 - 80	2 - 20	57 - 88	3 - 27	57 - 87	6 - 41	55 - 91
Sleep Disturbance Index ⁴	0 - 0	0.2 - 0.3	0 - 0.1	0.3 - 0.7	0 - 0.1	0.6 - 0.8	0 - 0.2	0.7 - 0.9	0.1 - 0.3	0.5 - 0.7

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 39.AB16			Sub Area: 39.AB17			Sub Area: 39.AB18			Sub Area: 39.AB19			Sub Area: 39.AB20		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	20	20	20	10	10	10	0	0	0	0	0	0	60	70	70
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 39.AB16		Sub Area: 39.AB17		Sub Area: 39.AB18		Sub Area: 39.AB19		Sub Area: 39.AB20	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	53 - 61	55 - 58	62 - 71	64 - 71	56 - 64	58 - 61	51 - 60	54 - 58	46 - 55	50 - 54
L _{Aeq} 10pm-6am ¹	44 - 51	45 - 47	51 - 60	51 - 60	47 - 55	49 - 51	42 - 51	44 - 48	37 - 45	41 - 44
ANEC ²	19 - 29	21 - 24	29 - 39	31 - 38	23 - 32	25 - 29	18 - 28	20 - 26	12 - 22	15 - 21
Number of Noise Events ³										
Over 60 dBA per 24 Hours	77 - 169	163 - 271	85 - 181	149 - 243	80 - 172	126 - 187	64 - 164	109 - 169	27 - 133	57 - 134
Over 70 dBA per 24 Hours	32 - 116	71 - 124	63 - 163	92 - 168	56 - 143	72 - 140	21 - 111	35 - 76	6 - 59	12 - 40
Over 80 dBA per 24 Hours	3 - 34	3 - 7	27 - 131	35 - 111	11 - 66	19 - 39	2 - 34	3 - 15	0 - 2	1 - 4
Over 90 dBA per 24 Hours	0 - 1	0 - 0	9 - 71	14 - 64	1 - 11	1 - 5	0 - 1	0 - 1	0 - 0	0 - 0
Over 60 dBA per Night	11 - 13	16 - 21	12 - 13	14 - 18	12 - 13	12 - 15	9 - 13	10 - 13	4 - 11	6 - 11
Over 70 dBA per Night	4 - 9	7 - 9	8 - 12	9 - 13	8 - 10	6 - 10	3 - 9	4 - 6	1 - 6	1 - 3
Over 80 dBA per Night	0 - 4	0 - 1	3 - 9	2 - 8	1 - 6	2 - 3	0 - 4	0 - 1	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	1 - 5	1 - 4	0 - 2	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	26 - 71	52 - 90	33 - 81	50 - 85	32 - 77	46 - 79	17 - 66	32 - 55	6 - 46	11 - 38
Sleep Disturbance Index ⁴	0.3 - 0.6	0.5 - 0.6	0.6 - 1.3	0.6 - 1.2	0.5 - 0.8	0.5 - 0.7	0.2 - 0.6	0.3 - 0.4	0.1 - 0.4	0.1 - 0.3

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 39.AB21			Sub Area: 39.AB22			Sub Area: 39.AB23			Sub Area: 39.AB24			Sub Area: 39.AB25		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	50	50	50	10	10	10	10	10	10	30	30	30	100	100	100
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 39.AB21		Sub Area: 39.AB22		Sub Area: 39.AB23		Sub Area: 39.AB24		Sub Area: 39.AB25	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	45 - 53	50 - 54	43 - 53	48 - 54	43 - 50	48 - 51	40 - 49	46 - 50	41 - 47	45 - 50
L _{Aeq} 10pm-6am ¹	36 - 44	41 - 44	35 - 44	39 - 44	33 - 41	38 - 40	32 - 40	37 - 40	31 - 40	35 - 39
ANEC ²	10 - 20	14 - 20	10 - 20	15 - 22	7 - 16	10 - 15	6 - 15	11 - 16	4 - 11	8 - 12
Number of Noise Events ³										
Over 60 dBA per 24 Hours	17 - 108	31 - 98	11 - 78	27 - 81	13 - 90	32 - 82	9 - 68	22 - 63	6 - 53	13 - 35
Over 70 dBA per 24 Hours	4 - 38	10 - 33	2 - 20	9 - 34	1 - 8	3 - 7	1 - 8	5 - 12	0 - 3	2 - 7
Over 80 dBA per 24 Hours	0 - 1	0 - 2	0 - 3	1 - 5	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	3 - 9	4 - 9	2 - 7	3 - 7	2 - 8	3 - 6	1 - 7	3 - 5	1 - 5	2 - 2
Over 70 dBA per Night	0 - 4	1 - 2	0 - 2	1 - 3	0 - 1	0 - 1	0 - 1	1 - 1	0 - 1	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	4 - 36	9 - 30	3 - 26	8 - 27	2 - 28	5 - 14	2 - 14	5 - 17	1 - 4	3 - 6
Sleep Disturbance Index ⁴	0.1 - 0.3	0.1 - 0.2	0 - 0.2	0.1 - 0.2	0 - 0.2	0.1 - 0.1	0 - 0.1	0.1 - 0.1	0 - 0.1	0 - 0

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 39.AB1			Sub Area: 39.AB2			Sub Area: 39.AB3			Sub Area: 39.AB4			Sub Area: 39.AB5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	1440	1460	1460	20	20	20	50	50	50	330	330	330	10	10	10
Educational Facilities ²	1	1	1	0	0	0	0	0	0	1	1	1	0	0	0
Other Noise Sensitive Land Uses ³	2			0			0			2			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 39.AB1		Sub Area: 39.AB2		Sub Area: 39.AB3		Sub Area: 39.AB4		Sub Area: 39.AB5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L_{Aeq} 24 Hour ¹	30 - 37	35 - 40	36 - 43	42 - 51	39 - 46	45 - 58	42 - 49	47 - 51	39 - 48	44 - 50
L_{Aeq} 10pm-6am ¹	21 - 27	25 - 28	27 - 35	31 - 39	29 - 37	34 - 47	33 - 40	37 - 39	30 - 38	34 - 39
ANEC ²	-7 - -1	-5 - 2	-3 - 3	0 - 15	1 - 6	4 - 26	6 - 12	8 - 12	2 - 11	6 - 12
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 1	0 - 3	2 - 13	11 - 42	3 - 21	14 - 49	9 - 64	30 - 75	7 - 58	22 - 89
Over 70 dBA per 24 Hours	0 - 0	0 - 1	0 - 0	0 - 10	2 - 12	11 - 40	0 - 9	2 - 14	1 - 8	3 - 14
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0	0 - 13	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 4	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 2	1 - 3	0 - 3	1 - 3	1 - 6	3 - 6	1 - 6	2 - 7
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 1	0 - 2	1 - 3	0 - 1	0 - 1	0 - 1	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 0	0 - 1	0 - 4	1 - 12	1 - 6	5 - 20	2 - 25	8 - 27	1 - 17	5 - 24
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0.1	0 - 0.1	0 - 0.2	0 - 0.1	0.1 - 0.1	0 - 0.1	0 - 0.1

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 39.AB6			Sub Area: 39.AB7			Sub Area: 39.AB8			Sub Area: 39.AB9			Sub Area: 39.AB10		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	150	150	150	40	40	40	20	20	20	10	10	10	20	20	20
Educational Facilities ²	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³	2			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 39.AB6		Sub Area: 39.AB7		Sub Area: 39.AB8		Sub Area: 39.AB9		Sub Area: 39.AB10	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	46 - 53	51 - 55	42 - 48	46 - 55	44 - 50	47 - 62	40 - 47	45 - 49	45 - 52	49 - 53
L _{Aeq} 10pm-6am ¹	36 - 45	41 - 43	33 - 37	35 - 44	35 - 39	37 - 51	30 - 36	34 - 38	35 - 41	39 - 41
ANEC ²	6 - 15	10 - 16	7 - 14	10 - 20	10 - 15	13 - 29	4 - 11	8 - 12	10 - 17	13 - 17
Number of Noise Events ³										
Over 60 dBA per 24 Hours	16 - 99	44 - 139	24 - 101	54 - 118	46 - 128	88 - 155	11 - 72	31 - 75	33 - 138	74 - 145
Over 70 dBA per 24 Hours	3 - 25	14 - 39	1 - 10	3 - 30	1 - 15	4 - 35	0 - 9	2 - 14	2 - 36	7 - 39
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 7	0 - 0	0 - 17	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 9	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	2 - 8	4 - 11	2 - 7	4 - 8	6 - 10	8 - 12	1 - 6	3 - 5	3 - 10	6 - 10
Over 70 dBA per Night	0 - 3	1 - 3	0 - 2	0 - 2	0 - 2	0 - 2	0 - 1	0 - 1	0 - 3	0 - 2
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	3 - 30	11 - 35	2 - 22	8 - 29	6 - 31	15 - 38	2 - 16	7 - 19	6 - 41	18 - 42
Sleep Disturbance Index ⁴	0 - 0.2	0.1 - 0.2	0 - 0.1	0 - 0.2	0 - 0.2	0.1 - 0.3	0 - 0.1	0 - 0.1	0 - 0.2	0.1 - 0.2

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 39.AB11			Sub Area: 39.AB12			Sub Area: 39.AB13			Sub Area: 39.AB14			Sub Area: 39.AB15		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	20	30	30	20	30	30	20	20	20	10	10	10	10	10	10
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³	0			0			0			0			0		

- Notes: 1. Rounded to nearest 10
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 39.AB11		Sub Area: 39.AB12		Sub Area: 39.AB13		Sub Area: 39.AB14		Sub Area: 39.AB15	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	46 - 51	49 - 54	46 - 55	51 - 56	50 - 59	55 - 61	56 - 62	59 - 64	59 - 68	64 - 68
L _{Aeq} 10pm-6am ¹	36 - 40	39 - 42	37 - 45	41 - 46	41 - 49	45 - 50	46 - 53	49 - 53	49 - 57	53 - 56
ANEC ²	12 - 17	15 - 19	10 - 19	14 - 20	15 - 24	19 - 25	22 - 29	25 - 28	26 - 36	29 - 35
Number of Noise Events ³										
Over 60 dBA per 24 Hours	61 - 148	114 - 179	28 - 131	68 - 172	62 - 159	127 - 205	78 - 180	141 - 223	83 - 188	150 - 233
Over 70 dBA per 24 Hours	2 - 18	6 - 26	5 - 48	22 - 72	16 - 85	45 - 121	44 - 143	104 - 162	60 - 166	117 - 179
Over 80 dBA per 24 Hours	0 - 0	0 - 3	0 - 4	1 - 7	1 - 20	6 - 31	9 - 55	23 - 60	21 - 120	53 - 122
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 1	1 - 5	2 - 10	5 - 46	15 - 40
Over 60 dBA per Night	8 - 11	10 - 13	4 - 10	7 - 14	8 - 12	10 - 16	11 - 14	12 - 17	12 - 14	13 - 17
Over 70 dBA per Night	0 - 1	0 - 2	1 - 5	2 - 6	2 - 7	4 - 10	5 - 10	9 - 12	8 - 13	10 - 13
Over 80 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 1	0 - 2	1 - 3	1 - 5	2 - 5	2 - 8	5 - 9
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 1	0 - 4	1 - 3
Over 65 dBA (9am-3pm)	10 - 39	24 - 46	7 - 44	19 - 57	15 - 60	33 - 74	31 - 80	58 - 90	33 - 84	61 - 93
Sleep Disturbance Index ⁴	0.1 - 0.2	0.1 - 0.2	0.1 - 0.3	0.2 - 0.4	0.2 - 0.5	0.3 - 0.6	0.4 - 0.7	0.6 - 0.8	0.5 - 1.1	0.8 - 1.1

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 39.AB16			Sub Area: 39.AB17			Sub Area: 39.AB18			Sub Area: 39.AB19			Sub Area: 39.AB20		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	20	20	20	10	10	10	0	0	0	0	0	0	10	10	10
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³	0			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 39.AB16		Sub Area: 39.AB17		Sub Area: 39.AB18		Sub Area: 39.AB19		Sub Area: 39.AB20	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	50 - 59	54 - 59	46 - 55	52 - 56	45 - 52	54 - 57	45 - 53	58 - 61	45 - 52	63 - 68
L _{Aeq} 10pm-6am ¹	41 - 50	44 - 48	37 - 45	42 - 45	36 - 44	44 - 45	35 - 44	48 - 49	35 - 44	53 - 57
ANEC	16 - 26	18 - 24	11 - 20	15 - 20	7 - 16	17 - 21	6 - 14	23 - 26	4 - 11	29 - 36
Number of Noise Events ³										
Over 60 dBA per 24 Hours	63 - 164	148 - 257	30 - 137	114 - 251	17 - 105	133 - 234	11 - 79	127 - 200	7 - 57	119 - 192
Over 70 dBA per 24 Hours	17 - 99	45 - 116	6 - 57	26 - 86	4 - 33	42 - 103	1 - 10	69 - 133	1 - 10	74 - 149
Over 80 dBA per 24 Hours	2 - 27	5 - 27	0 - 1	0 - 0	0 - 0	2 - 8	0 - 0	19 - 42	0 - 0	47 - 113
Over 90 dBA per 24 Hours	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	10 - 46
Over 60 dBA per Night	8 - 12	12 - 20	4 - 11	12 - 20	3 - 9	13 - 19	1 - 7	13 - 16	1 - 6	12 - 15
Over 70 dBA per Night	2 - 8	4 - 9	1 - 6	3 - 7	0 - 4	4 - 8	0 - 2	6 - 10	0 - 2	6 - 12
Over 80 dBA per Night	0 - 3	1 - 2	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	1 - 3	0 - 0	4 - 9
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	1 - 3
Over 65 dBA (9am-3pm)	14 - 62	34 - 83	7 - 47	24 - 77	4 - 33	31 - 69	3 - 29	47 - 80	2 - 10	44 - 79
Sleep Disturbance Index ⁴	0.2 - 0.6	0.3 - 0.7	0.1 - 0.4	0.2 - 0.5	0 - 0.2	0.3 - 0.5	0 - 0.2	0.5 - 0.7	0 - 0.1	0.6 - 1.1

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 39.AB21			Sub Area: 39.AB22			Sub Area: 39.AB23			Sub Area: 39.AB24			Sub Area: 39.AB25		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population	20	20	20	10	10	10	10	10	10	30	30	30	100	100	100
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³	0			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 39.AB21		Sub Area: 39.AB22		Sub Area: 39.AB23		Sub Area: 39.AB24		Sub Area: 39.AB25	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	40 - 46	55 - 60	37 - 45	50 - 56	39 - 48	52 - 56	36 - 43	48 - 51	35 - 42	47 - 50
L _{Aeq} 10pm-6am ¹	30 - 38	46 - 50	28 - 36	41 - 45	29 - 40	42 - 45	27 - 34	38 - 40	26 - 34	37 - 38
ANEC ²	2 - 9	21 - 25	1 - 9	14 - 20	1 - 8	16 - 21	0 - 6	11 - 15	-2 - 6	10 - 13
Number of Noise Events ³										
Over 60 dBA per 24 Hours	7 - 51	111 - 181	4 - 28	49 - 110	5 - 31	96 - 163	3 - 18	32 - 89	2 - 18	36 - 74
Over 70 dBA per 24 Hours	0 - 2	48 - 81	0 - 2	16 - 51	1 - 10	25 - 67	0 - 0	8 - 24	0 - 1	6 - 19
Over 80 dBA per 24 Hours	0 - 0	5 - 23	0 - 0	1 - 7	0 - 0	2 - 8	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	1 - 3	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	1 - 5	11 - 14	0 - 3	6 - 10	1 - 4	9 - 12	0 - 2	4 - 8	0 - 2	4 - 5
Over 70 dBA per Night	0 - 0	5 - 6	0 - 0	2 - 4	0 - 2	2 - 5	0 - 0	1 - 2	0 - 0	1 - 1
Over 80 dBA per Night	0 - 0	0 - 2	0 - 0	0 - 1	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm) ⁴	2 - 9	36 - 66	1 - 5	14 - 34	1 - 8	28 - 51	0 - 3	8 - 23	0 - 3	5 - 14
Sleep Disturbance Index	0 - 0.1	0.4 - 0.5	0 - 0.1	0.2 - 0.3	0 - 0.1	0.2 - 0.3	0 - 0	0.1 - 0.2	0 - 0	0.1 - 0.1

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option C:

	Sub Area: 39.C1			Sub Area: 39.C2			Sub Area: 39.C3			Sub Area: 39.C4			Sub Area: 39.C5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	1940	2030	2070	80	90	90	20	30	30	70	70	80	40	40	40
Educational Facilities ²	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	5			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 39.C1		Sub Area: 39.C2		Sub Area: 39.C3		Sub Area: 39.C4		Sub Area: 39.C5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	30 - 37	35 - 46	43 - 50	48 - 51	50 - 57	54 - 57	28 - 35	34 - 53	31 - 38	38 - 56
L _{Aeq} 10pm-6am ¹	20 - 27	24 - 34	34 - 40	37 - 39	40 - 46	45 - 46	17 - 25	22 - 42	21 - 27	25 - 45
ANEC ²	-5 - 0	1 - 13	10 - 15	13 - 16	16 - 22	20 - 24	-11 - -2	-2 - 21	-6 - -1	1 - 24
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 1	0 - 6	8 - 60	38 - 110	32 - 100	114 - 188	0 - 3	1 - 20	0 - 1	2 - 25
Over 70 dBA per 24 Hours	0 - 0	0 - 3	0 - 3	2 - 6	6 - 48	28 - 84	0 - 0	0 - 13	0 - 0	0 - 17
Over 80 dBA per 24 Hours	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 8	0 - 0	0 - 11
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 3
Over 60 dBA per Night	0 - 0	0 - 0	1 - 5	4 - 8	4 - 10	11 - 14	0 - 0	0 - 1	0 - 0	0 - 2
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 5	3 - 7	0 - 0	0 - 1	0 - 0	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 0	0 - 2	1 - 17	6 - 26	7 - 33	28 - 60	0 - 1	0 - 7	0 - 0	0 - 9
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0.1	0 - 0.1	0.1 - 0.3	0.2 - 0.4	0 - 0	0 - 0.1	0 - 0	0 - 0.1

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option C:

	Sub Area: 39.C6			Sub Area: 39.C7			Sub Area: 39.C8			Sub Area: 39.C9			Sub Area: 39.C10		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	20	30	30	60	60	60	110	110	110	60	60	60	30	30	30
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 39.C6		Sub Area: 39.C7		Sub Area: 39.C8		Sub Area: 39.C9		Sub Area: 39.C10	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	39 - 46	46 - 62	43 - 54	48 - 55	51 - 61	56 - 63	49 - 58	55 - 60	44 - 55	50 - 56
L _{Aeq} 10pm-6am ¹	29 - 38	33 - 51	31 - 46	35 - 42	40 - 51	44 - 50	38 - 47	43 - 47	34 - 44	39 - 44
ANEC ²	1 - 7	10 - 31	2 - 9	8 - 13	17 - 28	24 - 31	14 - 26	21 - 28	10 - 21	16 - 24
Number of Noise Events ³										
Over 60 dBA per 24 Hours	2 - 17	11 - 47	3 - 25	13 - 43	20 - 77	73 - 153	8 - 56	29 - 100	7 - 53	27 - 94
Over 70 dBA per 24 Hours	0 - 5	1 - 29	1 - 6	3 - 14	7 - 50	25 - 87	4 - 31	15 - 49	3 - 28	13 - 43
Over 80 dBA per 24 Hours	0 - 0	0 - 18	0 - 0	0 - 1	1 - 24	6 - 35	1 - 14	4 - 20	0 - 6	2 - 10
Over 90 dBA per 24 Hours	0 - 0	0 - 8	0 - 0	0 - 0	0 - 6	2 - 10	0 - 4	1 - 7	0 - 0	0 - 0
Over 60 dBA per Night	0 - 2	1 - 3	0 - 3	1 - 3	2 - 6	7 - 12	1 - 5	2 - 8	1 - 5	2 - 7
Over 70 dBA per Night	0 - 1	0 - 2	0 - 1	0 - 1	1 - 5	2 - 7	0 - 3	1 - 4	0 - 3	1 - 3
Over 80 dBA per Night	0 - 0	0 - 1	0 - 0	0 - 0	0 - 3	1 - 3	0 - 1	0 - 1	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	1 - 4	4 - 19	1 - 7	5 - 13	6 - 32	26 - 57	2 - 21	9 - 32	2 - 20	9 - 31
Sleep Disturbance Index ⁴	0 - 0	0 - 0.2	0 - 0.1	0 - 0.1	0.1 - 0.4	0.2 - 0.5	0 - 0.2	0.1 - 0.3	0 - 0.2	0.1 - 0.2

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	2821	3020 ¹	3260	3370	3470	3630	3370	3370	3630	3630
Educational Facilities ²		1	1	1	1	1	1	1	1	1
Other Noise Sensitive ³ Land Uses		3	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	44, 47	L _{A90}	7am to 7pm	33, 38
	7pm to 10pm	43, 45		7pm to 10pm	32, 37
	10pm to 7am	37, 43		10pm to 7am	30, 36

Monitored at: 27 Third Street, Warragamba, 112 Ridgehaven Road, Silverdale

Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L_{Aeq} 24 Hour ¹			27 - 37			33 - 50	17 - 32	7 - 15	23 - 35	9 - 17
L_{Aeq} 10pm-6am			14 - 26			19 - 38	-1 - 20	-6 - 6	6 - 19	3 - 7
ANEC ²			-9 - 1			-4 - 16	-12 - -4	-19 - -11	-7 - -1	-14 - -8
Number of Noise Events										
Over 60 dBA per 24 Hours	Refer Following Pages		0 - 6	Refer Following Pages		2 - 21	0 - 3	0 - 0	0 - 6	0 - 0
Over 70 dBA per 24 Hours			0 - 0			0 - 10	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours			0 - 0			0 - 3	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night			0 - 1			0 - 2	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night			0 - 0			0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm			0 - 2			0 - 8	0 - 0	0 - 0	0 - 0	0 - 0
Sleep Disturbance Index ⁴			0 - 0			0 - 0.1	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

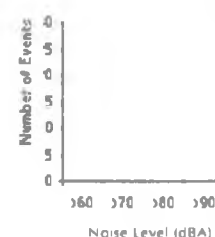
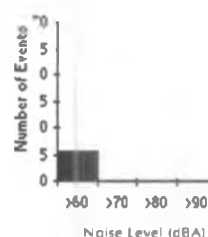
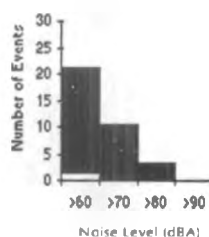
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

 Potential Range of Events

Refer Following Pages

Refer Following Pages



Badgerys Creek Option A

Badgerys Creek Option B

Badgerys Creek Option C

Holsworthy Option A

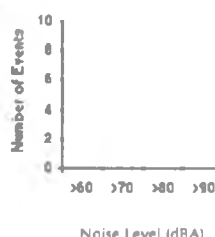
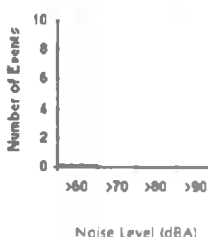
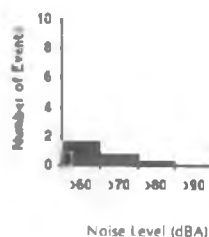
Holsworthy Option B

2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

 Potential Range of Events

Refer Following Pages

Refer Following Pages



Badgerys Creek Option A

Badgerys Creek Option B

Badgerys Creek Option C

Holsworthy Option A

Holsworthy Option B

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 40.AB1			Sub Area: 40.AB2			Sub Area: 40.AB3			Sub Area: 40.AB4			Sub Area: 40.AB5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	70	80	80	80	80	90	600	650	690	800	860	920	410	450	480
Educational Facilities ²	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			2			1		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 40.AB1		Sub Area: 40.AB2		Sub Area: 40.AB3		Sub Area: 40.AB4		Sub Area: 40.AB5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	35 - 41	38 - 43	36 - 42	43 - 49	37 - 44	47 - 53	42 - 48	51 - 55	39 - 48	51 - 57
L _{Aeq} 10pm-6am ¹	26 - 30	27 - 31	27 - 31	33 - 38	28 - 33	37 - 42	32 - 37	40 - 43	29 - 38	41 - 46
ANEC ²	0 - 6	2 - 7	1 - 6	9 - 15	2 - 9	13 - 20	8 - 15	17 - 22	5 - 14	18 - 25
Number of Noise Events ³										
Over 60 dBA per 24 Hours	3 - 12	4 - 17	3 - 12	17 - 67	8 - 25	31 - 100	14 - 42	63 - 131	7 - 45	65 - 158
Over 70 dBA per 24 Hours	0 - 1	0 - 0	0 - 1	2 - 10	0 - 3	6 - 27	3 - 11	23 - 45	1 - 9	18 - 68
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	1 - 3	0 - 1	2 - 8	0 - 1	3 - 16
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 1	0 - 1	0 - 1	2 - 5	1 - 2	3 - 8	1 - 3	5 - 10	1 - 3	5 - 13
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 2	0 - 1	2 - 3	0 - 1	2 - 6
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	1 - 3	0 - 2	0 - 2	4 - 16	1 - 5	7 - 29	4 - 13	20 - 42	1 - 13	18 - 53
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0.1	0 - 0	0.1 - 0.2	0 - 0.1	0.2 - 0.3	0 - 0.1	0.2 - 0.4

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 40.AB6		
	1996	2006	2016
Estimated Population ¹	1060	1150	1220
Educational Facilities ²	0	0	0
Other Noise Sensitive ³ Land Uses	0		

- Notes:
- 1. Rounded to nearest 10
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 40.AB6	
	2006	2016
L _{Aeq} 24 Hour ¹	41 - 51	54 - 58
L _{Aeq} 10pm-6am ¹	32 - 40	43 - 46
ANEC ²	8 - 18	20 - 25
Number of Noise Events ³		
Over 60 dBA per 24 Hours	12 - 61	76 - 165
Over 70 dBA per 24 Hours	1 - 19	41 - 79
Over 80 dBA per 24 Hours	0 - 3	6 - 18
Over 90 dBA per 24 Hours	0 - 0	0 - 0
Over 60 dBA per Night	1 - 5	7 - 13
Over 70 dBA per Night	0 - 2	3 - 6
Over 80 dBA per Night	0 - 0	0 - 1
Over 90 dBA per Night	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	2 - 19	27 - 59
Sleep Disturbance Index ⁴	0 - 0.1	0.2 - 0.5

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 40.AB1			Sub Area: 40.AB2			Sub Area: 40.AB3			Sub Area: 40.AB4			Sub Area: 40.AB5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	70	80	80	80	80	90	600	650	690	800	860	920	410	450	480
Educational Facilities ²	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
Other Noise Sensitive Land Uses ³	0			0			0			2			1		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 40.AB1		Sub Area: 40.AB2		Sub Area: 40.AB3		Sub Area: 40.AB4		Sub Area: 40.AB5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	31 - 38	36 - 40	34 - 42	39 - 44	36 - 45	42 - 47	41 - 49	46 - 51	42 - 52	48 - 54
L _{Aeq} 10pm-6am ¹	22 - 28	26 - 29	25 - 32	29 - 33	27 - 35	31 - 36	31 - 39	35 - 40	33 - 42	38 - 43
ANEC ²	-6 - 0	-2 - 2	-3 - 4	0 - 5	0 - 8	4 - 9	4 - 13	9 - 14	6 - 16	11 - 17
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 2	1 - 5	2 - 17	7 - 28	4 - 32	14 - 54	10 - 49	33 - 86	11 - 67	33 - 119
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 1	0 - 3	1 - 5	1 - 11	4 - 18	2 - 22	7 - 33
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	1 - 3	0 - 3	1 - 5
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 1	1 - 2	0 - 3	1 - 4	1 - 4	3 - 7	1 - 6	3 - 10
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 1	0 - 2	1 - 3
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm) ⁴	0 - 0	0 - 1	0 - 2	1 - 3	1 - 7	2 - 11	2 - 15	7 - 22	2 - 21	8 - 34
Sleep Disturbance Index	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0.1	0 - 0.1	0 - 0.1	0.1 - 0.2	0 - 0.2	0.1 - 0.3

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

Sub Area: 40.AB6			
	1996	2006	2016
Estimated Population ¹	1060	1150	1220
Educational Facilities ²	0	0	0
Other Noise Sensitive ³ Land Uses	0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

Sub Area: 40.AB6		
	2006	2016
L _{Aeq} 24 Hour ¹	44 - 54	50 - 56
L _{Aeq} 10pm-6am ¹	35 - 44	40 - 45
ANEC ²	9 - 19	13 - 20
Number of Noise Events ³		
Over 60 dBA per 24 Hours	17 - 82	53 - 146
Over 70 dBA per 24 Hours	3 - 33	12 - 52
Over 80 dBA per 24 Hours	1 - 9	3 - 13
Over 90 dBA per 24 Hours	0 - 0	0 - 0
Over 60 dBA per Night	2 - 7	5 - 12
Over 70 dBA per Night	0 - 3	1 - 5
Over 80 dBA per Night	0 - 1	0 - 1
Over 90 dBA per Night	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	4 - 29	13 - 47
Sleep Disturbance Index ⁴	0.1 - 0.3	0.1 - 0.4

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 41

SHEET 1 / 8

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006	2016	2006	2016	2006	2016	2006	2016
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	1015	1180 ¹	1270	1310	1360	1420	1310	1310	1420	1420
Educational Facilities ²		0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses		2	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	41	L _{A90}	7am to 7pm	30
	7pm to 10pm	39		7pm to 10pm	34
	10pm to 7am	39		10pm to 7am	31

Monitored at: 9 Barrington Drive, Silverdale

Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹			29 - 36			35 - 38	17 - 32	11 - 18	23 - 34	16 - 22
L _{Aeq} 10pm-6am ¹			18 - 26			24 - 26	2 - 22	-3 - 9	9 - 21	6 - 10
ANEC ²			-7 - 0			-1 - 3	-12 - -4	-19 - -11	-7 - -1	-13 - -8
Number of Noise Events ³										
Over 60 dBA per 24 Hours	Refer Following Pages		1 - 6	Refer Following Pages		4 - 11	0 - 2	0 - 0	0 - 4	0 - 0
Over 70 dBA per 24 Hours			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night			0 - 1			0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm			0 - 1			1 - 2	0 - 1	0 - 0	0 - 1	0 - 0
Sleep Disturbance Index ⁴			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

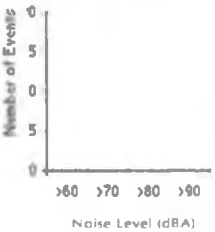
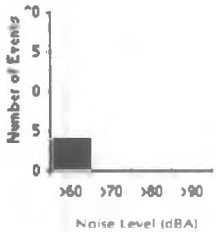
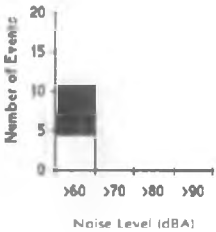
Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events

Refer Following Pages

Refer Following Pages



Badgerys Creek Option A

Badgerys Creek Option B

Badgerys Creek Option C

Holsworthy Option A

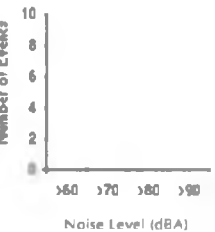
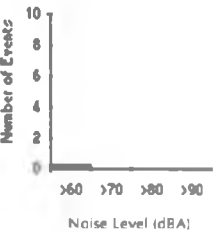
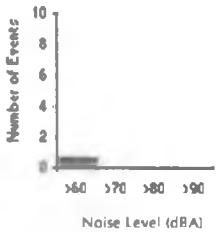
Holsworthy Option B

2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

Potential Range of Events

Refer Following Pages

Refer Following Pages



Badgerys Creek Option A

Badgerys Creek Option B

Badgerys Creek Option C

Holsworthy Option A

Holsworthy Option B

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 41.AB1			Sub Area: 41.AB2			Sub Area: 41.AB3			Sub Area: 41.AB4			Sub Area: 41.AB5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	890	960	1020	20	20	30	40	40	50	90	100	100
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			1		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 41.AB1		Sub Area: 41.AB2		Sub Area: 41.AB3		Sub Area: 41.AB4		Sub Area: 41.AB5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	43 - 51	48 - 53	46 - 53	52 - 56	43 - 52	56 - 59	38 - 47	44 - 51	45 - 54	54 - 57
L _{Aeq} 10pm-6am ¹	33 - 40	38 - 42	36 - 43	42 - 45	33 - 43	46 - 47	28 - 37	36 - 41	35 - 44	44 - 45
ANEC ²	9 - 18	14 - 21	12 - 20	18 - 23	9 - 20	23 - 26	4 - 14	12 - 19	11 - 22	20 - 24
Number of Noise Events ³										
Over 60 dBA per 24 Hours	15 - 62	39 - 112	22 - 77	66 - 138	12 - 73	110 - 178	6 - 47	19 - 71	20 - 85	101 - 159
Over 70 dBA per 24 Hours	3 - 24	10 - 36	8 - 33	21 - 54	2 - 27	51 - 89	1 - 11	4 - 20	3 - 36	35 - 66
Over 80 dBA per 24 Hours	1 - 5	1 - 6	1 - 7	5 - 13	0 - 4	11 - 25	0 - 1	1 - 6	1 - 9	6 - 15
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	2 - 5	3 - 9	3 - 6	6 - 11	2 - 6	9 - 13	1 - 4	2 - 6	3 - 7	8 - 12
Over 70 dBA per Night	0 - 2	1 - 3	1 - 3	2 - 5	0 - 3	4 - 7	0 - 1	1 - 2	0 - 3	3 - 5
Over 80 dBA per Night	0 - 1	0 - 1	0 - 1	0 - 1	0 - 0	1 - 2	0 - 0	0 - 1	0 - 1	1 - 1
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	3 - 20	11 - 35	7 - 28	18 - 43	3 - 26	35 - 62	1 - 13	4 - 18	5 - 30	29 - 50
Sleep Disturbance Index ⁴	0 - 0.2	0.1 - 0.3	0.1 - 0.2	0.2 - 0.4	0 - 0.2	0.3 - 0.5	0 - 0.1	0.1 - 0.2	0.1 - 0.3	0.3 - 0.4

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 41.AB6			Sub Area: 41.AB7			Sub Area: 41.AB8			Sub Area: 41.AB9			Sub Area: 41.AB10		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	20	20	20	40	40	50	40	40	50	10	20	20
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			1			0			0		

Notes: 1. Rounded to nearest 10.

2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.

3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 41.AB6		Sub Area: 41.AB7		Sub Area: 41.AB8		Sub Area: 41.AB9		Sub Area: 41.AB10	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L_{Aeq} 24 Hour	45 - 55	57 - 62	47 - 56	52 - 57	44 - 52	46 - 51	42 - 51	48 - 54	50 - 56	48 - 54
L_{Aeq} 10pm-6am ¹	36 - 46	46 - 50	38 - 46	40 - 46	34 - 42	37 - 41	33 - 43	37 - 42	40 - 46	37 - 43
ANEC ²	12 - 23	23 - 28	14 - 23	17 - 22	10 - 19	13 - 19	9 - 19	14 - 18	16 - 23	13 - 19
Number of Noise Events										
Over 60 dBA per 24 Hours	18 - 92	136 - 193	32 - 105	82 - 158	18 - 72	40 - 82	12 - 64	44 - 86	48 - 136	69 - 179
Over 70 dBA per 24 Hours	4 - 44	58 - 121	8 - 50	22 - 59	4 - 27	4 - 19	2 - 21	10 - 32	14 - 64	11 - 46
Over 80 dBA per 24 Hours	1 - 9	12 - 39	1 - 13	2 - 11	1 - 5	1 - 4	0 - 5	1 - 4	2 - 12	0 - 1
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	2 - 8	12 - 14	4 - 8	7 - 11	2 - 6	4 - 7	1 - 6	4 - 6	6 - 10	5 - 12
Over 70 dBA per Night	1 - 4	5 - 8	1 - 5	2 - 4	0 - 3	1 - 2	0 - 3	1 - 2	2 - 5	1 - 3
Over 80 dBA per Night	0 - 1	1 - 3	0 - 2	0 - 1	0 - 1	0 - 0	0 - 1	0 - 0	0 - 2	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	4 - 32	40 - 68	9 - 38	22 - 50	4 - 24	9 - 24	3 - 22	11 - 28	13 - 50	16 - 48
Sleep Disturbance Index ⁴	0.1 - 0.3	0.4 - 0.6	0.1 - 0.3	0.2 - 0.4	0.1 - 0.2	0.1 - 0.2	0 - 0.2	0.1 - 0.2	0.2 - 0.4	0.1 - 0.3

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 41.AB11			Sub Area: 41.AB12		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	20	20	0	0	0
Educational Facilities ²	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 41.AB11		Sub Area: 41.AB12	
	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	44 - 54	57 - 61	37 - 46	44 - 51
L _{Aeq} 10pm-6am ¹	35 - 44	46 - 49	28 - 38	36 - 41
ANEC ²	11 - 21	24 - 27	3 - 14	12 - 19
Number of Noise Events ³				
Over 60 dBA per 24 Hours	14 - 83	128 - 187	5 - 39	14 - 51
Over 70 dBA per 24 Hours	3 - 36	63 - 121	1 - 8	3 - 18
Over 80 dBA per 24 Hours	0 - 6	12 - 33	0 - 1	1 - 6
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	2 - 7	11 - 14	1 - 4	2 - 5
Over 70 dBA per Night	0 - 4	5 - 8	0 - 1	1 - 2
Over 80 dBA per Night	0 - 1	1 - 2	0 - 0	0 - 1
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	3 - 28	43 - 68	1 - 9	4 - 15
Sleep Disturbance Index ⁴	0.1 - 0.3	0.4 - 0.6	0 - 0.1	0.1 - 0.2

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 41.AB1			Sub Area: 41.AB2			Sub Area: 41.AB3			Sub Area: 41.AB4			Sub Area: 41.AB5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	890	960	1020	20	20	30	40	40	50	90	100	100
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³	0			0			0			0			1		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 41.AB1		Sub Area: 41.AB2		Sub Area: 41.AB3		Sub Area: 41.AB4		Sub Area: 41.AB5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour	45 - 52	51 - 54	48 - 55	53 - 57	47 - 56	52 - 59	40 - 49	45 - 51	49 - 56	54 - 58
L _{Aeq} 10pm-6am ¹	35 - 42	40 - 43	38 - 45	43 - 45	38 - 47	43 - 48	30 - 40	35 - 40	39 - 47	44 - 47
ANEC ²	10 - 17	15 - 18	13 - 20	18 - 21	12 - 22	16 - 23	4 - 14	9 - 15	14 - 22	19 - 23
Number of Noise Events ³										
Over 60 dBA per 24 Hours	21 - 74	64 - 129	25 - 88	74 - 158	30 - 105	80 - 172	9 - 57	30 - 96	33 - 104	85 - 172
Over 70 dBA per 24 Hours	6 - 29	22 - 45	10 - 44	36 - 70	6 - 52	22 - 83	1 - 17	6 - 27	12 - 52	41 - 86
Over 80 dBA per 24 Hours	1 - 6	5 - 11	1 - 10	6 - 16	1 - 15	5 - 24	0 - 3	1 - 4	2 - 16	7 - 25
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	3 - 6	6 - 10	3 - 7	7 - 13	4 - 8	7 - 14	1 - 5	3 - 8	4 - 8	8 - 14
Over 70 dBA per Night	1 - 3	2 - 3	1 - 4	3 - 6	1 - 5	2 - 7	0 - 2	1 - 3	1 - 5	4 - 7
Over 80 dBA per Night	0 - 1	0 - 1	0 - 1	0 - 1	0 - 2	1 - 2	0 - 0	0 - 0	0 - 2	1 - 2
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	6 - 26	20 - 41	9 - 34	27 - 57	7 - 37	20 - 60	2 - 18	7 - 26	10 - 38	29 - 61
Sleep Disturbance Index ⁴	0.1 - 0.2	0.2 - 0.3	0.1 - 0.3	0.2 - 0.5	0.1 - 0.4	0.2 - 0.6	0 - 0.2	0.1 - 0.2	0.1 - 0.4	0.3 - 0.5

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 41.AB6			Sub Area: 41.AB7			Sub Area: 41.AB8			Sub Area: 41.AB9			Sub Area: 41.AB10		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	20	20	20	40	40	50	40	40	50	10	20	20
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³	0			0			1			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 41.AB6		Sub Area: 41.AB7		Sub Area: 41.AB8		Sub Area: 41.AB9		Sub Area: 41.AB10	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	53 - 61	58 - 61	52 - 61	55 - 60	43 - 51	48 - 54	44 - 50	47 - 51	47 - 56	51 - 56
L _{Aeq} 10pm-6am ¹	43 - 50	47 - 49	40 - 51	44 - 48	34 - 43	39 - 43	35 - 41	37 - 41	36 - 46	41 - 44
ANEC ²	19 - 27	23 - 26	17 - 29	20 - 27	8 - 17	13 - 19	9 - 16	12 - 17	12 - 22	16 - 22
Number of Noise Events ³										
Over 60 dBA per 24 Hours	65 - 165	129 - 200	48 - 156	114 - 169	18 - 74	52 - 118	22 - 94	51 - 97	40 - 145	98 - 154
Over 70 dBA per 24 Hours	29 - 118	82 - 127	21 - 119	52 - 117	3 - 22	11 - 36	3 - 19	6 - 22	10 - 71	27 - 66
Over 80 dBA per 24 Hours	6 - 45	20 - 43	5 - 55	11 - 36	0 - 6	2 - 10	0 - 2	1 - 4	1 - 11	3 - 12
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	8 - 12	11 - 15	5 - 12	10 - 12	2 - 6	5 - 9	2 - 8	5 - 7	4 - 11	8 - 11
Over 70 dBA per Night	3 - 8	7 - 9	2 - 8	4 - 8	0 - 3	1 - 4	0 - 2	1 - 2	1 - 5	2 - 4
Over 80 dBA per Night	1 - 4	2 - 3	0 - 5	1 - 2	0 - 1	0 - 1	0 - 0	0 - 0	0 - 1	0 - 1
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm) ⁴	21 - 70	47 - 73	15 - 67	37 - 66	4 - 23	13 - 36	5 - 28	12 - 27	10 - 53	25 - 47
Sleep Disturbance Index ⁴	0.3 - 0.6	0.5 - 0.7	0.2 - 0.7	0.4 - 0.6	0.1 - 0.2	0.1 - 0.3	0.1 - 0.2	0.1 - 0.2	0.1 - 0.4	0.2 - 0.4

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 41.AB11			Sub Area: 41.AB12		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	20	20	0	0	0
Educational Facilities ²	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area 41.AB11		Sub Area: 41.AB12	
	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	50 - 58	55 - 60	39 - 49	44 - 51
L _{Aeq} 10pm-6am ¹	41 - 49	45 - 49	30 - 41	36 - 41
ANEC ²	16 - 23	20 - 24	4 - 15	9 - 16
Number of Noise Events ³				
Over 60 dBA per 24 Hours	56 - 147	120 - 189	6 - 44	21 - 74
Over 70 dBA per 24 Hours	17 - 72	47 - 111	1 - 14	4 - 22
Over 80 dBA per 24 Hours	2 - 21	7 - 33	0 - 3	1 - 5
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	7 - 10	10 - 14	1 - 4	2 - 7
Over 70 dBA per Night	2 - 5	4 - 9	0 - 2	1 - 3
Over 80 dBA per Night	0 - 3	1 - 3	0 - 1	0 - 1
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	17 - 54	38 - 69	1 - 12	5 - 19
Sleep Disturbance Index ⁴	0.2 - 0.4	0.3 - 0.6	0 - 0.2	0.1 - 0.2

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 42

SHEET 1 / 14

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	161	200	200	200	200	210	200	200	210	210
Educational Facilities ²		1	1	1	1	1	1	1	1	1
Other Noise Sensitive Land Uses		0	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	49, 48	L _{A90}	7am to 7pm	31, 35
	7pm to 10pm	43, 51		7pm to 10pm	33, 41
	10pm to 7am	43, 46		10pm to 7am	27, 28

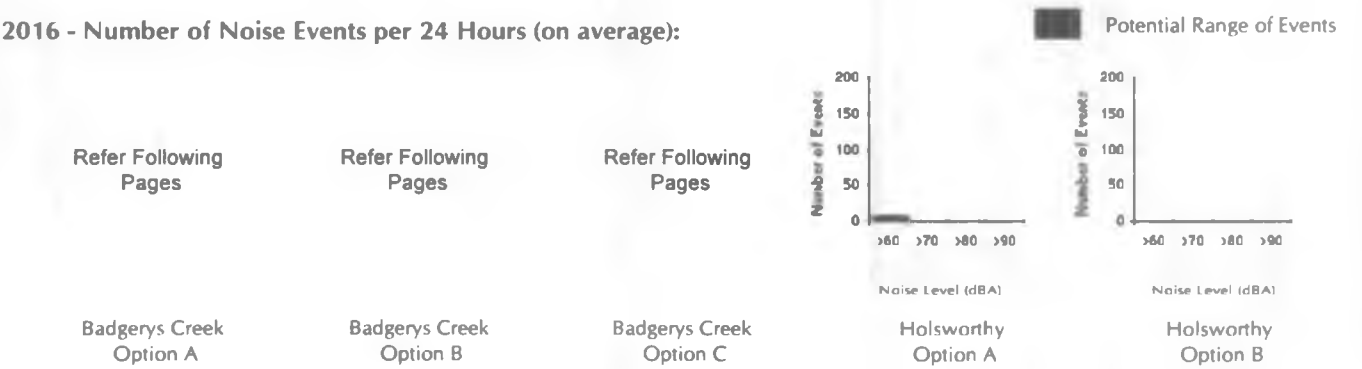
Monitored at: 495 Wolstenholme Ave, Greendale, Lot 10, Greendale Road, Greendale

Noise Indicators:

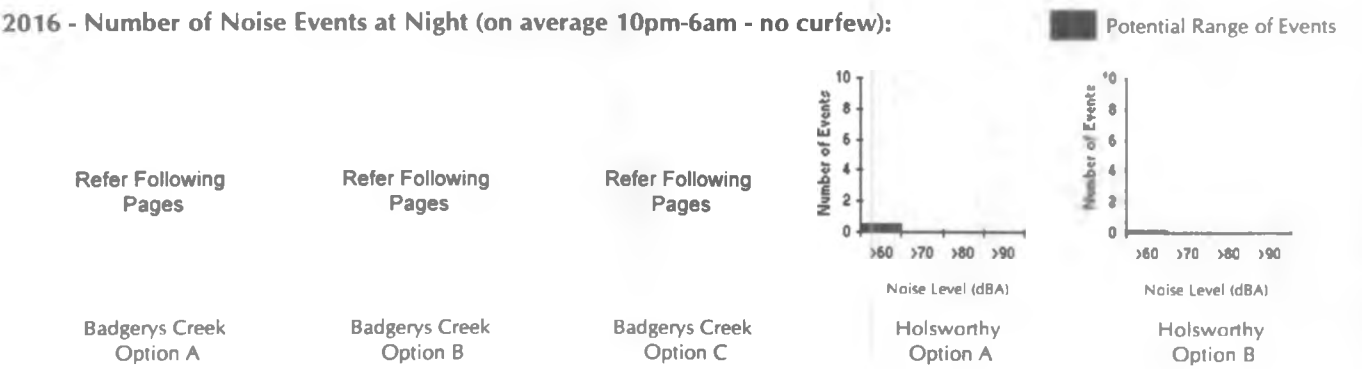
	Badgerys Creek			Holsworthy		
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C
L _{Aeq} 24 Hour ¹						
L _{Aeq} 10pm-6am ¹						
ANEC ²						
Number of Noise Events ³						
Over 60 dBA per 24 Hours	Refer Following Pages			Refer Following Pages		
Over 70 dBA per 24 Hours						
Over 80 dBA per 24 Hours						
Over 90 dBA per 24 Hours						
Over 60 dBA per Night						
Over 70 dBA per Night						
Over 80 dBA per Night						
Over 90 dBA per Night						
Over 65 dBA 9am to 3pm						
Sleep Disturbance Index ⁴						

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):



2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):



Social Characteristics for Badgerys Creek Option A:

	Sub Area: 42.AB1			Sub Area: 42.AB2			Sub Area: 42.AB3			Sub Area: 42.AB4			Sub Area: 42.AB5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	10	10	10	10	10	10	10	10	10	30	30	30
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 42.AB1		Sub Area: 42.AB2		Sub Area: 42.AB3		Sub Area: 42.AB4		Sub Area: 42.AB5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	40 - 49	56 - 61	42 - 51	59 - 62	44 - 54	59 - 64	49 - 58	52 - 55	56 - 63	56 - 63
L _{Aeq} 10pm-6am ¹	31 - 40	45 - 50	33 - 42	49 - 50	35 - 44	48 - 52	40 - 49	42 - 44	45 - 53	43 - 51
ANEC ²	6 - 16	23 - 29	8 - 18	26 - 30	10 - 21	26 - 31	16 - 26	17 - 22	23 - 31	21 - 29
Number of Noise Events ³										
Over 60 dBA per 24 Hours	8 - 62	121 - 199	11 - 73	134 - 206	16 - 94	145 - 218	50 - 134	146 - 236	75 - 169	134 - 201
Over 70 dBA per 24 Hours	1 - 15	47 - 114	2 - 23	90 - 133	3 - 36	79 - 141	11 - 68	28 - 55	41 - 138	40 - 116
Over 80 dBA per 24 Hours	0 - 1	8 - 37	0 - 2	23 - 45	0 - 5	25 - 69	1 - 21	1 - 4	10 - 70	10 - 57
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	1 - 2	0 - 0	2 - 9	0 - 0	0 - 0	1 - 7	1 - 8
Over 60 dBA per Night	1 - 6	10 - 15	2 - 7	12 - 16	2 - 8	12 - 16	6 - 10	12 - 16	10 - 13	12 - 16
Over 70 dBA per Night	0 - 1	4 - 9	0 - 2	8 - 10	0 - 4	7 - 10	1 - 6	3 - 4	5 - 10	3 - 9
Over 80 dBA per Night	0 - 0	1 - 3	0 - 0	2 - 3	0 - 1	2 - 4	0 - 2	0 - 0	1 - 6	0 - 4
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 1
Over 65 dBA (9am-3pm)	2 - 18	35 - 68	2 - 24	51 - 75	3 - 29	49 - 73	11 - 46	32 - 61	27 - 74	37 - 68
Sleep Disturbance Index ⁴	0 - 0.2	0.3 - 0.6	0 - 0.2	0.5 - 0.7	0.1 - 0.3	0.5 - 0.7	0.1 - 0.4	0.3 - 0.4	0.3 - 0.7	0.3 - 0.7

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 42.AB6			Sub Area: 42.AB7			Sub Area: 42.AB8			Sub Area: 42.AB9			Sub Area: 42.AB10		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	10	10	10	0	0	0	30	30	30	10	10	10
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 42.AB6		Sub Area: 42.AB7		Sub Area: 42.AB8		Sub Area: 42.AB9		Sub Area: 42.AB10	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	46 - 52	48 - 55	52 - 62	54 - 61	54 - 63	56 - 63	52 - 62	55 - 62	49 - 60	53 - 61
L _{Aeq} 10pm-6am ¹	36 - 43	36 - 43	41 - 51	39 - 50	43 - 53	41 - 51	40 - 52	40 - 51	36 - 50	38 - 49
ANEC ²	12 - 20	13 - 19	19 - 28	19 - 27	21 - 30	21 - 29	18 - 29	20 - 29	14 - 26	17 - 26
Number of Noise Events ³										
Over 60 dBA per 24 Hours	31 - 105	49 - 150	54 - 155	64 - 160	68 - 167	92 - 159	47 - 155	54 - 143	25 - 122	33 - 131
Over 70 dBA per 24 Hours	6 - 30	9 - 42	24 - 119	21 - 95	29 - 130	27 - 108	19 - 114	22 - 105	11 - 86	21 - 99
Over 80 dBA per 24 Hours	1 - 5	1 - 5	5 - 50	6 - 38	8 - 65	11 - 57	5 - 54	10 - 56	3 - 41	7 - 43
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 8	1 - 6	0 - 1	0 - 2	0 - 0	0 - 0
Over 60 dBA per Night	4 - 8	3 - 10	6 - 12	5 - 13	8 - 12	8 - 12	5 - 12	4 - 11	2 - 10	2 - 10
Over 70 dBA per Night	1 - 3	0 - 3	2 - 8	1 - 7	3 - 9	1 - 8	2 - 8	1 - 8	1 - 6	0 - 7
Over 80 dBA per Night	0 - 1	0 - 0	0 - 4	0 - 3	0 - 5	0 - 4	0 - 4	0 - 4	0 - 3	0 - 3
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	8 - 33	13 - 44	17 - 66	18 - 57	20 - 71	26 - 61	14 - 64	16 - 54	8 - 50	12 - 51
Sleep Disturbance Index ⁴	0.1 - 0.2	0.1 - 0.3	0.2 - 0.6	0.1 - 0.5	0.2 - 0.7	0.2 - 0.6	0.2 - 0.6	0.1 - 0.6	0.1 - 0.5	0.1 - 0.5

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 42.AB11			Sub Area: 42.AB12			Sub Area: 42.AB13			Sub Area: 42.AB14			Sub Area: 42.AB15		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	10	10	10	10	10	10	10	10	10	0	0	0
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 42.AB11		Sub Area: 42.AB12		Sub Area: 42.AB13		Sub Area: 42.AB14		Sub Area: 42.AB15	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	45 - 55	48 - 56	53 - 59	54 - 58	39 - 48	42 - 48	43 - 49	45 - 49	44 - 52	47 - 51
L _{Aeq} 10pm-6am ¹	33 - 45	34 - 44	44 - 50	44 - 47	29 - 38	30 - 37	34 - 39	34 - 37	35 - 42	38 - 40
ANEC ²	10 - 21	12 - 20	20 - 27	21 - 24	4 - 13	5 - 12	8 - 15	9 - 13	10 - 18	13 - 17
Number of Noise Events ³										
Over 60 dBA per 24 Hours	22 - 116	30 - 117	75 - 168	108 - 165	11 - 69	17 - 73	26 - 93	44 - 88	28 - 115	55 - 107
Over 70 dBA per 24 Hours	5 - 53	11 - 56	34 - 113	49 - 96	1 - 7	1 - 6	2 - 12	2 - 5	3 - 32	6 - 23
Over 80 dBA per 24 Hours	0 - 7	1 - 6	5 - 27	6 - 16	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 2
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	2 - 9	2 - 9	11 - 13	11 - 13	1 - 6	1 - 5	3 - 8	3 - 6	4 - 9	6 - 9
Over 70 dBA per Night	0 - 4	0 - 4	4 - 8	4 - 7	0 - 1	0 - 0	0 - 2	0 - 0	0 - 4	1 - 2
Over 80 dBA per Night	0 - 1	0 - 0	1 - 3	1 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	6 - 41	9 - 42	25 - 70	36 - 62	2 - 18	3 - 18	5 - 25	7 - 20	6 - 39	13 - 30
Sleep Disturbance Index ⁴	0 - 0.3	0 - 0.3	0.3 - 0.6	0.3 - 0.5	0 - 0.1	0 - 0.1	0.1 - 0.2	0.1 - 0.1	0.1 - 0.3	0.1 - 0.2

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 42.AB16			Sub Area: 42.AB17			Sub Area: 42.AB18			Sub Area: 42.AB19			Sub Area: 42.AB20		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	10	10	10	10	10	10	0	0	0	10	10	10
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 42.AB16		Sub Area: 42.AB17		Sub Area: 42.AB18		Sub Area: 42.AB19		Sub Area: 42.AB20	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	49 - 59	53 - 59	47 - 57	52 - 58	36 - 44	39 - 45	35 - 41	39 - 42	36 - 43	41 - 44
L _{Aeq} 10pm-6am ¹	41 - 50	44 - 49	39 - 48	43 - 48	25 - 34	27 - 34	26 - 32	29 - 31	27 - 33	31 - 33
ANEC ²	16 - 27	21 - 27	14 - 25	19 - 26	0 - 8	2 - 9	0 - 6	3 - 7	1 - 8	6 - 9
Number of Noise Events ³										
Over 60 dBA per 24 Hours	58 - 156	94 - 155	27 - 128	51 - 120	3 - 37	7 - 40	3 - 16	8 - 16	5 - 34	16 - 43
Over 70 dBA per 24 Hours	12 - 83	25 - 69	7 - 59	19 - 65	0 - 0	0 - 1	0 - 0	0 - 1	0 - 1	1 - 2
Over 80 dBA per 24 Hours	1 - 18	4 - 19	1 - 12	3 - 17	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 2	1 - 4	0 - 1	0 - 2	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	8 - 12	9 - 12	4 - 11	6 - 10	0 - 4	0 - 3	0 - 2	1 - 1	1 - 4	2 - 3
Over 70 dBA per Night	2 - 7	3 - 6	1 - 6	2 - 6	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 2	0 - 2	0 - 1	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	12 - 56	22 - 47	6 - 43	12 - 37	0 - 5	1 - 5	0 - 2	1 - 3	1 - 6	3 - 8
Sleep Disturbance Index ⁴	0.2 - 0.5	0.2 - 0.4	0.1 - 0.4	0.2 - 0.4	0 - 0.1	0 - 0.1	0 - 0	0 - 0	0 - 0.1	0 - 0.1

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 42.AB21			Sub Area: 42.AB22			Sub Area: 42.AB23			Sub Area: 42.AB24		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	10	10	10	10	10	10	0	0	0
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 42.AB21		Sub Area: 42.AB22		Sub Area: 42.AB23		Sub Area: 42.AB24	
	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	45 - 55	50 - 56	41 - 50	46 - 52	42 - 52	48 - 54	38 - 47	44 - 49
L _{Aeq} 10pm-6am ¹	37 - 46	41 - 47	33 - 41	37 - 42	34 - 43	39 - 44	29 - 39	35 - 39
ANEC ²	12 - 23	18 - 24	8 - 18	13 - 19	9 - 20	15 - 22	5 - 14	10 - 16
Number of Noise Events ³								
Over 60 dBA per 24 Hours	12 - 85	30 - 92	9 - 58	25 - 73	8 - 53	24 - 70	3 - 24	14 - 37
Over 70 dBA per 24 Hours	5 - 36	17 - 62	2 - 19	9 - 33	2 - 17	7 - 29	1 - 5	2 - 8
Over 80 dBA per 24 Hours	1 - 8	2 - 12	0 - 1	0 - 2	0 - 3	1 - 5	0 - 1	0 - 1
Over 90 dBA per 24 Hours	0 - 1	0 - 2	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	2 - 8	4 - 9	1 - 6	3 - 7	1 - 5	3 - 6	0 - 2	2 - 3
Over 70 dBA per Night	1 - 3	2 - 5	0 - 2	1 - 2	0 - 1	1 - 2	0 - 1	0 - 1
Over 80 dBA per Night	0 - 1	0 - 1	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	4 - 28	9 - 30	3 - 17	9 - 29	2 - 14	8 - 24	1 - 6	4 - 9
Sleep Disturbance Index ⁴	0.1 - 0.3	0.1 - 0.3	0 - 0.2	0.1 - 0.2	0 - 0.1	0.1 - 0.2	0 - 0.1	0 - 0.1

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 42.AB1			Sub Area: 42.AB2			Sub Area: 42.AB3			Sub Area: 42.AB4			Sub Area: 42.AB5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	10	10	10	10	10	10	10	10	10	30	30	30
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³	0			0			0			0			0		

Notes: 1. Rounded to nearest 10.

2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.

3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 42.AB1		Sub Area: 42.AB2		Sub Area: 42.AB3		Sub Area: 42.AB4		Sub Area: 42.AB5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L_{Aeq} 24 Hour¹	47 - 57	52 - 59	50 - 59	55 - 61	55 - 61	59 - 63	52 - 59	57 - 60	47 - 57	50 - 55
L_{Aeq} 10pm-6am¹	38 - 47	43 - 48	40 - 50	45 - 50	45 - 51	48 - 51	43 - 49	47 - 48	39 - 48	41 - 44
ANEC²	12 - 22	16 - 22	15 - 24	19 - 25	21 - 28	24 - 27	18 - 26	22 - 26	14 - 24	14 - 19
Number of Noise Events³										
Over 60 dBA per 24 Hours	26 - 113	63 - 167	56 - 145	114 - 194	74 - 171	132 - 206	72 - 170	133 - 213	40 - 143	112 - 223
Over 70 dBA per 24 Hours	5 - 51	20 - 84	13 - 72	36 - 115	39 - 128	96 - 153	32 - 122	74 - 125	8 - 65	13 - 54
Over 80 dBA per 24 Hours	1 - 12	4 - 19	2 - 23	7 - 35	8 - 55	23 - 55	5 - 33	16 - 35	1 - 12	1 - 3
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 1	0 - 2	0 - 2	1 - 3	0 - 0	0 - 1	0 - 1	0 - 0
Over 60 dBA per Night	3 - 9	6 - 14	7 - 10	9 - 15	10 - 13	11 - 16	10 - 13	12 - 16	5 - 11	10 - 16
Over 70 dBA per Night	1 - 5	2 - 7	2 - 6	4 - 10	5 - 9	8 - 11	3 - 8	6 - 8	1 - 7	2 - 5
Over 80 dBA per Night	0 - 1	0 - 2	0 - 3	1 - 3	1 - 5	2 - 4	0 - 3	2 - 2	0 - 1	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	6 - 37	17 - 57	12 - 49	27 - 66	24 - 73	49 - 76	23 - 72	46 - 72	9 - 50	22 - 60
Sleep Disturbance Index⁴	0.1 - 0.4	0.2 - 0.5	0.2 - 0.5	0.3 - 0.7	0.3 - 0.7	0.5 - 0.8	0.3 - 0.6	0.5 - 0.6	0.1 - 0.4	0.2 - 0.4

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 42.AB6			Sub Area: 42.AB7			Sub Area: 42.AB8			Sub Area: 42.AB9			Sub Area: 42.AB10		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	10	10	10	0	0	0	30	30	30	10	10	10
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³	0			0			0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 42.AB6		Sub Area: 42.AB7		Sub Area: 42.AB8		Sub Area: 42.AB9		Sub Area: 42.AB10	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	49 - 59	52 - 58	44 - 50	48 - 51	45 - 55	49 - 52	41 - 49	48 - 51	39 - 45	46 - 51
L _{Aeq} 10pm-6am ¹	36 - 49	39 - 46	35 - 41	38 - 40	37 - 46	39 - 41	33 - 40	37 - 40	30 - 35	34 - 39
ANEC ²	14 - 26	16 - 24	9 - 16	12 - 15	12 - 22	13 - 16	7 - 15	11 - 16	2 - 10	8 - 15
Number of Noise Events ³										
Over 60 dBA per 24 Hours	27 - 126	67 - 117	35 - 112	82 - 146	19 - 101	106 - 177	16 - 86	74 - 154	8 - 51	40 - 127
Over 70 dBA per 24 Hours	11 - 85	21 - 68	3 - 23	9 - 24	5 - 41	15 - 33	1 - 15	7 - 24	0 - 1	4 - 21
Over 80 dBA per 24 Hours	2 - 36	4 - 23	0 - 1	0 - 1	0 - 7	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	3 - 10	6 - 9	4 - 9	8 - 10	3 - 9	10 - 13	2 - 8	6 - 11	1 - 5	3 - 9
Over 70 dBA per Night	1 - 6	1 - 5	0 - 3	1 - 2	1 - 4	2 - 3	0 - 2	1 - 2	0 - 0	0 - 2
Over 80 dBA per Night	0 - 3	0 - 2	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm) ⁴	8 - 52	18 - 43	7 - 35	17 - 35	4 - 32	20 - 43	3 - 23	15 - 35	1 - 10	9 - 33
Sleep Disturbance Index ⁴	0.1 - 0.5	0.2 - 0.4	0.1 - 0.2	0.2 - 0.2	0.1 - 0.3	0.2 - 0.3	0 - 0.2	0.1 - 0.2	0 - 0.1	0.1 - 0.2

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 42.AB16			Sub Area: 42.AB17			Sub Area: 42.AB18			Sub Area: 42.AB19			Sub Area: 42.AB20		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	10	10	10	10	10	10	0	0	0	10	10	10
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³	0			0			0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 42.AB16		Sub Area: 42.AB17		Sub Area: 42.AB18		Sub Area: 42.AB19		Sub Area: 42.AB20	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	45 - 52	60 - 65	41 - 50	60 - 65	33 - 39	48 - 55	35 - 43	43 - 47	39 - 48	46 - 50
L _{Aeq} 10pm-6am ¹	36 - 42	48 - 54	33 - 41	49 - 54	24 - 29	33 - 43	27 - 34	33 - 36	31 - 39	36 - 39
ANEC ²	7 - 16	25 - 33	6 - 16	26 - 33	-3 - 2	11 - 20	1 - 9	7 - 12	5 - 15	10 - 14
Number of Noise Events ³										
Over 60 dBA per 24 Hours	11 - 77	118 - 190	10 - 69	113 - 187	1 - 9	27 - 116	5 - 27	33 - 80	7 - 38	44 - 81
Over 70 dBA per 24 Hours	1 - 13	69 - 135	1 - 13	71 - 137	0 - 0	11 - 59	0 - 3	2 - 4	1 - 12	5 - 19
Over 80 dBA per 24 Hours	0 - 1	23 - 87	0 - 1	27 - 95	0 - 0	1 - 6	0 - 0	0 - 0	0 - 1	0 - 1
Over 90 dBA per 24 Hours	0 - 0	3 - 21	0 - 0	6 - 25	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	2 - 7	12 - 15	2 - 7	11 - 15	0 - 1	1 - 9	1 - 2	2 - 6	1 - 3	5 - 6
Over 70 dBA per Night	0 - 1	6 - 11	0 - 1	6 - 11	0 - 0	0 - 4	0 - 0	0 - 0	0 - 1	1 - 2
Over 80 dBA per Night	0 - 0	1 - 6	0 - 0	2 - 7	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 2	0 - 0	0 - 2	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	3 - 23	41 - 77	2 - 17	37 - 68	0 - 1	9 - 42	1 - 7	6 - 19	2 - 14	10 - 23
Sleep Disturbance Index ⁴	0 - 0.2	0.4 - 0.9	0 - 0.2	0.4 - 0.9	0 - 0	0 - 0.3	0 - 0.1	0.1 - 0.1	0 - 0.1	0.1 - 0.2

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 42.AB11			Sub Area: 42.AB12			Sub Area: 42.AB13			Sub Area: 42.AB14			Sub Area: 42.AB15		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	10	10	10	10	10	10	10	10	10	0	0	0
Educational Facilities ²	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³	0			0			0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 42.AB11		Sub Area: 42.AB12		Sub Area: 42.AB13		Sub Area: 42.AB14		Sub Area: 42.AB15	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	39 - 45	50 - 56	45 - 54	52 - 55	36 - 43	53 - 61	41 - 51	56 - 63	44 - 54	58 - 65
L _{Aeq} 10pm-6am ¹	30 - 34	37 - 45	36 - 45	42 - 44	27 - 33	38 - 49	33 - 42	42 - 52	36 - 45	45 - 54
ANEC ²	1 - 7	13 - 22	11 - 21	16 - 20	-1 - 6	18 - 28	8 - 18	22 - 31	11 - 22	24 - 33
Number of Noise Events ³										
Over 60 dBA per 24 Hours	5 - 33	41 - 137	15 - 95	119 - 195	3 - 24	36 - 127	8 - 55	79 - 153	9 - 63	98 - 167
Over 70 dBA per 24 Hours	0 - 1	12 - 65	4 - 32	32 - 66	0 - 1	21 - 103	2 - 16	26 - 109	4 - 26	43 - 119
Over 80 dBA per 24 Hours	0 - 0	2 - 12	0 - 5	1 - 2	0 - 0	8 - 46	0 - 2	16 - 80	0 - 6	18 - 88
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	2 - 12	0 - 0	4 - 25
Over 60 dBA per Night	1 - 4	3 - 11	2 - 8	12 - 15	0 - 3	2 - 10	1 - 6	7 - 12	2 - 7	10 - 13
Over 70 dBA per Night	0 - 0	0 - 4	1 - 3	3 - 5	0 - 0	1 - 8	0 - 2	1 - 9	1 - 2	3 - 9
Over 80 dBA per Night	0 - 0	0 - 1	0 - 1	0 - 0	0 - 0	0 - 3	0 - 0	0 - 5	0 - 1	1 - 6
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 2
Over 65 dBA (9am-3pm)	1 - 6	12 - 47	4 - 33	36 - 64	0 - 4	12 - 52	3 - 18	22 - 60	3 - 21	34 - 66
Sleep Disturbance Index ⁴	0 - 0.1	0.1 - 0.4	0.1 - 0.3	0.3 - 0.4	0 - 0.1	0.1 - 0.5	0 - 0.2	0.2 - 0.7	0 - 0.2	0.3 - 0.9

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 42.AB21			Sub Area: 42.AB22			Sub Area: 42.AB23			Sub Area: 42.AB24		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	10	10	10	10	10	10	0	0	0
Educational Facilities ²	1	1	1	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 42.AB21		Sub Area: 42.AB22		Sub Area: 42.AB23		Sub Area: 42.AB24	
	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	40 - 50	53 - 59	41 - 51	51 - 57	35 - 44	48 - 51	34 - 40	45 - 51
L _{Aeq} 10pm-6am ¹	32 - 41	45 - 49	32 - 42	42 - 47	26 - 34	38 - 41	24 - 31	34 - 40
ANEC ²	6 - 16	18 - 24	8 - 19	16 - 22	0 - 9	9 - 14	-2 - 5	6 - 9
Number of Noise Events ³								
Over 60 dBA per 24 Hours	7 - 46	86 - 139	7 - 39	44 - 97	3 - 19	24 - 67	1 - 9	13 - 30
Over 70 dBA per 24 Hours	1 - 12	29 - 71	2 - 17	18 - 62	0 - 2	6 - 16	0 - 1	1 - 6
Over 80 dBA per 24 Hours	0 - 1	4 - 19	0 - 3	3 - 15	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	1 - 4	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	1 - 5	8 - 11	1 - 4	5 - 9	0 - 2	3 - 6	0 - 1	1 - 2
Over 70 dBA per Night	0 - 1	3 - 6	0 - 1	2 - 6	0 - 0	1 - 1	0 - 0	0 - 1
Over 80 dBA per Night	0 - 0	0 - 2	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	2 - 14	22 - 42	2 - 14	10 - 30	1 - 4	7 - 19	0 - 2	3 - 8
Sleep Disturbance Index ⁴	0 - 0.1	0.3 - 0.4	0 - 0.1	0.2 - 0.3	0 - 0	0.1 - 0.1	0 - 0	0 - 0.1

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option C:

	Sub Area: 42.C1			Sub Area: 42.C2			Sub Area: 42.C3			Sub Area: 42.C4			Sub Area: 42.C5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	40	40	40	100	100	100	30	30	30	20	20	20	20	20	20
Educational Facilities ²	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 42.C1		Sub Area: 42.C2		Sub Area: 42.C3		Sub Area: 42.C4		Sub Area: 42.C5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	31 - 39	37 - 41	38 - 49	44 - 51	41 - 52	47 - 54	44 - 55	50 - 57	38 - 49	44 - 51
L _{Aeq} 10pm-6am ¹	21 - 28	26 - 29	26 - 38	32 - 38	29 - 41	35 - 41	31 - 44	37 - 43	26 - 37	32 - 37
ANEC ²	-4 - 3	2 - 6	5 - 16	11 - 18	8 - 19	14 - 21	11 - 22	17 - 25	4 - 16	11 - 18
Number of Noise Events ³										
Over 60 dBA per 24 Hours	1 - 10	4 - 16	2 - 20	8 - 31	3 - 23	9 - 36	4 - 34	16 - 52	3 - 21	9 - 31
Over 70 dBA per 24 Hours	0 - 0	0 - 1	1 - 14	4 - 20	2 - 17	5 - 26	2 - 18	6 - 28	1 - 14	4 - 20
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 2	1 - 4	0 - 8	2 - 12	1 - 11	3 - 16	0 - 3	1 - 5
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 1	0 - 1	0 - 2	1 - 2	0 - 2	1 - 2	0 - 4	1 - 4	0 - 2	1 - 2
Over 70 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 1	0 - 1	0 - 2	0 - 2	0 - 2	0 - 1	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1	0 - 1	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 3	1 - 5	1 - 9	3 - 13	1 - 10	3 - 15	1 - 12	4 - 18	1 - 9	3 - 13
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0.1	0 - 0.1	0 - 0.1	0 - 0.1	0 - 0.1	0 - 0.2	0 - 0.1	0 - 0.1

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option C:

	Sub Area: 42.C6			Sub Area: 42.C7		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	0	0	0	0	0	0
Educational Facilities ²	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 42.C6		Sub Area: 42.C7	
	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	49 - 58	53 - 59	55 - 62	58 - 61
L _{Aeq} 10pm-6am ¹	40 - 50	44 - 49	46 - 53	49 - 51
ANEC ²	14 - 25	20 - 28	20 - 28	26 - 30
Number of Noise Events ³				
Over 60 dBA per 24 Hours	24 - 73	85 - 142	35 - 96	20 - 19
Over 70 dBA per 24 Hours	5 - 40	17 - 70	22 - 75	73 - 144
Over 80 dBA per 24 Hours	1 - 13	3 - 19	4 - 28	18 - 43
Over 90 dBA per 24 Hours	0 - 1	0 - 2	0 - 2	1 - 5
Over 60 dBA per Night	3 - 6	8 - 11	5 - 9	11 - 15
Over 70 dBA per Night	1 - 4	2 - 6	3 - 6	7 - 10
Over 80 dBA per Night	0 - 2	0 - 2	1 - 3	2 - 3
Over 90 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 0
Over 65 dBA (9am-3pm)	6 - 30	24 - 52	13 - 43	42 - 79
Sleep Disturbance Index ⁴	0.1 - 0.3	0.2 - 0.5	0.2 - 0.5	0.5 - 0.7

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 43

SHEET 1 / 11

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	299	390	2300	400	9910	400	400	400	410	410
Educational Facilities ²		0	0	0	2	0	0	0	0	0
Other Noise Sensitive Land Uses ³		0	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	51	L _{A90}	7am to 7pm	33
	7pm to 10pm	45		7pm to 10pm	39
	10pm to 7am	47		10pm to 7am	28

Monitored at: 15 Colonel Pye Drive, Cobbitty

Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L _{Aeq} 24 Hour ¹							22 - 37	30 - 40	28 - 40	20 - 29
L _{Aeq} 10pm-6am ¹							11 - 30	17 - 30	17 - 29	20 - 29
ANEC ²							-9 - 3	-8 - 4	-4 - 6	-12 --5
Number of Noise Events										
Over 60 dBA per 24 Hours		Refer Following Pages			Refer Following Pages		0 - 8	1 - 15	1 - 12	0 - 1
Over 70 dBA per 24 Hours							0 - 0	0 - 0	0 - 1	0 - 0
Over 80 dBA per 24 Hours							0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours							0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night							0 - 1	0 - 2	0 - 1	0 - 1
Over 70 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night							0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm							0 - 3	0 - 6	0 - 4	0 - 0
Sleep Disturbance Index							0 - 0	0 - 0	0 - 0	0 - 0

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

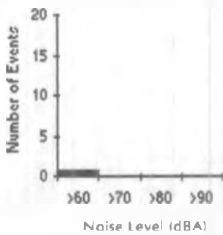
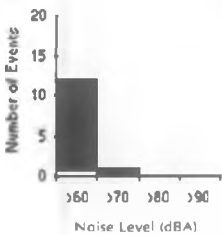
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events

Refer Following Pages

Refer Following Pages

Refer Following Pages



Badgerys Creek Option A

Badgerys Creek Option B

Badgerys Creek Option C

Holsworthy Option A

Holsworthy Option B

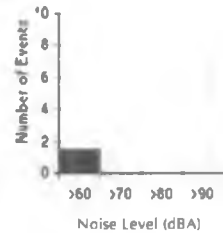
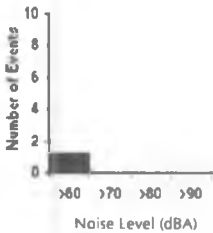
2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

Potential Range of Events

Refer Following Pages

Refer Following Pages

Refer Following Pages



Badgerys Creek Option A

Badgerys Creek Option B

Badgerys Creek Option C

Holsworthy Option A

Holsworthy Option B

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 43.AB1			Sub Area: 43.AB2			Sub Area: 43.AB3			Sub Area: 43.AB4			Sub Area: 43.AB5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	0	0	0	0	0	0	10	20	80	10	50	220	10	70	300
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 43.AB1		Sub Area: 43.AB2		Sub Area: 43.AB3		Sub Area: 43.AB4		Sub Area: 43.AB5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	35 - 42	40 - 44	38 - 46	43 - 48	41 - 50	47 - 52	41 - 52	47 - 53	38 - 46	43 - 48
L _{Aeq} 10pm-6am ¹	26 - 32	31 - 33	29 - 36	34 - 37	33 - 42	38 - 42	33 - 43	38 - 44	29 - 36	34 - 37
ANEC ²	0 - 7	5 - 9	4 - 12	9 - 14	8 - 18	14 - 20	9 - 20	15 - 21	4 - 12	9 - 14
Number of Noise Events ³										
Over 60 dBA per 24 Hours	4 - 22	15 - 41	7 - 38	23 - 66	8 - 43	25 - 72	7 - 38	24 - 69	7 - 33	23 - 65
Over 70 dBA per 24 Hours	0 - 2	1 - 3	1 - 8	4 - 15	3 - 21	10 - 37	2 - 18	8 - 29	1 - 8	4 - 15
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	1 - 4	0 - 4	1 - 6	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	1 - 2	2 - 3	1 - 4	3 - 6	1 - 4	3 - 7	1 - 3	3 - 6	1 - 3	3 - 6
Over 70 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 1	0 - 2	1 - 3	0 - 2	1 - 2	0 - 1	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 1	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	1 - 5	3 - 9	2 - 11	6 - 19	3 - 16	9 - 29	2 - 15	8 - 26	2 - 11	7 - 22
Sleep Disturbance Index ⁴	0 - 0	0 - 0.1	0 - 0.1	0.1 - 0.1	0 - 0.1	0.1 - 0.2	0 - 0.1	0.1 - 0.2	0 - 0.1	0.1 - 0.1

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 43.AB6			Sub Area: 43.AB7			Sub Area: 43.AB8			Sub Area: 43.AB9			Sub Area: 43.AB10		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	20	100	440	20	120	520	80	480	2070	30	150	670	0	0	0
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 43.AB6		Sub Area: 43.AB7		Sub Area: 43.AB8		Sub Area: 43.AB9		Sub Area: 43.AB10	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	40 - 49	45 - 51	39 - 49	45 - 50	37 - 45	42 - 47	37 - 46	43 - 48	36 - 42	41 - 44
L _{Aeq} 10pm-6am ¹	32 - 40	36 - 41	31 - 40	36 - 40	29 - 35	33 - 36	29 - 37	34 - 38	27 - 34	32 - 33
ANEC ²	7 - 17	12 - 19	6 - 16	12 - 18	3 - 11	8 - 13	4 - 13	9 - 15	1 - 8	7 - 10
Number of Noise Events ³										
Over 60 dBA per 24 Hours	7 - 37	25 - 70	6 - 34	22 - 62	7 - 32	22 - 62	6 - 32	21 - 61	2 - 11	7 - 18
Over 70 dBA per 24 Hours	2 - 16	7 - 27	1 - 13	5 - 20	1 - 7	3 - 13	1 - 8	3 - 12	0 - 2	1 - 3
Over 80 dBA per 24 Hours	0 - 2	1 - 3	0 - 2	1 - 3	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	1 - 3	3 - 6	1 - 3	3 - 5	1 - 3	3 - 6	1 - 3	2 - 5	0 - 1	1 - 2
Over 70 dBA per Night	0 - 2	1 - 2	0 - 1	1 - 2	0 - 1	0 - 1	0 - 1	0 - 1	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	2 - 14	8 - 26	2 - 12	7 - 20	2 - 10	6 - 18	2 - 10	6 - 17	0 - 4	2 - 5
Sleep Disturbance Index ⁴	0 - 0.1	0.1 - 0.2	0 - 0.1	0.1 - 0.2	0 - 0.1	0.1 - 0.1	0 - 0.1	0.1 - 0.1	0 - 0	0 - 0

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 43.AB11			Sub Area: 43.AB12			Sub Area: 43.AB13			Sub Area: 43.AB14		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	50	220	60	330	1410	150	910	3920	0	0	0
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 43.AB11		Sub Area: 43.AB12		Sub Area: 43.AB13		Sub Area: 43.AB14	
	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	37 - 45	42 - 47	36 - 46	42 - 47	34 - 43	40 - 45	33 - 41	37 - 42
L _{Aeq} 10pm-6am ¹	28 - 36	33 - 37	28 - 37	34 - 38	26 - 34	31 - 35	24 - 31	26 - 31
ANEC ²	4 - 13	9 - 14	4 - 13	10 - 15	1 - 10	7 - 12	-3 - 5	0 - 6
Number of Noise Events ³								
Over 60 dBA per 24 Hours	2 - 13	9 - 19	2 - 14	10 - 20	3 - 18	11 - 30	1 - 9	2 - 13
Over 70 dBA per 24 Hours	1 - 5	3 - 8	1 - 6	3 - 9	0 - 3	2 - 5	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 1	0 - 1	0 - 1	0 - 2	0 - 0	0 - 1	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 1	1 - 2	0 - 2	1 - 2	0 - 2	1 - 2	0 - 1	0 - 1
Over 70 dBA per Night	0 - 1	0 - 1	0 - 1	0 - 1	0 - 0	0 - 1	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	1 - 5	3 - 7	1 - 5	3 - 7	1 - 5	3 - 7	0 - 1	0 - 2
Sleep Disturbance Index ⁴	0 - 0	0 - 0.1	0 - 0	0 - 0.1	0 - 0	0 - 0.1	0 - 0	0 - 0

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 43.AB1			Sub Area: 43.AB2			Sub Area: 43.AB3			Sub Area: 43.AB4			Sub Area: 43.AB5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	0	0	0	0	0	0	10	20	70	10	50	220	10	70	300
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³	0			0			0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 43.AB1		Sub Area: 43.AB2		Sub Area: 43.AB3		Sub Area: 43.AB4		Sub Area: 43.AB5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	37 - 46	45 - 50	40 - 50	49 - 55	39 - 49	49 - 55	36 - 46	44 - 49	37 - 47	47 - 54
L _{Aeq} 10pm-6am ¹	29 - 37	36 - 40	31 - 41	40 - 45	31 - 40	40 - 45	27 - 37	35 - 39	29 - 38	39 - 44
ANEC ²	3 - 13	9 - 15	7 - 17	13 - 19	6 - 17	13 - 19	2 - 13	7 - 12	4 - 15	12 - 18
Number of Noise Events ³										
Over 60 dBA per 24 Hours	6 - 35	23 - 68	6 - 36	26 - 75	5 - 32	26 - 74	3 - 21	22 - 59	5 - 32	24 - 70
Over 70 dBA per 24 Hours	1 - 10	5 - 21	1 - 14	12 - 46	1 - 11	11 - 40	0 - 5	3 - 11	1 - 11	8 - 31
Over 80 dBA per 24 Hours	0 - 0	0 - 1	0 - 2	2 - 9	0 - 2	1 - 7	0 - 1	0 - 0	0 - 1	1 - 5
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	1 - 3	3 - 6	1 - 3	3 - 7	1 - 3	3 - 7	0 - 2	3 - 5	1 - 3	3 - 7
Over 70 dBA per Night	0 - 1	0 - 2	0 - 1	1 - 4	0 - 1	1 - 3	0 - 1	0 - 1	0 - 1	1 - 3
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 1
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	2 - 11	7 - 24	2 - 14	9 - 29	1 - 11	9 - 27	1 - 5	6 - 16	1 - 11	8 - 26
Sleep Disturbance Index ⁴	0 - 0.1	0.1 - 0.2	0 - 0.1	0.1 - 0.3	0 - 0.1	0.1 - 0.3	0 - 0	0.1 - 0.1	0 - 0.1	0.1 - 0.2

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 43.AB6			Sub Area: 43.AB7			Sub Area: 43.AB8			Sub Area: 43.AB9			Sub Area: 43.AB10		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	20	100	440	20	120	520	80	480	2070	30	150	670	0	0	0
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 43.AB6		Sub Area: 43.AB7		Sub Area: 43.AB8		Sub Area: 43.AB9		Sub Area: 43.AB10	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	37 - 47	44 - 50	36 - 46	42 - 47	36 - 46	45 - 51	36 - 46	42 - 47	32 - 40	42 - 63
L _{Aeq} 10pm-6am ¹	28 - 38	35 - 40	27 - 37	33 - 37	27 - 36	36 - 41	28 - 38	33 - 37	22 - 31	31 - 52
ANEC ²	4 - 15	8 - 13	3 - 14	5 - 10	2 - 13	9 - 15	3 - 14	5 - 10	-5 - 5	1 - 31
Number of Noise Events ³										
Over 60 dBA per 24 Hours	3 - 22	21 - 60	2 - 19	16 - 46	4 - 25	21 - 61	2 - 18	13 - 37	1 - 8	4 - 38
Over 70 dBA per 24 Hours	0 - 6	4 - 14	0 - 6	2 - 6	0 - 7	4 - 19	0 - 6	2 - 7	0 - 1	1 - 27
Over 80 dBA per 24 Hours	0 - 1	0 - 1	0 - 1	0 - 0	0 - 1	1 - 4	0 - 2	0 - 0	0 - 0	0 - 17
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 10
Over 60 dBA per Night	0 - 2	2 - 5	0 - 2	2 - 3	1 - 2	3 - 5	0 - 2	2 - 3	0 - 1	0 - 3
Over 70 dBA per Night	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 2	0 - 1	0 - 1	0 - 0	0 - 2
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 1
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1
Over 65 dBA (9am-3pm) ⁴	1 - 7	5 - 16	0 - 5	4 - 11	1 - 7	5 - 19	0 - 6	3 - 10	0 - 3	1 - 14
Sleep Disturbance Index ⁴	0 - 0.1	0.1 - 0.1	0 - 0	0 - 0.1	0 - 0.1	0.1 - 0.2	0 - 0.1	0 - 0.1	0 - 0	0 - 0.2

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 43.AB11			Sub Area: 43.AB12			Sub Area: 43.AB13			Sub Area: 43.AB14		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	50	220	60	330	1410	150	910	3920	0	0	0
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³	0			0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 43.AB11		Sub Area: 43.AB12		Sub Area: 43.AB13		Sub Area: 43.AB14	
	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	33 - 40	38 - 60	33 - 42	36 - 57	35 - 45	39 - 44	32 - 39	42 - 48
L _{Aeq} 10pm-6am ¹	24 - 31	26 - 49	24 - 33	25 - 45	26 - 37	30 - 33	23 - 29	30 - 36
ANEC ²	-2 - 6	-1 - 27	-1 - 9	-3 - 24	2 - 13	2 - 6	-4 - 3	4 - 12
Number of Noise Events ³								
Over 60 dBA per 24 Hours	1 - 7	3 - 36	1 - 10	3 - 33	1 - 13	8 - 18	2 - 11	17 - 71
Over 70 dBA per 24 Hours	0 - 2	1 - 23	0 - 3	0 - 20	0 - 5	1 - 3	0 - 0	1 - 6
Over 80 dBA per 24 Hours	0 - 0	0 - 15	0 - 0	0 - 12	0 - 1	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 7	0 - 0	0 - 3	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 1	0 - 3	0 - 1	0 - 3	0 - 1	1 - 2	0 - 1	1 - 5
Over 70 dBA per Night	0 - 0	0 - 2	0 - 0	0 - 2	0 - 1	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 1	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm) ⁴	0 - 2	1 - 13	0 - 3	1 - 13	0 - 5	1 - 4	0 - 2	4 - 19
Sleep Disturbance Index	0 - 0	0 - 0.2	0 - 0	0 - 0.1	0 - 0	0 - 0	0 - 0	0 - 0.1

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option C:

	Sub Area: 43.C1			Sub Area: 43.C2			Sub Area: 43.C3			Sub Area: 43.C4			Sub Area: 43.C5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	30	30	30	10	10	10	30	40	40	50	50	50
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes: 1. Rounded to nearest 10
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 43.C1		Sub Area: 43.C2		Sub Area: 43.C3		Sub Area: 43.C4		Sub Area: 43.C5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	53 - 62	54 - 62	38 - 46	61 - 66	38 - 48	43 - 50	37 - 44	42 - 46	38 - 47	44 - 49
L _{Aeq} 10pm-6am ¹	26 - 36	43 - 51	29 - 36	51 - 55	29 - 39	33 - 39	28 - 34	33 - 34	29 - 39	34 - 39
ANEC	19 - 30	21 - 30	-2 - 6	29 - 34	3 - 14	9 - 17	2 - 9	8 - 11	4 - 14	10 - 17
Number of Noise Events ³										
Over 60 dBA per 24 Hours	60 - 155	89 - 163	2 - 23	25 - 20	4 - 41	15 - 68	5 - 22	20 - 37	5 - 30	20 - 53
Over 70 dBA per 24 Hours	25 - 127	34 - 126	0 - 0	88 - 131	1 - 12	3 - 19	1 - 5	2 - 8	1 - 10	3 - 15
Over 80 dBA per 24 Hours	5 - 64	9 - 63	0 - 0	30 - 94	0 - 0	0 - 1	0 - 0	0 - 0	0 - 1	0 - 2
Over 90 dBA per 24 Hours	0 - 4	1 - 6	0 - 0	7 - 32	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	4 - 6	8 - 13	0 - 3	11 - 16	1 - 4	2 - 6	1 - 2	2 - 3	1 - 3	2 - 4
Over 70 dBA per Night	2 - 4	3 - 9	0 - 0	7 - 10	0 - 2	0 - 2	0 - 1	0 - 1	0 - 1	0 - 2
Over 80 dBA per Night	0 - 2	0 - 4	0 - 0	2 - 7	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	1 - 2	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	13 - 32	27 - 67	0 - 2	47 - 74	1 - 13	4 - 20	1 - 6	4 - 9	1 - 9	5 - 15
Sleep Disturbance Index ⁴	0.2 - 0.3	0.3 - 0.7	0 - 0	0.5 - 0.9	0 - 0.1	0 - 0.1	0 - 0.1	0 - 0.1	0 - 0.1	0 - 0.1

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option C:

	Sub Area: 43.C6			Sub Area: 43.C7			Sub Area: 43.C8			Sub Area: 43.C9			Sub Area: 43.C10		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	160	160	170	10	10	10	0	0	0	0	0	0	60	60	60
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 43.C6		Sub Area: 43.C7		Sub Area: 43.C8		Sub Area: 43.C9		Sub Area: 43.C10	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	44 - 52	48 - 54	52 - 62	54 - 62	48 - 55	49 - 53	45 - 54	48 - 51	39 - 50	57 - 62
L _{Aeq} 10pm-6am ¹	35 - 44	39 - 43	42 - 51	41 - 50	39 - 45	38 - 42	36 - 44	38 - 40	31 - 40	47 - 51
ANEC ²	9 - 19	15 - 22	14 - 27	20 - 29	7 - 16	14 - 19	3 - 9	14 - 18	-4 - 1	24 - 29
Number of Noise Events ³										
Over 60 dBA per 24 Hours	12 - 44	44 - 84	20 - 79	81 - 159	13 - 60	92 - 155	8 - 36	94 - 154	1 - 7	104 - 166
Over 70 dBA per 24 Hours	3 - 19	11 - 31	9 - 66	30 - 126	2 - 21	14 - 40	0 - 3	8 - 27	0 - 0	55 - 112
Over 80 dBA per 24 Hours	0 - 5	1 - 8	2 - 34	8 - 59	0 - 2	0 - 2	0 - 0	0 - 1	0 - 0	15 - 60
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	1 - 7
Over 60 dBA per Night	2 - 4	4 - 7	3 - 7	8 - 13	2 - 5	8 - 11	1 - 3	8 - 11	0 - 1	9 - 13
Over 70 dBA per Night	0 - 2	1 - 3	1 - 5	2 - 9	0 - 2	1 - 3	0 - 0	1 - 2	0 - 0	4 - 8
Over 80 dBA per Night	0 - 1	0 - 1	0 - 3	0 - 4	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	1 - 4
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1
Over 65 dBA (9am-3pm)	3 - 15	11 - 26	7 - 36	25 - 66	4 - 21	23 - 44	2 - 8	19 - 39	0 - 1	38 - 59
Sleep Disturbance Index ⁴	0 - 0.2	0.1 - 0.2	0.1 - 0.4	0.2 - 0.7	0 - 0.2	0.2 - 0.3	0 - 0.1	0.2 - 0.2	0 - 0	0.4 - 0.6

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option C:

	Sub Area: 43.C11			Sub Area: 43.C12		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	30	30	30
Educational Facilities ²	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0		

- Notes:
- 1. Rounded to nearest 10
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 43.C11		Sub Area: 43.C12	
	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	39 - 50	50 - 56	42 - 51	50 - 55
L _{Aeq} 10pm-6am ¹	30 - 40	40 - 46	33 - 41	40 - 44
ANEC ²	-8 - -3	17 - 23	3 - 9	16 - 22
Number of Noise Events ³				
Over 60 dBA per 24 Hours	0 - 1	81 - 145	8 - 34	10 - 20
Over 70 dBA per 24 Hours	0 - 0	16 - 49	0 - 3	14 - 51
Over 80 dBA per 24 Hours	0 - 0	2 - 9	0 - 0	1 - 4
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	6 - 11	1 - 4	10 - 15
Over 70 dBA per Night	0 - 0	1 - 4	0 - 0	1 - 4
Over 80 dBA per Night	0 - 0	0 - 1	0 - 0	0 - 1
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 0	19 - 44	1 - 6	21 - 55
Sleep Disturbance Index ⁴	0 - 0	0.1 - 0.3	0 - 0.1	0.2 - 0.4

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
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 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 44

SHEET 1 / 3

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991 Census	1996	2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	1717	1750 ¹	2860	1920	3930	2040	1920	1920	2030	2040
Educational Facilities ²		0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses		1	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	48, 52	L _{A90}	7am to 7pm	34, 39
	7pm to 10pm	48, 49		7pm to 10pm	37, 38
	10pm to 7am	43, 48		10pm to 7am	31, 33

Monitored at: 438 Catherine Fields Rd, Catherine Field, 72 Robinson Road, Bringelly

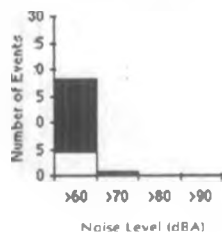
Noise Indicators:

	Badgerys Creek			Holsworthy		
	Option A	Option B	Option C	Option A	Option B	Option C
L _{Aeq} 24 Hour ¹	29 - 38	32 - 39		36 - 41	39 - 44	
L _{Aeq} 10pm-6am ¹	19 - 28	23 - 29		25 - 29	30 - 34	
ANEC ²	-6 - 3	-2 - 5		0 - 5	5 - 11	
Number of Noise Events ³			Refer Following Pages			Refer Following Pages
Over 60 dBA per 24 Hours	1 - 11	2 - 13		4 - 18	8 - 19	
Over 70 dBA per 24 Hours	0 - 0	0 - 1		0 - 1	1 - 4	
Over 80 dBA per 24 Hours	0 - 0	0 - 0		0 - 0	0 - 0	
Over 90 dBA per 24 Hours	0 - 0	0 - 0		0 - 0	0 - 0	
Over 60 dBA per Night	0 - 1	0 - 1		0 - 1	1 - 1	
Over 70 dBA per Night	0 - 0	0 - 0		0 - 0	0 - 1	
Over 80 dBA per Night	0 - 0	0 - 0		0 - 0	0 - 0	
Over 90 dBA per Night	0 - 0	0 - 0		0 - 0	0 - 0	
Over 65 dBA (9am-3pm)	0 - 2	0 - 4		1 - 3	2 - 5	
Sleep Disturbance Index	0 - 0	0 - 0		0 - 0	0 - 0	

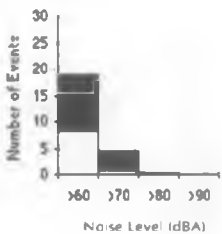
- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



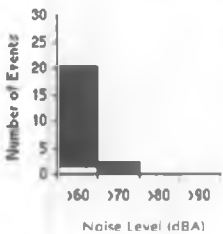
Badgerys Creek
Option A



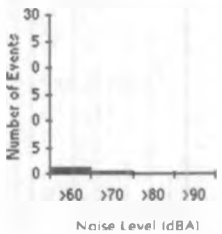
Badgerys Creek
Option B

Refer Following
Pages

Badgerys Creek
Option C



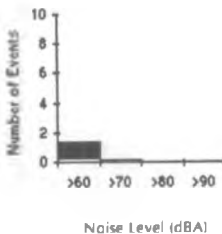
Holsworthy
Option A



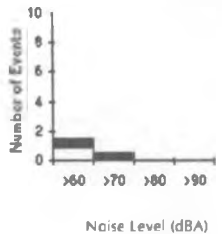
Holsworthy
Option B

2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

Potential Range of Events



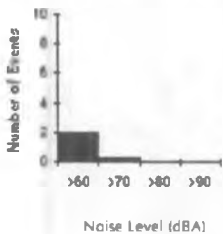
Badgerys Creek
Option A



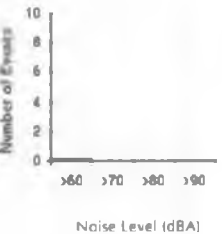
Badgerys Creek
Option B

Refer Following
Pages

Badgerys Creek
Option C



Holsworthy
Option A



Holsworthy
Option B

Social Characteristics for Badgerys Creek Option C:

	Sub Area: 44.C1			Sub Area: 44.C2			Sub Area: 44.C3			Sub Area: 44.C4		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	40	50	50	410	450	480	20	20	20	1280	1400	1490
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			1		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 44.C1		Sub Area: 44.C2		Sub Area: 44.C3		Sub Area: 44.C4	
	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	37 - 44	53 - 58	34 - 43	44 - 49	37 - 48	47 - 54	29 - 41	40 - 47
L _{Aeq} 10pm-6am ¹	27 - 34	43 - 47	25 - 32	33 - 38	29 - 39	37 - 44	20 - 30	29 - 36
ANEC ²	-4 - 2	19 - 25	-7 - -2	9 - 15	-8 - -6	14 - 21	-16 - -5	6 - 13
Number of Noise Events ³								
Over 60 dBA per 24 Hours	1 - 9	109 - 179	0 - 0	23 - 86	0 - 0	31 - 114	0 - 0	8 - 43
Over 70 dBA per 24 Hours	0 - 0	34 - 90	0 - 0	2 - 10	0 - 0	6 - 33	0 - 0	1 - 6
Over 80 dBA per 24 Hours	0 - 0	2 - 14	0 - 0	0 - 0	0 - 0	1 - 8	0 - 0	0 - 1
Over 90 dBA per 24 Hours	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 1	9 - 14	0 - 0	2 - 6	0 - 0	2 - 9	0 - 0	1 - 3
Over 70 dBA per Night	0 - 0	3 - 7	0 - 0	0 - 1	0 - 0	1 - 3	0 - 0	0 - 1
Over 80 dBA per Night	0 - 0	0 - 2	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 1	27 - 62	0 - 0	4 - 20	0 - 0	7 - 33	0 - 0	2 - 10
Sleep Disturbance Index ⁴	0 - 0	0.2 - 0.5	0 - 0	0 - 0.1	0 - 0	0.1 - 0.3	0 - 0	0 - 0.1

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	2701	3000 ¹	3100	4100	3210	7220	3100	3100	3210	3220
Educational Facilities ²		2	2	2	2	2	2	2	2	2
Other Noise Sensitive Land Uses ³		2	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	49	L _{A90}	7am to 7pm	35
	7pm to 10pm	40		7pm to 10pm	32
	10pm to 7am	47		10pm to 7am	28

Monitored at: 18 Phillip Road, Leppington

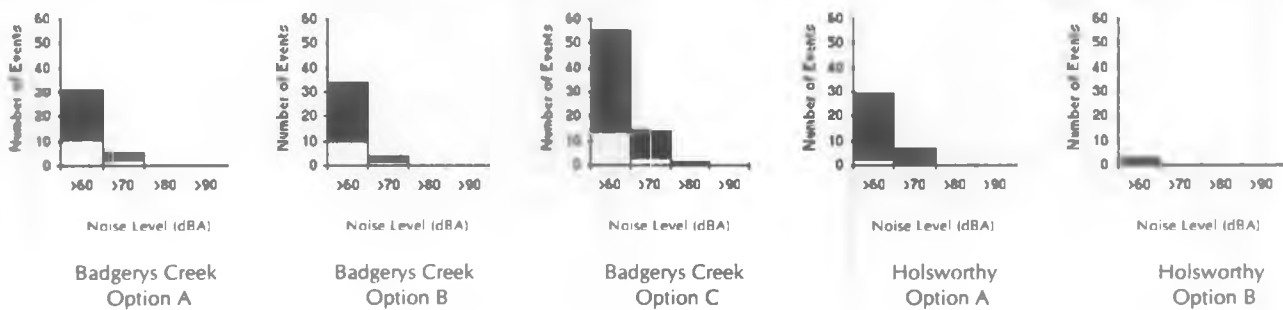
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour ¹	35 - 42	33 - 40	34 - 46	41 - 45	39 - 44	41 - 48	28 - 42	23 - 35	33 - 45	27 - 35
L_{Aeq} 10pm-6am ¹	26 - 33	25 - 31	26 - 37	32 - 34	28 - 32	32 - 38	16 - 34	13 - 25	21 - 34	15 - 24
ANEC ²	1 - 9	-1 - 7	1 - 13	8 - 11	5 - 9	8 - 15	-5 - 9	-9 - 0	0 - 11	-5 - 0
Number of Noise Events ³										
Over 60 dBA per 24 Hours	3 - 18	2 - 12	2 - 25	11 - 31	10 - 34	13 - 56	1 - 18	0 - 4	2 - 29	0 - 3
Over 70 dBA per 24 Hours	1 - 4	0 - 2	0 - 7	3 - 5	1 - 4	3 - 14	0 - 4	0 - 0	0 - 7	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 2	0 - 1	0 - 2	1 - 3	1 - 3	1 - 5	0 - 2	0 - 0	0 - 3	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 1	0 - 0	0 - 1	0 - 1	0 - 0	0 - 1	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	1 - 6	1 - 3	0 - 7	3 - 9	2 - 6	3 - 14	0 - 5	0 - 1	0 - 8	0 - 1
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0.1	0 - 0.1	0 - 0	0 - 0.1	0 - 0.1	0 - 0	0 - 0.1	0 - 0

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

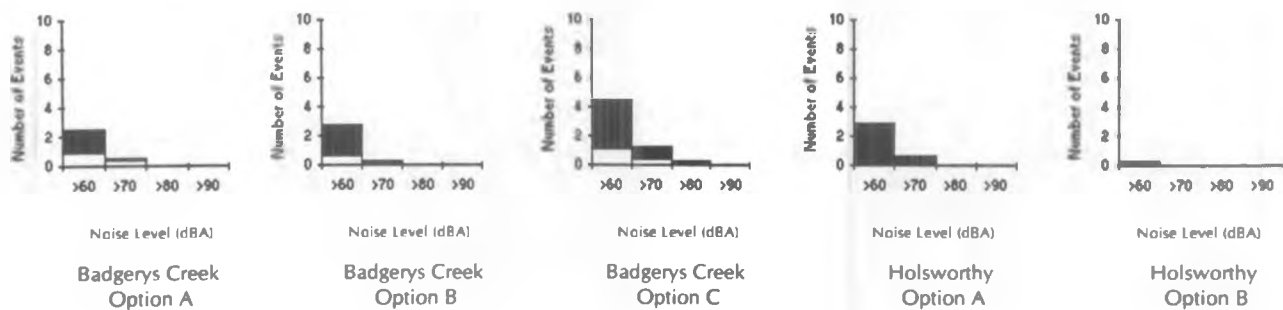
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	2183	3430 ¹	5330	5330	13210	13210	4690	3490	11360	9510
Educational Facilities ²		1	1	1	3	3	1	1	2	2
Other Noise Sensitive ³ Land Uses		4	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	51, 49	L _{A90}	7am to 7pm	36, 36
	7pm to 10pm	45, 40		7pm to 10pm	38, 33
	10pm to 7am	43, 42		10pm to 7am	29, 29

Monitored at: 75 Jardine Drive, Edmondson Park, 10 Blaxland Rd, Ingleburn Military Camp

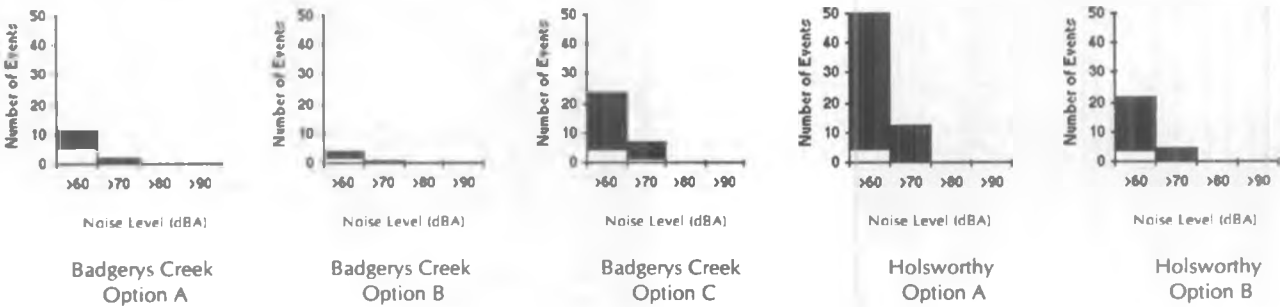
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L _{Aeq} 24 Hour ¹	31 - 39	27 - 36	29 - 41	37 - 40	33 - 36	37 - 45	31 - 45	28 - 40	37 - 48	35 - 43
L _{Aeq} 10pm-6am ¹	23 - 30	19 - 27	21 - 32	28 - 30	24 - 26	28 - 35	20 - 37	17 - 30	25 - 37	24 - 33
ANEC ²	-3 - 5	-7 - 2	-4 - 8	3 - 7	-1 - 3	5 - 12	-3 - 12	-6 - 6	3 - 15	1 - 10
Number of Noise Events ³										
Over 60 dBA per 24 Hours	1 - 7	1 - 5	1 - 13	6 - 11	2 - 4	4 - 23	1 - 28	1 - 12	4 - 50	3 - 21
Over 70 dBA per 24 Hours	0 - 1	0 - 1	0 - 4	0 - 2	0 - 1	1 - 7	0 - 7	0 - 2	1 - 12	1 - 4
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 1	0 - 1	0 - 1	1 - 1	0 - 0	0 - 2	0 - 3	0 - 1	0 - 4	0 - 2
Over 70 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 2	0 - 1	0 - 4	1 - 4	0 - 1	1 - 8	0 - 8	0 - 3	1 - 13	1 - 6
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0.1	0 - 0.1	0 - 0	0 - 0.1	0 - 0.1

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	306	260 ¹	1320	1320	4180	4180	1320	1320	4180	4180
Educational Facilities ²		1	1	1	2	2	1	1	2	2
Other Noise Sensitive Land Uses ³		0	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	51	L _{A90}	7am to 7pm	38
	7pm to 10pm	51		7pm to 10pm	42
	10pm to 7am	47		10pm to 7am	37

Monitored at: 92 Skipton Lane, Prestons

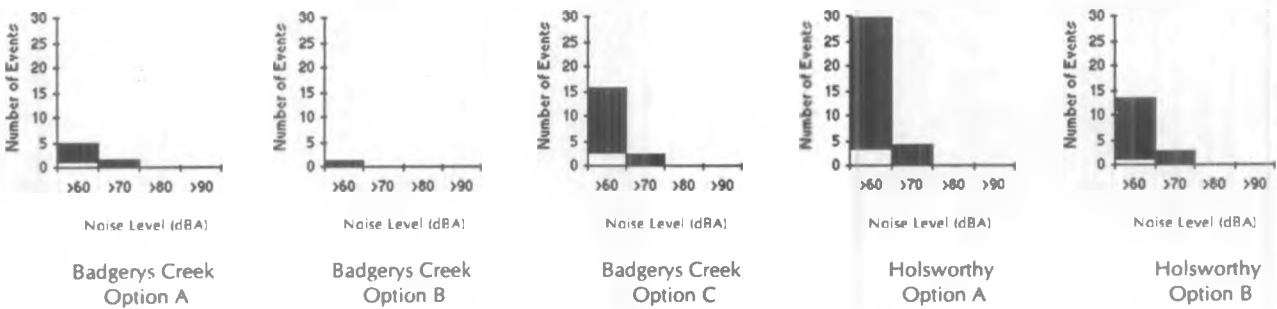
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour ¹	26 - 34	22 - 32	27 - 39	32 - 36	27 - 30	33 - 41	35 - 45	21 - 33	38 - 45	29 - 40
L_{Aeq} 10pm-6am ¹	17 - 25	14 - 23	18 - 30	23 - 26	18 - 20	24 - 31	25 - 35	11 - 24	27 - 33	18 - 29
ANEC ²	-8 - 1	-11 - -1	-6 - 5	-2 - 3	-6 - -2	0 - 6	-1 - 11	-10 - -1	2 - 10	-4 - 5
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 3	0 - 2	1 - 11	1 - 5	0 - 1	3 - 16	1 - 21	0 - 2	3 - 29	1 - 13
Over 70 dBA per 24 Hours	0 - 1	0 - 0	0 - 2	0 - 1	0 - 0	0 - 2	0 - 2	0 - 0	0 - 4	0 - 3
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 1	0 - 0	0 - 1	0 - 2	0 - 0	0 - 2	0 - 1
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 1	0 - 1	0 - 3	0 - 1	0 - 0	1 - 3	0 - 3	0 - 1	0 - 4	0 - 3
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

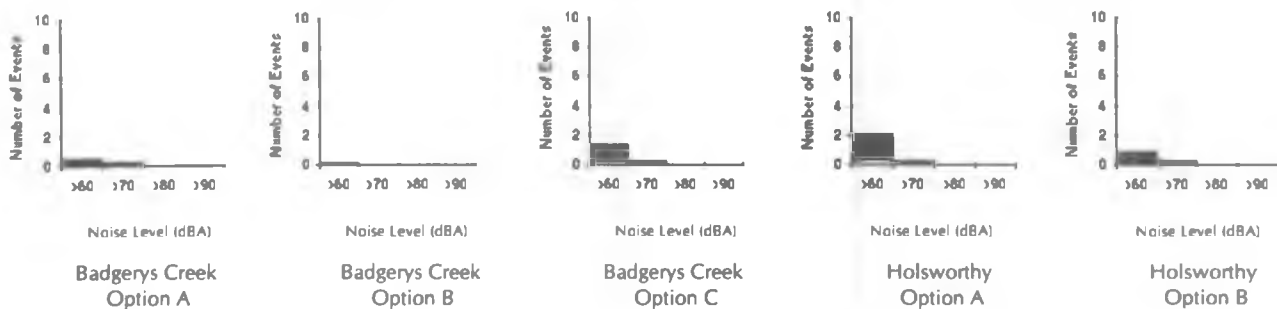
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 48

SHEET 1 / 3

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	19578	23040 ¹	26080	26080	26310	26310	26080	26080	26310	26310
Educational Facilities ²		7	7	7	7	7	7	7	7	7
Other Noise Sensitive Land Uses ³		18	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	54, 52	L _{A90}	7am to 7pm	37, 40
	7pm to 10pm	47, 44		7pm to 10pm	35, 34
	10pm to 7am	44, 43		10pm to 7am	29, 34

Monitored at: 39 Gill Avenue, Liverpool, 8 Roberts Road, Casula

Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour	22 - 32	20 - 30	26 - 38	28 - 34	24 - 29	33 - 40		14 - 26		22 - 32
L_{Aeq} 10pm-6am ¹	14 - 24	12 - 23	18 - 29	20 - 25	15 - 20	24 - 30		4 - 16		10 - 21
ANEC ²	-11 --1	-12 --3	-6 - 4	-5 - 1	-8 --3	-1 - 6		-15 --9		-8 --3
Number of Noise Events ³							Refer Following Pages		Refer Following Pages	
Over 60 dBA per 24 Hours	0 - 3	0 - 1	0 - 8	1 - 5	0 - 1	3 - 15		0 - 0		0 - 1
Over 70 dBA per 24 Hours	0 - 1	0 - 0	0 - 2	0 - 1	0 - 0	0 - 2		0 - 0		0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 1		0 - 0		0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 65 dBA (9am-3pm)	0 - 1	0 - 1	0 - 2	0 - 1	0 - 0	1 - 4		0 - 0		0 - 0
Sleep Disturbance Index	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0

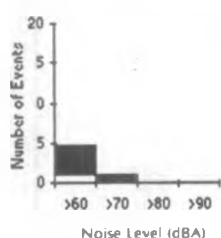
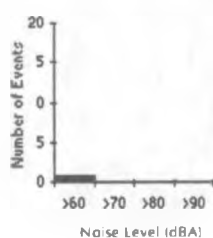
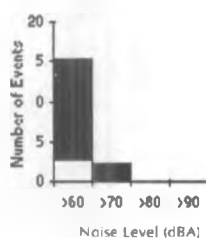
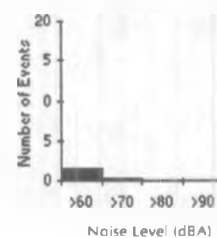
Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

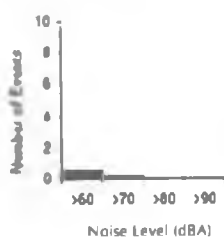
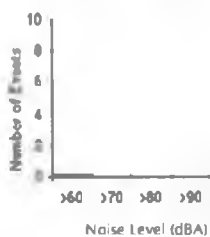
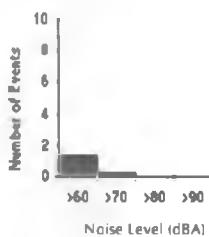
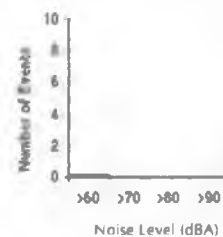
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

 Potential Range of Events
Badgerys Creek
Option ABadgerys Creek
Option BBadgerys Creek
Option CRefer Following
PagesHolsworthy
Option AHolsworthy
Option B

2016 - Number of Noise Events at Night (on average) 10pm-6am - no curfew):

 Potential Range of Events
Badgerys Creek
Option ABadgerys Creek
Option BBadgerys Creek
Option CRefer Following
PagesHolsworthy
Option AHolsworthy
Option B

Social Characteristics for Holsworthy Option A:

	Sub Area: 48.A1			Sub Area: 48.A2			Sub Area: 48.A3			Sub Area: 48.A4		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	12220	13840	13960	2200	2490	2510	7540	8540	8610	1070	1220	1230
Educational Facilities ²	4	4	4	0	0	0	3	3	3	0	0	0
Other Noise Sensitive ³ Land Uses	10			4			4			0		

- Notes:
- 1. Rounded to nearest 10
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option A:

	Sub Area: 48.A1		Sub Area: 48.A2		Sub Area: 48.A3		Sub Area: 48.A4	
	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	45 - 54	51 - 56	38 - 46	44 - 48	47 - 56	53 - 58	48 - 57	54 - 59
L _{Aeq} 10pm-6am ¹	36 - 44	41 - 45	29 - 35	34 - 37	37 - 45	42 - 47	38 - 47	43 - 48
ANEC ²	11 - 19	14 - 19	3 - 12	14 - 16	13 - 21	16 - 21	14 - 23	17 - 22
Number of Noise Events ³								
Over 60 dBA per 24 Hours	33 - 145	60 - 139	8 - 47	70 - 153	40 - 154	68 - 146	47 - 158	84 - 145
Over 70 dBA per 24 Hours	6 - 57	14 - 48	0 - 7	12 - 31	11 - 82	23 - 71	17 - 109	32 - 98
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	1 - 2	1 - 15	4 - 16
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	4 - 10	5 - 10	1 - 4	6 - 11	5 - 12	5 - 11	6 - 12	7 - 11
Over 70 dBA per Night	1 - 5	1 - 4	0 - 1	1 - 2	1 - 6	2 - 5	2 - 7	3 - 7
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	0 - 1
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	8 - 55	17 - 47	1 - 12	16 - 36	10 - 60	20 - 53	13 - 66	24 - 58
Sleep Disturbance Index ⁴	0.1 - 0.4	0.1 - 0.3	0 - 0.1	0.1 - 0.2	0.1 - 0.4	0.2 - 0.4	0.1 - 0.5	0.2 - 0.4

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 49

SHEET 1 / 3

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	5827	6980 ¹	7340	7340	7450	7450	7340	7340	7450	7450
Educational Facilities ²		1	1	1	1	1	1	1	1	1
Other Noise Sensitive ³ Land Uses		1	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years
 - 3. Includes hospitals, churches, aged persons facilities and child care centres
 - 4. Not estimated for future years

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	52, 52, 50	L _{A90}	7am to 7pm	39, 38, 40
	7pm to 10pm	44, 46, 48		7pm to 10pm	36, 34, 36
	10pm to 7am	46, 44, 45		10pm to 7am	30, 31, 33

Monitored at: 29 Birdwood Avenue, Holsworthy, 11 Curtis Crescent, Moorebank, 46 Market Street, Moorebank

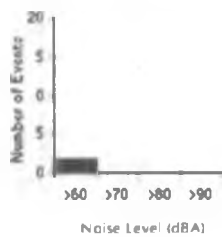
Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour	19 - 30	18 - 29	25 - 37	25 - 32	21 - 28	31 - 39		6 - 18		14 - 22
L _{Aeq} 10pm-6am	11 - 22	10 - 21	17 - 29	17 - 23	13 - 19	22 - 29		-5 - 8		2 - 11
ANEC ²	-13 - -3	-13 - -4	-9 - 3	-7 - -1	-9 - -4	-3 - 5		-17 - -9		12 - 6
Number of Noise Events							Refer Following Pages		Refer Following Pages	
Over 60 dBA per 24 Hours	0 - 1	0 - 1	0 - 7	0 - 2	0 - 1	2 - 10		0 - 0		0 - 0
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 2	0 - 0	0 - 0	0 - 2		0 - 0		0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 1		0 - 0		0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 65 dBA (9am-3pm)	0 - 0	0 - 0	0 - 2	0 - 1	0 - 0	1 - 3		0 - 0		0 - 0
Sleep Disturbance Index	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0

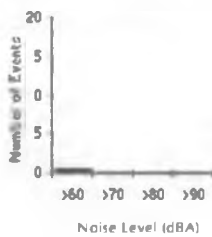
- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

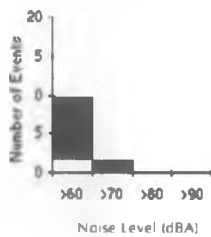
Potential Range of Events



Badgerys Creek Option A

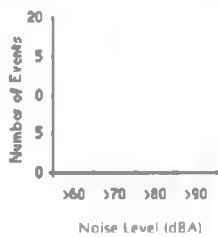


Badgerys Creek Option B



Badgerys Creek Option C

Refer Following Pages

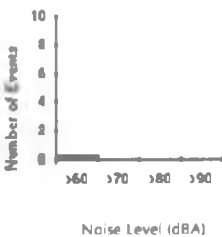


Holsworthy Option A

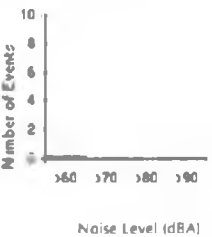
Holsworthy Option B

2016 - Number of Noise Events at Night (on average) 10pm-6am - no curfew):

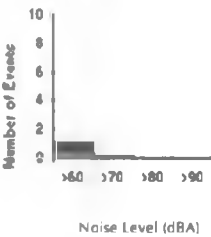
Potential Range of Events



Badgerys Creek Option A

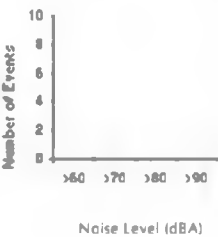


Badgerys Creek Option B



Badgerys Creek Option C

Refer Following Pages



Holsworthy Option A

Holsworthy Option B

Social Characteristics for Holsworthy Option A:

	Sub Area: 49.A1			Sub Area: 49.A2		
	1996	2006	2016	1996	2006	2016
Estimated Population	5560	5860	5940	1410	1480	1510
Educational Facilities ²	0	0	0	1	1	1
Other Noise Sensitive ³ Land Uses	1			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option A:

	Sub Area: 49.A1		Sub Area: 49.A2	
	2006	2016	2006	2016
L _{Aeq} 24 Hour	25 - 35	31 - 37	32 - 41	38 - 43
L _{Aeq} 10pm-6am ¹	15 - 24	20 - 26	22 - 30	27 - 32
ANEC	-8 - -2	4 - 11	-4 - 6	14 - 17
Number of Noise Events				
Over 60 dBA per 24 Hours	0 - 2	8 - 32	0 - 16	67 - 141
Over 70 dBA per 24 Hours	0 - 0	0 - 5	0 - 1	12 - 41
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	1 - 2	0 - 1	5 - 10
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	1 - 3
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 0	1 - 6	0 - 3	17 - 47
Sleep Disturbance Index ⁴	0 - 0	0 - 0.1	0 - 0	0.1 - 0.3

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	4183	4010	4040	4040	4080	4080	4040	4040	4080	4080
Educational Facilities ²		3	3	3	3	3	3	3	3	3
Other Noise Sensitive ³ Land Uses		5	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	54	L _{A90}	7am to 7pm	38
	7pm to 10pm	46		7pm to 10pm	37
	10pm to 7am	38		10pm to 7am	31

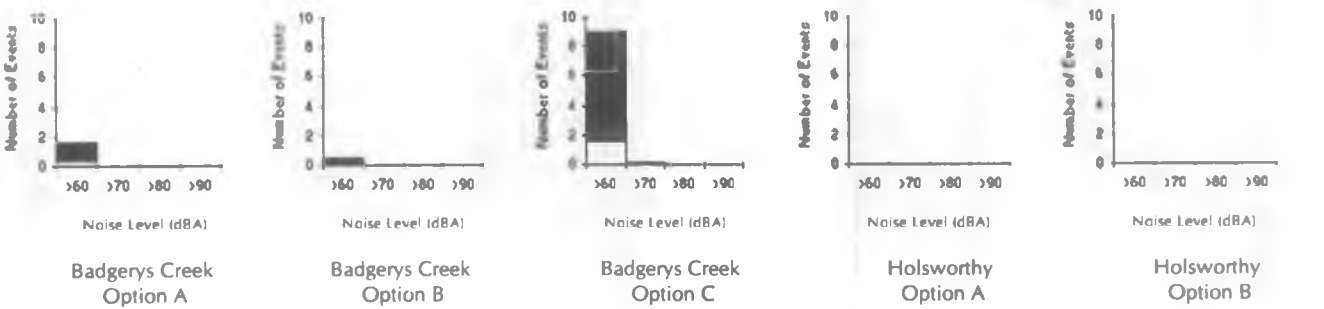
Monitored at: 69 Raleigh Road, Milperra

Noise Indicators:

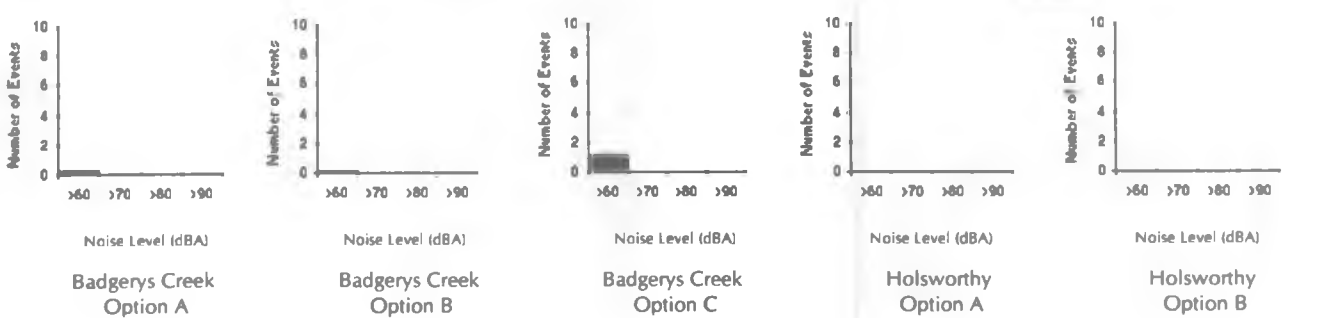
	Badgerys Creek						Halsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L _{Aeq} 24 Hour ¹	18 - 29	17 - 28	23 - 35	24 - 31	21 - 28	31 - 38	16 - 26	0 - 13	26 - 33	8 - 17
L _{Aeq} 10pm-6am ¹	11 - 22	10 - 21	15 - 27	16 - 23	13 - 20	22 - 29	6 - 16	-10 - 4	15 - 21	-4 - 6
ANEC ²	-13 - -4	-14 - -5	-11 - -1	-8 - -1	-9 - -4	-3 - 5	-13 - -5	-17 - -9	-5 - -3	-13 - -6
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 1	0 - 1	0 - 4	0 - 2	0 - 1	2 - 9	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 1	0 - 1	0 - 0	0 - 2	0 - 0	0 - 0	0 - 0	0 - 0
Sleep Disturbance Index	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	18057	18370 ¹	18770	18770	19190	19190	18770	18770	19190	19190
Educational Facilities ²		10	10	10	10	10	10	10	10	10
Other Noise Sensitive Land Uses ³		25	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	56	L _{A90}	7am to 7pm	39
	7pm to 10pm	47		7pm to 10pm	32
	10pm to 7am	48		10pm to 7am	28

Monitored at: 69 Ardath Avenue, Panania

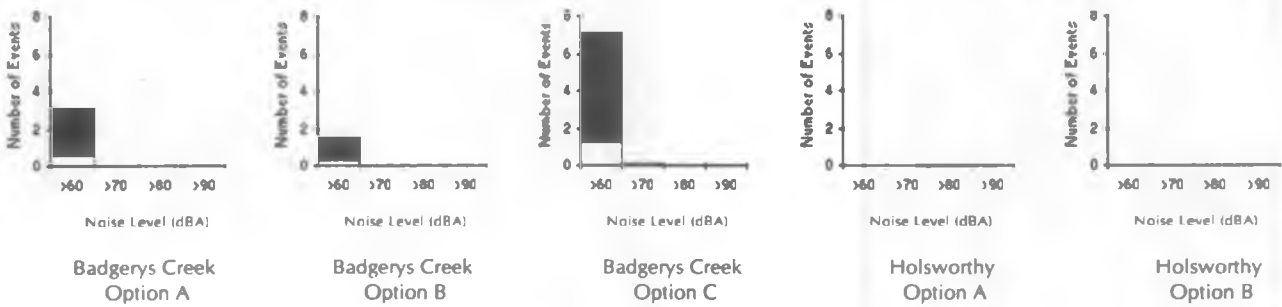
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L _{Aeq} 24 Hour ¹	19 - 30	18 - 30	21 - 33	26 - 33	23 - 30	29 - 36	15 - 24	-2 - 11	24 - 30	7 - 15
L _{Aeq} 10pm-6am ¹	12 - 23	11 - 22	13 - 25	17 - 24	15 - 21	20 - 27	5 - 14	-12 - 2	13 - 18	-5 - 4
ANEC ²	-13 - -3	-14 - -4	-11 - -1	-7 - -1	-9 - -3	-4 - 2	-13 - -5	51 - -4	-7 - -2	-46 - -19
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 2	0 - 2	0 - 4	1 - 3	0 - 2	1 - 7	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 1	0 - 1	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Sleep Disturbance Index	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

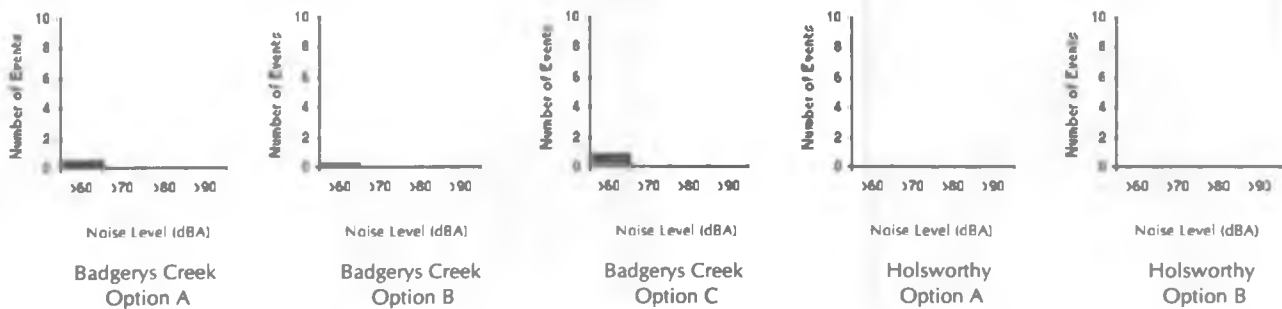
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 52

SHEET 1 / 2

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	1127	1270 ¹	2360	2360	3140	3140	2360	2360	3140	3140
Educational Facilities ²		0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³		0	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	50, 51, 48	L _{A90}	7am to 7pm	37, 40, 37
	7pm to 10pm	45, 46, 44		7pm to 10pm	36, 34, 36
	10pm to 7am	43, 42, 40		10pm to 7am	32, 26, 30

Monitored at: East Hills Barracks, Voyager Point, 32 Riverview Rd, Pleasure Point, 84 George Crescent, Sandy Point

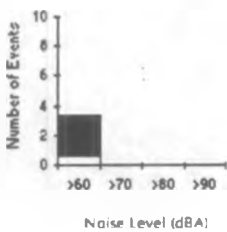
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour ¹	20 - 32	19 - 31	21 - 33	27 - 34	24 - 31	29 - 37	19 - 29	1 - 14	29 - 35	9 - 17
L_{Aeq} 10pm-6am ¹	13 - 24	12 - 23	13 - 25	19 - 25	16 - 22	20 - 27	9 - 18	-9 - 4	18 - 24	-3 - 7
ANEC ²	-12 --2	-13 --3	-10 --1	-6 - 1	-8 --2	-4 - 2	-12 --4	-17 --9	-3 --1	-15 --9
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 2	0 - 2	0 - 2	1 - 3	0 - 2	1 - 8	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

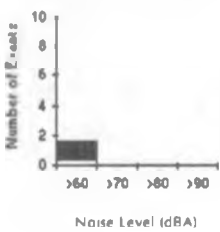
- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

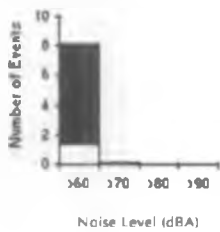
Potential Range of Events



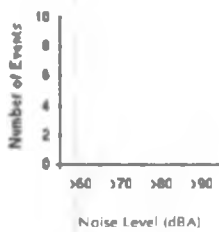
Badgerys Creek
Option A



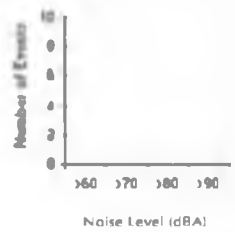
Badgerys Creek
Option B



Badgerys Creek
Option C



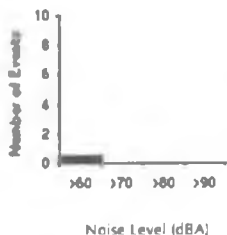
Holsworthy
Option A



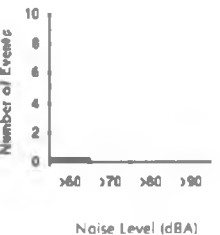
Holsworthy
Option B

2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

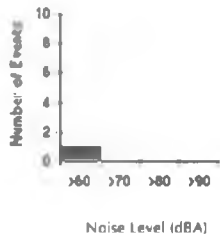
Potential Range of Events



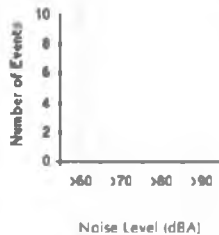
Badgerys Creek
Option A



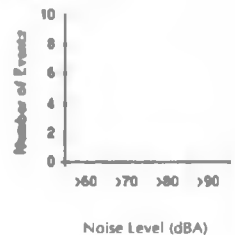
Badgerys Creek
Option B



Badgerys Creek
Option C



Holsworthy
Option A



Holsworthy
Option B

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	2196	2300 ¹	2360	2360	2410	2410	2360	2360	2410	2410
Educational Facilities ²		1	1	1	1	1	1	1	1	1
Other Noise Sensitive ³ Land Uses		4	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	54, 54	L _{A90}	7am to 7pm	40, 45
	7pm to 10pm	47, 51		7pm to 10pm	39, 41
	10pm to 7am	46, 48		10pm to 7am	36, 32

Monitored at: 43 Stewart Street, Hammondville, 21 Fitzgerald Ave, Hammondville

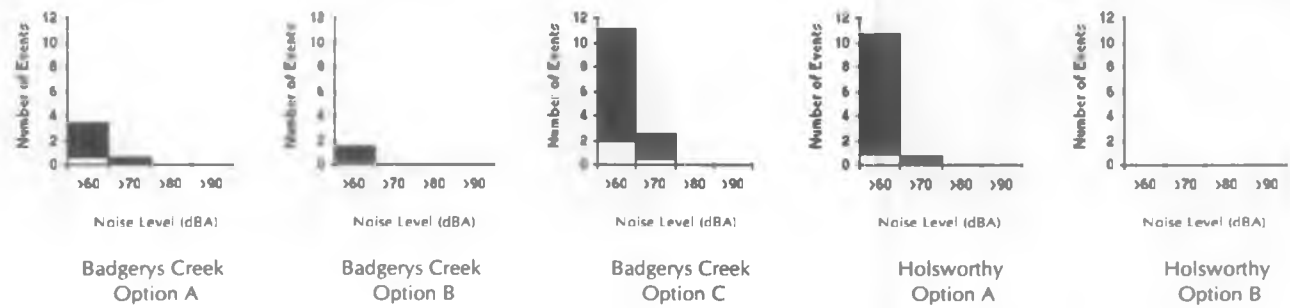
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L _{Aeq} 24 Hour	20 - 31	18 - 30	24 - 36	26 - 33	23 - 30	31 - 39	22 - 32	4 - 16	34 - 41	13 - 20
L _{Aeq} 10pm-6am ¹	12 - 23	11 - 22	16 - 28	18 - 24	15 - 21	23 - 30	11 - 21	-7 - 6	23 - 30	2 - 9
ANEC ²	-12 - -2	-13 - -3	-10 - 2	-6 - 0	-9 - -3	-2 - 6	-10 - -5	-17 - -9	-1 - 5	-12 - -6
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 2	0 - 2	0 - 4	1 - 3	0 - 1	2 - 11	0 - 5	0 - 0	1 - 11	0 - 0
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 3	0 - 0	0 - 0	0 - 1	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 1	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 2	0 - 1	0 - 0	0 - 2	0 - 1	0 - 0	0 - 1	0 - 0
Sleep Disturbance Index	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

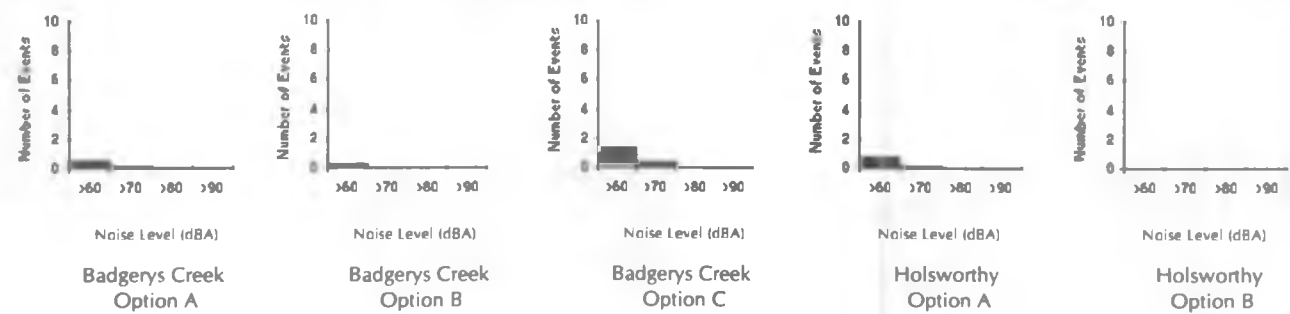
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	590	590 ¹	590	590	590	590	590	590	590	590
Educational Facilities ²		0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³		1	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	46	L _{A90}	7am to 7pm	35
	7pm to 10pm	41		7pm to 10pm	30
	10pm to 7am	40		10pm to 7am	30

Monitored at: Illawarra Road, Holsworthy Barracks

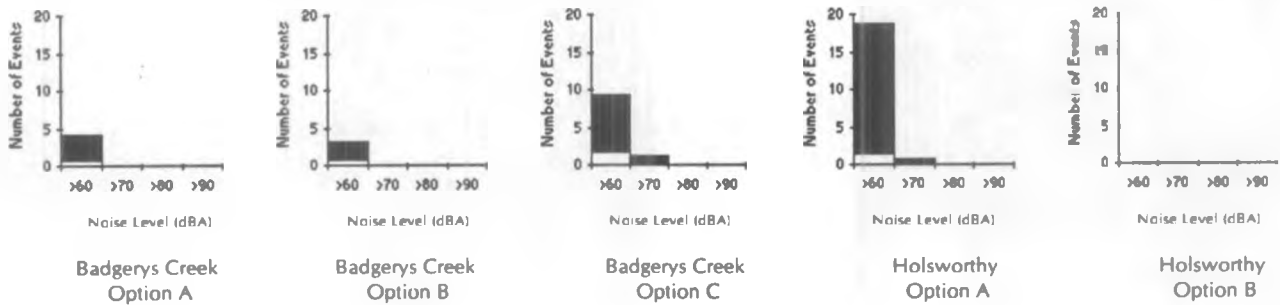
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L _{Aeq} 24 Hour ¹	21 - 33	20 - 31	21 - 33	28 - 35	25 - 32	29 - 37	23 - 33	5 - 16	35 - 42	13 - 20
L _{Aeq} 10pm-6am ¹	14 - 25	13 - 24	14 - 26	20 - 26	17 - 23	21 - 28	13 - 23	-5 - 6	24 - 31	3 - 9
ANEC ²	-11 - 0	-12 - -2	-10 - -1	-5 - 2	-7 - -1	-4 - 3	-8 - -3	-17 - -9	1 - 7	-12 - -6
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 3	0 - 2	0 - 2	1 - 4	1 - 3	2 - 9	0 - 10	0 - 0	1 - 19	0 - 0
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 1	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1	0 - 1	0 - 0	0 - 1	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 0	0 - 2	0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

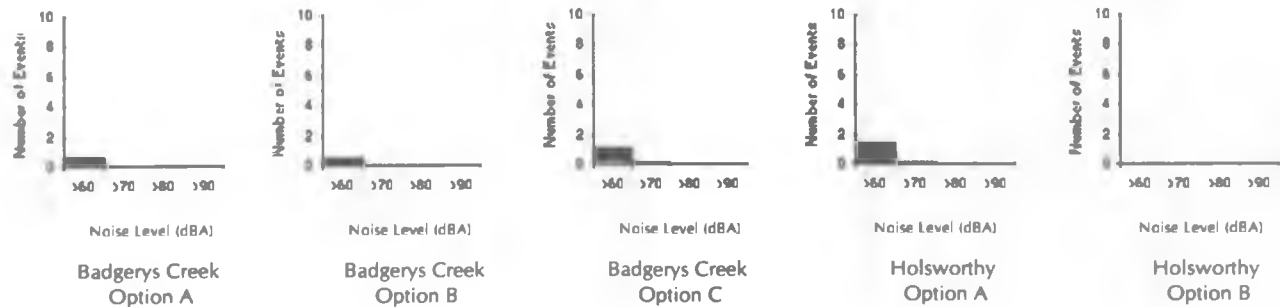
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	3349	8890 ¹	11090	11090	11090	11090	11090	11090	11090	11090
Educational Facilities ²		2	2	2	2	2	2	2	2	2
Other Noise Sensitive Land Uses ³		7	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	51, 58, 51	L _{A90}	7am to 7pm	43, 33, 41
	7pm to 10pm	49, 42, 46		7pm to 10pm	41, 31, 38
	10pm to 7am	45, 40, 43		10pm to 7am	33, 26, 36

Monitored at: 15 Murray Court, Wattle Grove, 13 Hyde Park Court, Wattle Grove, 33 Salamaua Cres. Holsworthy

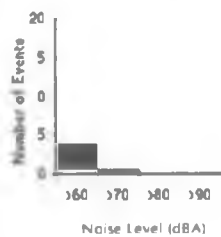
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour	21 - 32	19 - 31	24 - 36	27 - 34	24 - 31	32 - 39		6 - 18		14 - 22
L _{Aeq} 10pm-6am ¹	13 - 24	12 - 23	16 - 28	19 - 25	15 - 22	23 - 30		-5 - 8		3 - 11
ANEC ²	-11 --1	-12 --2	-9 - 2	-6 - 1	-8 --2	-1 - 6		-17 --9		-12 --6
Number of Noise Events ³							Refer Following Pages		Refer Following Pages	
Over 60 dBA per 24 Hours	0 - 2	0 - 2	0 - 6	1 - 4	0 - 2	2 - 11		0 - 0		0 - 0
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 3		0 - 0		0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 1	0 - 0	0 - 1		0 - 0		0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 65 dBA (9am-3pm)	0 - 1	0 - 0	0 - 2	0 - 1	0 - 0	1 - 3		0 - 0		0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0

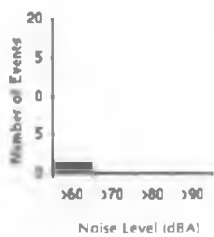
- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

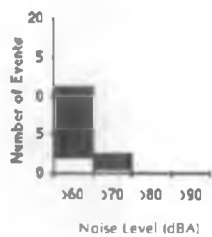
Potential Range of Events



Badgerys Creek Option A

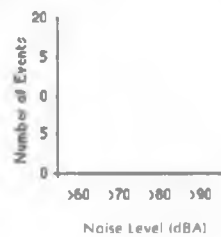


Badgerys Creek Option B



Badgerys Creek Option C

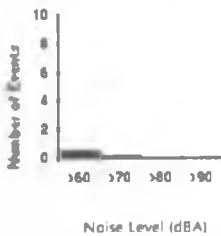
Refer Following Pages



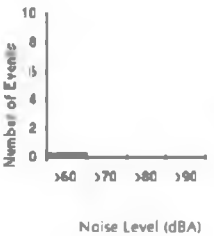
Holsworthy Option B

2016 - Number of Noise Events at Night (on average) 10pm-6am - no curfew):

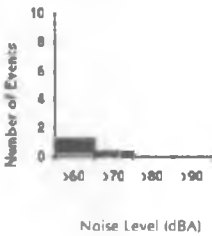
Potential Range of Events



Badgerys Creek Option A

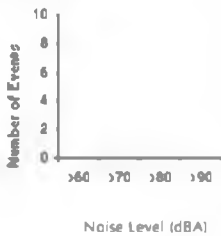


Badgerys Creek Option B



Badgerys Creek Option C

Refer Following Pages



Holsworthy Option B

Social Characteristics for Holsworthy Option A:

	Sub Area: 55.A1			Sub Area: 55.A2		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	4650	5800	5800	4240	5290	5290
Educational Facilities ²	2	2	2	0	0	0
Other Noise Sensitive ³ Land Uses	6			1		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Holsworthy Option A:

	Sub Area: 55.A1		Sub Area: 55.A2	
	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	25 - 35	31 - 37	27 - 37	33 - 39
L _{Aeq} 10pm-6am ¹	15 - 24	20 - 26	17 - 26	22 - 28
ANEC ²	-7 --1	4 - 11	-6 - 1	8 - 14
Number of Noise Events ³				
Over 60 dBA per 24 Hours	0 - 1	9 - 36	0 - 3	33 - 66
Over 70 dBA per 24 Hours	0 - 0	0 - 5	0 - 0	2 - 10
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 1
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	1 - 3	0 - 0	3 - 4
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 0	1 - 6	0 - 0	4 - 13
Sleep Disturbance Index ⁴	0 - 0	0 - 0.1	0 - 0	0.1 - 0.1

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 56

SHEET 1 / 3

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	442	1920 ¹	2390	2390	2390	2390	2390	2390	2390	2390
Educational Facilities ²		0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³		1	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years
3. Includes hospitals, churches, aged persons facilities and child care centres
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	49	L _{A90}	7am to 7pm	40
	7pm to 10pm	45		7pm to 10pm	36
	10pm to 7am	46		10pm to 7am	34

Monitored at: School of Military Engineering

Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L_{Aeq} 24 Hour ¹	22 - 33	20 - 31	25 - 37	28 - 35	24 - 31	33 - 41		10 - 22		18 - 27
L_{Aeq} 10pm-6am ¹	14 - 25	12 - 24	17 - 29	20 - 26	16 - 22	24 - 31		-1 - 11		6 - 15
ANEC ²	-11 - 0	-12 - -2	-7 - 3	-5 - 2	-8 - -1	1 - 8		-16 - -9		11 - -6
Number of Noise Events ³							Refer Following Pages		Refer Following Pages	
Over 60 dBA per 24 Hours	0 - 3	0 - 2	0 - 7	1 - 5	0 - 2	3 - 16		0 - 0		0 - 0
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 2	0 - 1	0 - 0	1 - 4		0 - 0		0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 1	0 - 0	0 - 1		0 - 0		0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1		0 - 0		0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 65 dBA (9am-3pm)	0 - 1	0 - 0	0 - 2	0 - 1	0 - 0	1 - 3		0 - 0		0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0

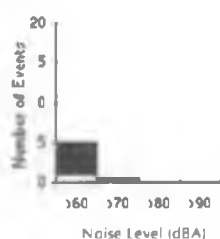
Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

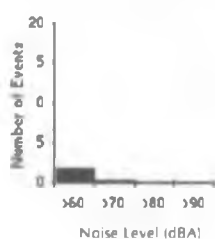
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

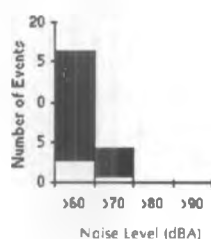
2016 - Number of Noise Events per 24 Hours (on average):

 Potential Range of Events


Badgerys Creek
Option A

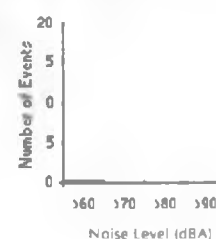


Badgerys Creek
Option B



Badgerys Creek
Option C

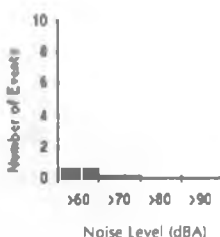
Refer Following
Pages



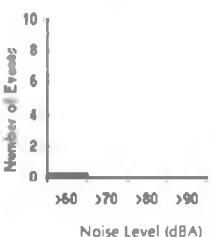
Holsworthy
Option A

Holsworthy
Option B

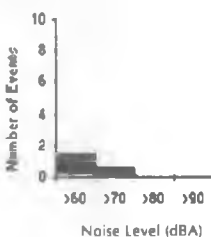
2016 - Number of Noise Events at Night (on average) 10pm-6am - no curfew):

 Potential Range of Events


Badgerys Creek
Option A

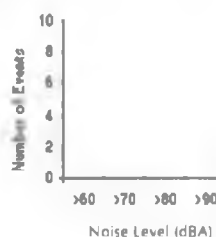


Badgerys Creek
Option B



Badgerys Creek
Option C

Refer Following
Pages



Holsworthy
Option A

Holsworthy
Option B

Social Characteristics for Holsworthy Option A:

	Sub Area: 56.A1			Sub Area: 56.A2		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	3140	3920	3920	0	0	0
Educational Facilities ²	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	1			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option A:

	Sub Area: 56.A1		Sub Area: 56.A2	
	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	34 - 44	40 - 46	43 - 50	49 - 52
L _{Aeq} 10pm-6am ¹	25 - 33	30 - 34	33 - 40	38 - 41
ANEC ²	-1 - 9	16 - 20	8 - 16	13 - 18
Number of Noise Events ³				
Over 60 dBA per 24 Hours	1 - 28	83 - 159	28 - 94	82 - 146
Over 70 dBA per 24 Hours	0 - 2	21 - 62	2 - 22	8 - 31
Over 80 dBA per 24 Hours	0 - 0	0 - 2	0 - 1	0 - 1
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 2	7 - 13	3 - 7	7 - 10
Over 70 dBA per Night	0 - 0	2 - 4	0 - 2	1 - 2
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 5	22 - 57	5 - 28	18 - 40
Sleep Disturbance Index ⁴	0 - 0	0.2 - 0.4	0.1 - 0.2	0.2 - 0.2

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 57

SHEET 1 / 3

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006	2016	2006	2016	2006	2016	2006	2016
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	7166	9510 ¹	10360	10360	10390	10390	9940	10360	10030	10390
Educational Facilities ²		6	6	6	6	6	6	6	6	6
Other Noise Sensitive ³ Land Uses		8	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	50	L _{A90}	7am to 7pm	35
	7pm to 10pm	45		7pm to 10pm	35
	10pm to 7am	43		10pm to 7am	32

Monitored at: 98 Belmont Road, Glenfield

Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour	24 - 35	23 - 34	24 - 36	31 - 37	28 - 34	33 - 40		16 - 28		24 - 36
L _{Aeq} 10pm-6am ¹	16 - 27	15 - 26	16 - 28	22 - 28	19 - 25	24 - 31		5 - 17		12 - 24
ANEC ²	-9 - 2	-10 - 1	-8 - 2	-3 - 4	-5 - 1	0 - 6		-14 - -8		-7 - 1
Number of Noise Events ³							Refer Following Pages		Refer Following Pages	
Over 60 dBA per 24 Hours	0 - 4	0 - 4	0 - 8	1 - 7	1 - 4	3 - 15		0 - 0		0 - 4
Over 70 dBA per 24 Hours	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 2		0 - 0		0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 1	0 - 1	0 - 1		0 - 0		0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 65 dBA (9am-3pm)	0 - 1	0 - 1	0 - 1	0 - 2	0 - 1	1 - 4		0 - 0		0 - 1
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

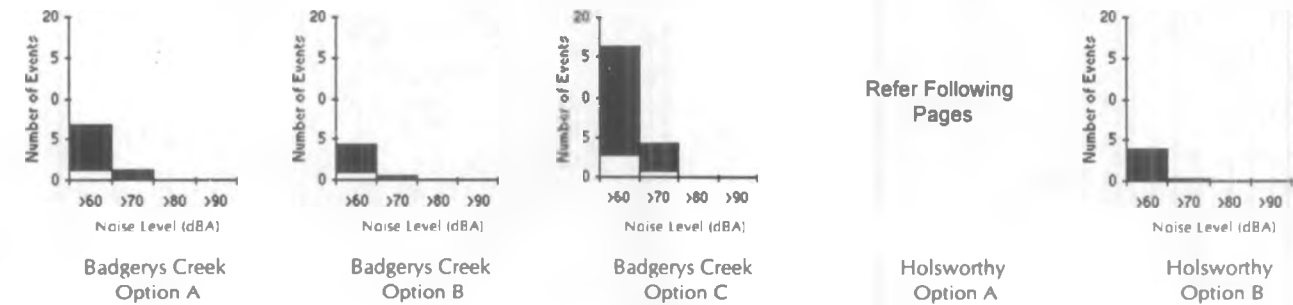
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

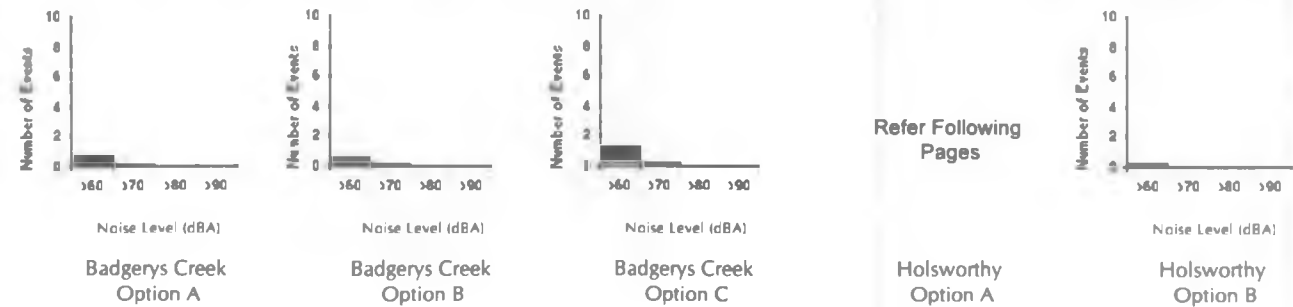
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average) 10pm-6am - no curfew):

Potential Range of Events



Social Characteristics for Holsworthy Option A:

	Sub Area: 57.A1			Sub Area: 57.A2			Sub Area: 57.A3			Sub Area: 57.A4		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	2130	2230	2250	6540	6840	6890	780	810	820	60	60	60
Educational Facilities ²	2	2	2	1	1	1	0	0	0	3	3	3
Other Noise Sensitive ³ Land Uses	1			6			0			1		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option A:

	Sub Area: 57.A1		Sub Area: 57.A2		Sub Area: 57.A3		Sub Area: 57.A4	
	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	42 - 52	47 - 54	50 - 57	56 - 60	52 - 60	57 - 62	35 - 48	41 - 51
L _{Aeq} 10pm-6am ¹	32 - 42	37 - 43	40 - 47	45 - 48	42 - 49	47 - 51	25 - 39	30 - 40
ANEC ²	7 - 19	10 - 19	16 - 23	20 - 23	18 - 26	22 - 26	0 - 15	5 - 17
Number of Noise Events ³								
Over 60 dBA per 24 Hours	19 - 102	37 - 109	61 - 159	100 - 156	65 - 163	109 - 173	3 - 56	7 - 78
Over 70 dBA per 24 Hours	1 - 30	3 - 32	19 - 103	41 - 90	26 - 132	53 - 121	0 - 12	1 - 18
Over 80 dBA per 24 Hours	0 - 3	0 - 4	2 - 19	7 - 17	5 - 47	11 - 39	0 - 1	0 - 2
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	2 - 8	3 - 9	8 - 12	9 - 11	9 - 13	10 - 13	0 - 5	0 - 6
Over 70 dBA per Night	0 - 3	0 - 3	2 - 7	4 - 6	3 - 9	5 - 8	0 - 2	0 - 2
Over 80 dBA per Night	0 - 0	0 - 0	0 - 2	1 - 1	0 - 5	1 - 3	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	3 - 32	7 - 31	18 - 66	34 - 58	22 - 75	39 - 65	0 - 13	1 - 19
Sleep Disturbance Index ⁴	0 - 0.3	0.1 - 0.2	0.2 - 0.5	0.3 - 0.4	0.3 - 0.6	0.4 - 0.6	0 - 0.2	0 - 0.2

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 58

SHEET 1 / 3

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	12612	16180 ¹	16570	16570	16640	16640	16570	16570	16640	16640
Educational Facilities ²		5	5	5	5	5	5	5	5	5
Other Noise Sensitive ³ Land Uses		10	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	48	L _{A90}	7am to 7pm	33
	7pm to 10pm	42		7pm to 10pm	26
	10pm to 7am	40		10pm to 7am	23

Monitored at: 28 Mimmulos Place, Macquarie Fields

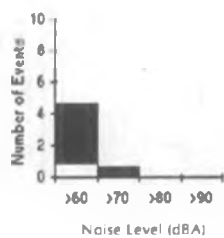
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L _{Aeq} 24 Hour	22 - 33	21 - 32	21 - 33	28 - 35	29 - 36	30 - 37		17 - 28		25 - 38
L _{Aeq} 10pm-6am ¹	14 - 24	13 - 24	13 - 24	20 - 25	21 - 27	20 - 27		6 - 17		13 - 27
ANEC ²	-11 --1	-11 --1	-10 --1	-5 - 1	-4 - 3	-3 - 3		-13 --7		-6 - 4
Number of Noise Events ³							Refer Following Pages		Refer Following Pages	
Over 60 dBA per 24 Hours	0 - 3	0 - 3	0 - 3	1 - 5	1 - 5	1 - 6				
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 1	0 - 1	0 - 1				
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0				
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0				
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 1	0 - 1	0 - 1		0 - 0		0 - 1
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 65 dBA (9am-3pm)	0 - 1	0 - 1	0 - 0	0 - 1	0 - 2	0 - 2		0 - 0		0 - 2
Sleep Disturbance Index	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0

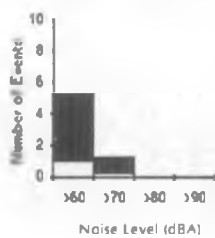
- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

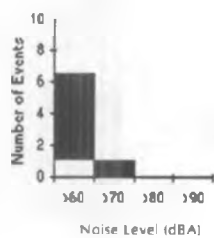
Potential Range of Events



Badgerys Creek Option A

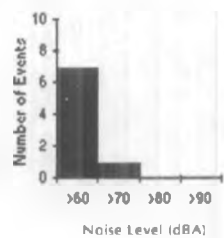


Badgerys Creek Option B



Badgerys Creek Option C

Refer Following Pages

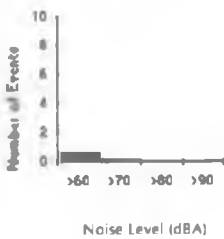


Holsworthy Option A

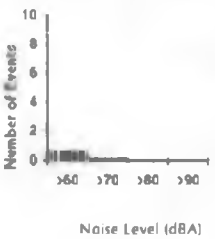
Holsworthy Option B

2016 - Number of Noise Events at Night (on average) 10pm-6am - no curfew):

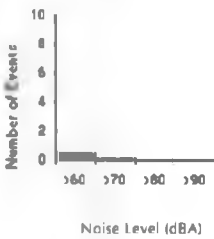
Potential Range of Events



Badgerys Creek Option A

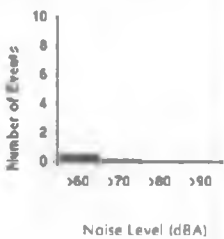


Badgerys Creek Option B



Badgerys Creek Option C

Refer Following Pages



Holsworthy Option A

Holsworthy Option B

Social Characteristics for Holsworthy Option A:

	Sub Area: 58.A1			Sub Area: 58.A2			Sub Area: 58.A3			Sub Area: 58.A4		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	4890	5010	5030	4570	4680	4700	6010	6160	6190	700	720	730
Educational Facilities ²	1	1	1	2	2	2	2	2	2	0	0	0
Other Noise Sensitive ³ Land Uses	5			2			3			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option A:

	Sub Area: 58.A1		Sub Area: 58.A2		Sub Area: 58.A3		Sub Area: 58.A4	
	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	36 - 48	42 - 50	40 - 51	46 - 53	45 - 54	51 - 57	53 - 61	59 - 63
L _{Aeq} 10pm-6am ¹	26 - 38	31 - 39	30 - 41	35 - 42	35 - 45	40 - 46	44 - 51	49 - 52
ANEC ²	1 - 14	5 - 15	6 - 17	9 - 18	11 - 21	14 - 21	21 - 28	24 - 28
Number of Noise Events ³								
Over 60 dBA per 24 Hours	3 - 62	7 - 76	12 - 103	27 - 114	44 - 138	75 - 151	71 - 165	111 - 182
Over 70 dBA per 24 Hours	0 - 9	1 - 11	1 - 25	2 - 28	4 - 51	9 - 50	34 - 137	68 - 124
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 1	0 - 0	0 - 5	0 - 5	7 - 54	16 - 43
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 5	0 - 6	1 - 8	2 - 9	5 - 10	6 - 12	10 - 13	10 - 14
Over 70 dBA per Night	0 - 1	0 - 1	0 - 3	0 - 2	0 - 5	1 - 4	4 - 9	6 - 9
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	1 - 5	2 - 3
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	1 - 17	2 - 22	1 - 30	3 - 32	9 - 47	17 - 47	26 - 75	44 - 68
Sleep Disturbance Index ⁴	0 - 0.1	0 - 0.1	0 - 0.2	0 - 0.2	0.1 - 0.3	0.1 - 0.3	0.3 - 0.7	0.5 - 0.6

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 59

SHEET 1 / 3

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	414	480	480	480	480	480	480	480	480	480
Educational Facilities ²		0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses		1	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	46	L _{A90}	7am to 7pm	30
	7pm to 10pm	38		7pm to 10pm	27
	10pm to 7am	37		10pm to 7am	26

Monitored at: 12 Kingdon Pde, Long Point

Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour	19 - 29	18 - 29	15 - 27	25 - 31	28 - 35	24 - 31		17 - 27		25 - 38
L_{Aeq} 10pm-6am ¹	11 - 21	11 - 22	7 - 18	17 - 22	20 - 26	14 - 21		6 - 16		13 - 27
ANEC ²	-13 - -3	-13 - -4	-15 - -9	-7 - -1	-5 - 1	-7 - -5		-13 - -7		-7 - 4
Number of Noise Events ³							Refer Following Pages		Refer Following Pages	
Over 60 dBA per 24 Hours	0 - 1	0 - 1	0 - 1	0 - 2	1 - 5	0 - 2		0 - 0		0 - 6
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0		0 - 0		0 - 1
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0		0 - 0		0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 65 dBA (9am-3pm)	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0		0 - 0		0 - 1
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0

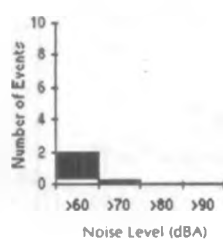
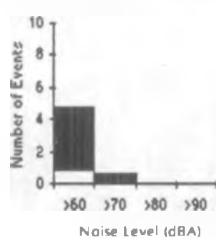
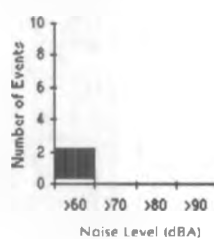
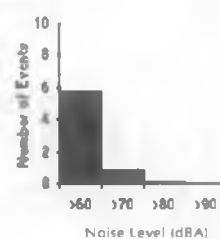
Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

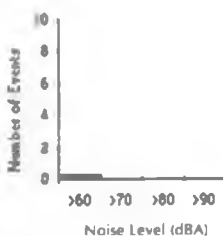
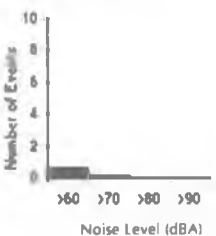
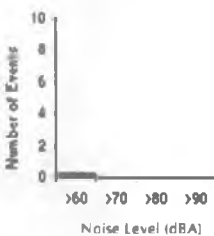
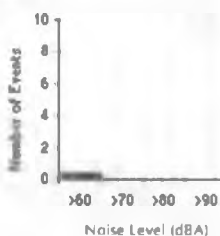
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

 Potential Range of Events
Badgerys Creek
Option ABadgerys Creek
Option BBadgerys Creek
Option CRefer Following
PagesHolsworthy
Option AHolsworthy
Option B

2016 - Number of Noise Events at Night (on average) 10pm-6am - no curfew):

 Potential Range of Events
Badgerys Creek
Option ABadgerys Creek
Option BBadgerys Creek
Option CRefer Following
PagesHolsworthy
Option AHolsworthy
Option B

Social Characteristics for Holsworthy Option A:

	Sub Area: 59.A1			Sub Area: 59.A2		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	330	330	330	150	150	150
Educational Facilities ²	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			1		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option A:

	Sub Area: 59.A1		Sub Area: 59.A2	
	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	43 - 54	49 - 57	40 - 51	46 - 54
L _{Aeq} 10pm-6am ¹	34 - 45	38 - 46	30 - 41	35 - 43
ANEC ²	9 - 21	12 - 21	5 - 18	9 - 18
Number of Noise Events ³				
Over 60 dBA per 24 Hours	27 - 136	53 - 150	13 - 112	32 - 124
Over 70 dBA per 24 Hours	2 - 52	5 - 55	1 - 32	3 - 34
Over 80 dBA per 24 Hours	0 - 4	0 - 5	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	3 - 10	5 - 12	1 - 9	3 - 10
Over 70 dBA per Night	0 - 5	0 - 4	0 - 3	0 - 2
Over 80 dBA per Night	0 - 1	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	6 - 47	13 - 48	1 - 31	3 - 32
Sleep Disturbance Index ⁴	0.1 - 0.4	0.1 - 0.4	0 - 0.2	0 - 0.2

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	14257	18960 ¹	19780	19780	19960	19960	19780	19780	19960	19960
Educational Facilities ²		6	6	6	6	6	6	6	6	6
Other Noise Sensitive ³ Land Uses		10	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	54	L _{A90}	7am to 7pm	44
	7pm to 10pm	46		7pm to 10pm	37
	10pm to 7am	51		10pm to 7am	28

Monitored at: 22 Maserati Drive, Ingleburn

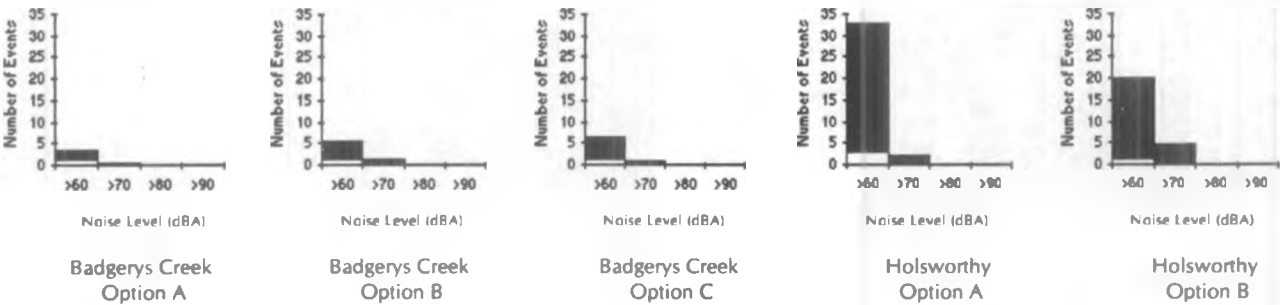
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L _{Aeq} 24 Hour ¹	23 - 32	21 - 32	19 - 31	29 - 34	31 - 37	29 - 36	31 - 43	23 - 34	36 - 45	31 - 44
L _{Aeq} 10pm-6am ¹	15 - 23	13 - 24	11 - 22	20 - 24	22 - 27	19 - 26	20 - 33	12 - 23	24 - 33	19 - 32
ANEC ²	-10 - -1	-11 - -2	-11 - -4	-5 - 1	-3 - 4	-4 - 1	-3 - 7	-9 - -1	2 - 9	-3 - 9
Number of Noise Events										
Over 60 dBA per 24 Hours	0 - 2	0 - 2	0 - 1	1 - 3	1 - 5	1 - 6	1 - 16	0 - 2	3 - 33	1 - 20
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 1	0 - 1	0 - 0	0 - 2	0 - 5
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 1	0 - 2	0 - 0	0 - 2	0 - 1
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 1	0 - 0	0 - 1	0 - 2	0 - 1	0 - 3	0 - 1	1 - 6	0 - 5
Sleep Disturbance Index	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

- Note: 1 These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2 The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3 Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4 Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

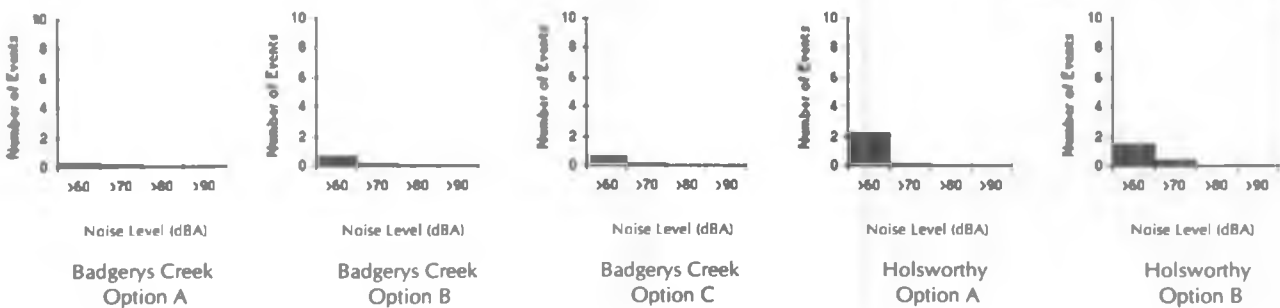
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	254	490 ¹	500	500	500	500	500	500	500	500
Educational Facilities ²		1	1	1	1	1	1	1	1	1
Other Noise Sensitive ³ Land Uses		1	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	47	L _{A90}	7am to 7pm	34
	7pm to 10pm	46		7pm to 10pm	40
	10pm to 7am	38		10pm to 7am	31

Monitored at: 15 St James Road, Varroville

Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L_{Aeq} 24 Hour	29 - 37	29 - 36	25 - 37	35 - 39	38 - 41	35 - 42	27 - 41	31 - 43	33 - 43	37 - 45
L_{Aeq} 10pm-6am ¹	19 - 27	20 - 26	17 - 28	25 - 28	28 - 31	25 - 32	16 - 32	21 - 33	21 - 33	26 - 35
ANEC ²	-5 - 1	-5 - 2	-7 - 3	1 - 3	3 - 8	2 - 8	-5 - 7	-3 - 9	0 - 9	3 - 11
Number of Noise Events ³										
Over 60 dBA per 24 Hours	1 - 9	1 - 10	0 - 5	4 - 15	6 - 12	3 - 18	1 - 16	1 - 18	3 - 30	5 - 31
Over 70 dBA per 24 Hours	0 - 0	0 - 1	0 - 1	0 - 1	0 - 2	1 - 3	0 - 2	0 - 3	0 - 3	1 - 4
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 1	0 - 1	0 - 0	0 - 1	1 - 1	0 - 2	0 - 2	0 - 1	0 - 3	0 - 3
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 2	0 - 1	0 - 1	1 - 2	1 - 4	1 - 3	0 - 3	0 - 6	0 - 5	1 - 9
Sleep Disturbance Index	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0.1	0 - 0.1

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

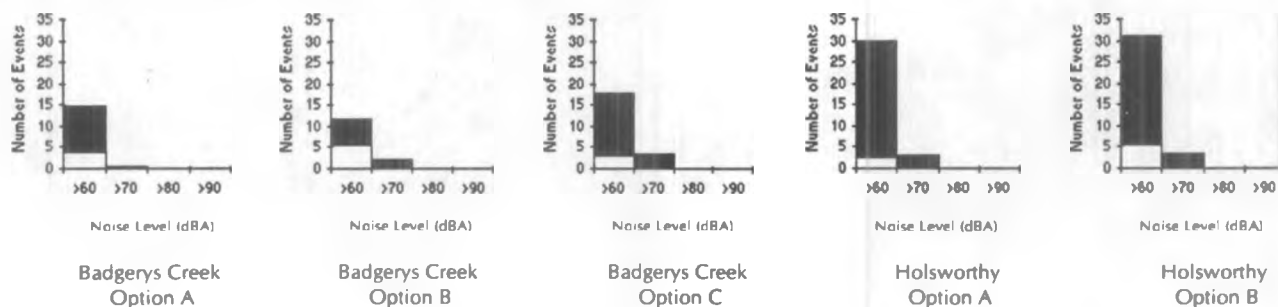
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

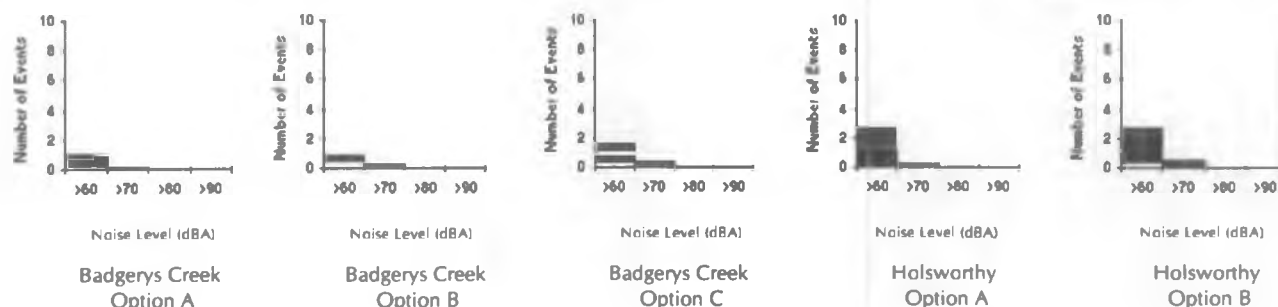
2016 - Number of Noise Events per 24 Hours (on average):

■ Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

■ Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 62

SHEET 1 / 4

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	550	580	640	610	680	610	640	640	680	680
Educational Facilities ²		2	2	2	2	2	2	2	2	2
Other Noise Sensitive Land Uses ³		1	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	51	L _{A90}	7am to 7pm	34
	7pm to 10pm	40		7pm to 10pm	33
	10pm to 7am	45		10pm to 7am	28

Monitored at: 220 Chittick Lane, Cobbitty

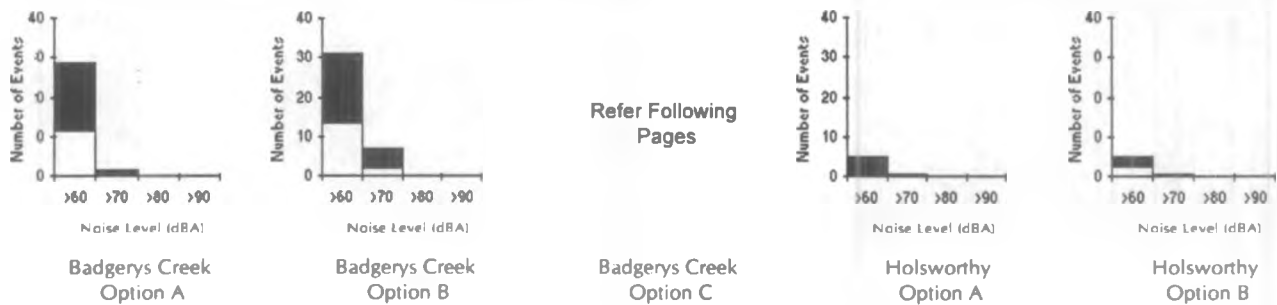
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L _{Aeq} 24 Hour ¹	33 - 40	29 - 36		38 - 42	40 - 44		20 - 33	25 - 33	25 - 36	35 - 38
L _{Aeq} 10pm-6am ¹	24 - 29	20 - 26		29 - 31	30 - 33		8 - 26	13 - 23	14 - 26	22 - 25
ANEC ²	-2 - 5	-6 - 1		3 - 7	5 - 9		-10 - -1	-12 - -4	-5 - 1	-1 - 2
Number of Noise Events ³			Refer Following Pages			Refer Following Pages				
Over 60 dBA per 24 Hours	3 - 15	1 - 7		11 - 28	13 - 31		0 - 3	0 - 2	0 - 5	2 - 5
Over 70 dBA per 24 Hours	0 - 1	0 - 0		1 - 1	2 - 7		0 - 0	0 - 0	0 - 1	0 - 1
Over 80 dBA per 24 Hours	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 1	0 - 1		1 - 2	1 - 2		0 - 1	0 - 0	0 - 1	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0		0 - 0	0 - 1		0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 3	0 - 1		2 - 5	3 - 6		0 - 0	0 - 0	0 - 1	0 - 1
Sleep Disturbance Index	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

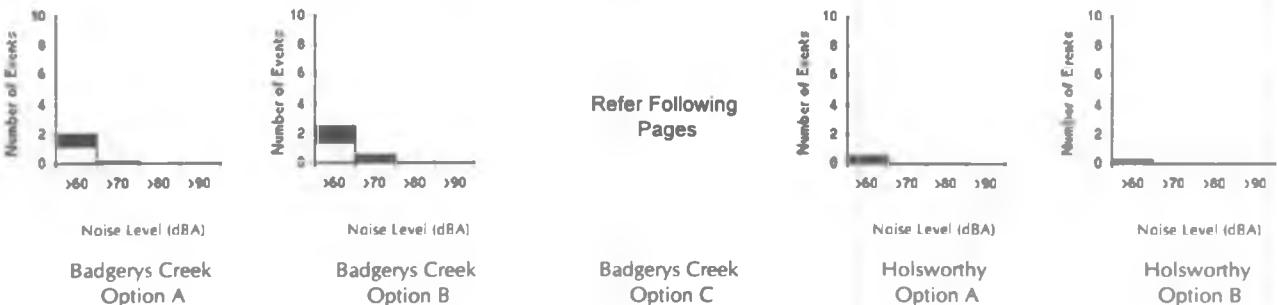
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

Potential Range of Events



Social Characteristics for Badgerys Creek Option C:

	Sub Area: 62.C1			Sub Area: 62.C2			Sub Area: 62.C3			Sub Area: 62.C4		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	180	190	190	10	10	10	20	20	20	10	10	10
Educational Facilities ²	1	1	1	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	1			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 62.C1		Sub Area: 62.C2		Sub Area: 62.C3		Sub Area: 62.C4	
	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	41 - 47	44 - 47	47 - 57	49 - 57	40 - 47	46 - 50	38 - 48	51 - 58
L _{Aeq} 10pm-6am ¹	32 - 37	34 - 35	36 - 46	37 - 45	31 - 37	36 - 39	29 - 38	39 - 46
ANEC	4 - 9	9 - 12	9 - 20	14 - 23	1 - 6	11 - 15	-5 - 1	17 - 24
Number of Noise Events ²								
Over 60 dBA per 24 Hours	10 - 32	35 - 59	13 - 55	51 - 112	5 - 21	66 - 126	1 - 5	87 - 128
Over 70 dBA per 24 Hours	1 - 4	3 - 7	4 - 37	15 - 74	0 - 1	7 - 21	0 - 0	24 - 90
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 12	2 - 18	0 - 0	0 - 0	0 - 0	3 - 22
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	1 - 3	4 - 4	2 - 5	5 - 9	1 - 2	5 - 8	0 - 0	7 - 10
Over 70 dBA per Night	0 - 0	0 - 0	0 - 3	1 - 5	0 - 0	0 - 1	0 - 0	2 - 6
Over 80 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 1	0 - 0	0 - 0	0 - 0	0 - 2
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	1 - 8	6 - 12	4 - 23	13 - 43	1 - 3	13 - 28	0 - 1	23 - 49
Sleep Disturbance Index ⁴	0 - 0.1	0.1 - 0.1	0 - 0.2	0.1 - 0.4	0 - 0	0.1 - 0.2	0 - 0	0.2 - 0.4

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option C:

	Sub Area: 62.C5			Sub Area: 62.C6		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	370	390	390
Educational Facilities ²	0	0	0	1	1	1
Other Noise Sensitive ³ Land Uses	0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 62.C5		Sub Area: 62.C6	
	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	35 - 45	48 - 53	37 - 42	40 - 43
L _{Aeq} 10pm-6am ¹	26 - 35	37 - 42	28 - 33	30 - 33
ANEC ²	-8 - -2	14 - 18	-1 - 7	5 - 9
Number of Noise Events ³				
Over 60 dBA per 24 Hours	0 - 2	75 - 115	3 - 18	12 - 31
Over 70 dBA per 24 Hours	0 - 0	14 - 43	0 - 2	0 - 3
Over 80 dBA per 24 Hours	0 - 0	1 - 5	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	6 - 8	0 - 2	1 - 3
Over 70 dBA per Night	0 - 0	1 - 3	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 0	19 - 39	0 - 4	1 - 5
Sleep Disturbance Index ⁴	0 - 0	0.1 - 0.2	0 - 0	0 - 0

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 63

SHEET 1 / 3

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	415	450	500	500	540	540	500	500	540	540
Educational Facilities ²		1	1	1	1	1	1	1	1	1
Other Noise Sensitive ³ Land Uses		2	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	46	L _{A90}	7am to 7pm	31
	7pm to 10pm	44		7pm to 10pm	32
	10pm to 7am	36		10pm to 7am	31

Monitored at: 176 Terry Road, Theresa Park

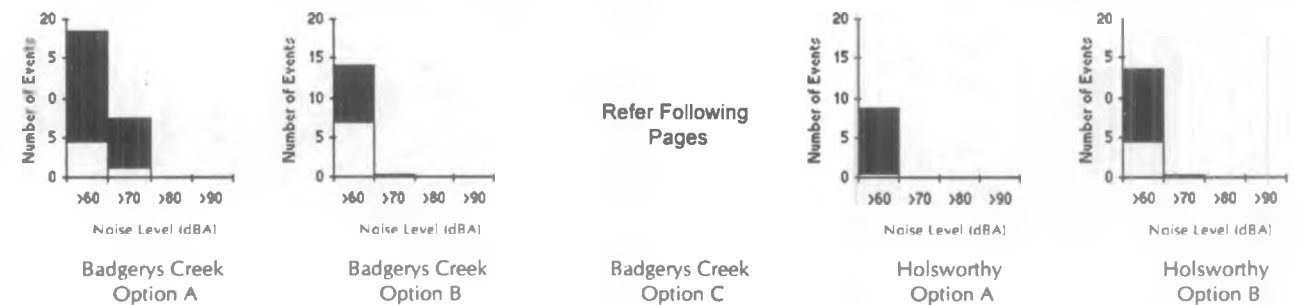
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L_{Aeq} 24 Hour ¹	32 - 43	35 - 41		38 - 45	37 - 40		20 - 34	22 - 30	25 - 37	36 - 40
L_{Aeq} 10pm-6am ¹	21 - 32	26 - 31		26 - 34	28 - 29		8 - 27	12 - 19	14 - 26	22 - 26
ANEC ²	-4 - 7	-1 - 6		2 - 9	2 - 5		-10 - 0	-12 - -6	-6 - 2	-1 - 3
Number of Noise Events ³			Refer Following Pages			Refer Following Pages				
Over 60 dBA per 24 Hours	1 - 13	3 - 13		4 - 19	7 - 14		0 - 5	0 - 2	0 - 9	5 - 13
Over 70 dBA per 24 Hours	0 - 5	0 - 4		1 - 7	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 1	0 - 1		0 - 1	1 - 1		0 - 1	0 - 0	0 - 1	0 - 1
Over 70 dBA per Night	0 - 0	0 - 0		0 - 1	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 4	0 - 4		1 - 6	1 - 2		0 - 1	0 - 0	0 - 1	1 - 2
Sleep Disturbance Index ⁴	0 - 0	0 - 0		0 - 0	0 - 0		0 - 0	0 - 0	0 - 0	0 - 0

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

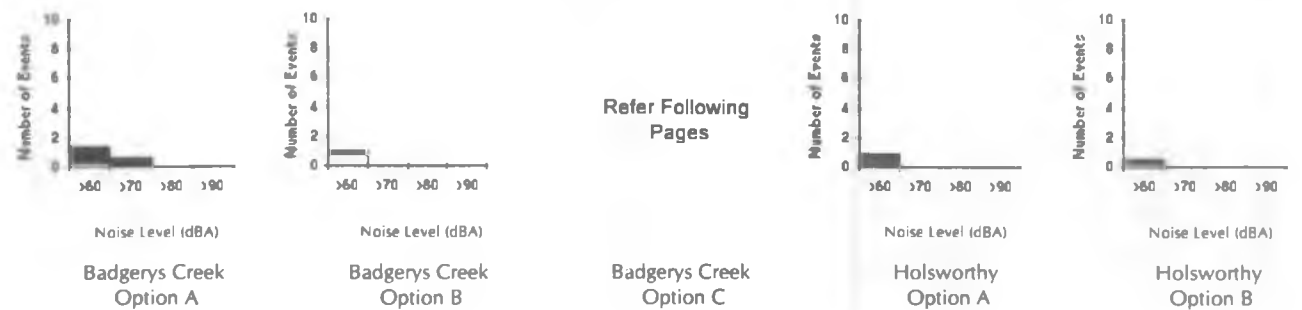
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

Potential Range of Events



Social Characteristics for Badgerys Creek Option C:

	Sub Area: 63.C1			Sub Area: 63.C2		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	450	500	540	0	0	0
Educational Facilities ²	1	1	1	0	0	0
Other Noise Sensitive ³ Land Uses	2			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 63.C1		Sub Area: 63.C2	
	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	34 - 44	40 - 46	39 - 48	45 - 50
L _{Aeq} 10pm-6am ¹	26 - 36	31 - 36	31 - 40	36 - 40
ANEC ²	1 - 12	7 - 14	5 - 16	11 - 18
Number of Noise Events ³				
Over 60 dBA per 24 Hours	2 - 18	9 - 31	7 - 30	24 - 53
Over 70 dBA per 24 Hours	0 - 5	1 - 8	1 - 13	5 - 20
Over 80 dBA per 24 Hours	0 - 0	0 - 1	0 - 1	0 - 2
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 2	1 - 3	1 - 3	3 - 5
Over 70 dBA per Night	0 - 1	0 - 1	0 - 2	1 - 2
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 5	2 - 8	2 - 10	7 - 17
Sleep Disturbance Index ⁴	0 - 0.1	0 - 0.1	0 - 0.1	0.1 - 0.2

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 64

SHEET 1 / 6

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991 Census	1996	2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	296	320	340	360	370	390	360	360	390	390
Educational Facilities ²		0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses		1	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	45	L _{A90}	7am to 7pm	32
	7pm to 10pm	47		7pm to 10pm	37
	10pm to 7am	38		10pm to 7am	31

Monitored at: 75 Pine Ridge Crescent, Weromba

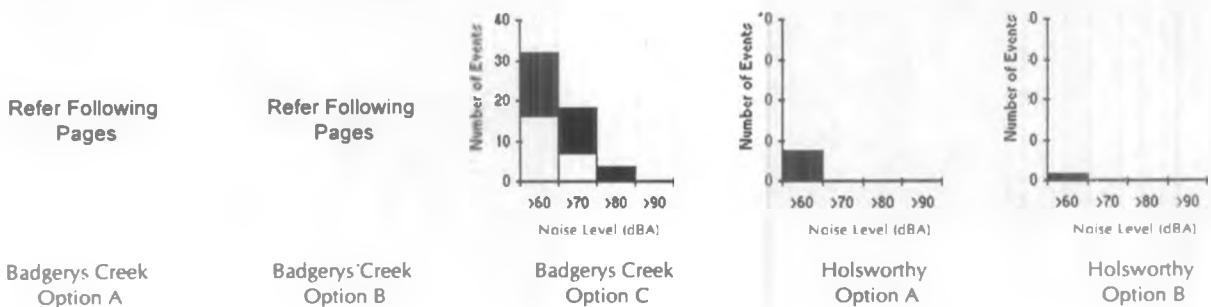
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L _{Aeq} 24 Hour			39 - 48			45 - 50	18 - 33	15 - 25	23 - 35	29 - 32
L _{Aeq} 10pm - 6am			27 - 36			33 - 36	6 - 26	4 - 13	12 - 25	15 - 17
ANEC ²			5 - 14			11 - 16	-11 - -2	-17 - -10	-7 - 0	-7 - -4
Number of Noise Events										
Over 60 dBA per 24 Hours	Refer Following Pages		5 - 21	Refer Following Pages		16 - 32	0 - 4	0 - 1	0 - 7	0 - 1
Over 70 dBA per 24 Hours			2 - 13			7 - 18	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours			0 - 2			1 - 4	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night			0 - 2			1 - 2	0 - 1	0 - 0	0 - 1	0 - 0
Over 70 dBA per Night			0 - 1			1 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night			0 - 0			0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm			1 - 9			5 - 13	0 - 0	0 - 0	0 - 1	0 - 0
Sleep Disturbance Index ⁴			0 - 0.1			0 - 0.1	0 - 0	0 - 0	0 - 0	0 - 0

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

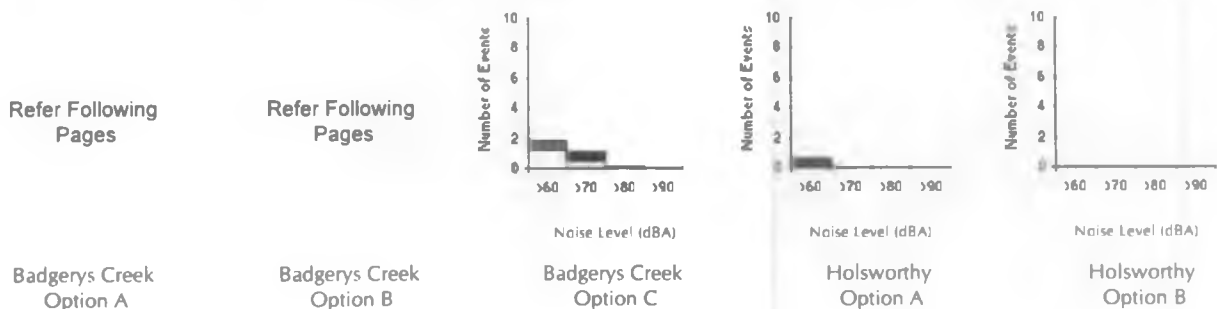
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

Potential Range of Events



Social Characteristics for Badgerys Creek Option A:

	Sub Area: 64.AB1			Sub Area: 64.AB2			Sub Area: 64.AB3			Sub Area: 64.AB4			Sub Area: 64.AB5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	0	0	0	40	50	50	10	10	20	30	30	30	10	10	10
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			1			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 64.AB1		Sub Area: 64.AB2		Sub Area: 64.AB3		Sub Area: 64.AB4		Sub Area: 64.AB5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	42 - 49	49 - 56	38 - 47	47 - 54	42 - 50	46 - 53	43 - 54	47 - 54	47 - 59	51 - 59
L _{Aeq} 10pm-6am ¹	33 - 41	35 - 45	30 - 39	34 - 42	32 - 40	33 - 42	29 - 43	32 - 43	33 - 48	36 - 48
ANEC ²	8 - 17	13 - 21	5 - 15	11 - 18	8 - 15	10 - 17	6 - 18	10 - 18	11 - 24	15 - 24
Number of Noise Events ³										
Over 60 dBA per 24 Hours	14 - 62	38 - 118	5 - 30	26 - 78	15 - 80	34 - 138	11 - 79	24 - 114	16 - 104	27 - 127
Over 70 dBA per 24 Hours	1 - 15	12 - 50	1 - 9	8 - 34	2 - 18	6 - 35	4 - 39	7 - 41	8 - 76	18 - 89
Over 80 dBA per 24 Hours	0 - 2	2 - 12	0 - 1	1 - 5	0 - 1	0 - 2	0 - 6	1 - 6	2 - 28	4 - 29
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	2 - 6	3 - 9	1 - 3	2 - 6	2 - 6	2 - 10	1 - 6	1 - 8	1 - 8	1 - 10
Over 70 dBA per Night	0 - 2	0 - 3	0 - 1	0 - 2	0 - 2	0 - 2	0 - 3	0 - 3	0 - 5	0 - 6
Over 80 dBA per Night	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 3	0 - 2
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	3 - 16	10 - 35	1 - 8	7 - 25	3 - 22	7 - 38	3 - 29	7 - 35	6 - 45	10 - 50
Sleep Disturbance Index ⁴	0 - 0.2	0.1 - 0.3	0 - 0.1	0 - 0.2	0 - 0.2	0 - 0.3	0 - 0.2	0 - 0.3	0 - 0.4	0 - 0.4

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option A:

	Sub Area: 64.AB6			Sub Area: 64.AB7			Sub Area: 64.AB8			Sub Area: 64.AB9			Sub Area: 64.AB10		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	10	10	10	160	170	190	0	0	0	60	60	60
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option A:

	Sub Area: 64.AB6		Sub Area: 64.AB7		Sub Area: 64.AB8		Sub Area: 64.AB9		Sub Area: 64.AB10	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	43 - 54	47 - 55	42 - 54	47 - 55	43 - 55	47 - 55	39 - 51	45 - 52	36 - 48	42 - 50
L _{Aeq} 10pm-6am ¹	29 - 44	32 - 43	28 - 43	31 - 43	29 - 44	32 - 43	25 - 40	29 - 41	23 - 37	27 - 38
ANEC ²	7 - 19	10 - 19	6 - 18	10 - 19	7 - 19	10 - 19	2 - 15	7 - 16	-1 - 12	4 - 13
Number of Noise Events ³										
Over 60 dBA per 24 Hours	12 - 91	22 - 107	10 - 83	20 - 99	10 - 76	19 - 91	4 - 45	10 - 56	1 - 18	5 - 28
Over 70 dBA per 24 Hours	4 - 45	9 - 49	3 - 37	8 - 46	5 - 47	9 - 45	1 - 12	3 - 19	0 - 8	2 - 12
Over 80 dBA per 24 Hours	0 - 8	1 - 7	0 - 6	1 - 8	1 - 12	2 - 10	0 - 4	1 - 7	0 - 1	0 - 2
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	1 - 7	1 - 8	0 - 6	1 - 7	0 - 6	1 - 7	0 - 4	0 - 4	0 - 2	0 - 2
Over 70 dBA per Night	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 1	0 - 1	0 - 1	0 - 1
Over 80 dBA per Night	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	4 - 34	7 - 37	3 - 31	7 - 35	4 - 31	6 - 32	1 - 12	3 - 16	0 - 6	1 - 9
Sleep Disturbance Index ⁴	0 - 0.3	0 - 0.3	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.1	0 - 0.1	0 - 0.1	0 - 0.1

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 64.AB1			Sub Area: 64.AB2			Sub Area: 64.AB3			Sub Area: 64.AB4			Sub Area: 64.AB5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	0	0	0	40	50	50	10	10	20	30	30	30	10	10	10
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³	0			0			0			1			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 64.AB1		Sub Area: 64.AB2		Sub Area: 64.AB3		Sub Area: 64.AB4		Sub Area: 64.AB5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	47 - 58	49 - 55	41 - 50	45 - 48	46 - 57	48 - 55	41 - 51	44 - 51	38 - 46	45 - 51
L _{Aeq} 10pm-6am ¹	34 - 47	37 - 44	30 - 40	35 - 37	32 - 46	35 - 44	27 - 41	30 - 39	27 - 36	32 - 39
ANEC ²	13 - 24	14 - 21	5 - 15	9 - 13	11 - 23	12 - 21	5 - 16	7 - 16	0 - 11	7 - 15
Number of Noise Events ³										
Over 60 dBA per 24 Hours	21 - 113	48 - 98	12 - 72	29 - 65	16 - 103	33 - 92	10 - 80	19 - 87	5 - 51	26 - 112
Over 70 dBA per 24 Hours	9 - 75	14 - 51	2 - 19	4 - 11	8 - 71	12 - 52	2 - 28	4 - 23	0 - 4	4 - 21
Over 80 dBA per 24 Hours	1 - 26	2 - 13	0 - 1	0 - 1	1 - 23	2 - 14	0 - 2	0 - 2	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	2 - 9	4 - 7	1 - 6	3 - 5	1 - 8	3 - 7	0 - 6	1 - 6	0 - 5	1 - 8
Over 70 dBA per Night	0 - 5	1 - 3	0 - 2	1 - 1	0 - 5	0 - 3	0 - 2	0 - 1	0 - 0	0 - 2
Over 80 dBA per Night	0 - 3	0 - 1	0 - 0	0 - 0	0 - 2	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	7 - 47	14 - 36	2 - 21	6 - 16	5 - 43	9 - 33	3 - 28	5 - 26	1 - 12	5 - 30
Sleep Disturbance Index ⁴	0.1 - 0.4	0.1 - 0.3	0 - 0.2	0.1 - 0.1	0 - 0.4	0.1 - 0.3	0 - 0.2	0 - 0.2	0 - 0.1	0 - 0.2

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Badgerys Creek Option B:

	Sub Area: 64.AB6			Sub Area: 64.AB7			Sub Area: 64.AB8			Sub Area: 64.AB9			Sub Area: 64.AB10		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	10	10	10	160	170	190	0	0	0	60	60	60
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³	0			0			0			0			0		

Notes: 1. Rounded to nearest 10.

2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.

3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Badgerys Creek Option B:

	Sub Area: 64.AB6		Sub Area: 64.AB7		Sub Area: 64.AB8		Sub Area: 64.AB9		Sub Area: 64.AB10	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L_{Aeq} 24 Hour	39 - 50	45 - 53	38 - 47	50 - 57	35 - 46	43 - 50	36 - 44	49 - 56	33 - 43	42 - 49
L_{Aeq} 10pm-6am ¹	25 - 39	31 - 42	28 - 36	35 - 46	22 - 35	29 - 39	26 - 33	34 - 44	22 - 32	28 - 38
ANEC ²	5 - 15	9 - 18	-1 - 11	13 - 22	-1 - 10	6 - 14	-3 - 8	12 - 22	-4 - 7	5 - 14
Number of Noise Events ³										
Over 60 dBA per 24 Hours	4 - 42	20 - 103	2 - 22	24 - 116	4 - 40	18 - 87	1 - 14	23 - 111	1 - 12	12 - 66
Over 70 dBA per 24 Hours	1 - 15	6 - 34	0 - 7	14 - 72	0 - 5	3 - 20	0 - 4	13 - 68	0 - 3	2 - 13
Over 80 dBA per 24 Hours	0 - 3	1 - 4	0 - 1	3 - 20	0 - 0	0 - 1	0 - 0	2 - 15	0 - 0	0 - 1
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 4	1 - 8	0 - 2	1 - 9	0 - 3	1 - 6	0 - 1	1 - 9	0 - 1	0 - 5
Over 70 dBA per Night	0 - 1	0 - 2	0 - 1	0 - 5	0 - 1	0 - 2	0 - 0	0 - 5	0 - 0	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	1 - 12	6 - 31	0 - 6	9 - 46	1 - 11	4 - 25	0 - 4	8 - 43	0 - 4	3 - 15
Sleep Disturbance Index ⁴	0 - 0.1	0 - 0.2	0 - 0.1	0 - 0.4	0 - 0.1	0 - 0.2	0 - 0	0 - 0.3	0 - 0	0 - 0.1

Note: 1. These forecast L_{Aeq} noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	444	500 ¹	580	580	640	640	580	580	640	640
Educational Facilities ²		0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³		1	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	47	L _{A90}	7am to 7pm	33
	7pm to 10pm	43		7pm to 10pm	38
	10pm to 7am	42		10pm to 7am	31

Monitored at: 110 Eagle Creek Road, Weromba

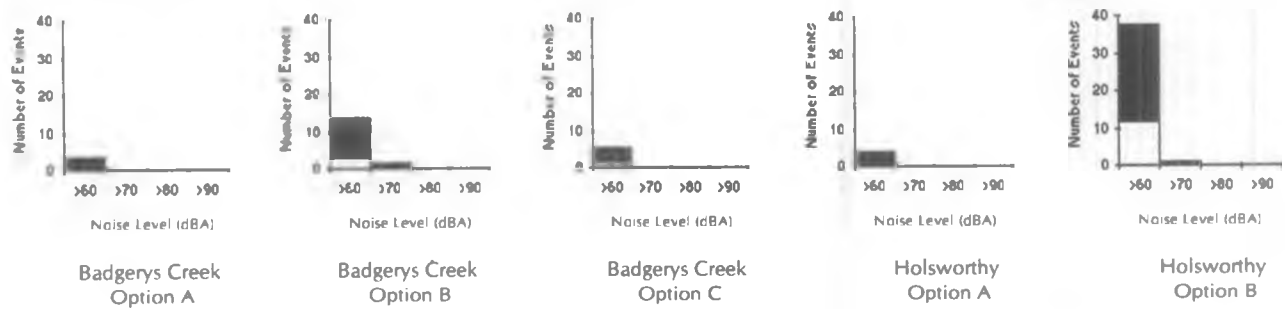
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L_{Aeq} 24 Hour ¹	23 - 32	27 - 37	25 - 34	29 - 35	34 - 41	30 - 36	17 - 31	35 - 42	22 - 34	40 - 44
L_{Aeq} 10pm 6am ¹	10 - 22	15 - 26	18 - 25	15 - 23	19 - 29	22 - 26	6 - 24	20 - 31	12 - 24	25 - 31
ANEC ²	-13 - -3	-9 - 1	-8 - -1	-8 - -1	-3 - 5	-3 - 2	-12 - -4	-1 - 5	-7 - -1	4 - 7
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 2	1 - 6	0 - 3	1 - 3	3 - 14	2 - 5	0 - 3	3 - 25	0 - 4	12 - 37
Over 70 dBA per 24 Hours	0 - 0	0 - 1	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 1	0 - 0	0 - 2	0 - 0	1 - 2
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1	0 - 0	1 - 9	0 - 1	3 - 9
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0.1	0 - 0	0 - 0

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

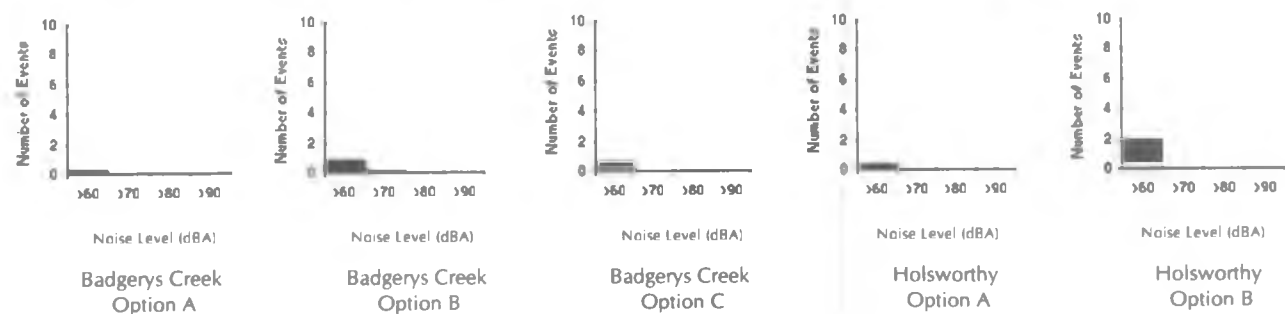
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 66

SHEET 1 / 2

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	889	930 ¹	1050	1050	1150	1150	1050	1050	1150	1150
Educational Facilities ²		4	4	4	4	4	4	4	4	4
Other Noise Sensitive Land Uses ³		0	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	43	L _{A90}	7am to 7pm	32
	7pm to 10pm	41		7pm to 10pm	33
	10pm to 7am	36		10pm to 7am	31

Monitored at: 70 Silverwood Road, Brownlow Hill

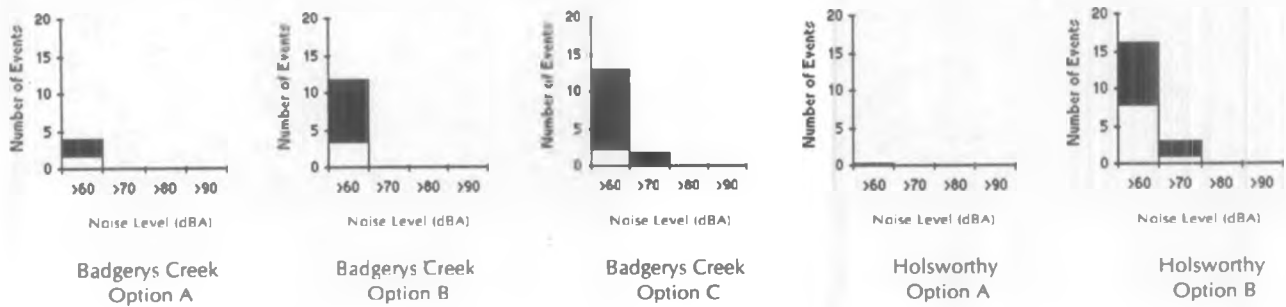
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L_{Aeq} 24 Hour	27 - 33	28 - 35	30 - 39	32 - 36	34 - 38	35 - 41	16 - 24	36 - 42	23 - 28	39 - 42
L_{Aeq} 10pm-6am	18 - 23	19 - 25	21 - 31	22 - 25	24 - 27	25 - 31	6 - 16	23 - 31	13 - 17	27 - 29
ANEC	-7 - -3	-6 - -1	-5 - 5	-3 - 0	-1 - 3	1 - 7	-15 - -8	0 - 6	-11 - -6	3 - 7
Number of Noise Events										
Over 60 dBA per 24 Hours	0 - 2	1 - 5	1 - 9	2 - 4	3 - 12	2 - 13	0 - 0	4 - 21	0 - 0	8 - 16
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 2	0 - 0	0 - 2	0 - 0	1 - 3
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 1	0 - 1	0 - 0	0 - 1	0 - 1	0 - 0	0 - 2	0 - 0	1 - 1
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 1	0 - 3	0 - 1	0 - 2	1 - 4	0 - 0	1 - 5	0 - 0	2 - 5
Sleep Disturbance Index	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

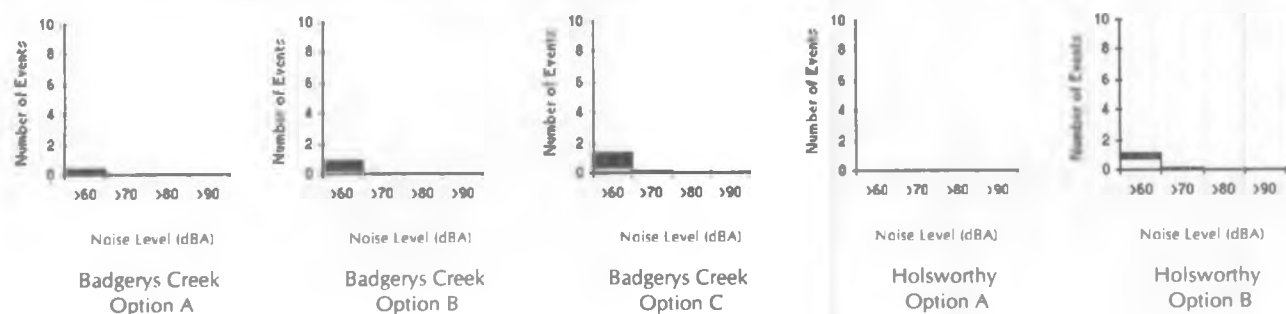
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991 Census	1996	2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	12943	15550 ¹	21450	21770	25890	23320	22780	23160	33940	25180
Educational Facilities ²		13	14	14	15	14	14	14	18	15
Other Noise Sensitive Land Uses ⁴		26	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	47	L _{A90}	7am to 7pm	39
	7pm to 10pm	43		7pm to 10pm	37
	10pm to 7am	36		10pm to 7am	34

Monitored at: 68 Valley View Drive, Narellan

Noise Indicators:

	Badgerys Creek			Holsworthy		
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C
L_{Aeq} 24 Hour ¹	25 - 33	21 - 30		30 - 36	29 - 35	
L_{Aeq} 10pm-6am ¹	16 - 24	13 - 20		20 - 25	19 - 24	
ANEC ²	-9 --3	-11 --7		-4 -0	-4 --1	
Number of Noise Events ³			Refer Following Pages			Refer Following Pages
Over 60 dBA per 24 Hours	0 - 5	0 - 2		2 - 8	1 - 3	
Over 70 dBA per 24 Hours	0 - 0	0 - 0		0 - 0	0 - 0	
Over 80 dBA per 24 Hours	0 - 0	0 - 0		0 - 0	0 - 0	
Over 90 dBA per 24 Hours	0 - 0	0 - 0		0 - 0	0 - 0	
Over 60 dBA per Night	0 - 1	0 - 0		0 - 1	0 - 0	
Over 70 dBA per Night	0 - 0	0 - 0		0 - 0	0 - 0	
Over 80 dBA per Night	0 - 0	0 - 0		0 - 0	0 - 0	
Over 90 dBA per Night	0 - 0	0 - 0		0 - 0	0 - 0	
Over 65 dBA (9am-3pm)	0 - 1	0 - 0		0 - 1	0 - 1	
Sleep Disturbance Index ⁴	0 - 0	0 - 0		0 - 0	0 - 0	

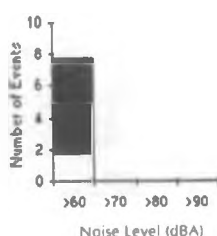
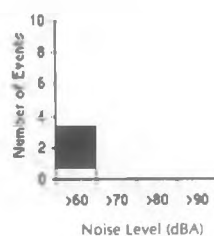
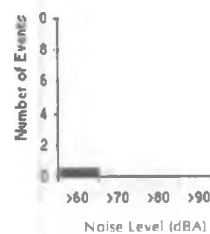
Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

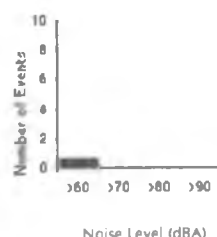
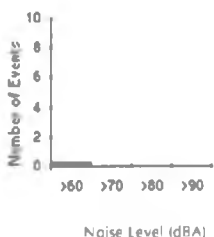
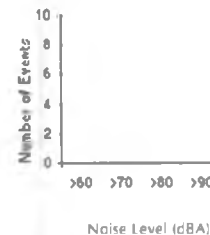
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

 Potential Range of Events
Badgerys Creek
Option ABadgerys Creek
Option BRefer Following
PagesBadgerys Creek
Option CHolsworthy
Option ARefer Following
PagesHolsworthy
Option B

2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

 Potential Range of Events
Badgerys Creek
Option ABadgerys Creek
Option BRefer Following
PagesBadgerys Creek
Option CHolsworthy
Option ARefer Following
PagesHolsworthy
Option B

Social Characteristics for Badgerys Creek Option C:

	Sub Area: 67.C1			Sub Area: 67.C2		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	30	50	50	15510	21720	23270
Educational Facilities ²	1	1	1	12	13	14
Other Noise Sensitive ³ Land Uses	0			26		

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Badgerys Creek Option C:

	Sub Area: 67.C1		Sub Area: 67.C2	
	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	34 - 40	47 - 54	34 - 44	41 - 48
L _{Aeq} 10pm-6am ¹	25 - 29	35 - 43	13 - 20	30 - 36
ANEC ²	-5 - 1	11 - 19	-2 - 8	5 - 12
Number of Noise Events ³				
Over 60 dBA per 24 Hours	1 - 5	45 - 106	4 - 27	21 - 71
Over 70 dBA per 24 Hours	0 - 0	11 - 64	0 - 4	1 - 12
Over 80 dBA per 24 Hours	0 - 0	1 - 9	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	3 - 8	0 - 1	1 - 5
Over 70 dBA per Night	0 - 0	0 - 4	0 - 0	0 - 1
Over 80 dBA per Night	0 - 0	0 - 1	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 1	10 - 40	0 - 5	3 - 14
Sleep Disturbance Index ⁴	0 - 0	0.1 - 0.3	0 - 0	0 - 0.1

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Holsworthy Option B:

	Sub Area: 67.B1			Sub Area: 67.B2			Sub Area: 67.B3			Sub Area: 67.B4			Sub Area: 67.B5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	2230	3320	3610	9360	13940	15160	1250	1860	2020	0	0	0	2720	4050	4400
Educational Facilities ²	2	2	2	9	10	11	0	0	0	0	0	0	2	2	2
Other Noise Sensitive ³ Land Uses	3			22			0			0			1		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option B:

	Sub Area: 67.B1		Sub Area: 67.B2		Sub Area: 67.B3		Sub Area: 67.B4		Sub Area: 67.B5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L_{Aeq} 24 Hour	35 - 43	47 - 52	30 - 39	42 - 47	39 - 47	43 - 47	36 - 45	49 - 55	41 - 48	44 - 47
L_{Aeq} 10pm-6am ¹	23 - 33	32 - 38	18 - 29	32 - 40	26 - 37	31 - 35	24 - 34	36 - 43	28 - 38	32 - 36
ANEC ²	-1 - 8	11 - 17	-7 - 3	7 - 12	3 - 12	8 - 12	0 - 9	14 - 20	6 - 13	9 - 12
Number of Noise Events ³										
Over 60 dBA per 24 Hours	4 - 27	42 - 137	1 - 10	21 - 68	9 - 53	22 - 65	4 - 28	50 - 152	11 - 59	21 - 45
Over 70 dBA per 24 Hours	0 - 3	9 - 37	0 - 0	2 - 7	2 - 16	5 - 12	0 - 4	18 - 65	2 - 15	5 - 11
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	2 - 5	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 2	1 - 6	0 - 1	1 - 7	1 - 4	1 - 4	0 - 2	2 - 11	1 - 4	2 - 3
Over 70 dBA per Night	0 - 0	0 - 1	0 - 0	0 - 2	0 - 2	0 - 1	0 - 0	1 - 4	0 - 1	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	1 - 7	14 - 47	0 - 2	4 - 15	2 - 15	6 - 14	1 - 6	17 - 58	3 - 18	5 - 12
Sleep Disturbance Index ⁴	0 - 0.1	0 - 0.1	0 - 0	0 - 0.2	0 - 0.1	0 - 0.1	0 - 0.1	0.1 - 0.4	0 - 0.1	0 - 0.1

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 68

SHEET 1 / 2

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	4595	10630 ¹	28080	29000	32850	29760	28080	29000	34870	31890
Educational Facilities ²		5	9	9	11	10	9	9	11	10
Other Noise Sensitive ³ Land Uses		11	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	44	L _{A90}	7am to 7pm	31
	7pm to 10pm	40		7pm to 10pm	29
	10pm to 7am	33		10pm to 7am	26

Monitored at: 16 Charles Place, Mount Annan

Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L_{Aeq} 24 Hour	22 - 29	20 - 28	22 - 29	27 - 31	28 - 41	33 - 36	17 - 26	31 - 40	24 - 37	37 - 41
L_{Aeq} 10pm-6am ¹	11 - 19	9 - 18	12 - 18	16 - 20	17 - 30	22 - 24	8 - 17	18 - 30	14 - 26	30 - 39
ANEC ²	-14 - -6	-15 - -7	-13 - -7	-9 - -4	-8 - 6	-3 - -1	-14 - -6	-6 - 4	-9 - 1	2 - 5
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 1	0 - 2	0 - 0	0 - 1	0 - 10	1 - 3	0 - 0	2 - 14	0 - 6	5 - 11
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 3	0 - 0	0 - 0	0 - 1	0 - 1	0 - 1
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 1	0 - 0	1 - 6
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 3	0 - 1	0 - 0	0 - 2	0 - 1	0 - 1
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0.2

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

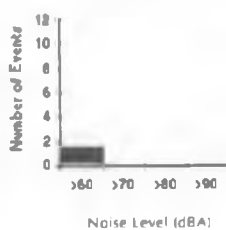
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects

3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

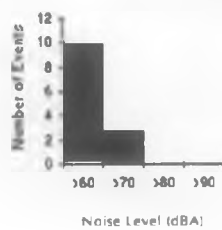
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

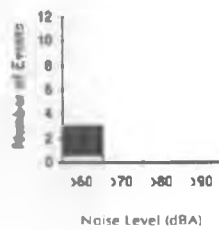
Potential Range of Events



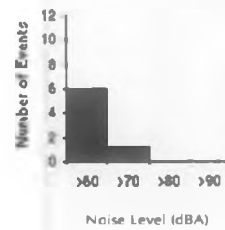
Badgerys Creek Option A



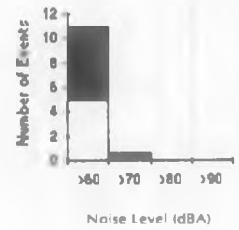
Badgerys Creek Option B



Badgerys Creek Option C



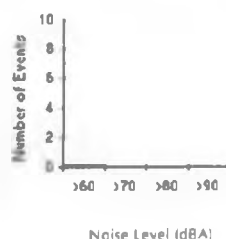
Holsworthy Option A



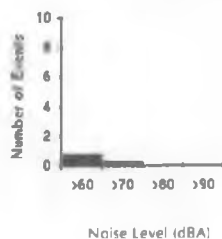
Holsworthy Option B

2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

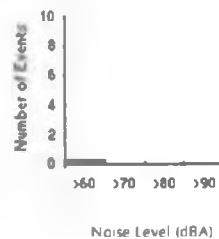
Potential Range of Events



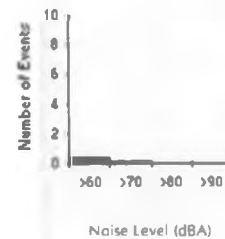
Badgerys Creek Option A



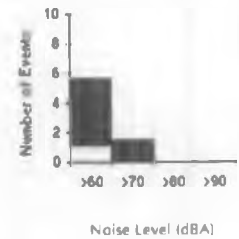
Badgerys Creek Option B



Badgerys Creek Option C



Holsworthy Option A



Holsworthy Option B

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	6131	6660 ¹	6790	6790	6790	6790	6790	6790	6790	6790
Educational Facilities ²		2	2	2	2	2	2	2	2	2
Other Noise Sensitive ³ Land Uses		4	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	50	L _{A90}	7am to 7pm	35
	7pm to 10pm	46		7pm to 10pm	37
	10pm to 7am	39		10pm to 7am	29

Monitored at: 4 Gladiator Street, Raby

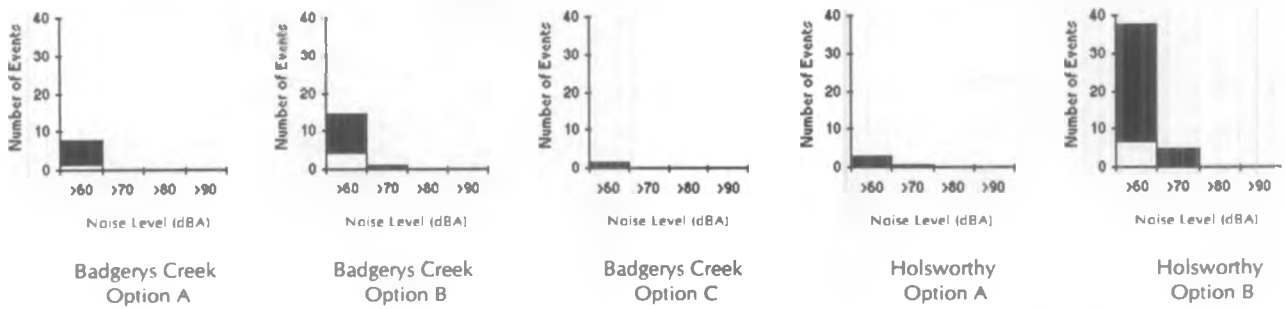
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L_{Aeq} 24 Hour ¹	23 - 33	23 - 31	17 - 28	29 - 36	34 - 38	26 - 32	22 - 33	32 - 44	28 - 36	38 - 45
L_{Aeq} 10pm 6am ¹	11 - 23	13 - 21	7 - 17	16 - 24	24 - 27	15 - 21	11 - 23	22 - 34	16 - 25	26 - 36
ANEC ²	-15 - -4	-14 - -7	-15 - -8	-8 - -2	0 - 3	-7 - -4	-7 - -3	-2 - 10	-3 - 1	4 - 12
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 5	0 - 2	0 - 0	1 - 7	4 - 14	0 - 1	0 - 1	2 - 22	0 - 3	7 - 38
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 4	0 - 0	1 - 5
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 2	0 - 0	0 - 3
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	1 - 1	0 - 0	0 - 0	0 - 6	0 - 0	1 - 9
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0.1

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

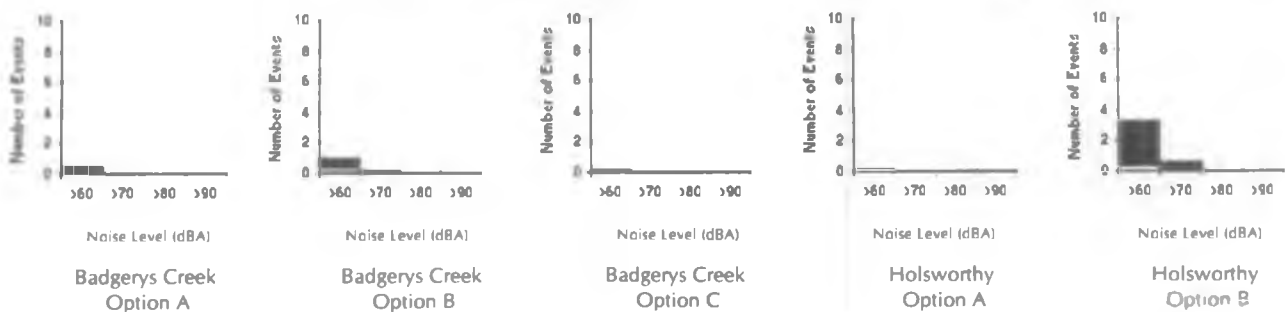
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	9870	11660 ¹	11880	11880	11880	11880	11880	11880	11880	11880
Educational Facilities ²		5	5	5	5	5	5	5	5	5
Other Noise Sensitive ³ Land Uses		8	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	47	L _{A90}	7am to 7pm	33
	7pm to 10pm	47		7pm to 10pm	34
	10pm to 7am	40		10pm to 7am	31

Monitored at: 49 Chardonnay Ave, Eschol Park

Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour ¹	21 - 31	19 - 28	14 - 24	26 - 33	31 - 35	23 - 29	21 - 29	33 - 44	27 - 33	37 - 45
L_{Aeq} 10pm-6am ¹	8 - 20	9 - 18	4 - 14	13 - 21	20 - 24	12 - 17	11 - 20	22 - 35	16 - 21	26 - 35
ANEC ²	-17 --7	-18 --9	-17 --8	-12 --5	-5 --2	-11 --5	-10 --4	-1 - 11	-6 --2	4 - 12
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 2	0 - 1	0 - 0	1 - 4	2 - 7	0 - 0	0 - 0	2 - 23	0 - 1	6 - 33
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 4	0 - 0	1 - 5
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0	0 - 3
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 6	0 - 0	1 - 7
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0.1

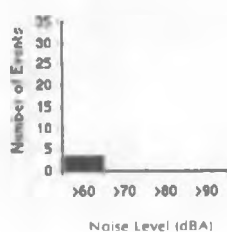
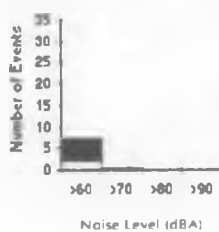
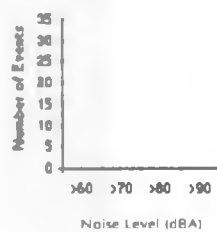
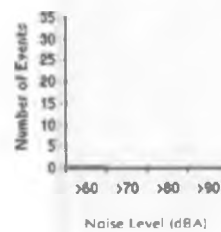
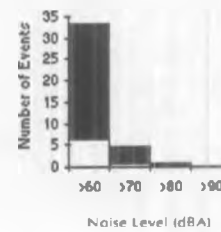
Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

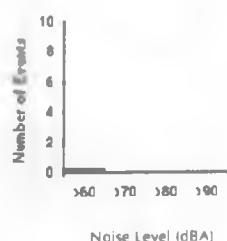
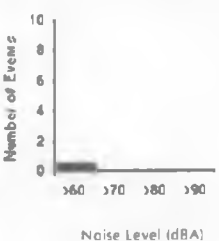
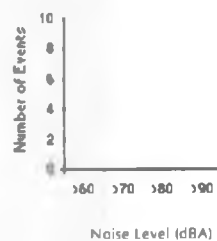
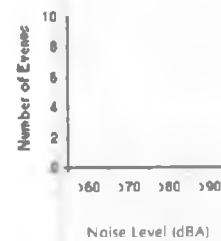
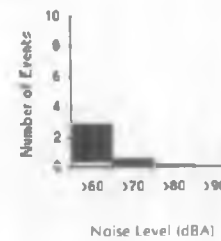
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

 Potential Range of Events
Badgerys Creek
Option ABadgerys Creek
Option BBadgerys Creek
Option CHolsworthy
Option AHolsworthy
Option B

2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

 Potential Range of Events
Badgerys Creek
Option ABadgerys Creek
Option BBadgerys Creek
Option CHolsworthy
Option AHolsworthy
Option B

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	6685	7920 ¹	8280	8280	8310	8310	8280	8280	8310	8310
Educational Facilities ²		1	1	1	1	1	1	1	1	1
Other Noise Sensitive ³ Land Uses		5	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	50	L _{A90}	7am to 7pm	38
	7pm to 10pm	48		7pm to 10pm	43
	10pm to 7am	46		10pm to 7am	40

Monitored at: 21 Rutherglen Drive, St Andrews

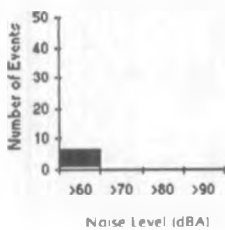
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L_{Aeq} 24 Hour ¹	22 - 32	21 - 28	16 - 27	28 - 34	33 - 36	24 - 31	23 - 33	33 - 44	29 - 38	40 - 48
L_{Aeq} 10pm 6am ¹	11 - 21	13 - 19	6 - 16	16 - 22	24 - 26	14 - 20	13 - 23	23 - 35	18 - 27	29 - 38
ANEC ²	-9 - -5	-11 - -5	-16 - -8	-5 - -3	-2 - 2	-8 - -5	-7 - -3	-1 - 11	-2 - 4	7 - 15
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 4	0 - 1	0 - 0	1 - 7	4 - 11	0 - 0	0 - 1	2 - 23	0 - 4	9 - 46
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 6	0 - 1	2 - 13
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 2	0 - 0	1 - 4
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 8	0 - 1	2 - 12
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0.1	0 - 0	0 - 0.1

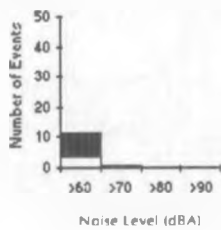
- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

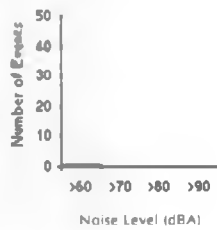
Potential Range of Events



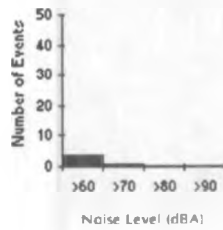
Badgerys Creek
Option A



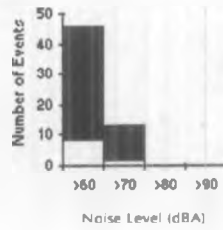
Badgerys Creek
Option B



Badgerys Creek
Option C



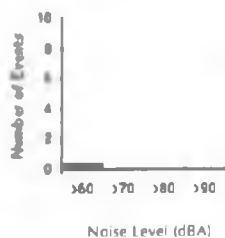
Holsworthy
Option A



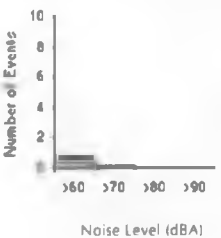
Holsworthy
Option B

2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

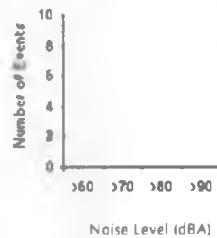
Potential Range of Events



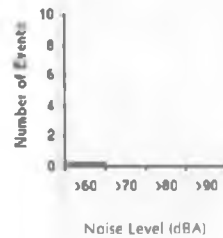
Badgerys Creek
Option A



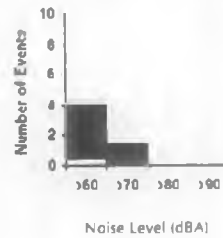
Badgerys Creek
Option B



Badgerys Creek
Option C



Holsworthy
Option A



Holsworthy
Option B

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 72

SHEET 1 / 3

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	11626	15770 ¹	15900	15900	15900	15900	15900	15900	15900	15900
Educational Facilities ²		9	9	9	9	9	9	9	9	9
Other Noise Sensitive ³ Land Uses		10	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	56	L _{A90}	7am to 7pm	42
	7pm to 10pm	47		7pm to 10pm	34
	10pm to 7am	45		10pm to 7am	29

Monitored at: 82 Gurnsey Ave, Minto

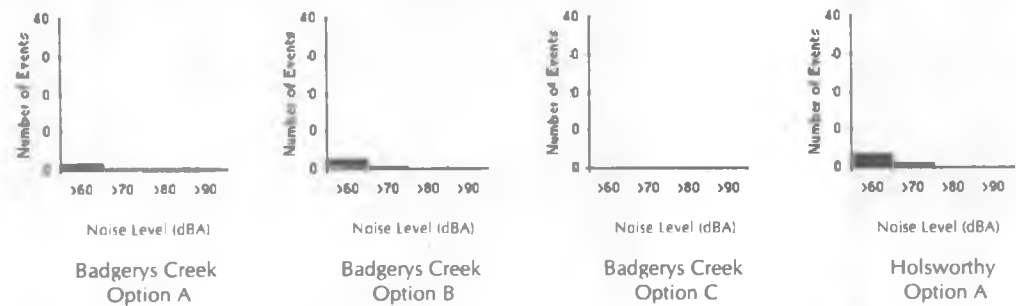
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L _{Aeq} 24 Hour ¹	19 - 27	19 - 25	13 - 24	25 - 29	29 - 33	21 - 28	26 - 34		31 - 39	
L _{Aeq} 10pm-6am ¹	9 - 17	10 - 17	3 - 14	14 - 18	20 - 24	11 - 17	16 - 24		21 - 28	
ANEC ²	-12 --7	-13 --7	-17 --8	-8 --5	-5 - 0	-11 --6	-7 --1		-2 - 6	
Number of Noise Events: ³								Refer Following Pages		Refer Following Pages
Over 60 dBA per 24 Hours	0 - 1	0 - 1	0 - 0	0 - 1	1 - 2	0 - 0	0 - 0		0 - 4	
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 1	
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 65 dBA (9am-3pm)	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0		0 - 1	
Sleep Disturbance Index	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

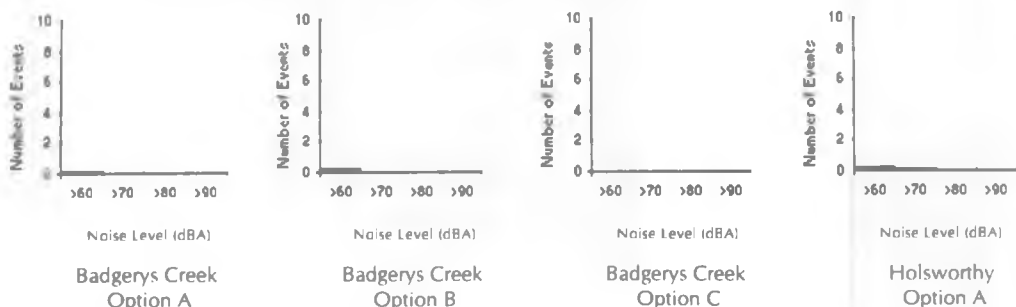
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

Potential Range of Events



Social Characteristics for Holsworthy Option B:

	Sub Area: 72.B1			Sub Area: 72.B2		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	14660	14790	14790	1110	1120	1120
Educational Facilities ²	9	9	9	0	0	0
Other Noise Sensitive ³ Land Uses	9			1		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option B:

	Sub Area: 72.B1		Sub Area: 72.B2	
	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	33 - 44	37 - 45	35 - 46	43 - 50
L _{Aeq} 10pm-6am ¹	22 - 35	26 - 35	24 - 37	32 - 41
ANEC ²	-1 - 11	4 - 12	1 - 13	9 - 18
Number of Noise Events ³				
Over 60 dBA per 24 Hours	2 - 23	6 - 33	3 - 31	14 - 68
Over 70 dBA per 24 Hours	0 - 4	1 - 5	1 - 10	3 - 20
Over 80 dBA per 24 Hours	0 - 1	0 - 1	0 - 1	0 - 3
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 2	0 - 3	0 - 2	1 - 6
Over 70 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 2
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 6	1 - 7	1 - 9	3 - 18
Sleep Disturbance Index ⁴	0 - 0	0 - 0.1	0 - 0.1	0 - 0.2

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	1171	1340 ¹	1370	1370	1400	1400	1370	1370	1400	1400
Educational Facilities ²		0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses		1	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	45	L _{A90}	7am to 7pm	34
	7pm to 10pm	40		7pm to 10pm	29
	10pm to 7am	38		10pm to 7am	28

Monitored at: 13 Morton Road, Minto Heights

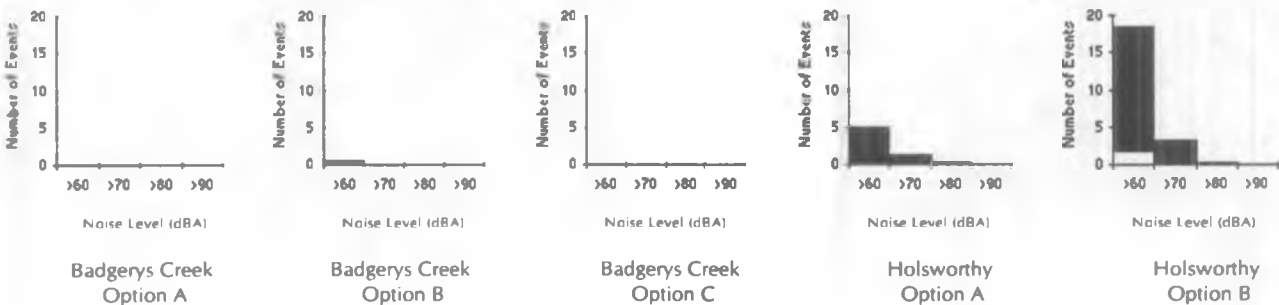
Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹	13 - 20	15 - 23	10 - 22	18 - 22	21 - 25	16 - 21	31 - 37	25 - 36	35 - 41	33 - 43
L _{Aeq} 10pm-6am ¹	3 - 12	8 - 15	1 - 12	8 - 13	13 - 15	6 - 10	21 - 27	14 - 25	25 - 30	21 - 32
ANEC ²	-14 - -8	-15 - -8	-19 - -9	-10 - -6	-10 - -5	-15 - -7	-4 - 2	-7 - 0	0 - 7	-1 - 9
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 5	0 - 5	2 - 18
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 3
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 1	0 - 4
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

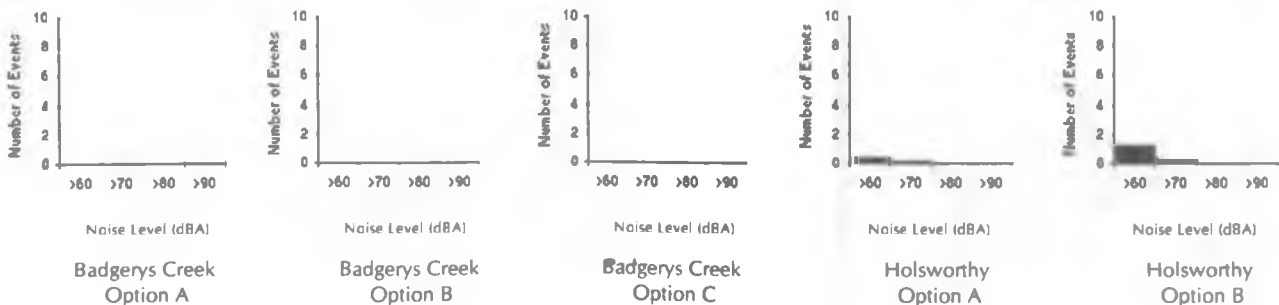
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991 Census	1996	2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	714	670 ¹	700	700	730	730	700	700	730	730
Educational Facilities ²		1	1	1	1	1	1	1	1	1
Other Noise Sensitive ³ Land Uses		2	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	46	L _{A90}	7am to 7pm	34
	7pm to 10pm	40		7pm to 10pm	30
	10pm to 7am	44		10pm to 7am	26

Monitored at: 79 Old Kent Road, Kentlyn

Noise Indicators:

	Badgerys Creek						Holsworthy			
							2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour ¹	14 - 22	11 - 18	7 - 18	18 - 24	20 - 25	18 - 22	28 - 35	27 - 37	33 - 43	35 - 43
L_{Aeq} 10pm-6am ¹	3 - 13	3 - 9	-2 - 8	7 - 15	10 - 15	8 - 11	19 - 25	16 - 26	23 - 32	23 - 31
ANEC ²	-14 - -11	-18 - -12	-20 - -9	-22 - -13	-19 - -13	-15 - -7	-9 - -2	-6 - 2	-3 - 9	1 - 9
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 8	0 - 8	3 - 21
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	0 - 2
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 1	0 - 2
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 2	0 - 3
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

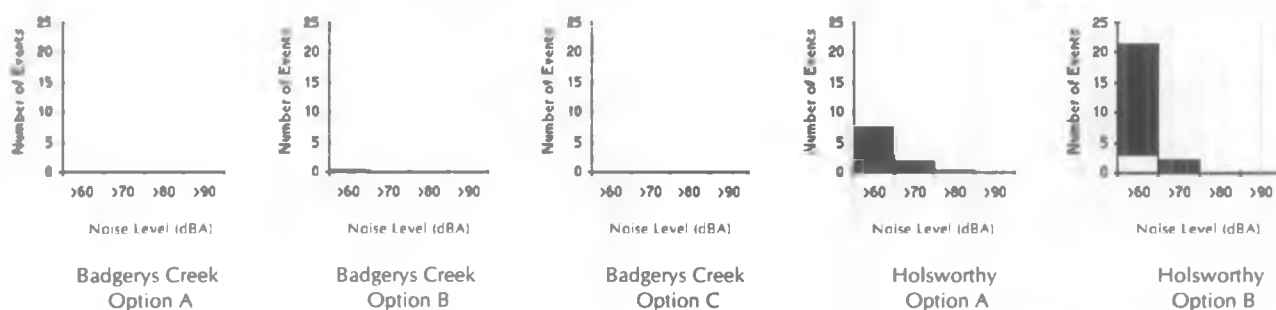
Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

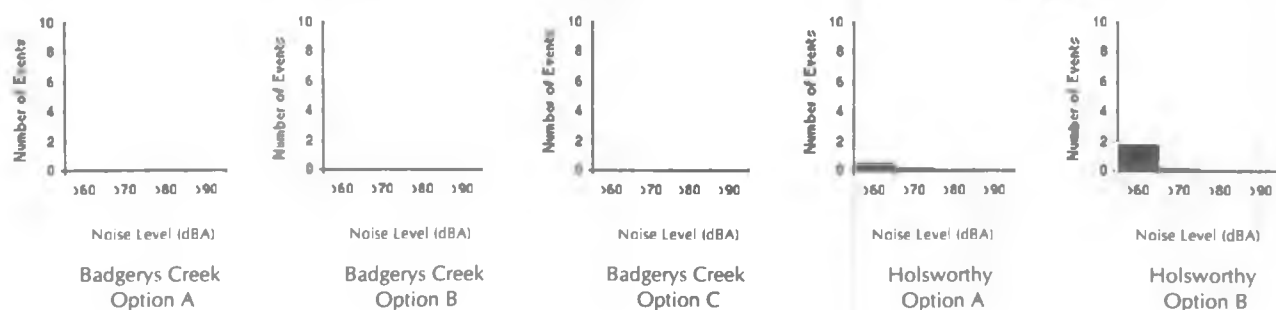
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

 Potential Range of Events


2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

 Potential Range of Events


AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 75

SHEET 1 / 4

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	39212	41190 ¹	42890	42890	43880	43880	42890	41930	43880	42670
Educational Facilities ²		15	15	15	15	15	15	15	15	15
Other Noise Sensitive ³ Land Uses		27	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	46, 49, 51	L _{A90}	7am to 7pm	36, 34, 39
	7pm to 10pm	40, 42, 48		7pm to 10pm	31, 31, 39
	10pm to 7am	41, 42, 42		10pm to 7am	26, 23, 36

Monitored at: 19 Taburie Street, Lumeah, 15 Kelburn Place, Airds, 64 Palmer Cres. St Helens Park

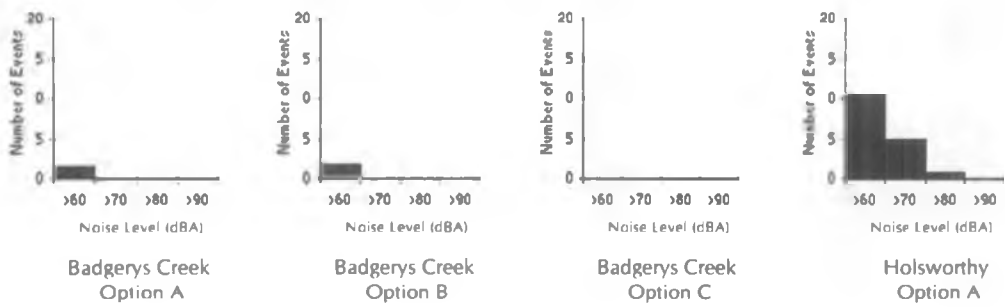
Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹	18 - 27	12 - 19	10 - 18	23 - 29	26 - 31	19 - 25	24 - 34		30 - 44	
L _{Aeq} 10pm-6am ¹	6 - 17	2 - 11	1 - 8	10 - 18	15 - 20	9 - 13	13 - 24		19 - 33	
ANEC ²	-21 --10	-27 --18	-19 --9	-16 --9	-12 --7	-13 --6	-14 --3		-8 - 9	
Number of Noise Events: ³								Refer Following Pages		Refer Following Pages
Over 60 dBA per 24 Hours	0 - 1	0 - 0	0 - 0	0 - 2	0 - 2	0 - 0	0 - 0		0 - 11	
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 5	
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 1	
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 1	
Over 65 dBA (9am-3pm)	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 4	
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

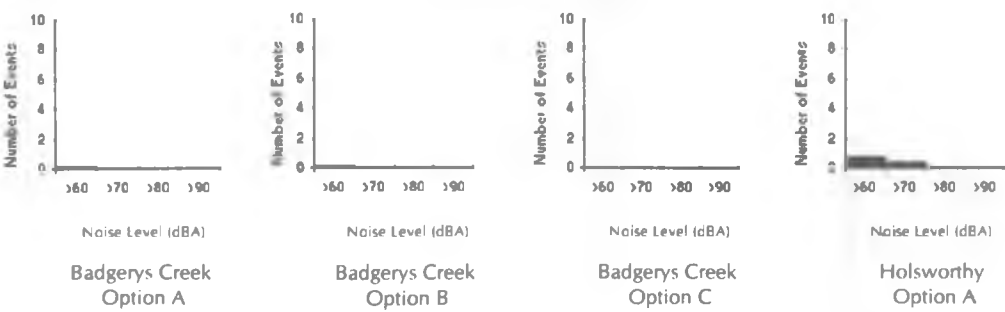
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

Potential Range of Events



Social Characteristics for Holsworthy Option B:

	Sub Area: 75.B1			Sub Area: 75.B2			Sub Area: 75.B3			Sub Area: 75.B4			Sub Area: 75.B5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	4050	4130	4200	22480	22880	23280	8800	8960	9120	3380	3440	3500	1330	1350	1380
Educational Facilities ²	2	2	2	7	7	7	5	5	5	1	1	1	0	0	0
Other Noise Sensitive ³ Land Uses	1			12			8			4			2		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option B:

	Sub Area: 75.B1		Sub Area: 75.B2		Sub Area: 75.B3		Sub Area: 75.B4		Sub Area: 75.B5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	33 - 44	41 - 49	36 - 47	44 - 52	38 - 49	47 - 54	38 - 49	47 - 50	37 - 48	51 - 56
L _{Aeq} 10pm-6am ¹	23 - 35	30 - 39	26 - 38	33 - 42	27 - 40	36 - 45	28 - 40	36 - 39	27 - 39	39 - 44
ANEC ²	-1 - 11	7 - 16	2 - 15	11 - 19	4 - 17	14 - 22	4 - 17	12 - 16	3 - 15	17 - 22
Number of Noise Events ³										
Over 60 dBA per 24 Hours	2 - 24	12 - 59	4 - 35	15 - 70	4 - 39	20 - 89	5 - 45	62 - 103	4 - 43	81 - 162
Over 70 dBA per 24 Hours	0 - 4	2 - 16	1 - 11	4 - 23	1 - 13	6 - 36	1 - 14	5 - 18	1 - 11	23 - 67
Over 80 dBA per 24 Hours	0 - 0	0 - 2	0 - 1	1 - 4	0 - 1	1 - 9	0 - 2	0 - 1	0 - 1	3 - 8
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 2	1 - 5	0 - 3	1 - 6	0 - 3	1 - 8	0 - 3	5 - 7	0 - 3	5 - 12
Over 70 dBA per Night	0 - 0	0 - 1	0 - 1	0 - 2	0 - 1	0 - 3	0 - 1	0 - 2	0 - 1	2 - 5
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 7	3 - 15	1 - 10	4 - 21	1 - 13	6 - 29	1 - 13	13 - 26	1 - 13	23 - 56
Sleep Disturbance Index ⁴	0 - 0	0 - 0.1	0 - 0.1	0 - 0.2	0 - 0.1	0 - 0.3	0 - 0.1	0.1 - 0.2	0 - 0.1	0.1 - 0.4

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Holsworthy Option B:

Sub Area: 75.B6			
	1996	2006	2016
Estimated Population ¹	1150	1170	1190
Educational Facilities ²	0	0	0
Other Noise Sensitive ³ Land Uses	0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option B:

Sub Area: 75.B6		
	2006	2016
L _{Aeq} 24 Hour ¹	38 - 48	59 - 65
L _{Aeq} 10pm-6am ¹	28 - 39	46 - 54
ANEC ²	3 - 15	26 - 34
Number of Noise Events ³		
Over 60 dBA per 24 Hours	5 - 47	89 - 178
Over 70 dBA per 24 Hours	1 - 11	49 - 150
Over 80 dBA per 24 Hours	0 - 1	31 - 109
Over 90 dBA per 24 Hours	0 - 0	5 - 28
Over 60 dBA per Night	0 - 4	6 - 13
Over 70 dBA per Night	0 - 1	3 - 12
Over 80 dBA per Night	0 - 0	1 - 8
Over 90 dBA per Night	0 - 0	0 - 2
Over 65 dBA (9am-3pm)	1 - 13	28 - 74
Sleep Disturbance Index ⁴	0 - 0.1	0.2 - 1

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	3066	3200 ¹	3350	3350	3490	3490	3350	3350	3490	3490
Educational Facilities ²		0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses		0	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	49	L _{A90}	7am to 7pm	38
	7pm to 10pm	42		7pm to 10pm	36
	10pm to 7am	40		10pm to 7am	30

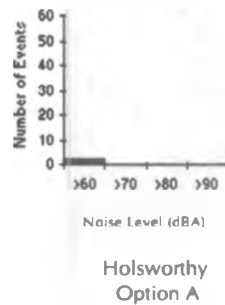
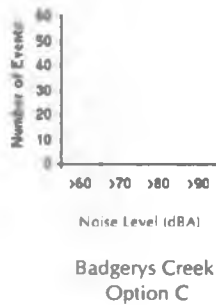
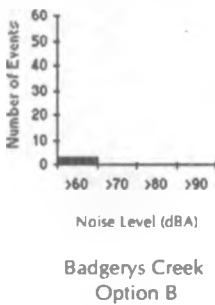
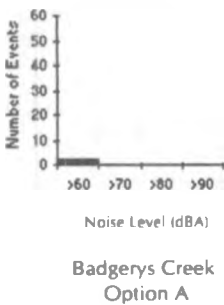
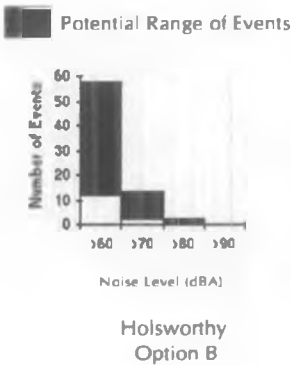
Monitored at: 72 Queenscliff Drive, Woodbine

Noise Indicators:

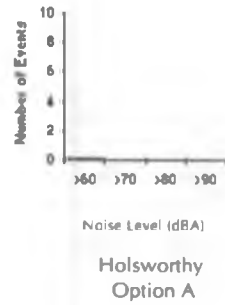
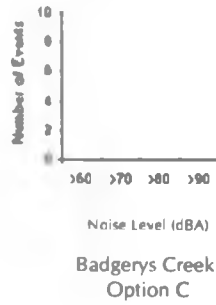
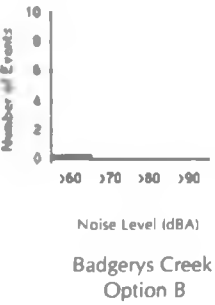
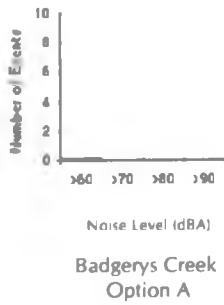
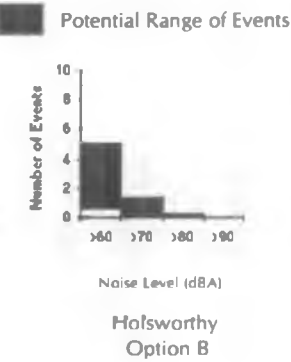
	Badgerys Creek						Holsworthy			
							2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour	19 - 29	16 - 24	11 - 21	24 - 31	27 - 33	21 - 26	22 - 29	35 - 46	28 - 35	41 - 48
L _{Aeq} 10pm-6am ¹	7 - 19	6 - 15	2 - 11	11 - 20	16 - 22	11 - 15	12 - 20	25 - 37	17 - 23	29 - 38
ANEC ²	-19 - -8	-23 - -14	-19 - -8	-15 - -6	-10 - -4	-13 - -6	-11 - -3	1 - 14	-7 - 0	7 - 15
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 1	0 - 0	0 - 0	0 - 2	1 - 3	0 - 0	0 - 0	4 - 34	0 - 2	12 - 58
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 9	0 - 0	2 - 13
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 2
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0	1 - 5
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	1 - 9	0 - 0	2 - 14
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0.1	0 - 0	0 - 0.1

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	4767	4940 ¹	5070	5070	5070	5070	5070	5070	5070	5070
Educational Facilities ²		3	3	3	3	3	3	3	3	3
Other Noise Sensitive ³ Land Uses		5	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	57	L _{A90}	7am to 7pm	42
	7pm to 10pm	55		7pm to 10pm	45
	10pm to 7am	47		10pm to 7am	36

Monitored at: 13 Gidley Crescent, Claymore

Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹	17 - 25	18 - 27	13 - 23	22 - 27	24 - 35	29 - 36	21 - 28	31 - 42	27 - 35	35 - 42
L _{Aeq} 10pm-6am ¹	6 - 16	7 - 17	3 - 13	10 - 18	11 - 24	16 - 25	11 - 19	21 - 33	17 - 23	23 - 31
ANEC ²	-19 --10	-17 --9	-19 --9	-13 --5	-11 --1	-9 --1	-12 --4	-3 - 9	-7 - 0	0 - 7
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 1	0 - 1	0 - 0	0 - 1	1 - 5	0 - 4	0 - 0	1 - 17	0 - 3	3 - 20
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0	0 - 1
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 2
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 1	0 - 0	0 - 3	0 - 0	1 - 3
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
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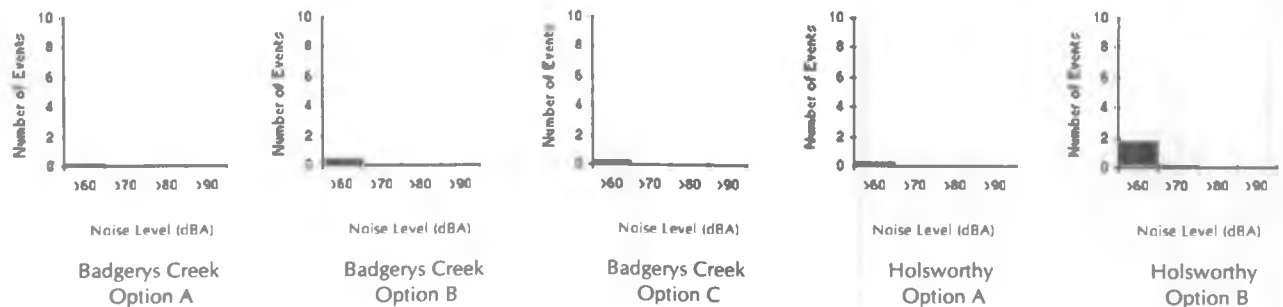
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 78

SHEET 1 / 3

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	315	300	3020	3020	4440	4440	3020	3020	4890	4440
Educational Facilities ²		2	2	2	3	3	2	2	3	3
Other Noise Sensitive ³ Land Uses		5	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	48	L _{A90}	7am to 7pm	35
	7pm to 10pm	41		7pm to 10pm	32
	10pm to 7am	44		10pm to 7am	28

Monitored at: 91 Cummins Road, Menangle Park

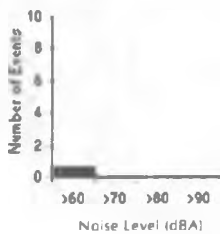
Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹	16 - 24	17 - 24	18 - 30	20 - 26	23 - 28	20 - 24	22 - 33		28 - 35	
L _{Aeq} 10pm-6am ¹	4 - 15	5 - 15	6 - 18	8 - 16	11 - 18	9 - 13	11 - 23		17 - 24	
ANEC ²	-18 - -9	-19 - -10	-18 - -6	-19 - -11	-15 - -9	-15 - -6	-16 - -4		-10 - -2	
Number of Noise Events: ³								Refer Following Pages		Refer Following Pages
Over 60 dBA per 24 Hours	0 - 0	0 - 1	0 - 1	0 - 1	0 - 1	0 - 0	0 - 2		1 - 3	
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 65 dBA (9am-3pm)	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	

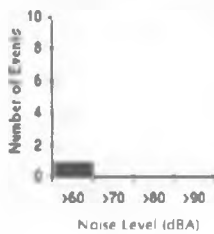
Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

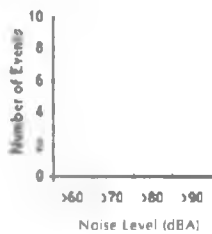
Potential Range of Events



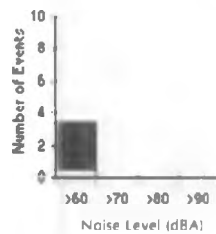
Badgerys Creek Option A



Badgerys Creek Option B



Badgerys Creek Option C



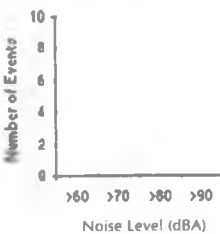
Holsworthy Option A

Refer Following Pages

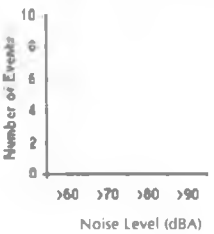
Holsworthy Option B

2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

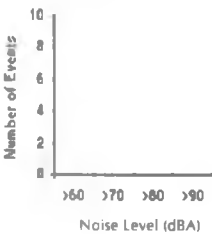
Potential Range of Events



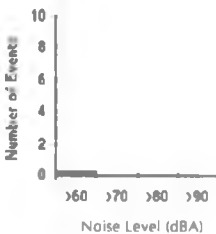
Badgerys Creek Option A



Badgerys Creek Option B



Badgerys Creek Option C



Holsworthy Option A

Refer Following Pages

Holsworthy Option B

Social Characteristics for Holsworthy Option B:

	Sub Area: 78.B1			Sub Area: 78.B2			Sub Area: 78.B3			Sub Area: 78.B4			Sub Area: 78.B5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	30	310	460	0	0	0	0	0	0	0	0	0	270	2700	3980
Educational Facilities ²	2	2	3	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	5			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option B:

	Sub Area: 78.B1		Sub Area: 78.B2		Sub Area: 78.B3		Sub Area: 78.B4		Sub Area: 78.B5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	28 - 38	35 - 39	29 - 36	45 - 50	32 - 39	52 - 58	39 - 47	46 - 51	45 - 54	48 - 53
L _{Aeq} 10pm-6am ¹	17 - 27	24 - 28	19 - 25	33 - 38	22 - 28	38 - 46	26 - 36	34 - 39	32 - 43	36 - 42
ANEC ²	-6 - 3	0 - 3	-6 - -1	10 - 15	-3 - 3	16 - 23	3 - 11	12 - 16	10 - 19	13 - 18
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 6	1 - 8	0 - 1	34 - 107	1 - 8	51 - 153	8 - 53	38 - 114	23 - 120	37 - 95
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	6 - 21	0 - 0	34 - 117	1 - 7	7 - 18	7 - 55	15 - 50
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	6 - 26	0 - 0	0 - 1	0 - 3	1 - 4
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 1	0 - 0	1 - 7	0 - 1	2 - 12	0 - 5	2 - 8	2 - 9	3 - 8
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	1 - 8	0 - 1	1 - 1	0 - 5	1 - 3
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 1	0 - 0	0 - 0	7 - 26	0 - 1	20 - 65	2 - 15	9 - 30	6 - 43	11 - 33
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0.2	0 - 0	0.1 - 0.5	0 - 0.1	0.1 - 0.2	0 - 0.3	0.1 - 0.2

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 79

SHEET 1 / 3

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	3079	2900 ¹	3150	3150	3300	3300	3150	3150	3300	3300
Educational Facilities ²		5	5	5	5	5	5	5	5	5
Other Noise Sensitive ³ Land Uses		12	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	51	L _{A90}	7am to 7pm	41
	7pm to 10pm	47		7pm to 10pm	37
	10pm to 7am	43		10pm to 7am	31

Monitored at: 27 Phelps Crescent, Bradbury

Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L_{Aeq} 24 Hour	18 - 24	14 - 21	12 - 19	20 - 26	21 - 28	27 - 36	22 - 32		28 - 42	
L_{Aeq} 10pm-6am	4 - 14	4 - 13	2 - 9	7 - 16	9 - 17	13 - 24	12 - 22		17 - 30	
ANEC ²	-17 --9	-20 --11	-20 --9	-13 --6	-13 --6	-10 --1	-16 --5		-10 -6	
Number of Noise Events:								Refer Following Pages		Refer Following Pages
Over 60 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 4	0 - 0		0 - 9	
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 3	
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 1	
Over 65 dBA (9am-3pm)	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0		0 - 3	
Sleep Disturbance Index	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	

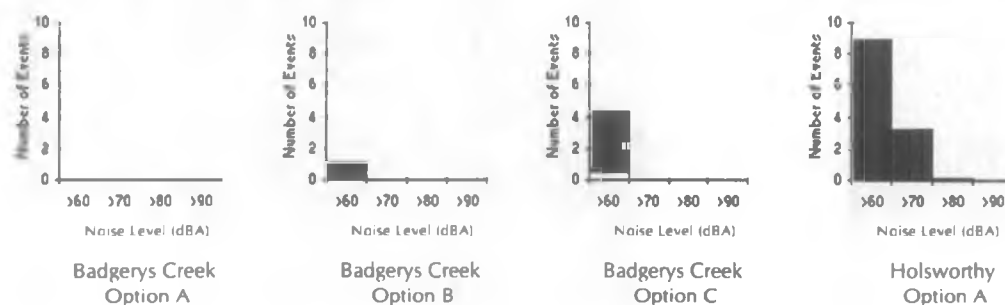
Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

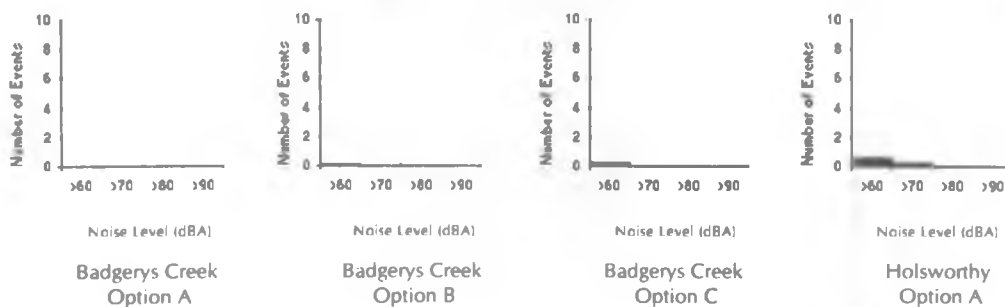
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

 Potential Range of Events


2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

 Potential Range of Events


Social Characteristics for Holsworthy Option B:

	Sub Area: 79.B1			Sub Area: 79.B2		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	2900	3150	3300	0	0	0
Educational Facilities ²	4	4	4	1	1	1
Other Noise Sensitive ³ Land Uses	9			3		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option B:

	Sub Area: 79.B1		Sub Area: 79.B2	
	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	36 - 47	41 - 48	31 - 42	38 - 42
L _{Aeq} 10pm-6am ¹	26 - 38	29 - 38	21 - 31	27 - 32
ANEC ²	2 - 15	7 - 15	-3 - 7	3 - 7
Number of Noise Events ³				
Over 60 dBA per 24 Hours	4 - 36	12 - 59	1 - 18	4 - 23
Over 70 dBA per 24 Hours	1 - 11	2 - 11	0 - 2	0 - 1
Over 80 dBA per 24 Hours	0 - 1	0 - 1	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 3	1 - 5	0 - 1	0 - 2
Over 70 dBA per Night	0 - 1	0 - 1	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	1 - 11	2 - 14	0 - 3	1 - 4
Sleep Disturbance Index ⁴	0 - 0.1	0 - 0.1	0 - 0	0 - 0

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 80

SHEET 1 / 4

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	15518	19860 ¹	23680	23680	24280	24280	23680	21640	24280	21640
Educational Facilities ²		8	8	8	9	9	8	8	9	9
Other Noise Sensitive ³ Land Uses		12	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	55	L _{A90}	7am to 7pm	42
	7pm to 10pm	49		7pm to 10pm	42
	10pm to 7am	47		10pm to 7am	34

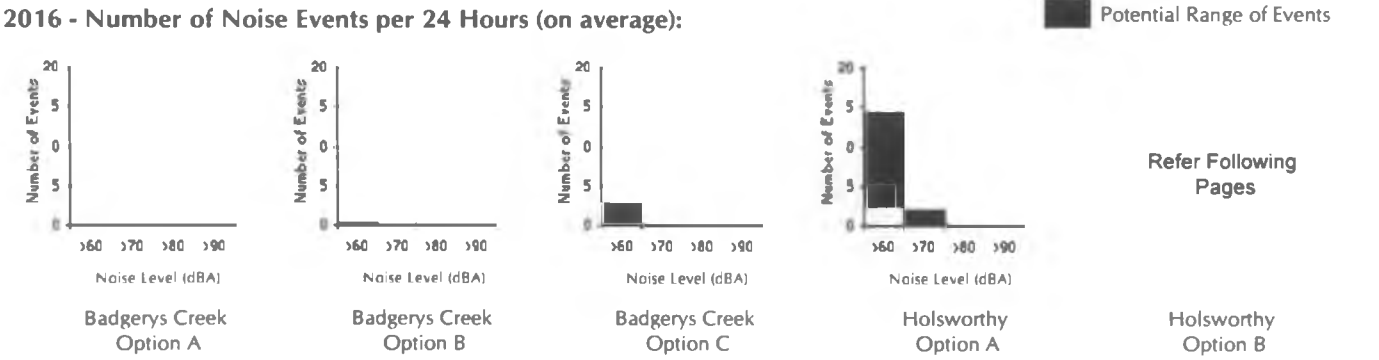
Monitored at: 25 Trotwood Avenue, Ambervale

Noise Indicators:

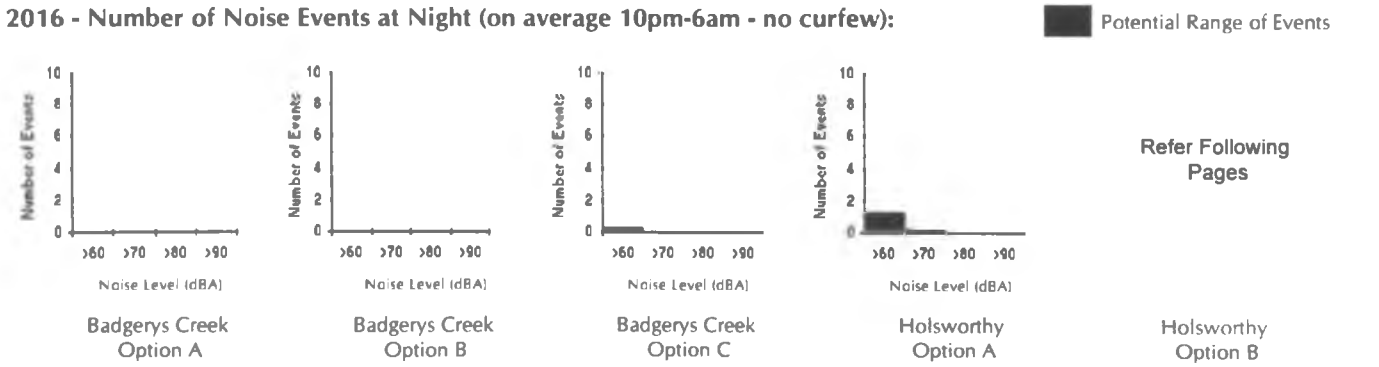
	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹	11 - 19	14 - 21	17 - 30	13 - 20	14 - 23	24 - 32	28 - 39		34 - 41	
L _{Aeq} 10pm-6am ¹	1 - 12	4 - 14	5 - 18	3 - 14	4 - 14	9 - 21	17 - 29		23 - 30	
ANEC ²	-18 --9	-18 --9	-18 --7	-15 --8	-15 --7	-13 --4	-8 - 4		-2 - 7	
Number of Noise Events: ³								Refer Following Pages		Refer Following Pages
Over 60 dBA per 24 Hours	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 3	1 - 9		2 - 14	
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1		0 - 2	
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1		0 - 1	
Over 65 dBA (9am-3pm) ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1		0 - 2	
Sleep Disturbance Index	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):



2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):



Social Characteristics for Holsworthy Option B:

	Sub Area: 80.B1			Sub Area: 80.B2			Sub Area: 80.B3			Sub Area: 80.B4			Sub Area: 80.B5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	1710	1860	1860	3050	3320	3320	2600	2830	2830	2110	2300	2300	1410	1530	1530
Educational Facilities ²	1	1	1	1	1	2	0	0	0	0	0	0	2	2	2
Other Noise Sensitive ³ Land Uses	2			2			0			2			1		

Notes: 1. Rounded to nearest 10.

2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.

3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option B:

	Sub Area: 80.B1		Sub Area: 80.B2		Sub Area: 80.B3		Sub Area: 80.B4		Sub Area: 80.B5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L_{Aeq} 24 Hour	31 - 41	43 - 45	30 - 38	45 - 49	31 - 40	51 - 57	33 - 40	55 - 61	35 - 42	55 - 61
L_{Aeq} 10pm-6am ¹	21 - 31	32 - 33	20 - 28	33 - 37	22 - 30	38 - 45	23 - 30	41 - 50	25 - 31	41 - 50
ANEC	-3 - 6	8 - 10	-5 - 3	10 - 14	-4 - 4	16 - 23	-3 - 4	21 - 28	-1 - 6	21 - 28
Number of Noise Events ³										
Over 60 dBA per 24 Hours	1 - 17	20 - 42	0 - 8	28 - 82	1 - 12	51 - 150	1 - 12	54 - 154	2 - 18	57 - 160
Over 70 dBA per 24 Hours	0 - 1	0 - 3	0 - 0	4 - 10	0 - 0	22 - 78	0 - 0	40 - 134	0 - 1	39 - 129
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	3 - 13	0 - 0	11 - 50	0 - 0	10 - 41
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 1	2 - 3	0 - 1	2 - 6	0 - 1	3 - 11	0 - 1	3 - 12	0 - 2	3 - 13
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	1 - 6	0 - 0	2 - 10	0 - 0	2 - 10
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 4	0 - 0	0 - 3
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 4	4 - 9	0 - 1	7 - 23	0 - 2	17 - 56	0 - 1	22 - 68	0 - 3	22 - 68
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0.1	0 - 0	0.1 - 0.4	0 - 0	0.1 - 0.7	0 - 0	0.1 - 0.7

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Holsworthy Option B:

	Sub Area: 80.B6			Sub Area: 80.B7			Sub Area: 80.B8			Sub Area: 80.B9		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	3220	3510	3510	2750	2990	2990	2160	2360	2360	860	930	930
Educational Facilities ²	1	1	1	3	3	3	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	1			1			1			2		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option B:

	Sub Area: 80.B6		Sub Area: 80.B7		Sub Area: 80.B8		Sub Area: 80.B9	
	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	36 - 42	52 - 57	40 - 47	48 - 51	43 - 51	48 - 52	50 - 59	53 - 58
L _{Aeq} 10pm-6am ¹	26 - 32	39 - 46	29 - 37	36 - 39	31 - 41	36 - 40	37 - 49	40 - 47
ANEC ²	1 - 7	18 - 24	5 - 12	14 - 17	8 - 17	14 - 17	16 - 26	19 - 25
Number of Noise Events ³								
Over 60 dBA per 24 Hours	4 - 26	56 - 166	11 - 67	48 - 133	19 - 108	47 - 128	30 - 139	54 - 113
Over 70 dBA per 24 Hours	0 - 2	24 - 79	1 - 6	8 - 16	3 - 30	11 - 26	16 - 103	27 - 80
Over 80 dBA per 24 Hours	0 - 0	4 - 15	0 - 0	0 - 2	0 - 1	1 - 2	3 - 29	6 - 26
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 3	3 - 13	1 - 6	3 - 10	1 - 8	3 - 10	3 - 11	5 - 10
Over 70 dBA per Night	0 - 0	1 - 6	0 - 1	1 - 1	0 - 3	1 - 2	1 - 7	2 - 6
Over 80 dBA per Night	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 3	0 - 2
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 3	19 - 58	2 - 18	12 - 35	4 - 34	12 - 32	11 - 59	18 - 44
Sleep Disturbance Index ⁴	0 - 0	0.1 - 0.5	0 - 0.1	0.1 - 0.2	0 - 0.2	0.1 - 0.2	0.1 - 0.5	0.1 - 0.4

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006	2016	2006	2016	2006	2016	2006	2016
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	544	530	560	560	580	580	560	540	580	540
Educational Facilities ²		0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses		0	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	45, 46	L _{A90}	7am to 7pm	30, 31
	7pm to 10pm	41, 40		7pm to 10pm	33, 30
	10pm to 7am	35, 35		10pm to 7am	30, 26

Monitored at: 31 Amberfoyle Road, Wedderburn, 104 Katanna Road, Wedderburn

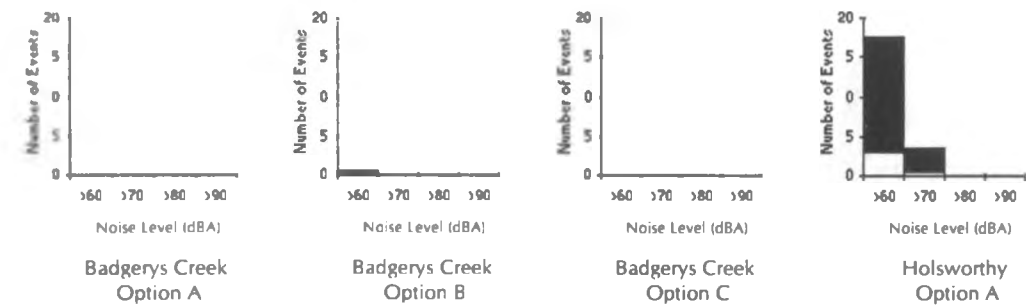
Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹	5 - 15	10 - 18	20 - 32	11 - 18	16 - 23	10 - 17	29 - 40		35 - 42	
L _{Aeq} 10pm-6am ¹	-3 - 7	0 - 12	6 - 21	3 - 9	8 - 15	0 - 8	18 - 31		24 - 31	
ANEC ²	-15 --12	-14 --11	-17 --4	-12 --7	-12 --6	-16 --8	-5 - 6		1 - 8	
Number of Noise Events:							Refer Following Pages		Refer Following Pages	
Over 60 dBA per 24 Hours	0 - 0	0 - 0	0 - 3	0 - 0	0 - 0	0 - 0		3 - 18		
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		1 - 3		
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 1	0 - 1	
Over 65 dBA (9am-3pm)	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	1 - 4	1 - 4	
Sleep Disturbance Index	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

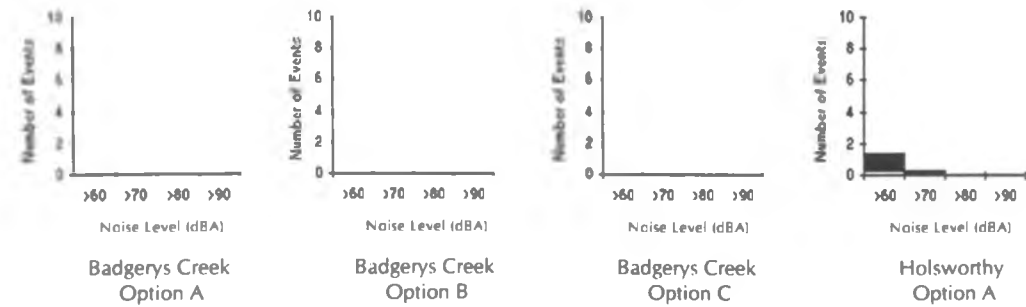
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

Potential Range of Events



Social Characteristics for Holsworthy Option B:

	Sub Area: 81.B1			Sub Area: 81.B2			Sub Area: 81.B3			Sub Area: 81.B4			Sub Area: 81.B5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population	10	10	10	20	20	20	10	10	10	30	30	30	90	100	100
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option B:

	Sub Area: 81.B1		Sub Area: 81.B2		Sub Area: 81.B3		Sub Area: 81.B4		Sub Area: 81.B5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L_{Aeq} 24 Hour¹	45 - 57	55 - 58	48 - 59	51 - 54	46 - 55	49 - 53	50 - 57	52 - 55	58 - 68	61 - 67
L_{Aeq} 10pm-6am¹	36 - 48	45 - 46	38 - 51	41 - 43	37 - 45	39 - 41	41 - 47	42 - 44	46 - 58	48 - 56
ANEC²	13 - 26	22 - 25	15 - 28	14 - 20	12 - 22	15 - 19	17 - 24	19 - 22	26 - 37	28 - 35
Number of Noise Events³										
Over 60 dBA per 24 Hours	8 - 74	126 - 195	22 - 117	83 - 196	48 - 130	92 - 162	61 - 155	94 - 159	56 - 163	84 - 132
Over 70 dBA per 24 Hours	4 - 39	53 - 110	6 - 57	12 - 55	8 - 56	13 - 37	21 - 87	32 - 64	31 - 142	49 - 107
Over 80 dBA per 24 Hours	1 - 13	7 - 15	1 - 16	0 - 2	0 - 7	0 - 2	2 - 13	3 - 7	19 - 118	28 - 88
Over 90 dBA per 24 Hours	0 - 2	0 - 1	0 - 4	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	5 - 53	9 - 40
Over 60 dBA per Night	1 - 7	11 - 15	2 - 9	7 - 15	6 - 9	8 - 11	8 - 11	9 - 11	6 - 12	8 - 10
Over 70 dBA per Night	0 - 3	4 - 8	0 - 5	1 - 5	1 - 5	1 - 3	2 - 7	3 - 4	3 - 11	4 - 9
Over 80 dBA per Night	0 - 1	1 - 1	0 - 1	0 - 0	0 - 1	0 - 0	0 - 2	0 - 1	1 - 9	2 - 7
Over 90 dBA per Night	0 - 1	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 5	0 - 3
Over 65 dBA (9am-3pm)	3 - 28	46 - 79	5 - 39	17 - 50	9 - 43	16 - 40	18 - 62	27 - 48	18 - 72	30 - 53
Sleep Disturbance Index⁴	0 - 0.3	0.4 - 0.6	0.1 - 0.4	0.2 - 0.4	0.1 - 0.3	0.2 - 0.3	0.2 - 0.4	0.3 - 0.4	0.2 - 1.1	0.4 - 0.9

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Holsworthy Option B:

	Sub Area: 81.B6			Sub Area: 81.B7			Sub Area: 81.B8			Sub Area: 81.B9		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	20	20	20	110	120	120	80	80	80	160	160	160
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option B:

	Sub Area: 81.B6		Sub Area: 81.B7		Sub Area: 81.B8		Sub Area: 81.B9	
	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	63 - 73	65 - 71	48 - 59	53 - 60	48 - 55	53 - 57	45 - 53	50 - 54
L _{Aeq} 10pm-6am ¹	52 - 63	54 - 60	38 - 50	42 - 50	38 - 46	42 - 46	36 - 45	40 - 41
ANEC ²	31 - 41	33 - 39	15 - 27	20 - 29	11 - 22	15 - 23	5 - 14	10 - 16
Number of Noise Events ³								
Over 60 dBA per 24 Hours	84 - 185	116 - 198	51 - 145	78 - 154	19 - 121	43 - 137	7 - 65	21 - 78
Over 70 dBA per 24 Hours	60 - 174	86 - 145	8 - 59	19 - 74	7 - 57	20 - 73	3 - 12	10 - 20
Over 80 dBA per 24 Hours	30 - 142	41 - 101	1 - 20	4 - 26	0 - 5	1 - 8	0 - 0	0 - 0
Over 90 dBA per 24 Hours	15 - 99	22 - 70	0 - 2	1 - 4	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	12 - 14	11 - 16	6 - 11	6 - 13	2 - 10	4 - 12	1 - 7	2 - 7
Over 70 dBA per Night	7 - 14	8 - 11	1 - 6	2 - 6	1 - 6	2 - 7	0 - 2	1 - 1
Over 80 dBA per Night	3 - 11	4 - 9	0 - 3	0 - 3	0 - 1	0 - 1	0 - 0	0 - 0
Over 90 dBA per Night	1 - 7	1 - 5	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	33 - 86	46 - 74	9 - 48	18 - 52	4 - 38	11 - 43	3 - 23	8 - 28
Sleep Disturbance Index ⁴	0.6 - 1.6	0.7 - 1.2	0.1 - 0.5	0.2 - 0.5	0.1 - 0.4	0.1 - 0.4	0 - 0.2	0.1 - 0.2

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No.82SHEET 1 / 2

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	163	30 ¹	1310	1310	4000	4000	30	1310	30	5000
Educational Facilities ²		2	2	2	2	2	2	2	2	3
Other Noise Sensitive ³ Land Uses		0	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	L _{A90}	7am to 7pm
	7pm to 10pm		7pm to 10pm
	10pm to 7am		10pm to 7am

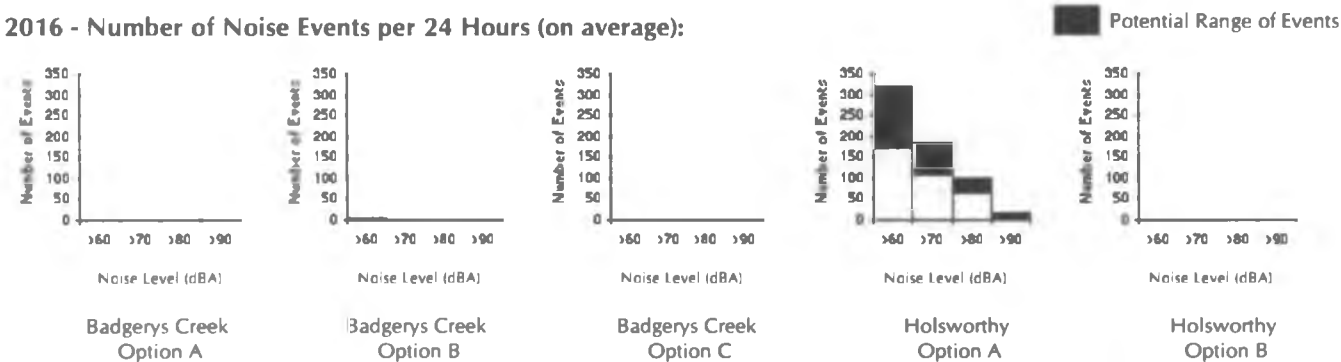
Monitored at: Holsworthy Military Area

Noise Indicators:

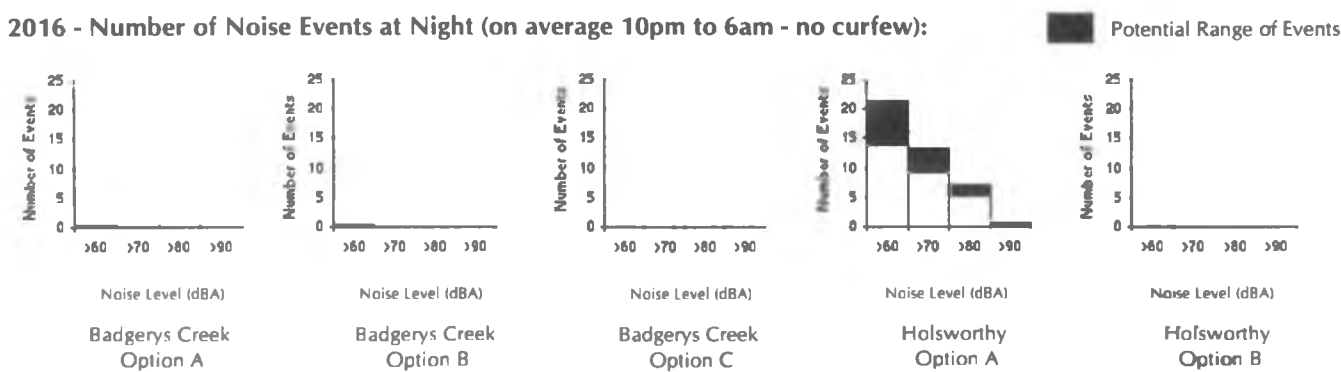
	Badgerys Creek						Holsworthy			
	Option A	2006 Option B	Option C	Option A	2016 Option B	Option C	2006 Option A	Option B	2016 Option A	Option B
L _{Aeq} 24 Hour ¹	17 - 28	5 - 16	1 - 13	23 - 31	25 - 32	20 - 27	40 - 47	13 - 22	63 - 66	23 - 27
L _{Aeq} 10pm-6am ¹	10 - 21	-2 - 9	-6 - 5	16 - 22	17 - 23	11 - 18	31 - 36	4 - 13	52 - 54	12 - 16
ANEC ²	-14 - -5	-17 - -9	-21 - -11	-9 - -3	-8 - -2	-11 - -8	6 - 13	37 - -2	30 - 33	-18 - -11
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 1	0 - 0	0 - 0	0 - 2	1 - 3	0 - 1	5 - 11	0 - 0	171 - 320	0 - 0
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	24 - 62	0 - 0	110 - 185	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	12 - 41	0 - 0	64 - 101	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	1 - 10	0 - 0	4 - 18	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	4 - 8	0 - 0	-14 - 21	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	4 - 5	0 - 0	9 - 13	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	2 - 3	0 - 0	5 - 7	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 1	0 - 1	0 - 0	14 - 42	0 - 0	63 - 109	0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	.3 - 0.	0 - 0	0.8 - 1	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	21120	28560 ¹	30280	30280	30280	30280	30280	30280	30280	30280
Educational Facilities ²		11	11	11	11	11	11	11	11	11
Other Noise Sensitive Land Uses ³		27	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	48, 55, 52	L _{A90}	7am to 7pm	33, 34, 35
	7pm to 10pm	39, 50, 45		7pm to 10pm	28, 31, 31
	10pm to 7am	38, 43, 41		10pm to 7am	26, 31, 30

Monitored at: 14 Caley Place, Lucas Heights, 41 Thomas Mitchell Dr, Lucas Heights, 33 Barnes Cres. Menai

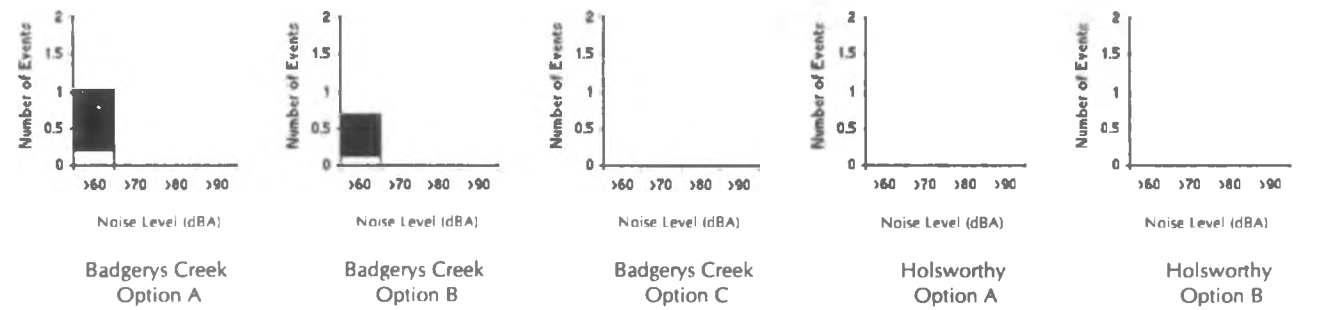
Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹	13 - 24	17 - 28	12 - 23	19 - 26	20 - 27	12 - 20	16 - 24	-2 - 11	25 - 28	10 - 16
L _{Aeq} 10pm-6am ¹	5 - 18	9 - 21	4 - 16	11 - 17	12 - 18	4 - 11	6 - 15	-12 - 2	15 - 16	0 - 5
ANEC ²	-16 - -8	-15 - -6	-18 - -11	-12 - -6	-11 - -5	-16 - -9	-13 - -4	-18 - -9	-7 - -2	-14 - -7
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 1	0 - 1	0 - 0	0 - 1	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1 These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2 The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3 Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4 Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

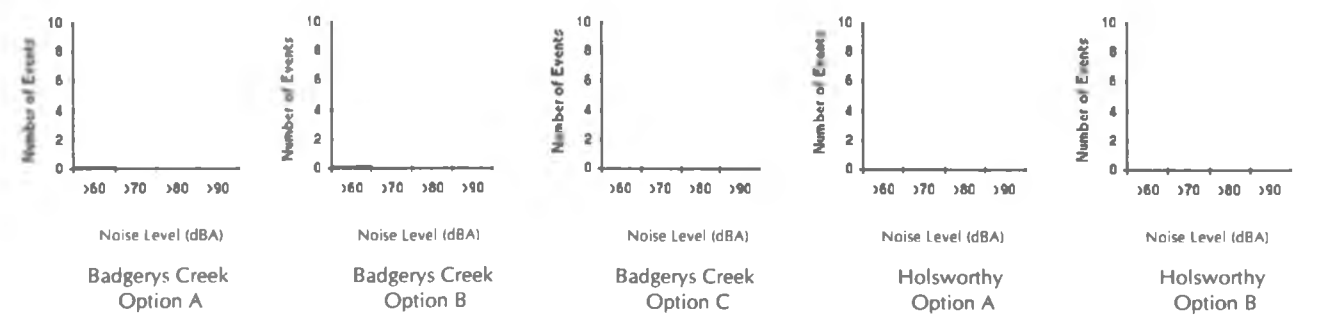
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	1905	1760 ¹	1770	1770	1780	1780	1770	1770	1780	1780
Educational Facilities ²		1	1	1	1	1	1	1	1	1
Other Noise Sensitive ³ Land Uses		2	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	52	L _{A90}	7am to 7pm	37
	7pm to 10pm	51		7pm to 10pm	35
	10pm to 7am	45		10pm to 7am	32

Monitored at: 50 Scarborough Street, Bundeena

Noise Indicators:

	Badgerys Creek						Halsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹	-3 - 9	-2 - 10	-9 - 4	4 - 11	7 - 14	-1 - 7	-14 - 3	-7 - 4	9 - 24	7 - 14
L _{Aeq} 10pm-6am ¹	-10 - 3	-11 - 2	-17 --2	-4 - 3	-1 - 5	-9 --2	-26 --2	-20 --4	0 - 13	-8 - 3
ANEC ²	-19 --11	-19 --11	-23 --12	-14 --9	-14 --8	-18 --10	22 --1	19 --1	-17 --7	-14 --8
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

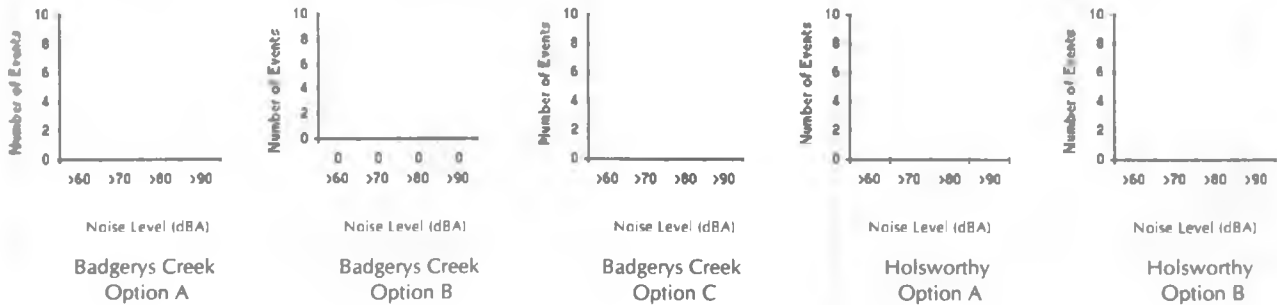
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 85

SHEET 1 / 2

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	673	580 ¹	580	580	590	590	580	580	590	590
Educational Facilities ²		2	2	2	2	2	2	2	2	2
Other Noise Sensitive ³ Land Uses		0	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	51	L _{A90}	7am to 7pm	37
	7pm to 10pm	42		7pm to 10pm	31
	10pm to 7am	46		10pm to 7am	28

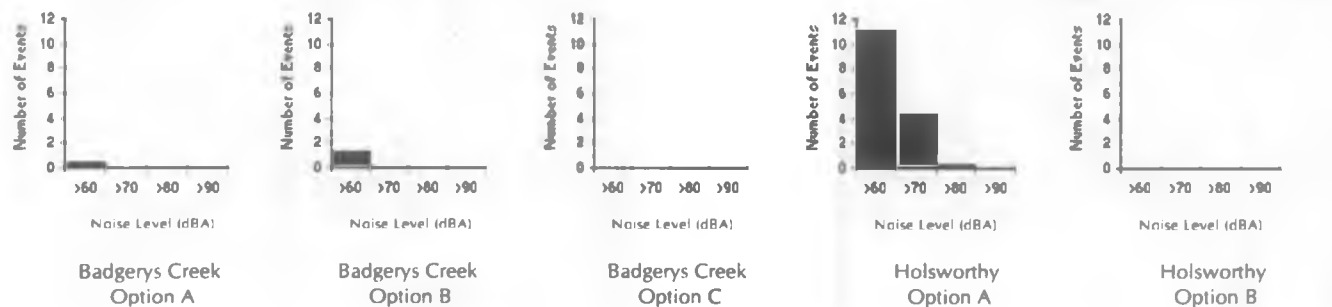
Monitored at: 3 McKell Avenue, Waterfall

Noise Indicators:

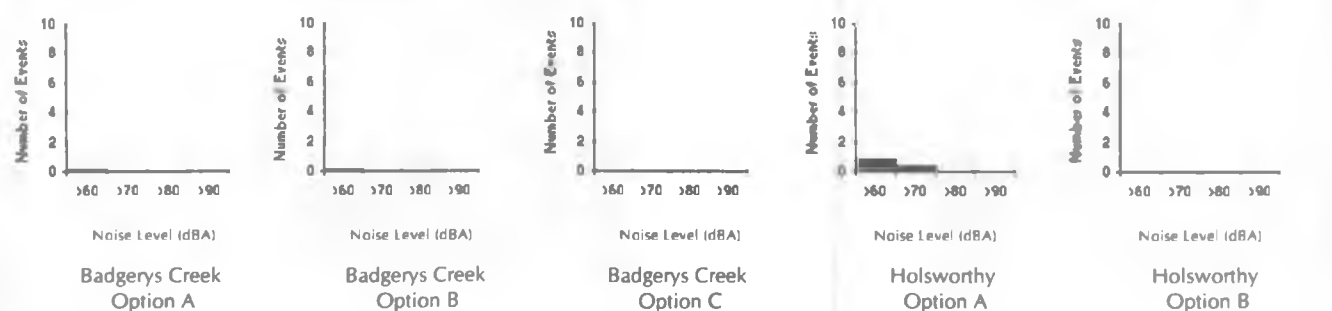
	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour	10 - 21	-4 - 8	-10 - 3	16 - 23	20 - 27	11 - 18	9 - 18	6 - 15	18 - 43	16 - 21
L_{Aeq} 10pm-6am	2 - 14	-11 - 2	-18 - -3	8 - 15	12 - 19	2 - 9	0 - 9	-4 - 5	8 - 32	4 - 9
ANEC	-17 - -10	-18 - -10	-22 - -11	-12 - -7	-11 - -5	-16 - -8	-21 - -8	-17 - -8	-16 - 9	-13 - -6
Number of Noise Events										
Over 60 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 11	0 - 0
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 4	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 4	0 - 0
Sleep Disturbance Index	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 86

SHEET 1 / 2

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	18141	18560 ¹	18640	18640	18640	18640	18640	18640	18640	18640
Educational Facilities ²		4	4	4	4	4	4	4	4	4
Other Noise Sensitive ³ Land Uses		5	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	52	L _{A90}	7am to 7pm	41
	7pm to 10pm	42		7pm to 10pm	36
	10pm to 7am	45		10pm to 7am	39

Monitored at: 23 Chullora Crescent, Engadine

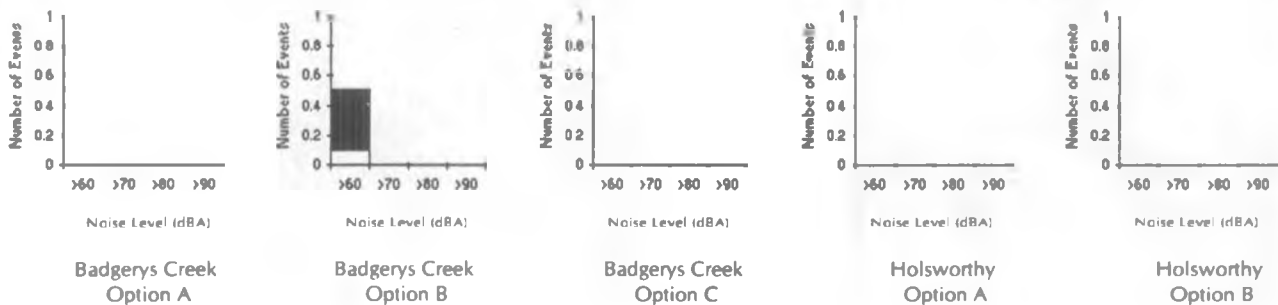
Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹	4 - 15	10 - 22	3 - 15	11 - 18	16 - 23	7 - 15	17 - 24	7 - 16	26 - 30	16 - 20
L _{Aeq} 10pm-6am ¹	-3 - 9	3 - 15	-5 - 7	3 - 9	8 - 15	-1 - 6	7 - 15	-3 - 7	16 - 18	6 - 9
ANEC ²	-17 --10	-17 --9	-21 --11	-13 --8	-12 --7	-17 --9	25 --1	-17 --8	-13 --8	-12 --6
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

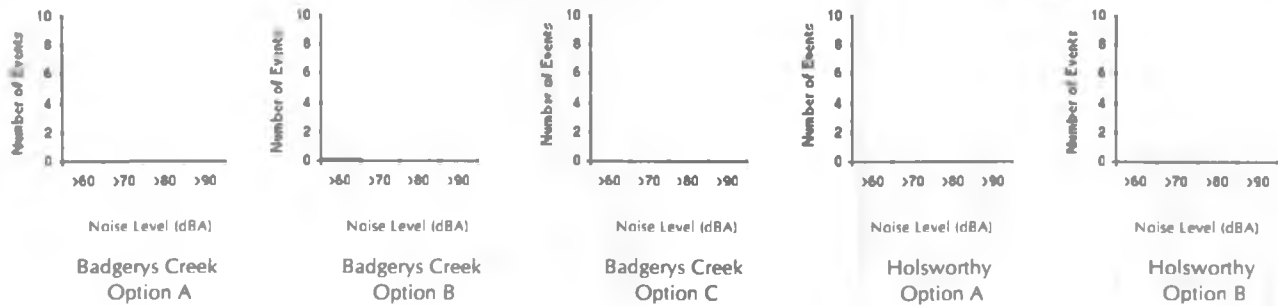
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	11005	11720 ¹	11760	11760	11860	11860	11760	11760	11860	11860
Educational Facilities ²		9	9	9	9	9	9	9	9	9
Other Noise Sensitive Land Uses		17	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	50, 49	L _{A90}	7am to 7pm	40, 35
	7pm to 10pm	47, 42		7pm to 10pm	36, 32
	10pm to 7am	46, 44		10pm to 7am	28, 28

Monitored at: 1239 Princes Highway, Engadine, 23 Abbott Road, Heathcote

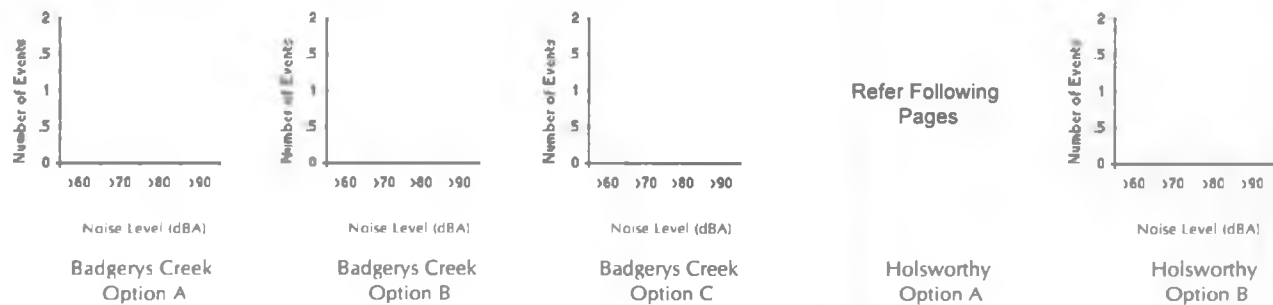
Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹	-5 - 6	5 - 16	-1 - 11	2 - 9	5 - 12	-3 - 4		10 - 19		19 - 23
L _{Aeq} 10pm-6am ¹	-12 --1	-3 - 10	-8 - 4	-6 - 0	-3 - 4	-12 --5		1 - 10		9 - 12
ANEC ²	-18 --10	-18 --10	-22 --11	-14 --8	-13 --8	-17 --9		-16 --7		-12 --5
Number of Noise Events ³							Refer Following Pages		Refer Following Pages	
Over 60 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Over 65 dBA (9am-3pm)	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		0 - 0

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

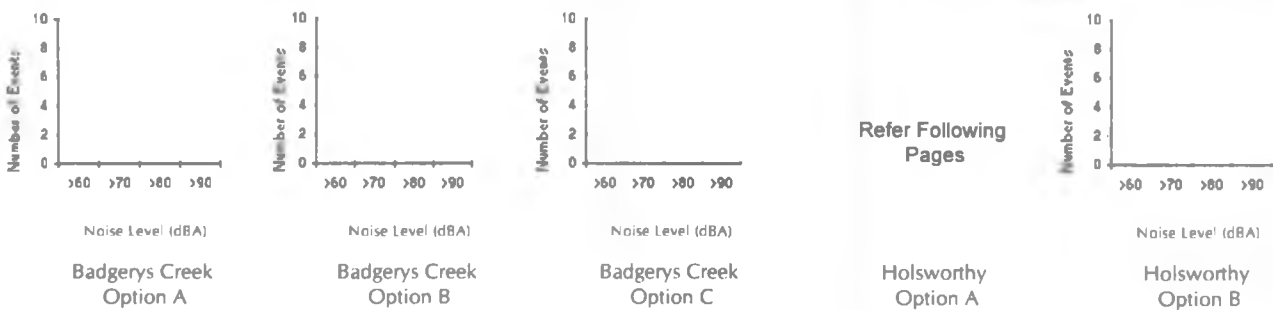
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average) 10pm-6am - no curfew):

Potential Range of Events



Social Characteristics for Holsworthy Option A:

	Sub Area: 87.A1			Sub Area: 87.A2			Sub Area: 87.A3		
	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10930	10970	10980	740	740	740	50	60	60
Educational Facilities ²	9	9	9	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	17			0			0		

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option A:

	Sub Area: 87.A1		Sub Area: 87.A2		Sub Area: 87.A3	
	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	20 - 28	27 - 31	23 - 30	29 - 32	23 - 30	29 - 32
L _{Aeq} 10pm-6am ¹	10 - 19	17 - 19	13 - 20	19 - 20	13 - 20	19 - 21
ANEC ²	-15 - -5	-7 - 0	-14 - -4	-3 - 22	-14 - -4	-2 - 31
Number of Noise Events ³						
Over 60 dBA per 24 Hours	0 - 0	0 - 2	0 - 0	0 - 21	0 - 0	0 - 23
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 15	0 - 0	0 - 18
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 6	0 - 0	0 - 13
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 8
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0	0 - 2
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1
Over 65 dBA (9am-3pm)	0 - 0	0 - 0	0 - 0	0 - 8	0 - 0	0 - 9
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0.1	0 - 0	0 - 0.1

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991 Census	1996	2006 Options A and B	2016 Option C	2006 Options A and B	2016 Option C	2006 Option A	2016 Option B	2006 Option A	2016 Option B
Estimated Population	459	420 ¹	420	420	430	430	420	420	430	430
Educational Facilities ²		0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³		0	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	46	L _{A90}	7am to 7pm	30
	7pm to 10pm	41		7pm to 10pm	33
	10pm to 7am	38		10pm to 7am	29

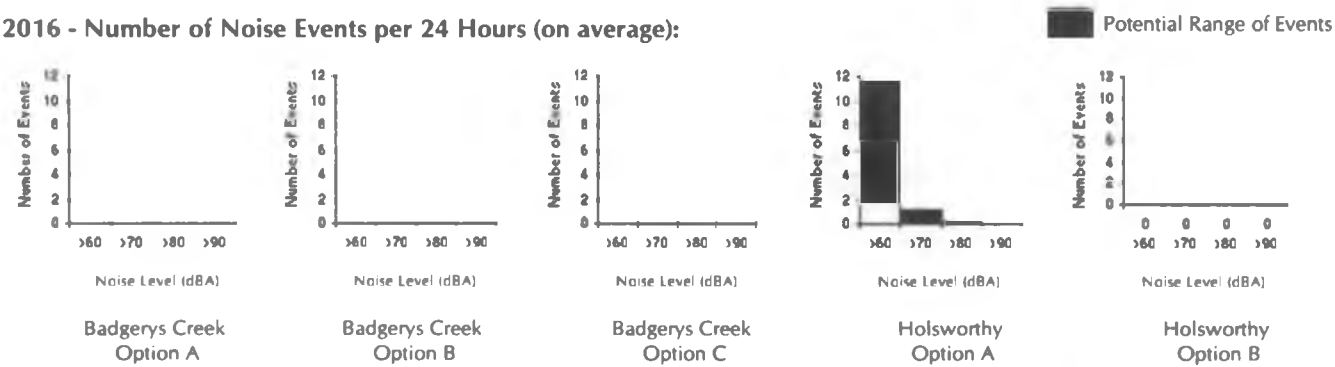
Monitored at: 55 Yanagang Road, Waterfall

Noise Indicators:

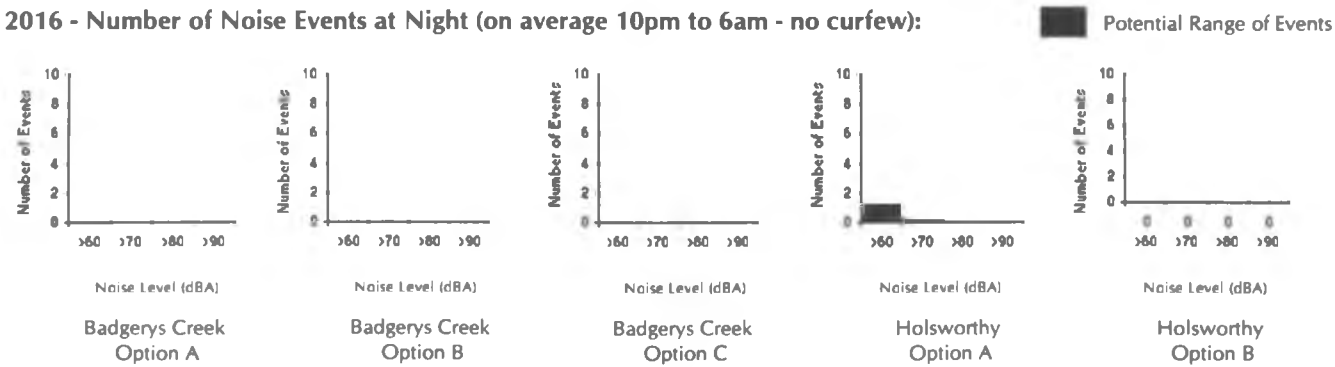
	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹	-7 - 0	-5 - 6	-14 - -2	-3 - 1	0 - 4	7 - 13	23 - 30	18 - 25	35 - 41	28 - 32
L _{Aeq} 10pm-6am ¹	-15 - -6	-12 - 0	-21 - -8	-12 - -5	-8 - -5	-21 - -10	12 - 20	8 - 16	24 - 30	16 - 21
ANEC ²	-18 - -11	-18 - -11	-22 - -12	-14 - -8	-14 - -8	-17 - -9	-12 - -5	-14 - -6	0 - 5	-6 - -3
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 6	0 - 0	2 - 12	0 - 0
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 2	0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 89

SHEET 1 / 8

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	387	80	80	80	90	90	80	80	80	80
Educational Facilities ²		0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses		2	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	51	L _{A90}	7am to 7pm	42
	7pm to 10pm	48		7pm to 10pm	38
	10pm to 7am	45		10pm to 7am	36

Monitored at: Garrawarra Centre for the Aged

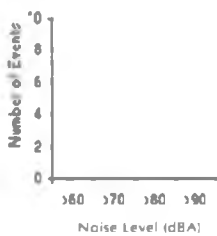
Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹	-14 --8	-11 --5	8 -14	-9 --5	-8 --1	10 -16	Refer Following Pages		Refer Following Pages	
L _{Aeq} 10pm-6am ¹	-23 --13	-19 --11	-20 --9	-16 --14	-16 --10	-18 --7				
ANEC ²	-18 --11	-18 --11	-21 --11	-14 --9	-14 --9	-17 --9				
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0				
Over 70 dBA per 24 Hours	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0				
Over 80 dBA per 24 Hours	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0				
Over 90 dBA per 24 Hours	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0				
Over 60 dBA per Night	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0				
Over 70 dBA per Night	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0				
Over 80 dBA per Night	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0				
Over 90 dBA per Night	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0				
Over 65 dBA (9am-3pm)	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0				
Sleep Disturbance Index ⁴	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0				

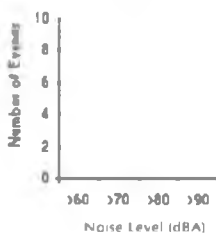
Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

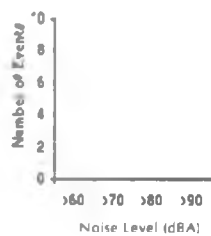
 Potential Range of Events



Badgerys Creek
Option A



Badgerys Creek
Option B



Badgerys Creek
Option C

Refer Following
Pages

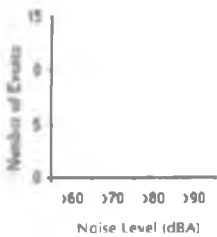
Holsworthy
Option A

Refer Following
Pages

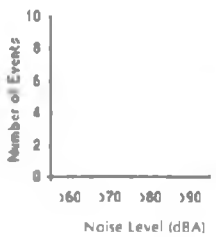
Holsworthy
Option B

2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

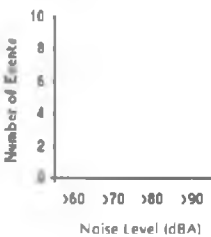
 Potential Range of Events



Badgerys Creek
Option A



Badgerys Creek
Option B



Badgerys Creek
Option C

Refer Following
Pages

Holsworthy
Option A

Refer Following
Pages

Holsworthy
Option B

Social Characteristics for Holsworthy Option A:

	Sub Area: 89.A1			Sub Area: 89.A2			Sub Area: 89.A3			Sub Area: 89.A4		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	40	40	40	20	20	20	0	0	0	20	20	20
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	1			1			0			0		

- Notes
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option A:

	Sub Area: 89.A1		Sub Area: 89.A2		Sub Area: 89.A3		Sub Area: 89.A4	
	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	31 - 40	37 - 42	21 - 30	27 - 32	33 - 42	39 - 44	46 - 57	52 - 59
L _{Aeq} 10pm-6am ¹	22 - 29	26 - 31	11 - 18	17 - 21	24 - 30	28 - 33	37 - 47	42 - 48
ANEC ²	-4 - 4	19 - 22	-13 - -7	-2 - 3	-2 - 7	19 - 24	13 - 23	12 - 22
Number of Noise Events ³								
Over 60 dBA per 24 Hours	1 - 10	86 - 143	0 - 0	1 - 9	2 - 21	75 - 148	29 - 135	43 - 118
Over 70 dBA per 24 Hours	0 - 0	24 - 62	0 - 0	0 - 0	0 - 2	25 - 101	7 - 91	9 - 74
Over 80 dBA per 24 Hours	0 - 0	5 - 14	0 - 0	0 - 0	0 - 0	5 - 23	1 - 25	1 - 21
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 1	7 - 10	0 - 0	0 - 1	0 - 1	6 - 11	3 - 10	3 - 9
Over 70 dBA per Night	0 - 0	2 - 4	0 - 0	0 - 0	0 - 0	2 - 7	1 - 6	1 - 6
Over 80 dBA per Night	0 - 0	1 - 1	0 - 0	0 - 0	0 - 0	1 - 2	0 - 3	0 - 2
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 1	26 - 52	0 - 0	0 - 0	0 - 4	19 - 57	7 - 56	8 - 45
Sleep Disturbance Index ⁴	0 - 0	0.2 - 0.4	0 - 0	0 - 0	0 - 0	0.2 - 0.5	0.1 - 0.4	0.1 - 0.4

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Holsworthy Option B:

	Sub Area: 89.B1			Sub Area: 89.B2			Sub Area: 89.B3			Sub Area: 89.B4			Sub Area: 89.B5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	0	0	0	10	10	10	40	40	40	10	10	10	0	0	0
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			1			0			0		

Notes: 1. Rounded to nearest 10.

2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.

3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Holsworthy Option B:

	Sub Area: 89.B1		Sub Area: 89.B2		Sub Area: 89.B3		Sub Area: 89.B4		Sub Area: 89.B5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L_{Aeq} 24 Hour¹	56 - 66	59 - 66	22 - 31	35 - 41	28 - 36	44 - 50	31 - 39	51 - 55	34 - 42	57 - 62
L_{Aeq} 10pm-6am¹	47 - 56	48 - 55	11 - 20	23 - 30	17 - 27	32 - 39	20 - 30	40 - 45	23 - 32	46 - 51
ANEC²	24 - 34	26 - 35	-11 - -6	0 - 5	-6 - 0	9 - 16	-5 - 3	17 - 23	-2 - 7	24 - 29
Number of Noise Events³										
Over 60 dBA per 24 Hours	65 - 162	126 - 194	0 - 0	2 - 11	0 - 3	28 - 76	1 - 8	76 - 114	2 - 19	86 - 127
Over 70 dBA per 24 Hours	35 - 134	49 - 136	0 - 0	0 - 1	0 - 0	3 - 14	0 - 0	23 - 45	0 - 1	44 - 100
Over 80 dBA per 24 Hours	10 - 76	16 - 77	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	3 - 9	0 - 0	15 - 49
Over 90 dBA per 24 Hours	2 - 18	3 - 18	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	1 - 6
Over 60 dBA per Night	9 - 13	12 - 15	0 - 0	0 - 1	0 - 1	2 - 5	0 - 1	6 - 8	0 - 1	7 - 10
Over 70 dBA per Night	4 - 10	4 - 12	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	2 - 3	0 - 0	3 - 8
Over 80 dBA per Night	1 - 6	1 - 7	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	1 - 4
Over 90 dBA per Night	0 - 2	0 - 2	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1
Over 65 dBA (9am-3pm)	23 - 72	41 - 76	0 - 0	0 - 1	0 - 0	4 - 18	0 - 1	21 - 37	0 - 4	31 - 53
Sleep Disturbance Index⁴	0.3 - 0.9	0.4 - 1	0 - 0	0 - 0	0 - 0	0 - 0.1	0 - 0	0.2 - 0.3	0 - 0	0.3 - 0.6

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Holsworthy Option B:

	Sub Area: 89.B6			Sub Area: 89.B7			Sub Area: 89.B8			Sub Area: 89.B9			Sub Area: 89.B10		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	0	0	0	0	0	0	10	10	10	0	0	0	0	0	0
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option B:

	Sub Area: 89.B6		Sub Area: 89.B7		Sub Area: 89.B8		Sub Area: 89.B9		Sub Area: 89.B10	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	35 - 44	56 - 62	40 - 48	52 - 55	43 - 51	49 - 53	48 - 55	50 - 55	52 - 61	54 - 61
L _{Aeq} 10pm-6am ¹	25 - 33	46 - 51	30 - 38	41 - 45	34 - 41	39 - 42	39 - 45	40 - 44	42 - 51	43 - 50
ANEC ²	0 - 9	24 - 29	5 - 14	18 - 22	9 - 18	15 - 20	15 - 22	16 - 22	19 - 28	21 - 28
Number of Noise Events ³										
Over 60 dBA per 24 Hours	3 - 24	87 - 129	11 - 50	89 - 149	26 - 86	79 - 147	37 - 129	82 - 169	41 - 141	76 - 162
Over 70 dBA per 24 Hours	0 - 3	44 - 104	1 - 9	25 - 46	2 - 19	11 - 29	10 - 59	17 - 59	18 - 105	26 - 106
Over 80 dBA per 24 Hours	0 - 0	15 - 53	0 - 1	2 - 8	0 - 2	1 - 3	1 - 8	2 - 7	5 - 44	8 - 44
Over 90 dBA per 24 Hours	0 - 0	2 - 10	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 5	1 - 5
Over 60 dBA per Night	0 - 2	7 - 10	1 - 4	7 - 11	3 - 7	6 - 11	5 - 9	6 - 13	5 - 12	6 - 14
Over 70 dBA per Night	0 - 0	3 - 9	0 - 1	2 - 3	0 - 1	1 - 2	1 - 5	1 - 5	2 - 8	2 - 9
Over 80 dBA per Night	0 - 0	1 - 4	0 - 0	0 - 1	0 - 0	0 - 0	0 - 1	0 - 1	1 - 4	1 - 4
Over 90 dBA per Night	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0
Over 65 dBA (9am-3pm)	0 - 5	31 - 53	1 - 12	26 - 43	5 - 24	19 - 39	10 - 48	19 - 50	14 - 60	20 - 61
Sleep Disturbance Index ⁴	0 - 0	0.3 - 0.6	0 - 0.1	0.2 - 0.3	0.1 - 0.2	0.2 - 0.2	0.1 - 0.4	0.2 - 0.4	0.2 - 0.6	0.2 - 0.7

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Holsworthy Option B:

	Sub Area: 89.B11			Sub Area: 89.B12			Sub Area: 89.B13			Sub Area: 89.B14			Sub Area: 89.B15		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	0	0	0	0	0	0	0	0	0	0	0	0	10	10	10
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

Notes: 1. Rounded to nearest 10.

2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.

3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Holsworthy Option B:

	Sub Area: 89.B11		Sub Area: 89.B12		Sub Area: 89.B13		Sub Area: 89.B14		Sub Area: 89.B15	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L_{Aeq} 24 Hour ¹	55 - 65	58 - 65	52 - 61	53 - 60	49 - 56	49 - 55	45 - 52	46 - 49	45 - 56	51 - 58
L_{Aeq} 10pm-6am ¹	45 - 55	46 - 54	42 - 51	42 - 50	40 - 46	38 - 45	35 - 43	36 - 38	31 - 47	37 - 47
ANEC ²	22 - 33	25 - 33	19 - 28	20 - 28	16 - 23	15 - 22	10 - 20	11 - 14	12 - 24	18 - 27
Number of Noise Events ³										
Over 60 dBA per 24 Hours	45 - 148	70 - 160	44 - 144	66 - 151	44 - 137	64 - 140	31 - 95	53 - 93	7 - 51	22 - 88
Over 70 dBA per 24 Hours	24 - 127	30 - 128	18 - 104	22 - 100	12 - 70	13 - 60	4 - 24	4 - 12	3 - 34	12 - 55
Over 80 dBA per 24 Hours	11 - 88	18 - 90	5 - 44	8 - 43	2 - 14	2 - 10	0 - 4	0 - 0	1 - 15	4 - 24
Over 90 dBA per 24 Hours	2 - 26	4 - 25	0 - 4	1 - 4	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	5 - 12	5 - 13	6 - 12	5 - 13	5 - 10	5 - 11	3 - 7	5 - 7	0 - 5	1 - 7
Over 70 dBA per Night	3 - 11	2 - 12	2 - 8	2 - 9	1 - 6	1 - 5	0 - 2	0 - 1	0 - 4	1 - 5
Over 80 dBA per Night	1 - 7	1 - 8	1 - 4	1 - 4	0 - 1	0 - 1	0 - 0	0 - 0	0 - 2	0 - 2
Over 90 dBA per Night	0 - 3	0 - 2	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	15 - 65	19 - 64	14 - 61	17 - 58	12 - 51	15 - 47	7 - 30	10 - 24	2 - 20	7 - 32
Sleep Disturbance Index ⁴	0.2 - 0.9	0.2 - 1	0.2 - 0.6	0.2 - 0.6	0.1 - 0.4	0.1 - 0.4	0.1 - 0.2	0.1 - 0.2	0 - 0.3	0 - 0.3

Note: 1. These forecast L_{Aeq} noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Holsworthy Option B:

	Sub Area: 89.B16			Sub Area: 89.B17			Sub Area: 89.B18			Sub Area: 89.B19			Sub Area: 89.B20		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	10	10	10	0	0	0	10	10	10	10	10	10	0	0	0
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			1			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option B:

	Sub Area: 89.B16		Sub Area: 89.B17		Sub Area: 89.B18		Sub Area: 89.B19		Sub Area: 89.B20	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	41 - 52	47 - 55	37 - 46	42 - 49	36 - 44	50 - 55	42 - 49	47 - 50	30 - 38	48 - 51
L _{Aeq} 10pm-6am ¹	28 - 43	34 - 43	24 - 37	29 - 37	26 - 34	40 - 44	34 - 38	37 - 39	20 - 27	38 - 40
ANEC ²	8 - 20	14 - 23	2 - 13	7 - 15	1 - 10	17 - 20	8 - 15	13 - 16	-5 - 3	14 - 17
Number of Noise Events ³										
Over 60 dBA per 24 Hours	7 - 51	21 - 88	6 - 47	20 - 84	4 - 26	68 - 121	19 - 75	54 - 117	1 - 7	59 - 95
Over 70 dBA per 24 Hours	2 - 26	8 - 41	1 - 9	3 - 16	0 - 4	22 - 64	2 - 14	8 - 17	0 - 0	13 - 28
Over 80 dBA per 24 Hours	0 - 6	2 - 9	0 - 1	0 - 1	0 - 0	4 - 11	0 - 2	0 - 3	0 - 0	1 - 3
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 5	1 - 7	0 - 4	1 - 7	0 - 2	5 - 10	2 - 6	4 - 9	0 - 0	5 - 7
Over 70 dBA per Night	0 - 3	0 - 4	0 - 1	0 - 1	0 - 0	2 - 5	0 - 1	1 - 1	0 - 0	1 - 2
Over 80 dBA per Night	0 - 1	0 - 1	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	2 - 19	7 - 31	1 - 15	5 - 24	0 - 6	19 - 43	4 - 20	11 - 29	0 - 1	13 - 26
Sleep Disturbance Index ⁴	0 - 0.2	0 - 0.3	0 - 0.1	0 - 0.2	0 - 0	0.2 - 0.3	0 - 0.1	0.1 - 0.2	0 - 0	0.1 - 0.2

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Holsworthy Option B:

	Sub Area: 89.B21			Sub Area: 89.B22		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	0	0	0	10	10	10
Educational Facilities ²	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Holsworthy Option B:

	Sub Area: 89.B21		Sub Area: 89.B22	
	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	34 - 42	53 - 57	37 - 45	52 - 56
L _{Aeq} 10pm-6am ¹	24 - 31	42 - 47	27 - 34	41 - 45
ANEC	-2 - 7	19 - 23	2 - 11	18 - 21
Number of Noise Events ³				
Over 60 dBA per 24 Hours	2 - 19	73 - 119	5 - 31	74 - 126
Over 70 dBA per 24 Hours	0 - 2	30 - 88	0 - 4	26 - 74
Over 80 dBA per 24 Hours	0 - 0	6 - 21	0 - 0	5 - 15
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 1	6 - 9	0 - 2	6 - 10
Over 70 dBA per Night	0 - 0	2 - 7	0 - 0	2 - 6
Over 80 dBA per Night	0 - 0	1 - 2	0 - 0	1 - 1
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 3	23 - 48	1 - 7	20 - 44
Sleep Disturbance Index ⁴	0 - 0	0.2 - 0.4	0 - 0	0.2 - 0.4

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991 Census	1996	2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	6211	6510 ¹	7100	7100	7660	7660	7100	6830	7660	6830
Educational Facilities ²		4	4	4	4	4	4	4	4	4
Other Noise Sensitive ³ Land Uses		12	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	43, 54	L _{A90}	7am to 7pm	32, 33
	7pm to 10pm	38, 39		7pm to 10pm	28, 27
	10pm to 7am	37, 39		10pm to 7am	26, 27

Monitored at: 16 Plateau Road, Stanwell Tops, 1A Walker Street, Helensburg

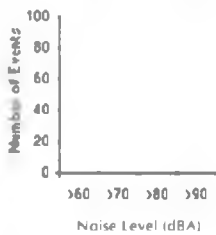
Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹	7 - 15	-20 - -8	9 - 15	9 - 16	9 - 19	-1 - 3	29 - 37		46 - 49	
L _{Aeq} 10pm-6am ¹	-4 - 9	-29 - -12	-18 - -8	-1 - 10	-2 - 11	-10 - -7	19 - 26		35 - 39	
ANEC ²	-16 - -13	-17 - -13	-21 - -11	-16 - -9	-16 - -9	-18 - -9	-7 - 2		11 - 16	
Number of Noise Events: ³								Refer Following Pages		Refer Following Pages
Over 60 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	3 - 29		43 - 70	
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	1 - 10		6 - 16	
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2		0 - 3	
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0	
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1		1 - 1	
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2		3 - 5	
Over 65 dBA (9am-3pm) ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	1 - 9		8 - 16	
Sleep Disturbance Index	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0.1		0.1 - 0.1	

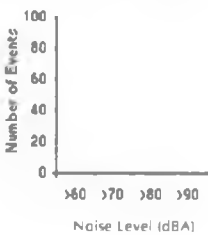
Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

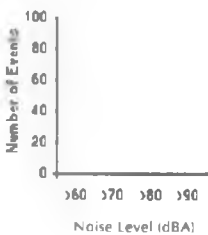
Potential Range of Events



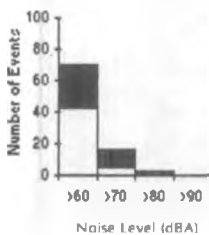
Badgerys Creek Option A



Badgerys Creek Option B



Badgerys Creek Option C



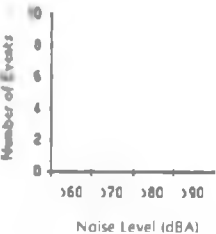
Holsworthy Option A

Refer Following Pages

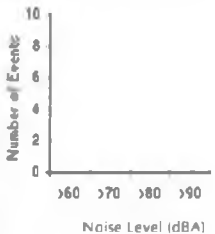
Holsworthy Option B

2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

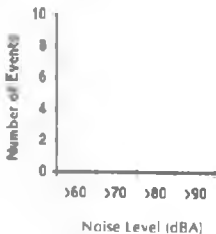
Potential Range of Events



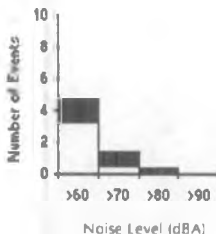
Badgerys Creek Option A



Badgerys Creek Option B



Badgerys Creek Option C



Holsworthy Option A

Refer Following Pages

Holsworthy Option B

Social Characteristics for Holsworthy Option B:

	Sub Area: 90.B1			Sub Area: 90.B2			Sub Area: 90.B3			Sub Area: 90.B4			Sub Area: 90.B5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	1580	1660	1660	510	530	530	80	90	90	180	190	190	1080	1130	1130
Educational Facilities ²	0	0	0	2	2	2	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			2			1			1			2		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option B:

	Sub Area: 90.B1		Sub Area: 90.B2		Sub Area: 90.B3		Sub Area: 90.B4		Sub Area: 90.B5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	28 - 36	45 - 50	32 - 40	52 - 56	34 - 42	55 - 60	36 - 44	55 - 60	38 - 46	53 - 57
L _{Aeq} 10pm-6am ¹	18 - 26	34 - 39	21 - 29	42 - 45	23 - 31	44 - 49	26 - 33	44 - 49	28 - 36	43 - 46
ANEC ²	-7 - 0	10 - 17	-4 - 4	19 - 22	-2 - 7	22 - 27	1 - 10	22 - 26	3 - 13	20 - 23
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 4	35 - 75	1 - 11	80 - 121	2 - 20	84 - 125	3 - 27	86 - 130	8 - 39	88 - 144
Over 70 dBA per 24 Hours	0 - 0	4 - 16	0 - 0	25 - 58	0 - 2	38 - 97	0 - 3	38 - 95	0 - 7	29 - 70
Over 80 dBA per 24 Hours	0 - 0	0 - 2	0 - 0	5 - 11	0 - 0	11 - 40	0 - 0	11 - 41	0 - 1	7 - 17
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0	0 - 2	0 - 0	0 - 0
Over 60 dBA per Night	0 - 1	2 - 5	0 - 1	6 - 9	0 - 1	7 - 10	0 - 2	7 - 10	1 - 3	7 - 11
Over 70 dBA per Night	0 - 0	0 - 1	0 - 0	2 - 4	0 - 0	3 - 8	0 - 0	3 - 8	0 - 1	2 - 5
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	1 - 1	0 - 0	1 - 3	0 - 0	1 - 3	0 - 0	1 - 1
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	0 - 0	8 - 19	0 - 2	24 - 42	0 - 4	29 - 52	0 - 6	29 - 51	1 - 10	27 - 46
Sleep Disturbance Index ⁴	0 - 0	0.1 - 0.1	0 - 0	0.2 - 0.3	0 - 0	0.3 - 0.5	0 - 0.1	0.3 - 0.5	0 - 0.1	0.2 - 0.4

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Holsworthy Option B:

	Sub Area: 90.B6			Sub Area: 90.B7			Sub Area: 90.B8			Sub Area: 90.B9			Sub Area: 90.B10		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	890	940	940	250	260	260	30	30	30	40	50	50	290	310	310
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Other Noise Sensitive ³ Land Uses	0			0			1			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option B:

	Sub Area: 90.B6		Sub Area: 90.B7		Sub Area: 90.B8		Sub Area: 90.B9		Sub Area: 90.B10	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	42 - 49	50 - 53	45 - 52	49 - 52	51 - 60	53 - 60	48 - 57	50 - 57	43 - 50	47 - 50
L _{Aeq} 10pm-6am ¹	32 - 39	39 - 42	36 - 41	39 - 41	41 - 51	42 - 50	38 - 47	39 - 46	34 - 40	37 - 39
ANEC ²	7 - 16	15 - 20	11 - 18	15 - 18	17 - 27	19 - 27	14 - 23	15 - 23	9 - 16	13 - 16
Number of Noise Events ³										
Over 60 dBA per 24 Hours	17 - 65	76 - 147	27 - 106	71 - 154	37 - 137	56 - 150	32 - 132	49 - 141	22 - 89	52 - 112
Over 70 dBA per 24 Hours	1 - 12	14 - 28	5 - 32	14 - 36	17 - 110	27 - 114	11 - 87	18 - 81	3 - 22	8 - 20
Over 80 dBA per 24 Hours	0 - 2	1 - 5	0 - 3	1 - 4	4 - 43	7 - 42	2 - 23	3 - 19	0 - 2	0 - 1
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	2 - 6	6 - 11	3 - 8	5 - 12	5 - 12	4 - 13	4 - 11	4 - 13	3 - 7	4 - 8
Over 70 dBA per Night	0 - 1	1 - 2	1 - 3	1 - 3	2 - 9	2 - 10	1 - 7	1 - 7	0 - 2	1 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 5	1 - 4	0 - 3	0 - 2	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	3 - 16	18 - 38	7 - 33	17 - 42	13 - 61	17 - 60	9 - 54	14 - 52	4 - 26	10 - 25
Sleep Disturbance Index ⁴	0 - 0.1	0.2 - 0.3	0.1 - 0.2	0.1 - 0.3	0.2 - 0.7	0.2 - 0.7	0.1 - 0.5	0.1 - 0.5	0.1 - 0.2	0.1 - 0.2

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Holsworthy Option B:

	Sub Area: 90.B11			Sub Area: 90.B12			Sub Area: 90.B13		
	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	0	0	0	430	460	460	1130	1190	1190
Educational Facilities ²	1	1	1	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	4			1			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option B:

	Sub Area: 90.B11		Sub Area: 90.B12		Sub Area: 90.B13	
	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	43 - 50	46 - 50	47 - 56	49 - 55	42 - 51	45 - 52
L _{Aeq} 10pm-6am ¹	33 - 40	35 - 39	37 - 46	38 - 45	33 - 41	34 - 41
ANEC ²	8 - 15	11 - 15	13 - 22	14 - 21	8 - 16	9 - 17
Number of Noise Events ³						
Over 60 dBA per 24 Hours	19 - 85	39 - 93	31 - 130	44 - 133	18 - 82	24 - 93
Over 70 dBA per 24 Hours	3 - 25	5 - 17	11 - 83	17 - 78	3 - 22	5 - 29
Over 80 dBA per 24 Hours	0 - 1	0 - 1	1 - 16	2 - 14	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	2 - 6	3 - 7	4 - 11	3 - 12	2 - 7	2 - 8
Over 70 dBA per Night	0 - 2	1 - 1	1 - 7	1 - 6	0 - 2	0 - 2
Over 80 dBA per Night	0 - 0	0 - 0	0 - 2	0 - 1	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	4 - 26	9 - 23	8 - 52	12 - 50	3 - 26	6 - 30
Sleep Disturbance Index ⁴	0.1 - 0.2	0.1 - 0.2	0.1 - 0.4	0.1 - 0.4	0 - 0.2	0 - 0.2

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 91

SHEET 1 / 2

Social Characteristics:

Year	Badgerys Creek				Holsworthy			
	1991 Census	1996	2006 Options A and B	2016 Option C	2006 Options A and B	2016 Option C	2006 Option A	2016 Option B
Estimated Population	307	380 ¹	430	430	470	470	430	430
Educational Facilities ²		0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³		1	N/E ⁴	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	47	L _{A90}	7am to 7pm	36
	7pm to 10pm	46		7pm to 10pm	35
	10pm to 7am	44		10pm to 7am	33

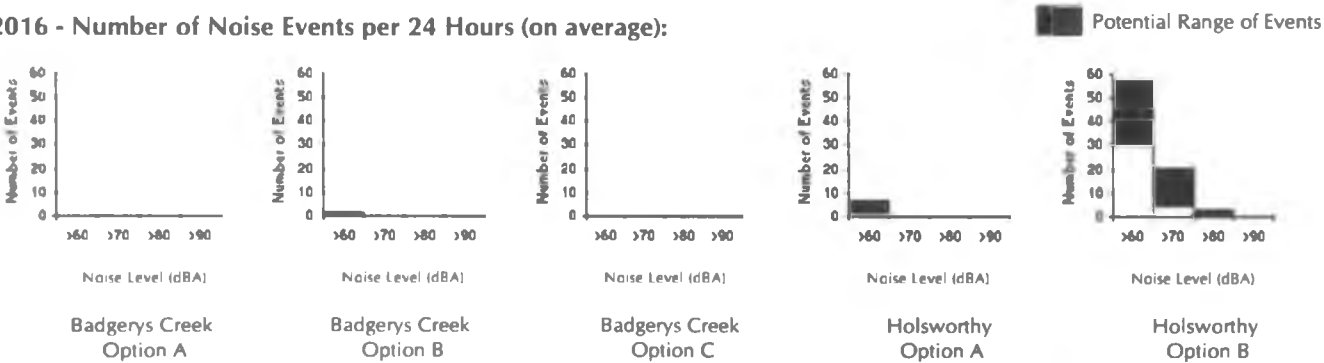
Monitored at: 280 Appin Road, Appin

Noise Indicators:

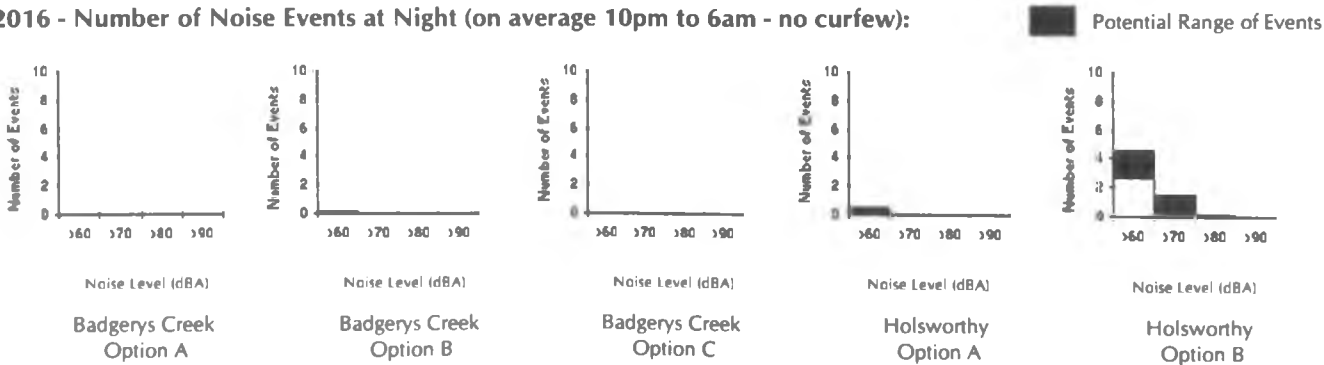
	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹	10 - 17	4 - 12	-9 - 1	12 - 19	13 - 30	7 - 10	24 - 34	39 - 47	29 - 36	44 - 50
L _{Aeq} 10pm-6am ¹	1 - 11	-7 - 7	-17 --7	2 - 13	2 - 19	-2 - 0	14 - 24	29 - 38	18 - 25	33 - 38
ANEC ²	-20 --11	-21 --12	-22 --11	-16 --8	-16 --5	-17 --9	-9 --2	4 - 14	-4 - 0	10 - 17
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0	0 - 4	9 - 35	1 - 7	30 - 58
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	1 - 13	0 - 0	4 - 20
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	1 - 3
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	1 - 3	0 - 1	3 - 5
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1	2 - 12	0 - 1	6 - 18
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0.1	0 - 0	0.1 - 0.1

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 92

SHEET 1 / 2

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	1014	1340 ¹	1500	1500	1620	1620	1500	1500	1620	1620
Educational Facilities ²		1	1	1	1	1	1	1	1	1
Other Noise Sensitive Land Uses ³		2	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	48	L _{A90}	7am to 7pm	38
	7pm to 10pm	44		7pm to 10pm	38
	10pm to 7am	40		10pm to 7am	31

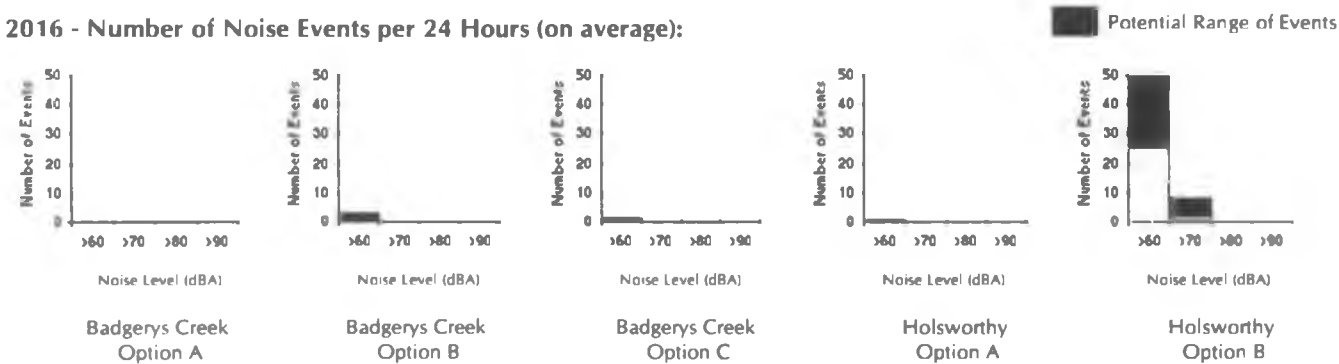
Monitored at: 9 King Street, Appin

Noise Indicators:

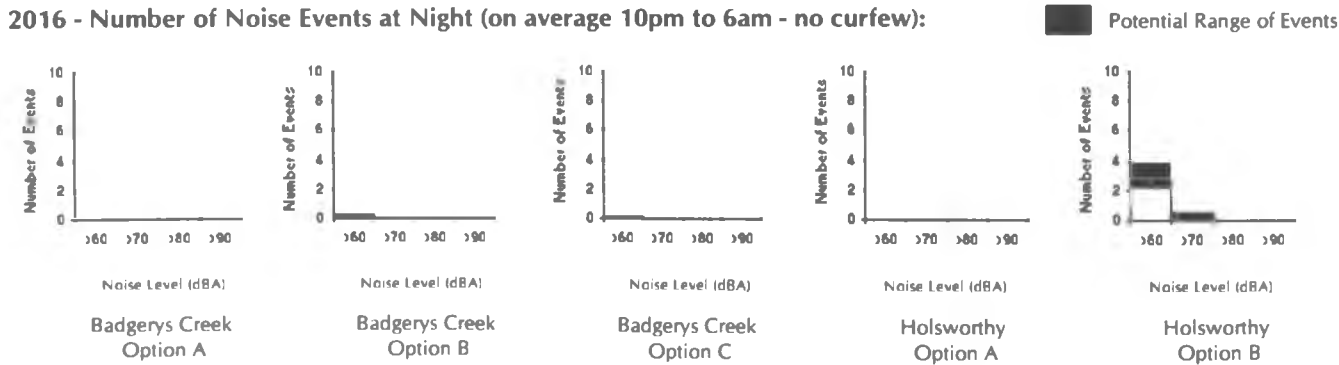
	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹	13 - 20	9 - 17	4 - 12	16 - 21	17 - 33	24 - 32	15 - 26	37 - 44	21 - 28	42 - 46
L _{Aeq} 10pm-6am ¹	3 - 13	-1 - 11	-6 - 3	6 - 14	6 - 22	10 - 20	4 - 16	27 - 34	10 - 17	31 - 35
ANEC ²	-19 - -10	-20 - -10	-21 - -11	-14 - -7	-14 - -3	-13 - -4	-18 - -9	2 - 10	-12 - -6	7 - 12
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 3	0 - 1	0 - 0	7 - 31	0 - 1	25 - 50
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 5	0 - 0	2 - 8
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	1 - 3	0 - 0	2 - 4
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	1 - 8	0 - 0	4 - 12
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0.1	0 - 0	0 - 0.1

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 93

SHEET 1 / 4

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	230	1830 ¹	2800	2800	9450	9450	2800	1910	10980	5580
Educational Facilities ²		2	2	2	3	3	2	2	4	2
Other Noise Sensitive ³ Land Uses		3	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.

2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.

3. Includes hospitals, churches, aged persons facilities and child care centres.

4. Not estimated for future years

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	49	L _{A90}	7am to 7pm	36
	7pm to 10pm	46		7pm to 10pm	33
	10pm to 7am	43		10pm to 7am	32

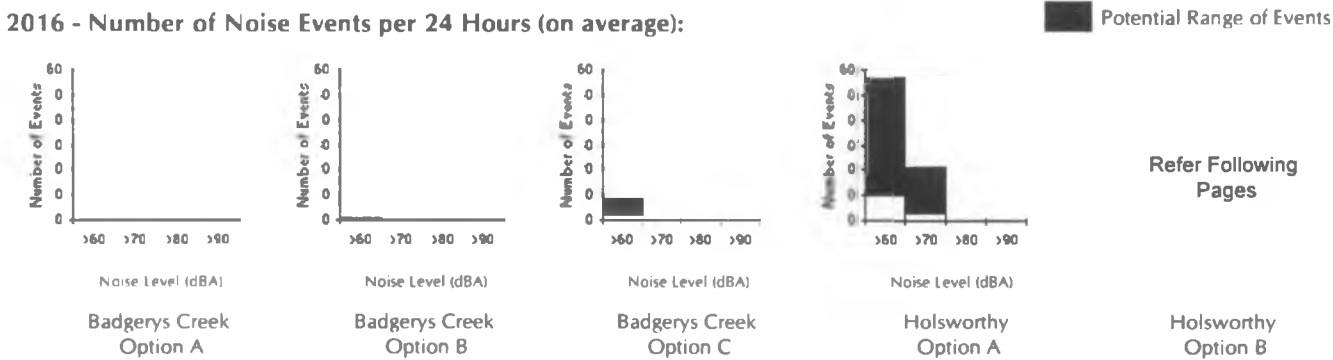
Monitored at: Mount Gilead, Appin Road

Noise Indicators:

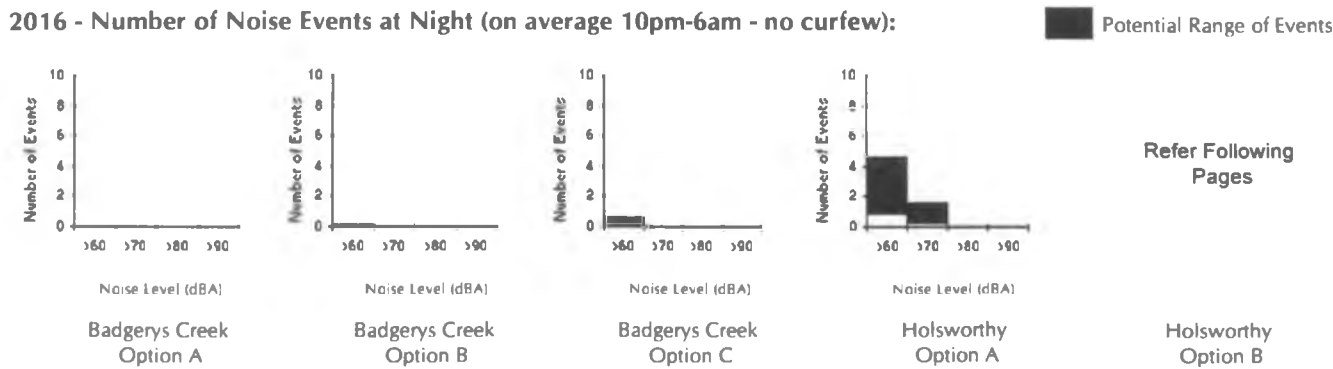
	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹	18 - 23	12 - 19	26 - 34	21 - 25	21 - 29	32 - 37	35 - 47		41 - 49	
L _{Aeq} 10pm-6am ¹	12 - 15	3 - 13	14 - 22	13 - 17	13 - 18	21 - 26	24 - 38		30 - 38	
ANEC ²	-13 - -9	-19 - -9	-13 - -4	-10 - -8	-10 - -6	-5 - -1	2 - 14		8 - 16	
Number of Noise Events:							Refer Following Pages		Refer Following Pages	
Over 60 dBA per 24 Hours	0 - 0	0 - 0	0 - 3	0 - 0	0 - 1	2 - 9		10 - 57		
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		3 - 21		
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 2		
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1		1 - 5		
Over 65 dBA (9am-3pm)	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2		3 - 19		
Sleep Disturbance Index	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0.1		0 - 0.1	

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):



2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):



Social Characteristics for Holsworthy Option B:

	Sub Area: 93.B1			Sub Area: 93.B2			Sub Area: 93.B3			Sub Area: 93.B4			Sub Area: 93.B5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population	50	50	140	640	670	1960	370	390	1120	590	610	1790	20	20	60
Educational Facilities ²	0	0	0	1	1	1	0	0	0	0	0	0	1	1	1
Other Noise Sensitive ³ Land Uses	0			1			1			1			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option B:

	Sub Area: 93.B1		Sub Area: 93.B2		Sub Area: 93.B3		Sub Area: 93.B4		Sub Area: 93.B5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	38 - 47	54 - 59	40 - 47	49 - 52	43 - 50	48 - 51	55 - 64	57 - 63	43 - 53	47 - 55
L _{Aeq} 10pm-6am ¹	28 - 37	41 - 47	31 - 37	38 - 40	33 - 40	37 - 39	42 - 54	44 - 52	33 - 44	37 - 44
ANEC ²	3 - 13	20 - 26	6 - 12	15 - 18	9 - 16	14 - 17	21 - 32	24 - 31	9 - 21	14 - 23
Number of Noise Events ³										
Over 60 dBA per 24 Hours	5 - 50	75 - 170	14 - 63	62 - 155	24 - 110	56 - 128	37 - 148	65 - 116	13 - 57	27 - 71
Over 70 dBA per 24 Hours	0 - 7	36 - 112	0 - 6	9 - 18	3 - 20	10 - 21	25 - 134	36 - 99	2 - 27	6 - 36
Over 80 dBA per 24 Hours	0 - 0	7 - 26	0 - 0	1 - 4	0 - 1	0 - 2	13 - 93	19 - 70	0 - 8	2 - 11
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	2 - 24	3 - 17	0 - 0	0 - 0
Over 60 dBA per Night	0 - 5	5 - 13	1 - 6	5 - 11	2 - 8	5 - 9	3 - 11	6 - 9	1 - 5	2 - 6
Over 70 dBA per Night	0 - 1	2 - 8	0 - 1	1 - 2	0 - 2	1 - 1	2 - 11	3 - 9	0 - 3	1 - 4
Over 80 dBA per Night	0 - 0	0 - 2	0 - 0	0 - 0	0 - 0	0 - 0	1 - 7	1 - 5	0 - 1	0 - 1
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	0 - 1	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	1 - 13	25 - 66	2 - 14	15 - 37	5 - 33	14 - 30	14 - 66	21 - 48	3 - 19	6 - 24
Sleep Disturbance Index ⁴	0 - 0.1	0.2 - 0.6	0 - 0.1	0.1 - 0.2	0 - 0.2	0.1 - 0.2	0.1 - 0.9	0.2 - 0.7	0 - 0.2	0.1 - 0.3

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Holsworthy Option B:

	Sub Area: 93.B6			Sub Area: 93.B7			Sub Area: 93.B8		
	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	110	120	340	40	40	120	20	20	60
Educational Facilities ²	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years.

Noise Indicators for Holsworthy Option B:

	Sub Area: 93.B6		Sub Area: 93.B7		Sub Area: 93.B8	
	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	38 - 49	43 - 51	34 - 40	52 - 58	29 - 37	35 - 39
L _{Aeq} 10pm-6am ¹	28 - 41	33 - 41	23 - 30	38 - 47	20 - 28	25 - 29
ANEC ²	4 - 17	10 - 19	-2 - 5	17 - 23	-5 - 2	0 - 4
Number of Noise Events ³						
Over 60 dBA per 24 Hours	3 - 35	9 - 49	2 - 11	52 - 155	1 - 5	2 - 9
Over 70 dBA per 24 Hours	1 - 15	3 - 21	0 - 1	32 - 109	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 3	1 - 5	0 - 0	6 - 28	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 4	1 - 5	0 - 1	3 - 12	0 - 1	0 - 1
Over 70 dBA per Night	0 - 2	0 - 3	0 - 0	1 - 8	0 - 0	0 - 0
Over 80 dBA per Night	0 - 1	0 - 1	0 - 0	0 - 2	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	1 - 13	3 - 18	0 - 2	20 - 63	0 - 0	0 - 1
Sleep Disturbance Index ⁴	0 - 0.2	0 - 0.2	0 - 0	0.1 - 0.5	0 - 0	0 - 0

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No.94SHEET 1 / 3

Social Characteristics:

Year	1991 Census	1996	Badgerys Creek				Holsworthy			
			2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	915	1270 ¹	1430	1430	1550	1550	1430	3430	1550	14550
Educational Facilities ²		1	1	1	1	1	1	1	1	4
Other Noise Sensitive Land Uses ³		2	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	43, 53, 54	L _{A90}	7am to 7pm	29, 38, 36
	7pm to 10pm	41, 46, 40		7pm to 10pm	27, 36, 29
	10pm to 7am	38, 46, 48		10pm to 7am	27, 30, 27

Monitored at: 120 Quirkles Lane, Camden, 9 William Avenue, Camden, 309 Ellis Lane, Camden

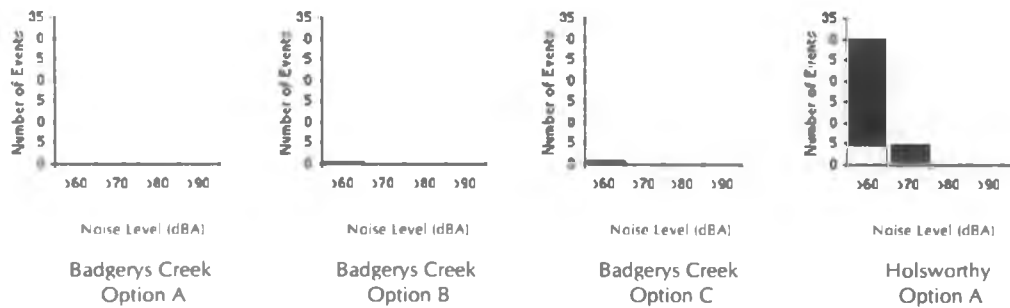
Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour	16 - 19	21 - 25	22 - 27	18 - 21	18 - 25	25 - 30	31 - 42		36 - 44	
L _{Aeq} 10pm-6am	10 - 13	10 - 13	12 - 16	11 - 14	11 - 15	16 - 19	19 - 32		25 - 32	
ANEC ²	-15 - -10	-11 - -8	-12 - -9	-12 - -8	-12 - -8	-11 - -6	-4 - 7		2 - 10	
Number of Noise Events:							Refer Following Pages		Refer Following Pages	
Over 60 dBA per 24 Hours	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1	0 - 1		5 - 30		
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		1 - 5		
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0		0 - 0		
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	0 - 3	0 - 3	
Over 65 dBA (9am-3pm)	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 5	1 - 9	1 - 9	
Sleep Disturbance Index	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0.1	0 - 0.1	0 - 0.1	

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events

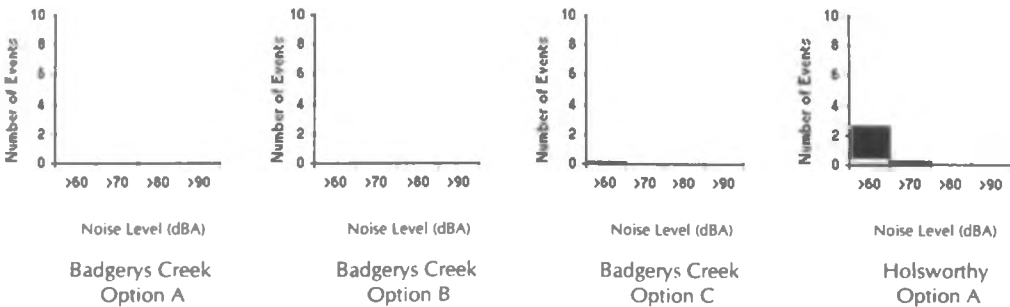


Refer Following Pages

Holsworthy Option B

2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

Potential Range of Events



Refer Following Pages

Holsworthy Option B

Social Characteristics for Holsworthy Option B:

	Sub Area: 94.B1			Sub Area: 94.B2		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	240	650	2770	1030	2780	11780
Educational Facilities ²	0	0	0	1	1	4
Other Noise Sensitive ³ Land Uses	2			0		

Notes: 1. Rounded to nearest 10.

2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years

3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option B:

	Sub Area: 94.B1		Sub Area: 94.B2	
	2006	2016	2006	2016
L_{Aeq} 24 Hour	36 - 47	42 - 49	32 - 41	38 - 43
L_{Aeq} 10pm-6am ¹	26 - 40	32 - 40	22 - 31	27 - 32
ANEC ²	2 - 15	8 - 18	-3 - 6	3 - 8
Number of Noise Events ³				
Over 60 dBA per 24 Hours	2 - 25	8 - 41	2 - 19	9 - 32
Over 70 dBA per 24 Hours	1 - 9	2 - 15	0 - 3	1 - 5
Over 80 dBA per 24 Hours	0 - 2	0 - 3	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 3	1 - 4	0 - 2	1 - 2
Over 70 dBA per Night	0 - 2	0 - 2	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	1 - 8	2 - 13	0 - 5	2 - 7
Sleep Disturbance Index ⁴	0 - 0.1	0 - 0.1	0 - 0	0 - 0.1

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	631	700 ¹	790	790	860	860	790	790	860	860
Educational Facilities ²		0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses		1	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	50	L _{A90}	7am to 7pm	40
	7pm to 10pm	45		7pm to 10pm	34
	10pm to 7am	42		10pm to 7am	28

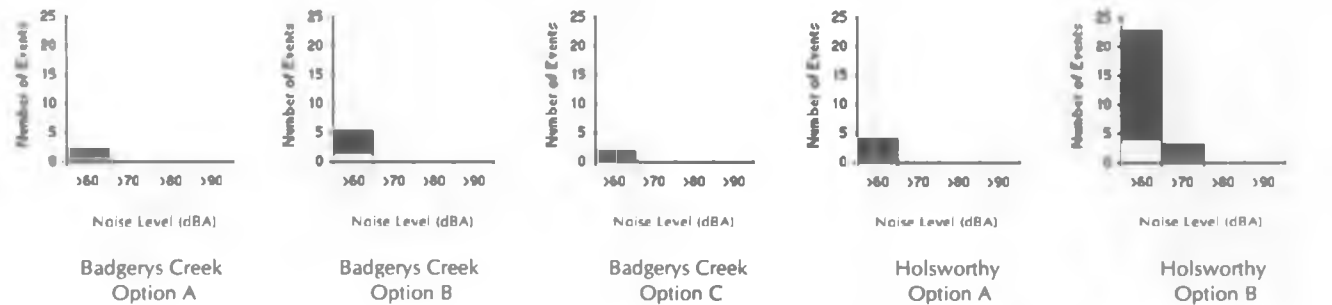
Monitored at: 35 Durham Street, Douglas Park

Noise Indicators:

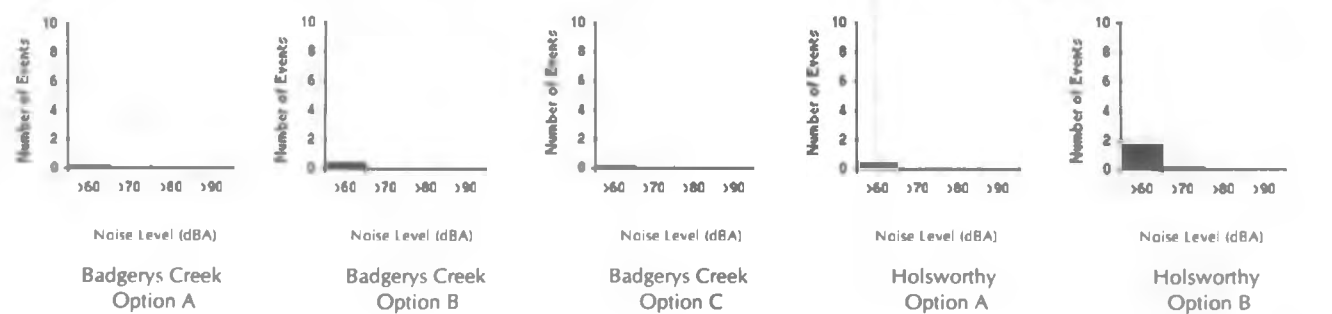
	Badgerys Creek						Holsworthy			
							2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹	24 - 29	15 - 16	25 - 31	28 - 31	31 - 36	30 - 33	21 - 33	31 - 40	27 - 35	36 - 42
L _{Aeq} 10pm-6am ¹	15 - 18	9 - 10	17 - 22	18 - 19	20 - 24	21 - 23	11 - 24	15 - 30	17 - 24	21 - 30
ANEC ²	-11 --7	-16 --10	-10 --5	-8 --4	-6 - 0	-5 --3	-11 --3	-4 - 5	-6 - 0	0 - 8
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 1	0 - 0	0 - 1	1 - 2	1 - 5	0 - 2	0 - 3	1 - 15	1 - 4	4 - 23
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0	1 - 3
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0	0 - 2
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0	0 - 0	0 - 2	0 - 1	1 - 3
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	1007	1280 ¹	1490	1490	1610	1610	1490	1490	1610	1610
Educational Facilities ²		0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³		2	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	42	L _{A90}	7am to 7pm	29
	7pm to 10pm	42		7pm to 10pm	32
	10pm to 7am	43		10pm to 7am	29

Monitored at: 225 Calf Farm Road, Mount Hunter

Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour	16 - 25	25 - 32	29 - 40	22 - 27	22 - 24	34 - 42	30 - 40	30 - 41	34 - 42	36 - 43
L_{Aeq} 10pm-6am ¹	5 - 14	17 - 21	21 - 32	9 - 15	11 - 13	26 - 32	16 - 30	20 - 33	22 - 30	26 - 33
ANEC ²	-18 - -9	-10 - -4	-5 - 6	-13 - -6	-13 - -7	1 - 9	-5 - 5	-4 - 7	0 - 8	2 - 10
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 0	0 - 3	1 - 11	0 - 0	0 - 0	3 - 17	1 - 16	1 - 12	4 - 24	4 - 19
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 3	0 - 0	0 - 0	1 - 6	0 - 2	0 - 3	1 - 4	1 - 6
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 2	0 - 0	0 - 0	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2
Over 70 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1	0 - 0	0 - 1
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 1	0 - 4	0 - 0	0 - 0	1 - 6	0 - 2	0 - 4	1 - 4	1 - 6
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0.1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0.1	0 - 0	0 - 0.1

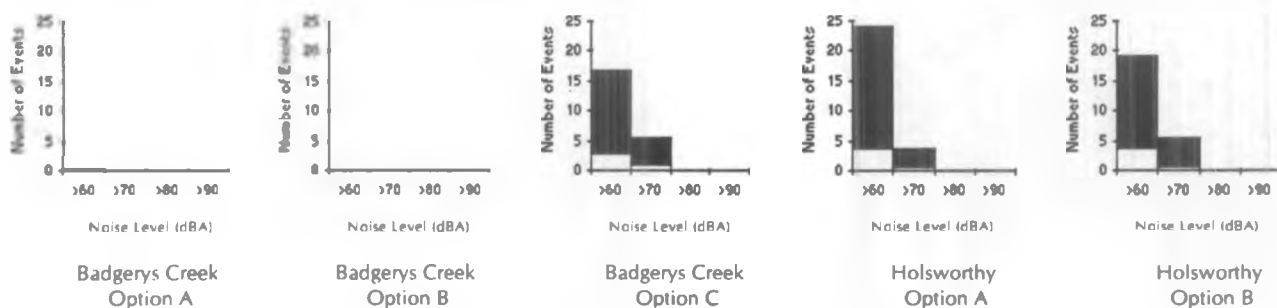
Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

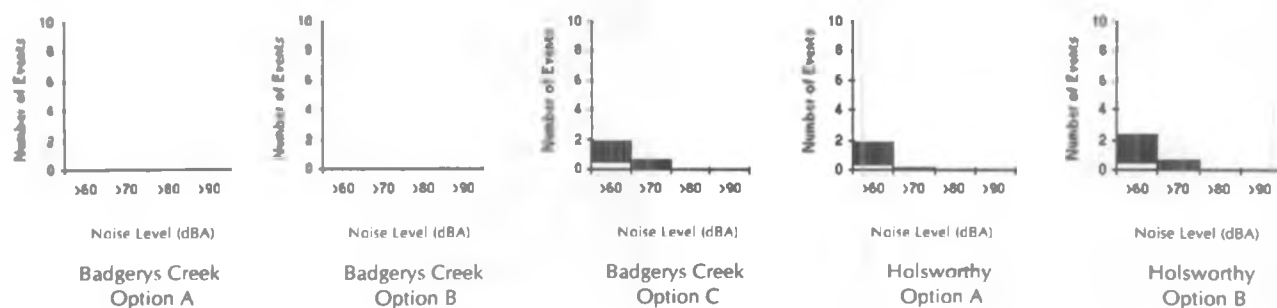
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

 Potential Range of Events


2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

 Potential Range of Events


AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 97

SHEET 1 / 2

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	302	320 ¹	360	360	400	400	360	360	400	400
Educational Facilities ²		1	1	1	1	1	1	1	1	1
Other Noise Sensitive ³ Land Uses		0	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	42	L _{A90}	7am to 7pm	30
	7pm to 10pm	38		7pm to 10pm	30
	10pm to 7am	35		10pm to 7am	27

Monitored at: 184 Glendiver Road, The Oaks

Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour ¹	20 - 30	16 - 21	30 - 41	26 - 33	20 - 23	35 - 43	20 - 31	27 - 38	26 - 34	32 - 40
L_{Aeq} 10pm-6am ¹	6 - 19	7 - 12	21 - 33	11 - 21	9 - 11	27 - 33	8 - 22	16 - 30	15 - 22	22 - 30
ANEC ²	-15 - -5	-17 - -10	-4 - 7	-10 - -2	-13 - -7	2 - 10	-17 - -5	-7 - 4	-11 - -2	-2 - 6
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 2	0 - 0	1 - 13	1 - 3	0 - 0	3 - 20	0 - 2	1 - 8	0 - 3	3 - 13
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 3	0 - 0	0 - 0	1 - 5	0 - 0	0 - 1	0 - 0	0 - 2
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 2	0 - 0	0 - 0	1 - 2	0 - 0	0 - 1	0 - 0	0 - 1
Over 70 dBA per Night	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 3	0 - 0	0 - 0	1 - 5	0 - 0	0 - 1	0 - 1	0 - 2
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0.1	0 - 0	0 - 0	0 - 0	0 - 0

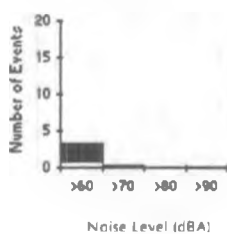
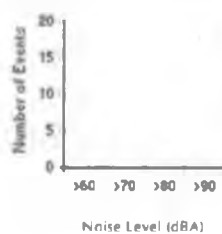
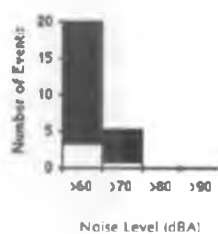
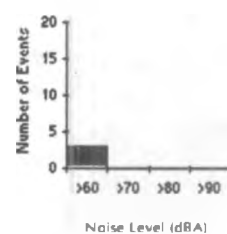
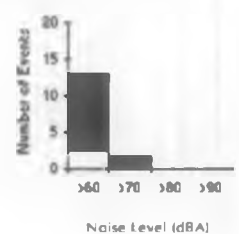
Note: 1. These forecast L_{Aeq} noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

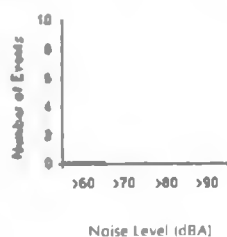
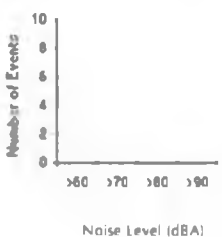
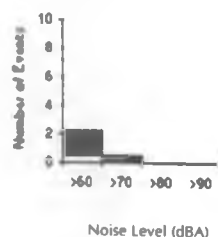
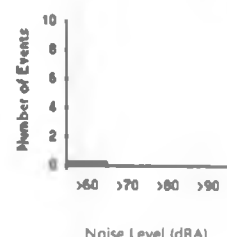
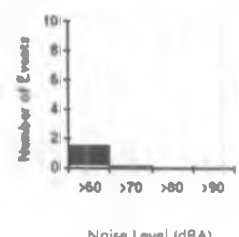
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

 Potential Range of Events
Badgerys Creek
Option ABadgerys Creek
Option BBadgerys Creek
Option CHolsworthy
Option AHolsworthy
Option B

2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

 Potential Range of Events
Badgerys Creek
Option ABadgerys Creek
Option BBadgerys Creek
Option CHolsworthy
Option AHolsworthy
Option B

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	1398	1720 ¹	1940	1940	2110	2110	1940	1940	2110	2110
Educational Facilities ²		1	1	1	1	1	1	1	1	1
Other Noise Sensitive Land Uses ³		2	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	57	L _{A90}	7am to 7pm	39
	7pm to 10pm	51		7pm to 10pm	35
	10pm to 7am	56		10pm to 7am	28

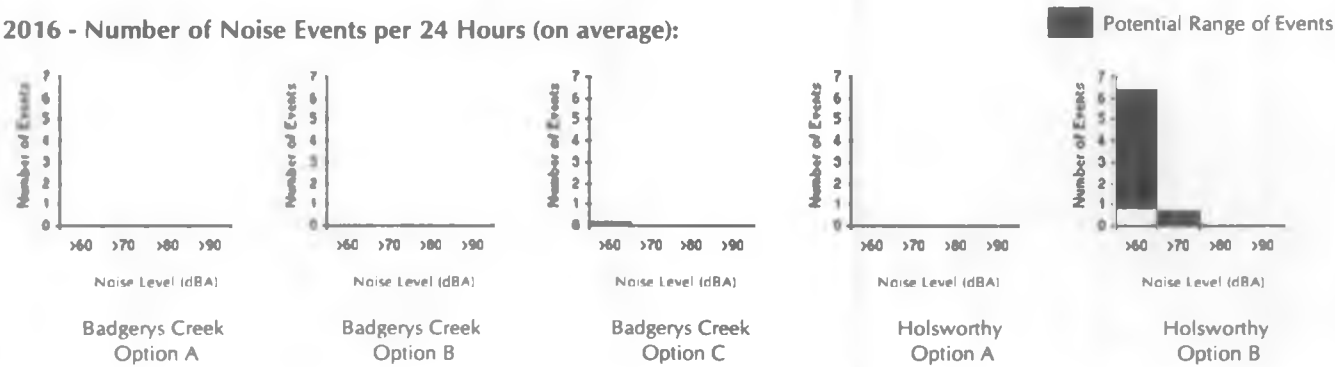
Monitored at: 28 William Street, The Oaks

Noise Indicators:

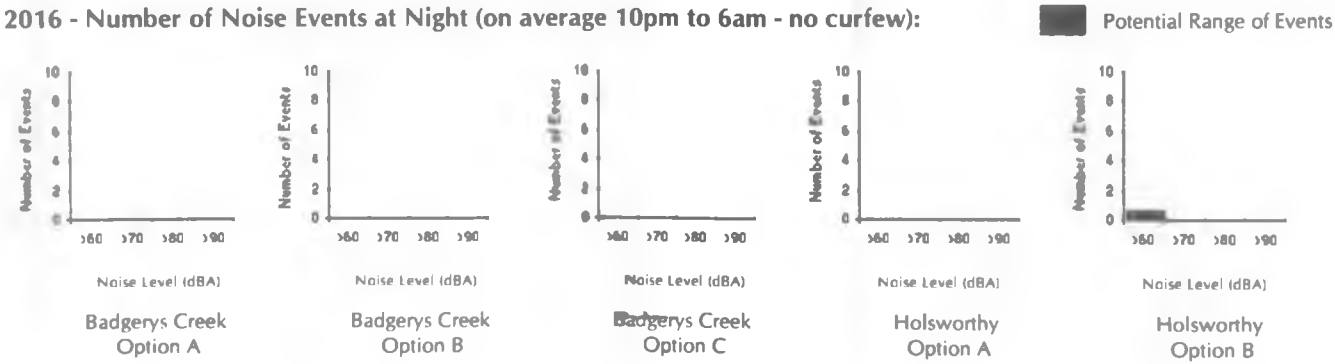
	Badgerys Creek						Holsworthy			
							2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour	8 - 13	14 - 20	18 - 25	10 - 14	13 - 17	23 - 27	16 - 26	25 - 36	22 - 28	30 - 38
L _{Aeq} 10pm-6am ¹	2 - 7	5 - 10	10 - 18	4 - 8	6 - 11	15 - 18	6 - 17	13 - 28	12 - 16	19 - 27
ANEC ²	-18 --10	-19 --11	-16 --10	-15 --9	-14 --9	-11 --8	-17 --8	-9 - 1	-12 --5	-4 - 4
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 4	0 - 0	1 - 6
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 2
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	2104	2410 ¹	2700	2700	2920	2920	2700	2700	2920	2920
Educational Facilities ²		1	1	1	1	1	1	1	1	1
Other Noise Sensitive ³ Land Uses		1	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	47	L _{A90}	7am to 7pm	34
	7pm to 10pm	40		7pm to 10pm	28
	10pm to 7am	41		10pm to 7am	28

Monitored at: 63 Rita Street, Thirlmere

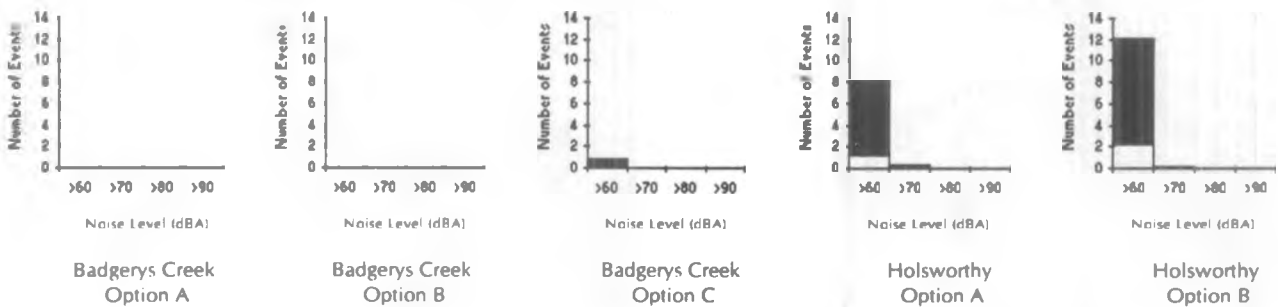
Noise Indicators:

	Badgerys Creek						Holsworthy			
							2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹	15 - 19	12 - 17	16 - 22	17 - 20	17 - 19	23 - 26	23 - 35	30 - 35	29 - 37	33 - 38
L _{Aeq} 10pm-6am ¹	9 - 13	5 - 11	9 - 13	11 - 14	10 - 13	14 - 16	10 - 25	11 - 26	17 - 25	17 - 25
ANEC ²	-15 --11	-16 --12	-16 --11	-13 --9	-13 --9	-12 --8	-11 --1	-5 - 0	-5 - 2	-3 - 3
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 5	1 - 6	1 - 8	2 - 12
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 1	0 - 1	0 - 1
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 1	0 - 1	0 - 2
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

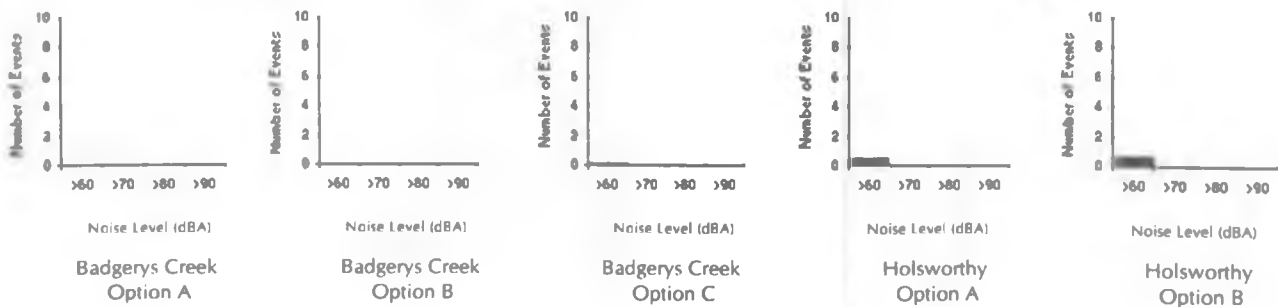
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	1266	1640 ¹	1840	1840	1990	1990	1840	1840	1990	1990
Educational Facilities ²		0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses ³		0	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	50	L _{A90}	7am to 7pm	34
	7pm to 10pm	42		7pm to 10pm	29
	10pm to 7am	41		10pm to 7am	26

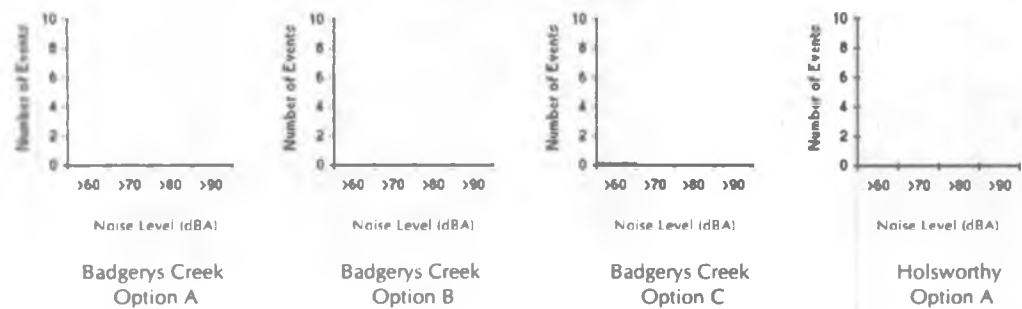
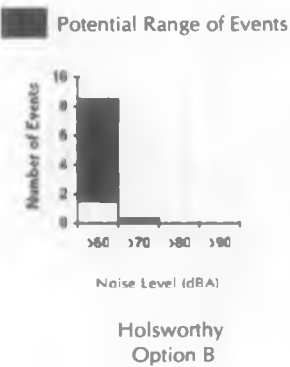
Monitored at: 1 Campsie Street, Wilton

Noise Indicators:

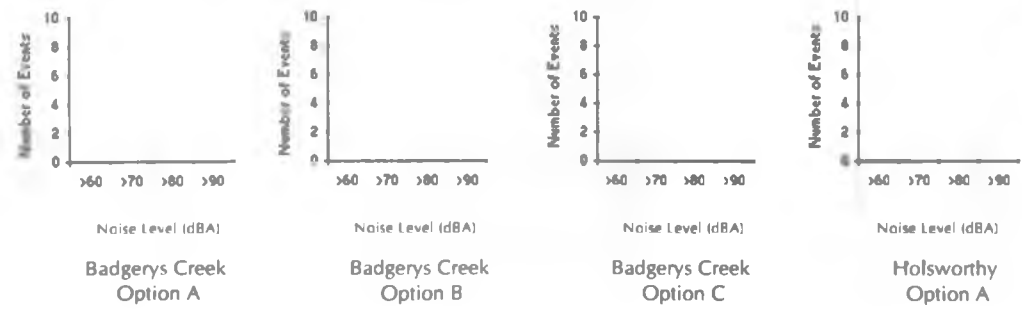
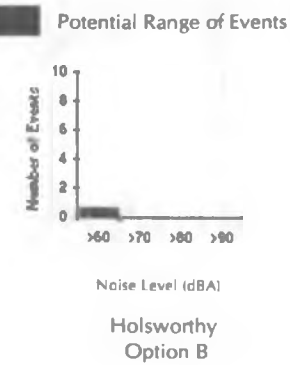
	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	2006 Option A	2006 Option B	2016 Option A	2016 Option B
L _{Aeq} 24 Hour	13 - 17	14 - 17	22 - 29	16 - 19	21 - 22	27 - 31	9 - 21	26 - 36	15 - 24	31 - 38
L _{Aeq} 10pm-6am ¹	7 - 11	8 - 11	14 - 20	9 - 13	12 - 15	18 - 20	-2 - 12	11 - 27	5 - 12	17 - 27
ANEC ²	-16 --11	-16 --11	-13 - -8	-13 --9	-12 - -8	-10 --6	22 --1	-9 - 1	-17 --8	-4 - 4
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 5	0 - 0	2 - 9
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0	0 - 1
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0	1 - 3
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	2113	2550 ¹	2860	2860	3090	3090	2860	2860	3090	3090
Educational Facilities ²		3	3	3	3	3	3	3	3	3
Other Noise Sensitive ³ Land Uses		4	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	43	L _{A90}	7am to 7pm	32
	7pm to 10pm	39		7pm to 10pm	29
	10pm to 7am	36		10pm to 7am	27

Monitored at: 7 Antill Street, Picton

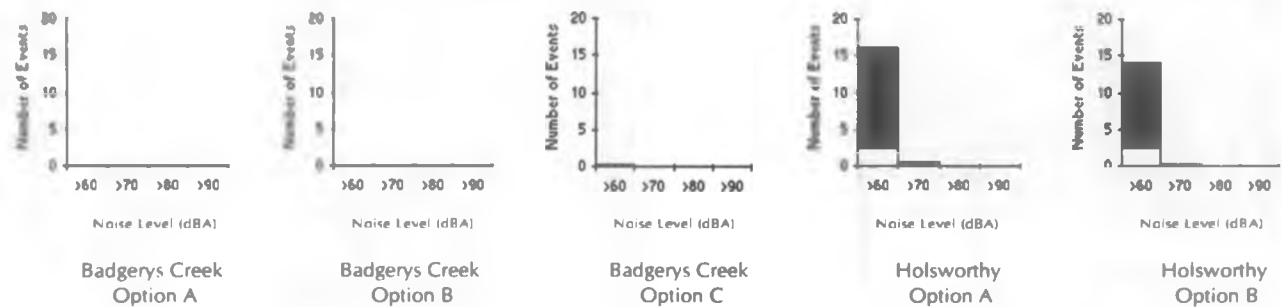
Noise Indicators:

	Badgerys Creek						Holsworthy			
							2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour ¹	9 - 13	15 - 19	21 - 28	10 - 15	12 - 17	22 - 26	26 - 37	28 - 37	32 - 40	33 - 39
L_{Aeq} 10pm-6am ¹	2 - 8	9 - 13	14 - 18	4 - 9	6 - 11	14 - 16	14 - 28	13 - 28	20 - 28	20 - 27
ANEC ²	-18 --11	-15 --11	-14 --9	-15 --9	-14 --9	-12 --9	-9 -2	-7 -2	-3 -5	-3 -5
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 9	1 - 8	2 - 16	3 - 14
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 1	0 - 1	0 - 1
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	0 - 3	0 - 3	1 - 4
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

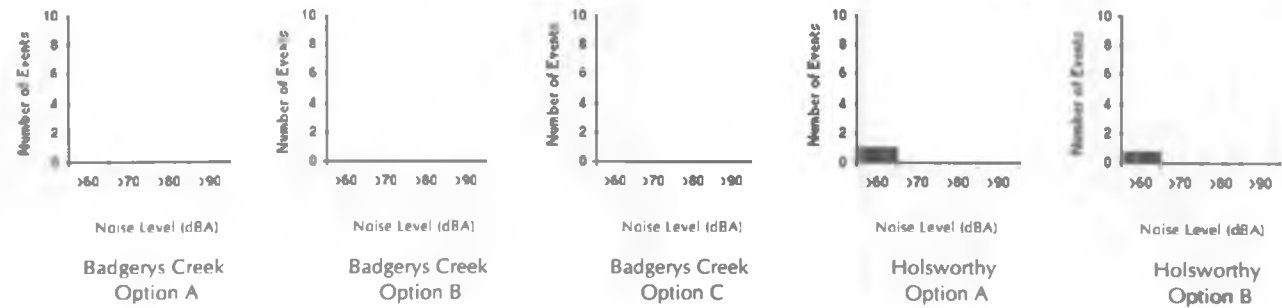
2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	3400	4220 ¹	4720	4720	5100	5100	4720	4720	5100	5100
Educational Facilities ²		2	2	2	2	2	2	2	2	2
Other Noise Sensitive Land Uses ³		0	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	47	L _{A90}	7am to 7pm	35
	7pm to 10pm	45		7pm to 10pm	33
	10pm to 7am	44		10pm to 7am	33

Monitored at: 31 Progress Street, Tahmoor

Noise Indicators:

	Badgerys Creek						Holsworthly			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour ¹	-14 --4	12 - 16	13 - 18	-10 --2	-14 --4	-50 --42	19 - 31	23 - 33	25 - 33	28 - 35
L_{Aeq} 10pm-6am ¹	-24 --9	5 - 11	6 - 10	-19 --7	-23 --11	0 - 0	7 - 22	7 - 24	14 - 21	14 - 23
ANEC ²	-23 --14	-18 --15	-18 --12	-52 --44	-24 --23	-18 --10	-13 --5	-12 --3	-8 --3	-7 - 1
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 2	0 - 3	0 - 3	1 - 6
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 1	0 - 1
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

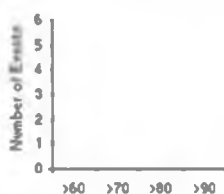
Note: 1. These forecast L_{Aeq} noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

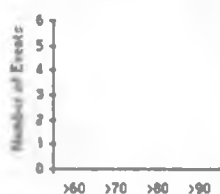
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

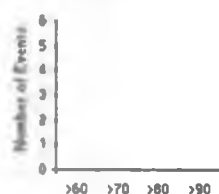
2016 - Number of Noise Events per 24 Hours (on average):

 Potential Range of Events


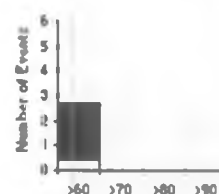
Noise Level (dBA)

Badgerys Creek
Option A

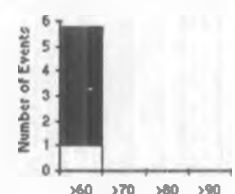
Noise Level (dBA)

Badgerys Creek
Option B

Noise Level (dBA)

Badgerys Creek
Option C

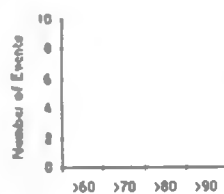
Noise Level (dBA)

Holsworthly
Option A

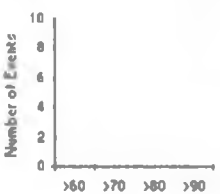
Noise Level (dBA)

Holsworthly
Option B

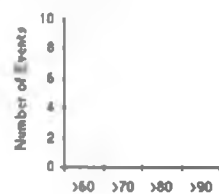
2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

 Potential Range of Events


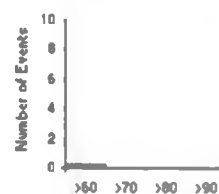
Noise Level (dBA)

Badgerys Creek
Option A

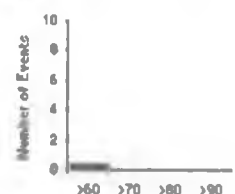
Noise Level (dBA)

Badgerys Creek
Option B

Noise Level (dBA)

Badgerys Creek
Option C

Noise Level (dBA)

Holsworthly
Option A

Noise Level (dBA)

Holsworthly
Option B

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Community Assessment Area No. 103

SHEET 1 / 4

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991 Census	1996	2006		2016		2006		2016	
			Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	281	330	360	360	370	370	360	340	370	350
Educational Facilities ²		0	0	0	0	0	0	0	0	0
Other Noise Sensitive Land Uses		0	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres.
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	49	L _{A90}	7am to 7pm	34
	7pm to 10pm	35		7pm to 10pm	27
	10pm to 7am	41		10pm to 7am	27

Monitored at: 84 Darkes Forest Road, Darkes Forest

Noise Indicators:

	Badgers Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour	-11 --1	-22 --12	0 -0	-7 -1	-11 --1	-50 --42	40 -48		41 -48	
L_{Aeq} 10pm-6am	-22 --6	-32 --16	0 -0	-16 --4	-20 --7	0 -0	30 -38		30 -37	
ANEC ²	-26 --17	-25 --16	-23 --12	-18 --11	-18 --11	-19 --10	6 -13		6 -12	
Number of Noise Events:								Refer Following Pages		Refer Following Pages
Over 60 dBA per 24 Hours	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	5 -62		13 -57	
Over 70 dBA per 24 Hours	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	1 -13		2 -11	
Over 80 dBA per 24 Hours	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0		0 -0	
Over 90 dBA per 24 Hours	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0		0 -0	
Over 90 dBA per Night	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0		0 -0	
Over 80 dBA per Night	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0		0 -0	
Over 70 dBA per Night	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -1		0 -1	
Over 60 dBA per Night	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -5		1 -4	
Over 65 dBA (9am-3pm)	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	1 -19		2 -17	
Sleep Disturbance Index	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0.1		0 -0.1	

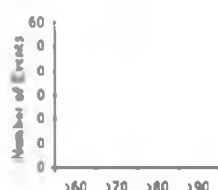
Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

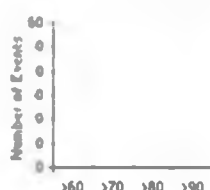
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

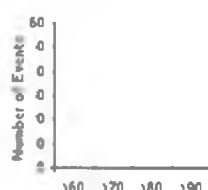
2016 - Number of Noise Events per 24 Hours (on average):

 Potential Range of Events


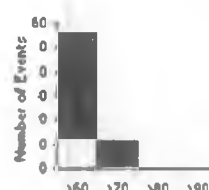
Noise Level (dBA)

Badgers Creek
Option A

Noise Level (dBA)

Badgers Creek
Option B

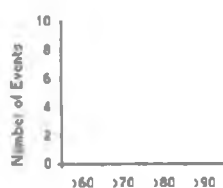
Noise Level (dBA)

Badgers Creek
Option C

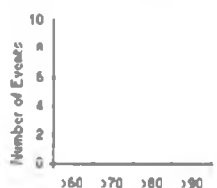
Noise Level (dBA)

Holsworthy
Option ARefer Following
PagesHolsworthy
Option B

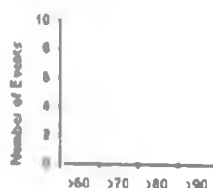
2016 - Number of Noise Events at Night (on average 10pm-6am - no curfew):

 Potential Range of Events


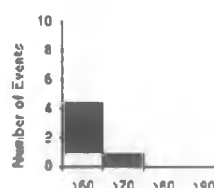
Noise Level (dBA)

Badgers Creek
Option A

Noise Level (dBA)

Badgers Creek
Option B

Noise Level (dBA)

Badgers Creek
Option C

Noise Level (dBA)

Holsworthy
Option ARefer Following
PagesHolsworthy
Option B

Social Characteristics for Holsworthy Option B:

	Sub Area: 103.B1			Sub Area: 103.B2			Sub Area: 103.B3			Sub Area: 103.B4			Sub Area: 103.B5		
	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016	1996	2006	2016
Estimated Population ¹	40	40	40	10	10	10	50	50	50	210	220	230	10	10	10
Educational Facilities ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0			0			0			0		

- Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option B:

	Sub Area: 103.B1		Sub Area: 103.B2		Sub Area: 103.B3		Sub Area: 103.B4		Sub Area: 103.B5	
	2006	2016	2006	2016	2006	2016	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	52 - 62	54 - 62	48 - 57	50 - 56	45 - 52	45 - 50	35 - 43	41 - 45	36 - 45	41 - 47
L _{Aeq} 10pm-6am ¹	42 - 52	43 - 51	39 - 47	38 - 46	36 - 41	34 - 40	25 - 33	29 - 34	24 - 36	29 - 36
ANEC ²	19 - 29	21 - 29	15 - 23	15 - 23	11 - 19	10 - 16	0 - 8	5 - 11	1 - 12	7 - 14
Number of Noise Events ³										
Over 60 dBA per 24 Hours	40 - 140	53 - 144	37 - 132	44 - 131	32 - 108	36 - 101	5 - 25	17 - 51	5 - 39	18 - 67
Over 70 dBA per 24 Hours	19 - 117	27 - 118	10 - 71	13 - 64	5 - 29	4 - 21	0 - 4	2 - 6	0 - 7	2 - 11
Over 80 dBA per 24 Hours	6 - 62	13 - 66	2 - 15	2 - 12	0 - 3	0 - 1	0 - 0	0 - 0	0 - 1	0 - 1
Over 90 dBA per 24 Hours	0 - 4	1 - 5	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	5 - 12	4 - 13	5 - 10	3 - 11	4 - 8	3 - 8	0 - 2	1 - 4	0 - 4	1 - 5
Over 70 dBA per Night	2 - 10	2 - 11	1 - 6	1 - 6	1 - 3	0 - 2	0 - 0	0 - 0	0 - 1	0 - 1
Over 80 dBA per Night	1 - 6	1 - 5	0 - 2	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	14 - 62	16 - 61	11 - 51	11 - 46	7 - 32	6 - 25	1 - 5	3 - 9	1 - 11	4 - 17
Sleep Disturbance Index ⁴	0.2 - 0.7	0.2 - 0.8	0.1 - 0.4	0.1 - 0.4	0.1 - 0.2	0.1 - 0.2	0 - 0.1	0 - 0.1	0 - 0.1	0 - 0.1

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

Social Characteristics for Holsworthy Option B:

	Sub Area: 103.B6			Sub Area: 103.B7		
	1996	2006	2016	1996	2006	2016
Estimated Population ¹	20	20	20	10	10	10
Educational Facilities ²	0	0	0	0	0	0
Other Noise Sensitive ³ Land Uses	0			0		

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
 - 3. Includes hospitals, churches, aged persons facilities and child care centres. Not estimated for future years

Noise Indicators for Holsworthy Option B:

	Sub Area: 103.B6		Sub Area: 103.B7	
	2006	2016	2006	2016
L _{Aeq} 24 Hour ¹	42 - 53	48 - 55	44 - 55	50 - 58
L _{Aeq} 10pm-6am ¹	29 - 44	35 - 44	31 - 46	37 - 46
ANEC ²	9 - 21	15 - 24	11 - 24	17 - 26
Number of Noise Events ³				
Over 60 dBA per 24 Hours	7 - 46	20 - 78	6 - 46	19 - 78
Over 70 dBA per 24 Hours	2 - 27	8 - 43	3 - 33	11 - 53
Over 80 dBA per 24 Hours	1 - 11	3 - 18	1 - 15	4 - 23
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 4	1 - 6	0 - 4	1 - 6
Over 70 dBA per Night	0 - 3	0 - 4	0 - 3	0 - 5
Over 80 dBA per Night	0 - 1	0 - 1	0 - 2	0 - 2
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA (9am-3pm)	2 - 19	6 - 30	2 - 20	7 - 31
Sleep Disturbance Index ⁴	0 - 0.2	0 - 0.3	0 - 0.3	0 - 0.3

- Note:
- 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
 - 2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects
 - 3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
 - 4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	8632	9100 ¹	9720	9720	10490	10490	9720	9720	10490	10490
Educational Facilities ²		5	5	5	5	5	5	5	5	5
Other Noise Sensitive Land Uses ³		11	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

- Notes:
- 1. Rounded to nearest 10.
 - 2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years
 - 3. Includes hospitals, churches, aged persons facilities and child care centres
 - 4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	59	L _{A90}	7am to 7pm	45
	7pm to 10pm	54		7pm to 10pm	46
	10pm to 7am	51		10pm to 7am	44

Monitored at: 14 Cliff Street, Coledale

Noise Indicators:

	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	2006 Option A	2006 Option B	2016 Option A	2016 Option B
L_{Aeq} 24 Hour	-11 --2	-17 --7	0 -0	-7 -1	-7 -1	-28 --20	29 -38	18 -26	31 -35	29 -36
L_{Aeq} 10pm-6am ¹	-23 --7	-27 --11	0 -0	-17 --5	-18 --6	-36 --30	20 -28	7 -17	21 -23	17 -25
ANEC ²	-22 --13	-23 --13	-24 --13	-18 --11	-18 --11	-19 --11	-6 -3	-10 --6	-5 --2	-5 -1
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -2	0 -0	1 -3	0 -3
Over 70 dBA per 24 Hours	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -1
Over 80 dBA per 24 Hours	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0
Over 90 dBA per 24 Hours	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0
Over 60 dBA per Night	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0
Over 70 dBA per Night	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0
Over 80 dBA per Night	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0
Over 90 dBA per Night	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0
Over 65 dBA 9am to 3pm	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -1	0 -1
Sleep Disturbance Index ⁴	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0	0 -0

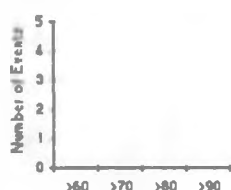
Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.

2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.

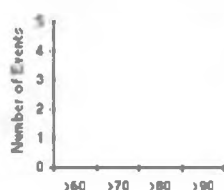
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.

4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

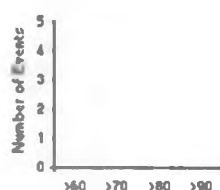
2016 - Number of Noise Events per 24 Hours (on average):

 Potential Range of Events


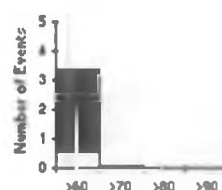
Noise Level (dBA)

Badgerys Creek
Option A

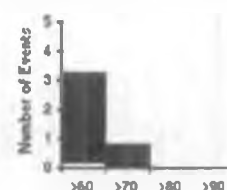
Noise Level (dBA)

Badgerys Creek
Option B

Noise Level (dBA)

Badgerys Creek
Option C

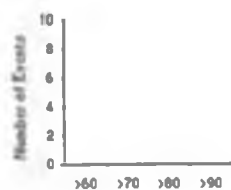
Noise Level (dBA)

Holsworthy
Option A

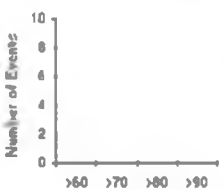
Noise Level (dBA)

Holsworthy
Option B

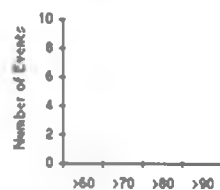
2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

 Potential Range of Events


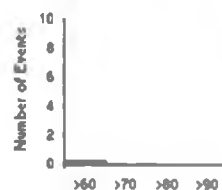
Noise Level (dBA)

Badgerys Creek
Option A

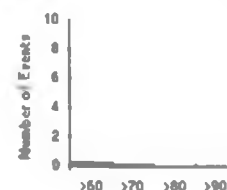
Noise Level (dBA)

Badgerys Creek
Option B

Noise Level (dBA)

Badgerys Creek
Option C

Noise Level (dBA)

Holsworthy
Option A

Noise Level (dBA)

Holsworthy
Option B

AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	30514	34489 ¹	36730	36730	39630	39630	36730	36730	39630	39630
Educational Facilities ²		18	18	16	17	17	16	16	17	17
Other Noise Sensitive Land Uses ³		30	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	54	L _{A90}	7am to 7pm	43
	7pm to 10pm	46		7pm to 10pm	36
	10pm to 7am	47		10pm to 7am	36

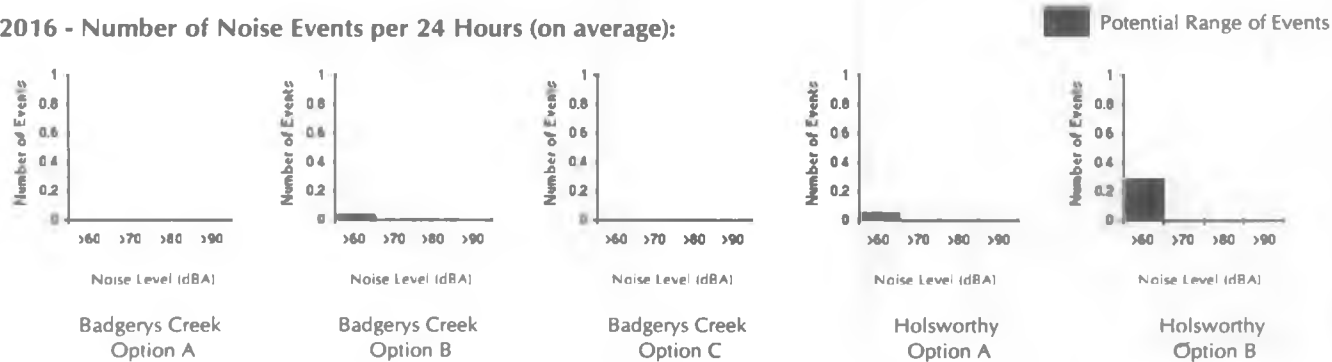
Monitored at: 8 Stanhope Street, Woonona

Noise Indicators:

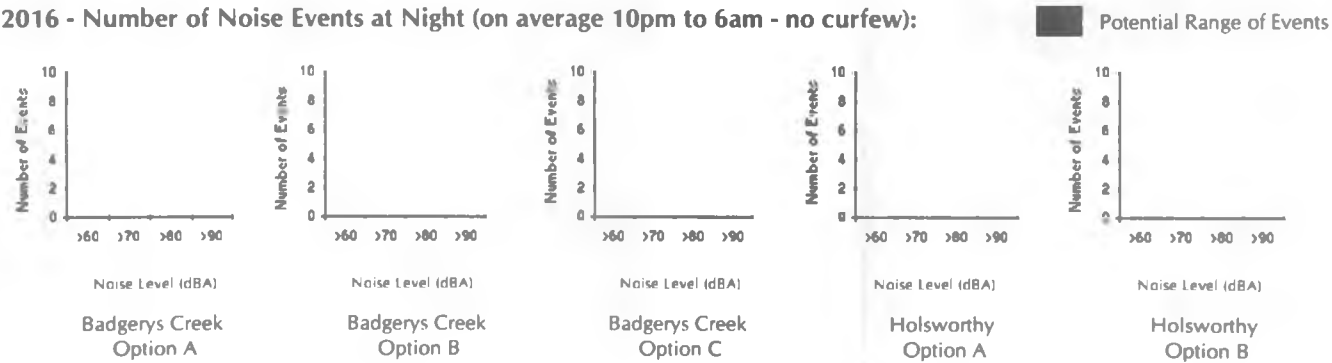
	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour ¹	-2 - 7	-13 - -4	-29 - -18	2 - 9	0 - 13	-14 - -6	21 - 31	9 - 13	22 - 27	17 - 26
L_{Aeq} 10pm-6am ¹	-14 - 2	-29 - -13	-43 - -26	-8 - 4	-9 - 3	-23 - -16	11 - 22	-3 - 5	12 - 17	6 - 14
ANEC ²	-22 - -13	-23 - -13	-24 - -13	-18 - -11	-18 - -11	-19 - -10	-13 - -4	-17 - -9	-12 - -9	-13 - -7
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	16932	18090 ¹	19300	19300	20830	20830	19300	19300	20830	20830
Educational Facilities ²		10	10	10	10	10	10	10	10	10
Other Noise Sensitive ³ Land Uses		14	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	47	L _{A90}	7am to 7pm	35
	7pm to 10pm	45		7pm to 10pm	33
	10pm to 7am	44		10pm to 7am	33

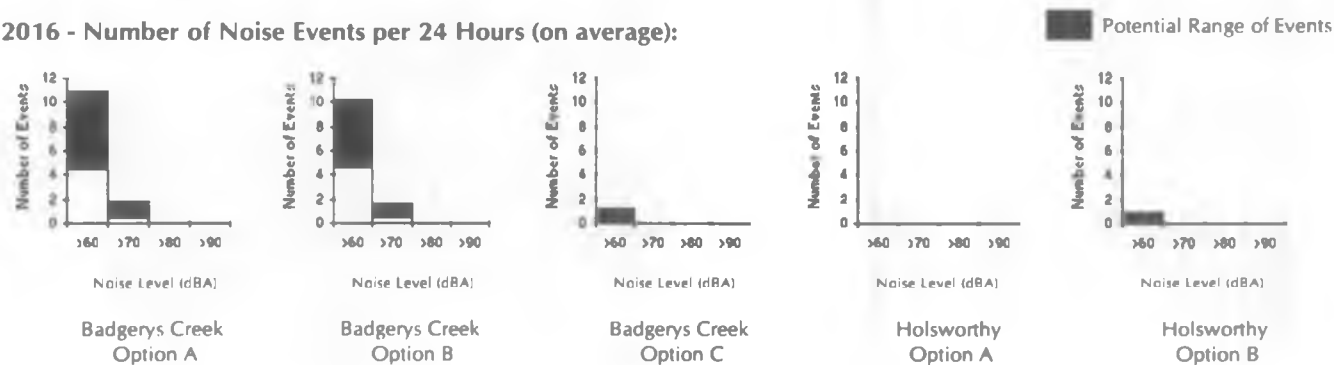
Monitored at: 63 Russell Street, Balgownie

Noise Indicators:

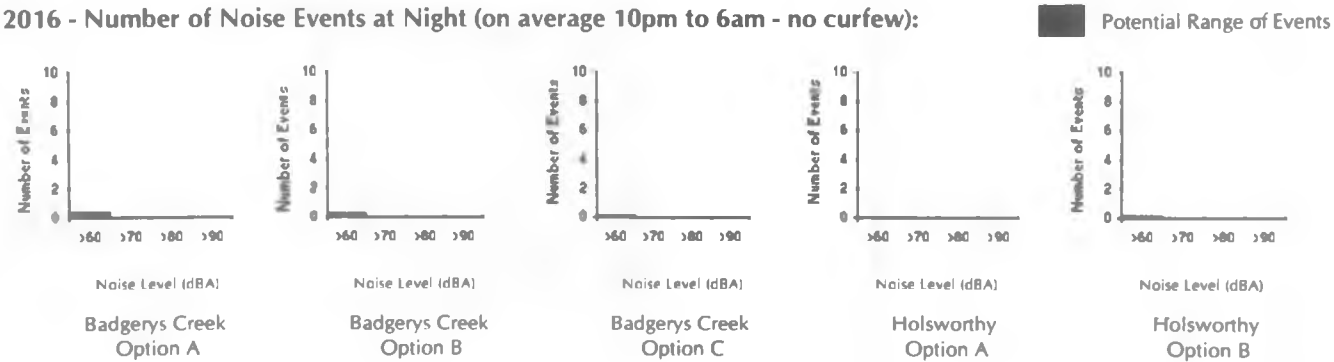
	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L_{Aeq} 24 Hour ¹	31 - 38	29 - 37	17 - 27	37 - 40	36 - 39	23 - 30	19 - 24	18 - 26	22 - 25	22 - 28
L_{Aeq} 10pm-6am ¹	15 - 23	14 - 23	6 - 17	21 - 23	21 - 23	13 - 18	10 - 15	11 - 18	13 - 16	13 - 20
ANEC ²	-21 --12	-6 - 1	-16 --10	2 - 5	1 - 4	-11 --5	13 --1	-15 --6	-11 --8	-11 --4
Number of Noise Events ³										
Over 60 dBA per 24 Hours	0 - 0	1 - 6	0 - 1	5 - 11	5 - 10	0 - 1	0 - 0	0 - 1	0 - 0	0 - 1
Over 70 dBA per 24 Hours	0 - 0	0 - 1	0 - 0	0 - 2	0 - 2	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 0	0 - 2	0 - 0	1 - 3	1 - 3	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	16116	17570 ¹	18310	18310	18880	18880	18310	18310	18880	18880
Educational Facilities ²		8	8	8	8	8	8	8	8	8
Other Noise Sensitive ³ Land Uses		44	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	44	L _{A90}	7am to 7pm	34
	7pm to 10pm	44		7pm to 10pm	32
	10pm to 7am	39		10pm to 7am	28

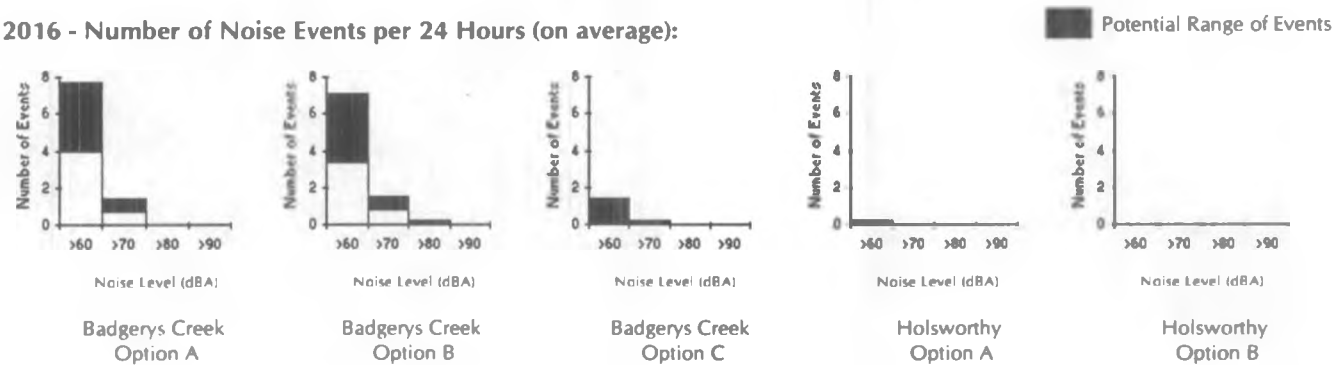
Monitored at: 36 Ravine Avenue, Blaxland

Noise Indicators:

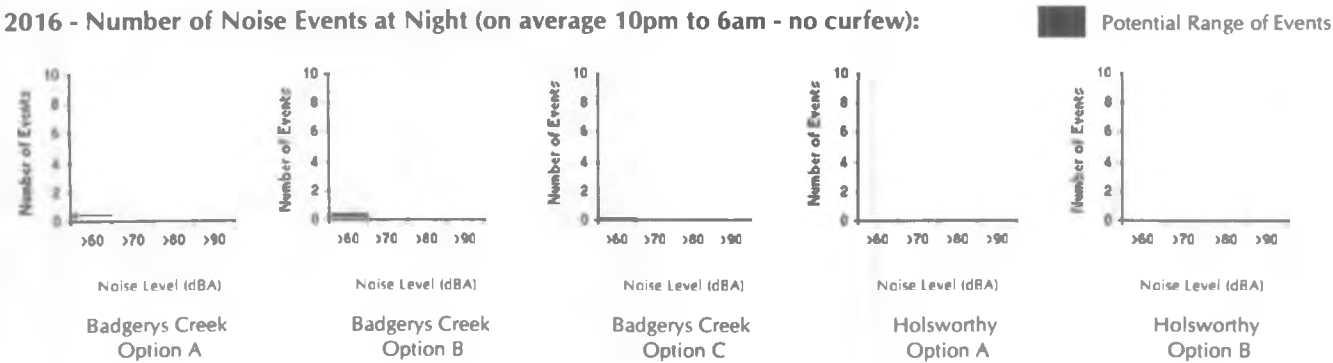
	Badgerys Creek						Holsworthy			
	Option A	Option B	Option C	Option A	Option B	Option C	2006 Option A	2006 Option B	2016 Option A	2016 Option B
L _{Aeq} 24 Hour	31 - 38	33 - 37	19 - 27	36 - 40	37 - 39	26 - 34	-4 - 11	27 - 31	3 - 20	-2 - 6
L _{Aeq} 10pm-6am ¹	17 - 25	16 - 24	8 - 17	23 - 25	21 - 24	15 - 21	-22 - -1	-2 - 6	-16 - 9	-3 - 2
ANEC ²	-7 - 0	-2 - 2	-14 - -8	1 - 5	2 - 4	-9 - -1	19 - -1	-8 - -4	-15 - -8	-16 - -9
Number of Noise Events ³										
Over 60 dBA per 24 Hours	1 - 6	1 - 5	0 - 0	4 - 8	3 - 7	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per 24 Hours	0 - 1	0 - 1	0 - 0	1 - 1	1 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 2	0 - 1	0 - 0	1 - 3	1 - 2	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):



AIRCRAFT OVERFLIGHT NOISE FOR AIRPORT OPTIONS

Social Characteristics:

Year	Badgerys Creek						Holsworthy			
	1991	1996	2006		2016		2006		2016	
	Census		Options A and B	Option C	Options A and B	Option C	Option A	Option B	Option A	Option B
Estimated Population	19458	20570 ¹	21420	21420	22070	22070	21420	21420	22070	22070
Educational Facilities ²		10	10	10	10	10	10	10	10	10
Other Noise Sensitive ³ Land Uses		38	N/E ⁴	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Notes: 1. Rounded to nearest 10.
2. Numbers of educational facilities in 2006 and 2016 are estimates of the facilities that would be required to service the estimated population in those years.
3. Includes hospitals, churches, aged persons facilities and child care centres.
4. Not estimated for future years.

Existing Noise Environment (in decibels):

L _{Aeq}	7am to 7pm	41	L _{A90}	7am to 7pm	29
	7pm to 10pm	39		7pm to 10pm	27
	10pm to 7am	37		10pm to 7am	25

Monitored at: 63 Norton Avenue, Springwood

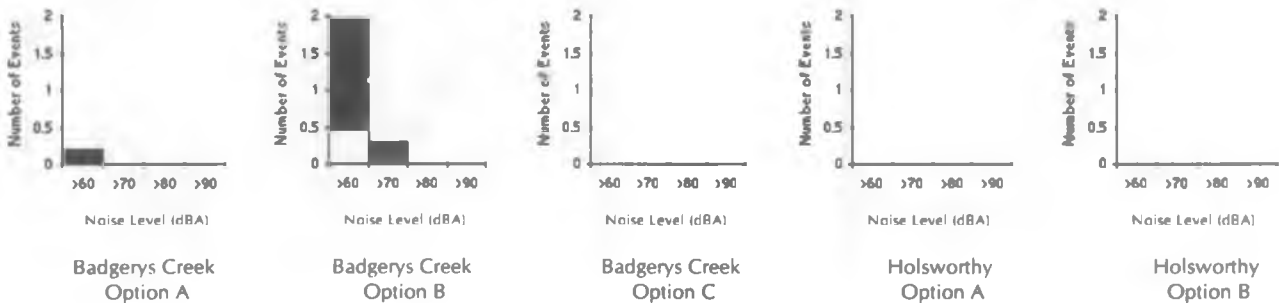
Noise Indicators:

	Badgerys Creek						Holsworthy			
	2006			2016			2006		2016	
	Option A	Option B	Option C	Option A	Option B	Option C	Option A	Option B	Option A	Option B
L _{Aeq} 24 Hour ¹	17 - 24	1 - 9	6 - 17	22 - 26	26 - 31	19 - 26	31 --1	8 - 11	-15 - 7	-33 --26
L _{Aeq} 10pm-6am ¹	7 - 14	-8 - 3	-4 - 7	12 - 15	17 - 22	9 - 15	46 --2	22 --1	-36 --1	-22 --13
ANEC ²	-6 - 1	-18 --11	-13 --9	-9 --5	-7 --1	-13 --6	20 --1	20 --1	-15 --9	-16 --10
Number of Noise Events ³										
Over 60 dBA per 24 Hours	1 - 7	0 - 0	0 - 0	0 - 0	0 - 2	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per 24 Hours	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per 24 Hours	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 60 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 70 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 80 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 90 dBA per Night	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Over 65 dBA 9am to 3pm	0 - 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
Sleep Disturbance Index ⁴	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

- Note: 1. These forecast LAeq noise levels are for aircraft overflight noise only and do not include existing noise levels.
2. The ANEC formulation allows negative ANEC values to be calculated. ANEC values of zero or less than zero indicate relatively minor noise effects.
3. Event values are rounded to the nearest whole number. Zero values represent those results less than 0.5 events per period.
4. Sleep Disturbance Index values are rounded to the nearest 0.1. Zero values represent those results less than 0.1.

2016 - Number of Noise Events per 24 Hours (on average):

Potential Range of Events



2016 - Number of Noise Events at Night (on average 10pm to 6am - no curfew):

Potential Range of Events

