Master Plan

Parafield Airport

Volume 5: Appendices

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Parafield Airport

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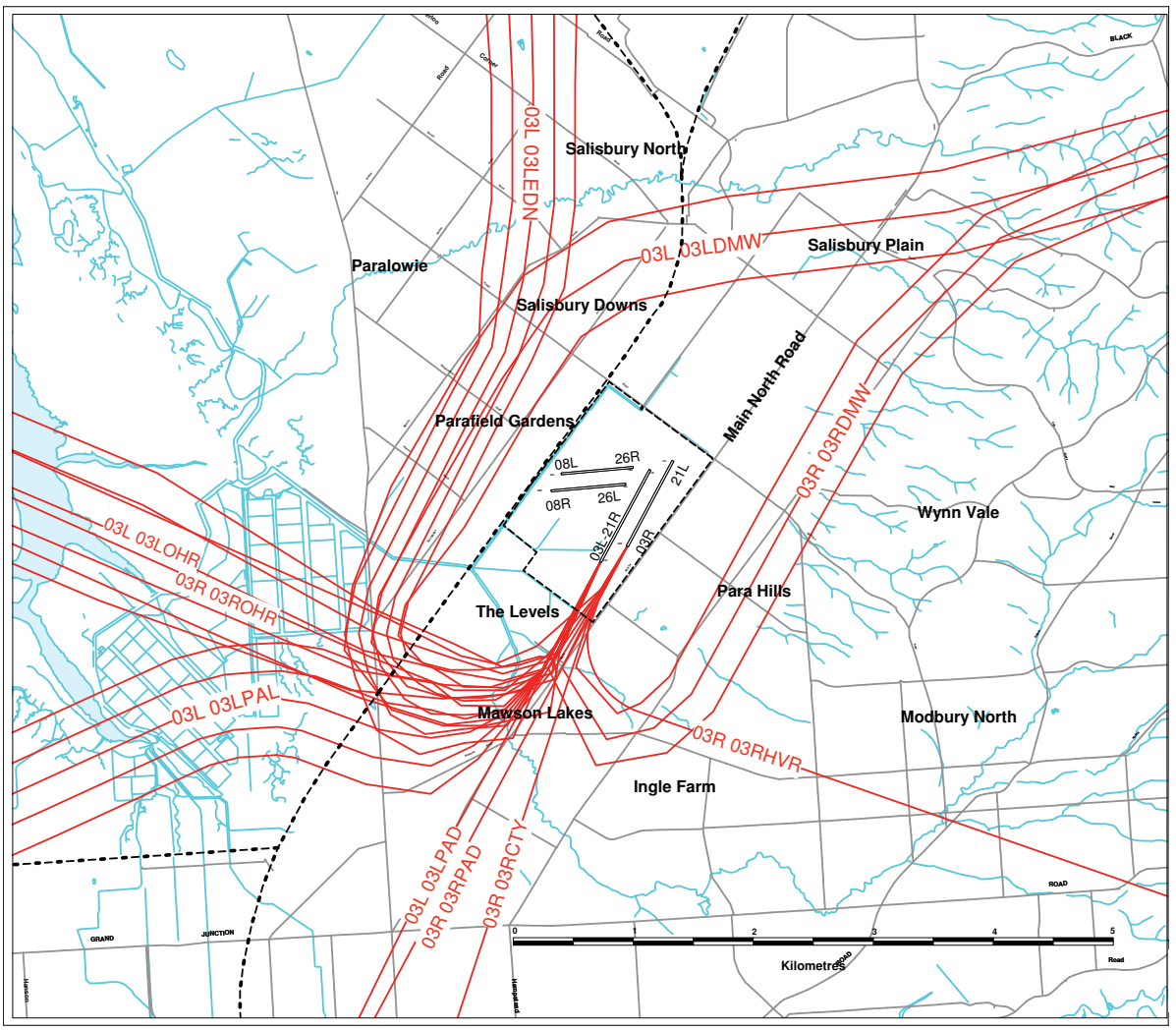
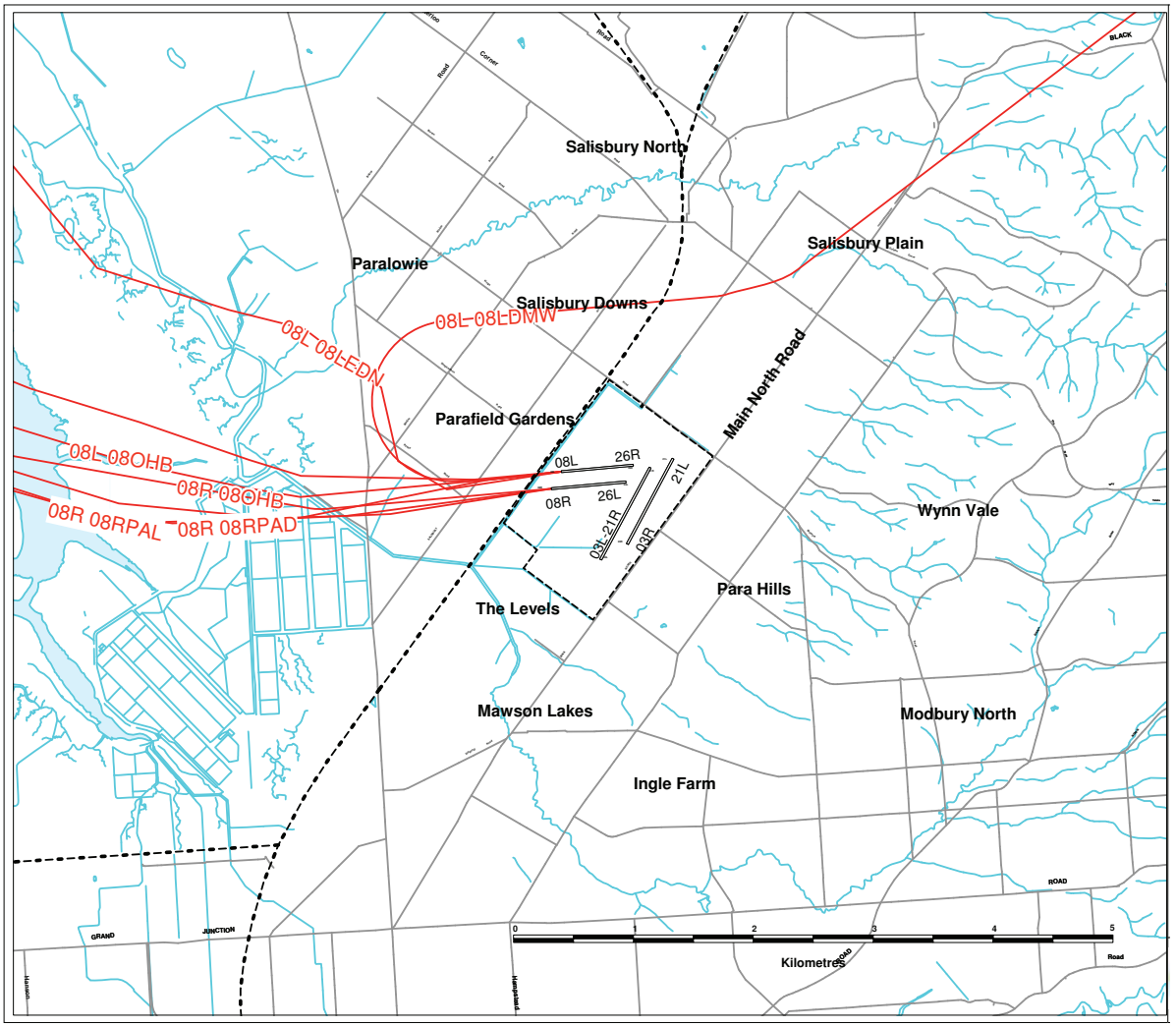
APPENDIX A
AIRCRAFT NOISE METRICS

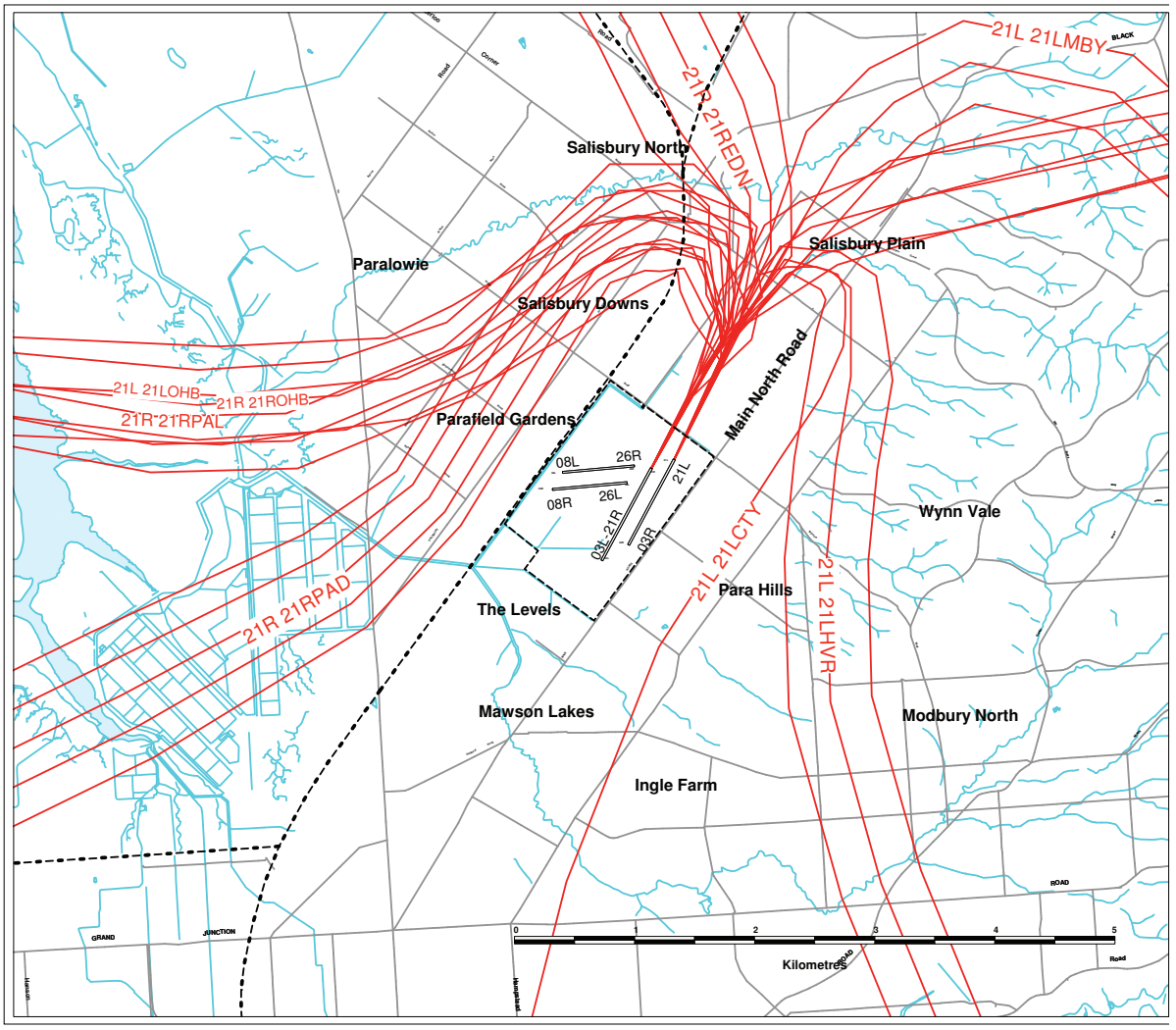
A1: Arrivals Flight Tracks



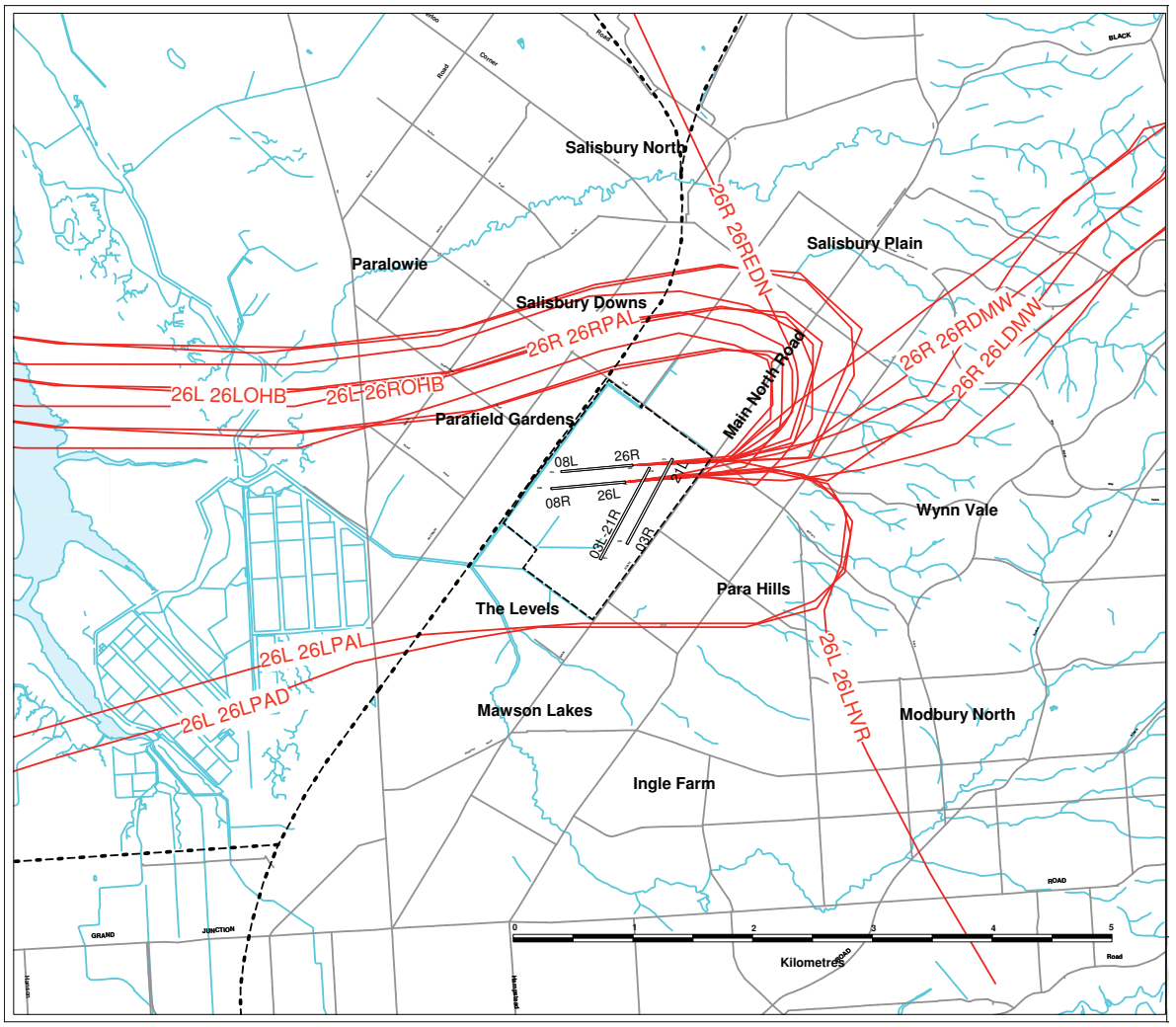
A2: Arrivals Flight Tracks



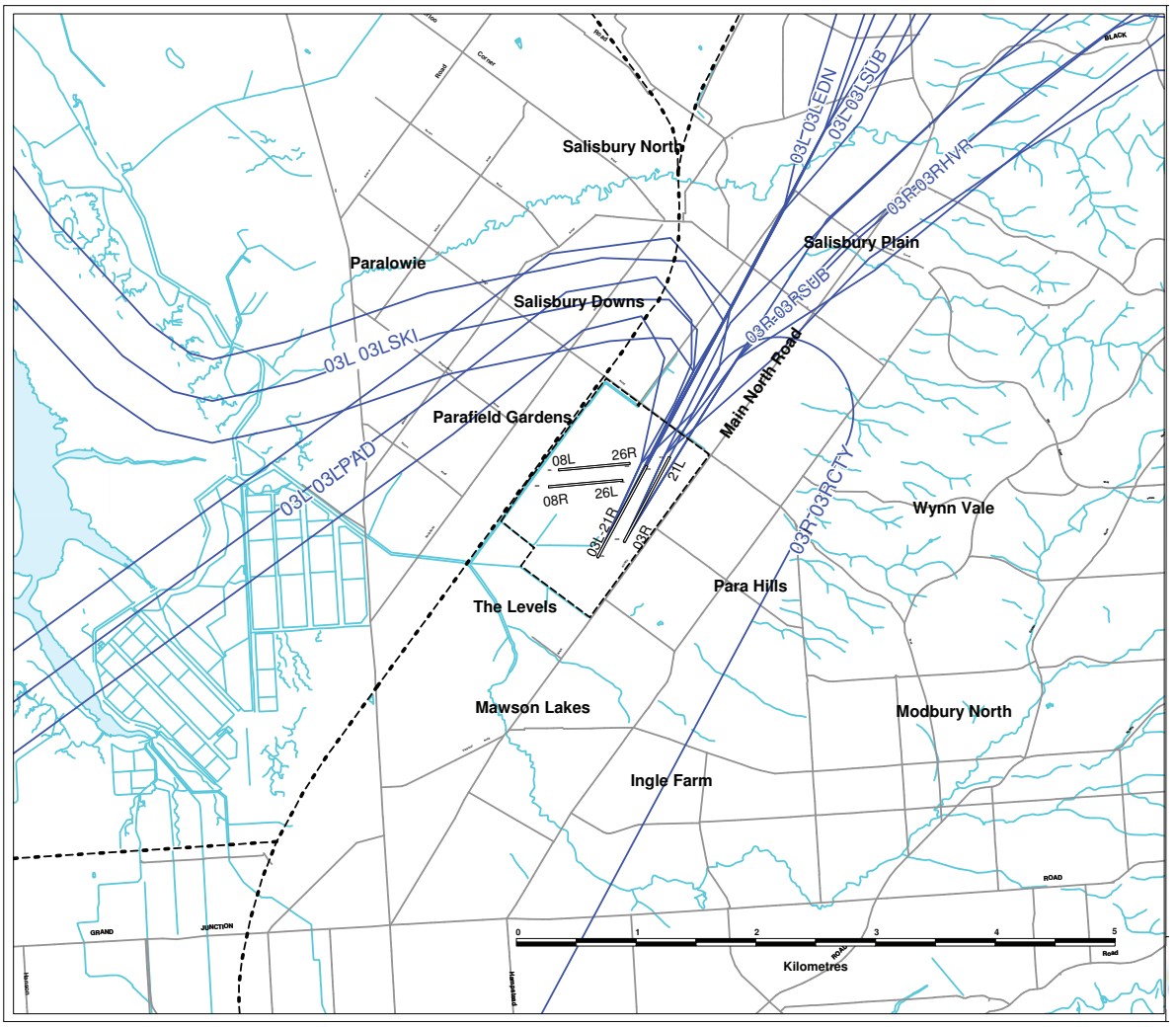
A3: Arrivals Flight Tracks



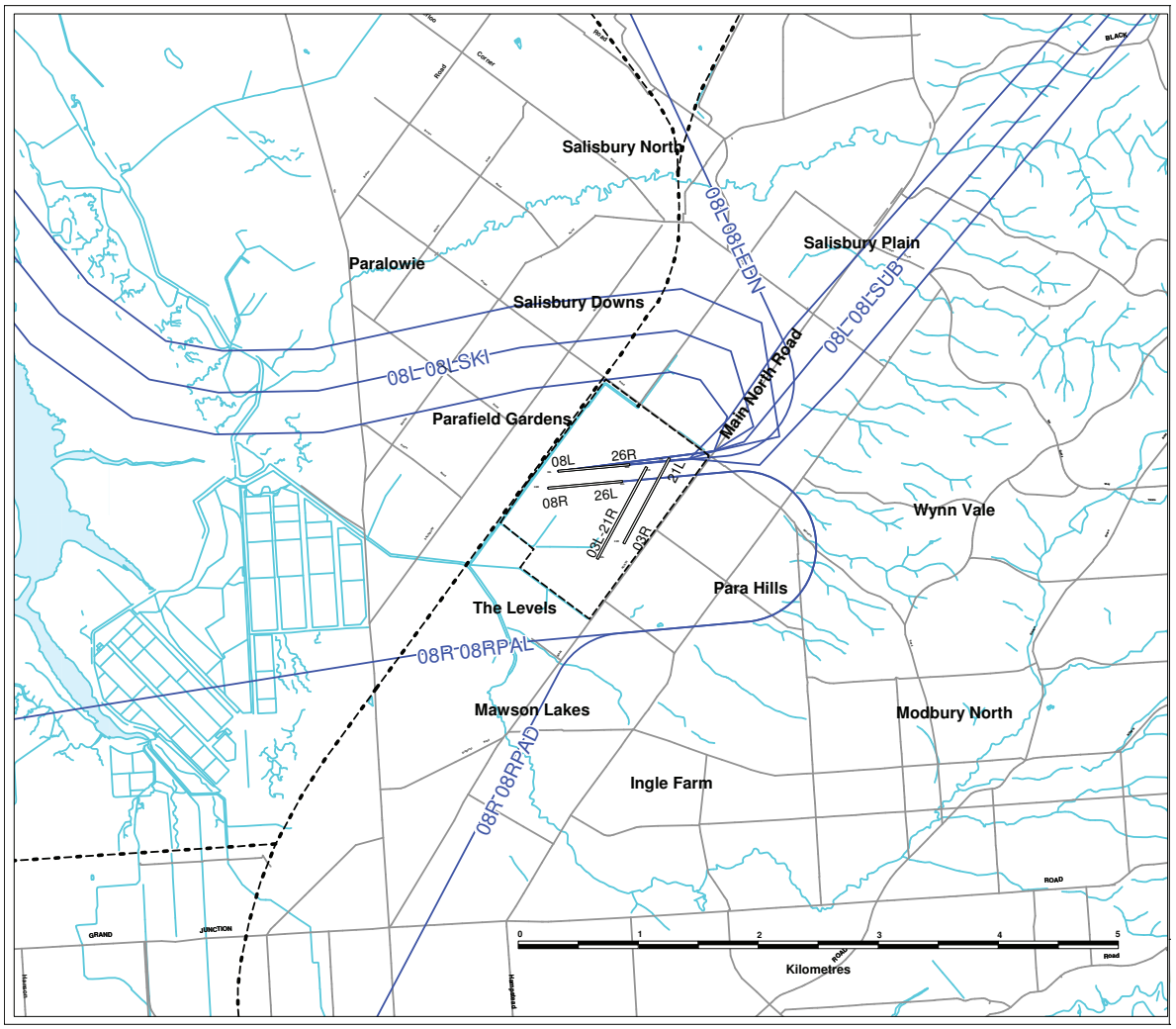
A4: Arrivals Flight Tracks



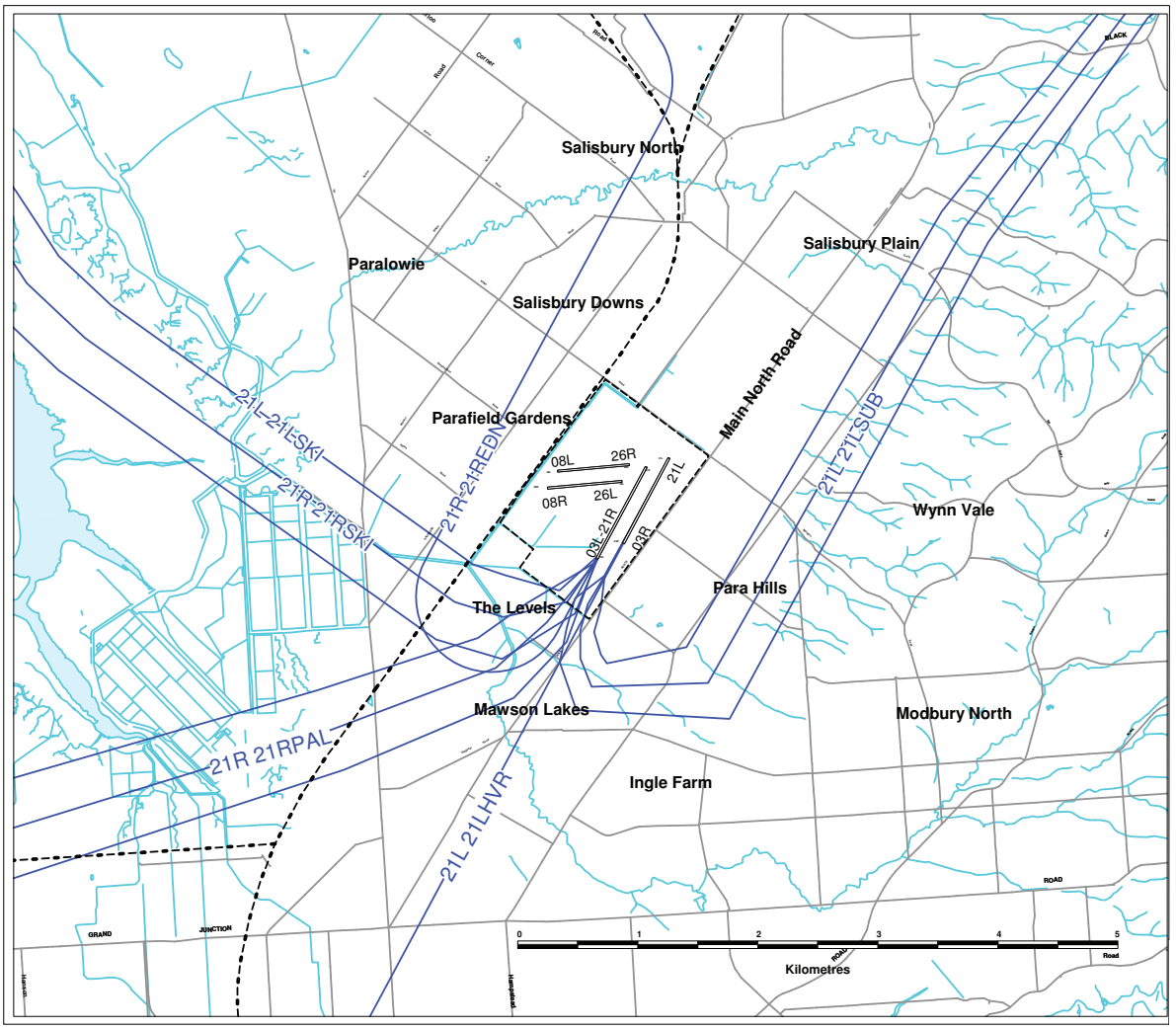
A5: Departure Flight Tracks



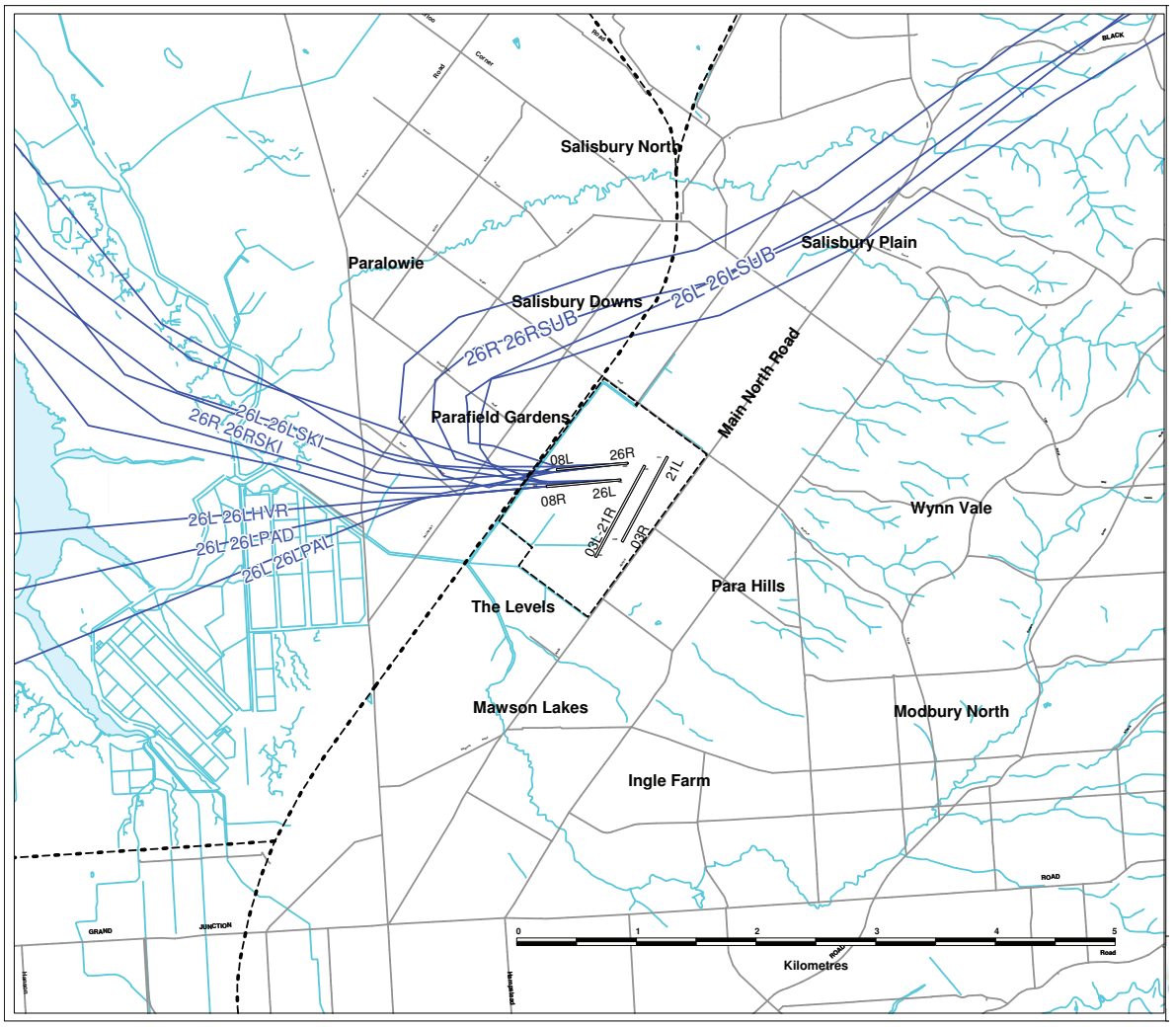
A6: Departure Flight Tracks



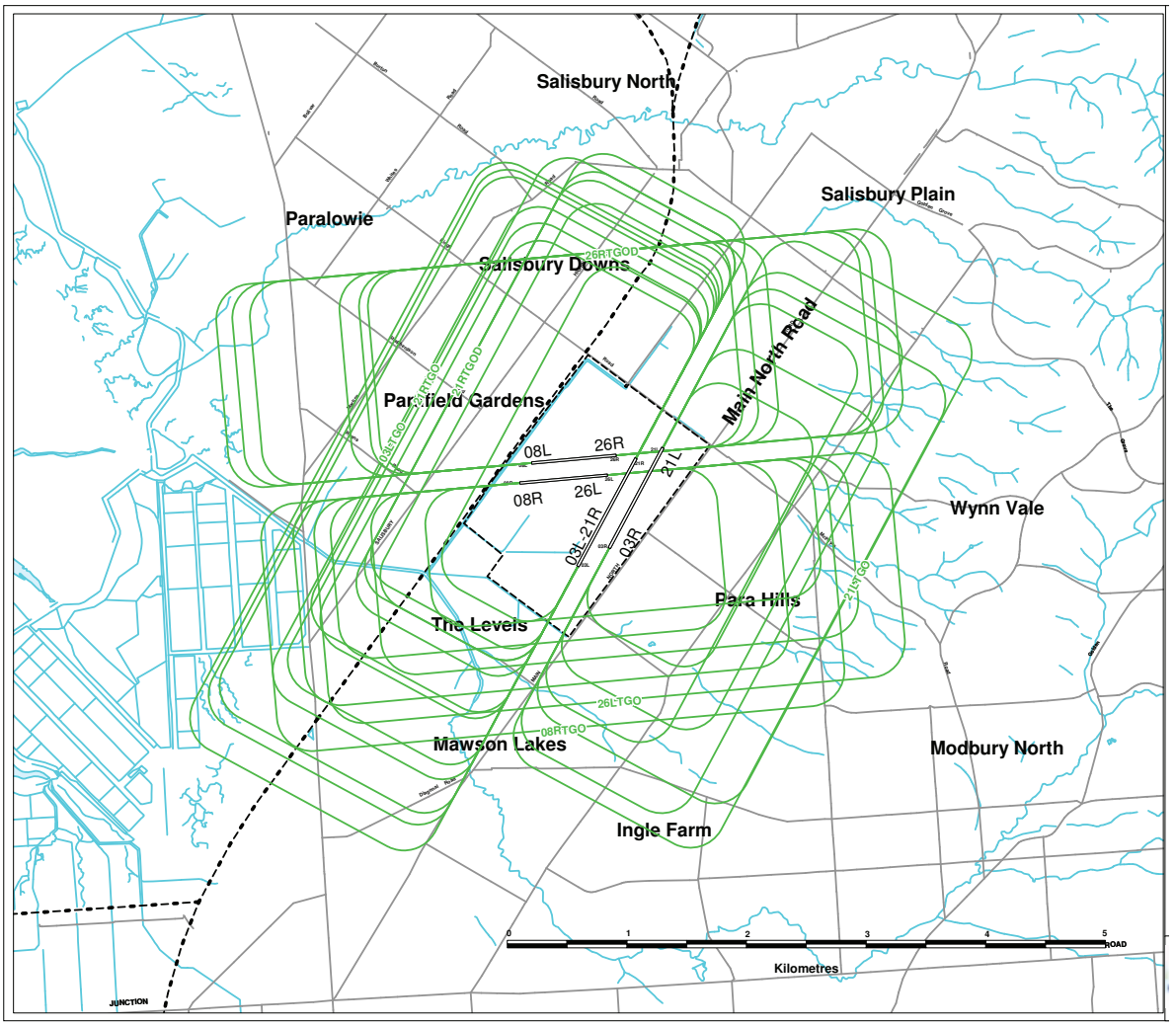
A7: Departure Flight Tracks



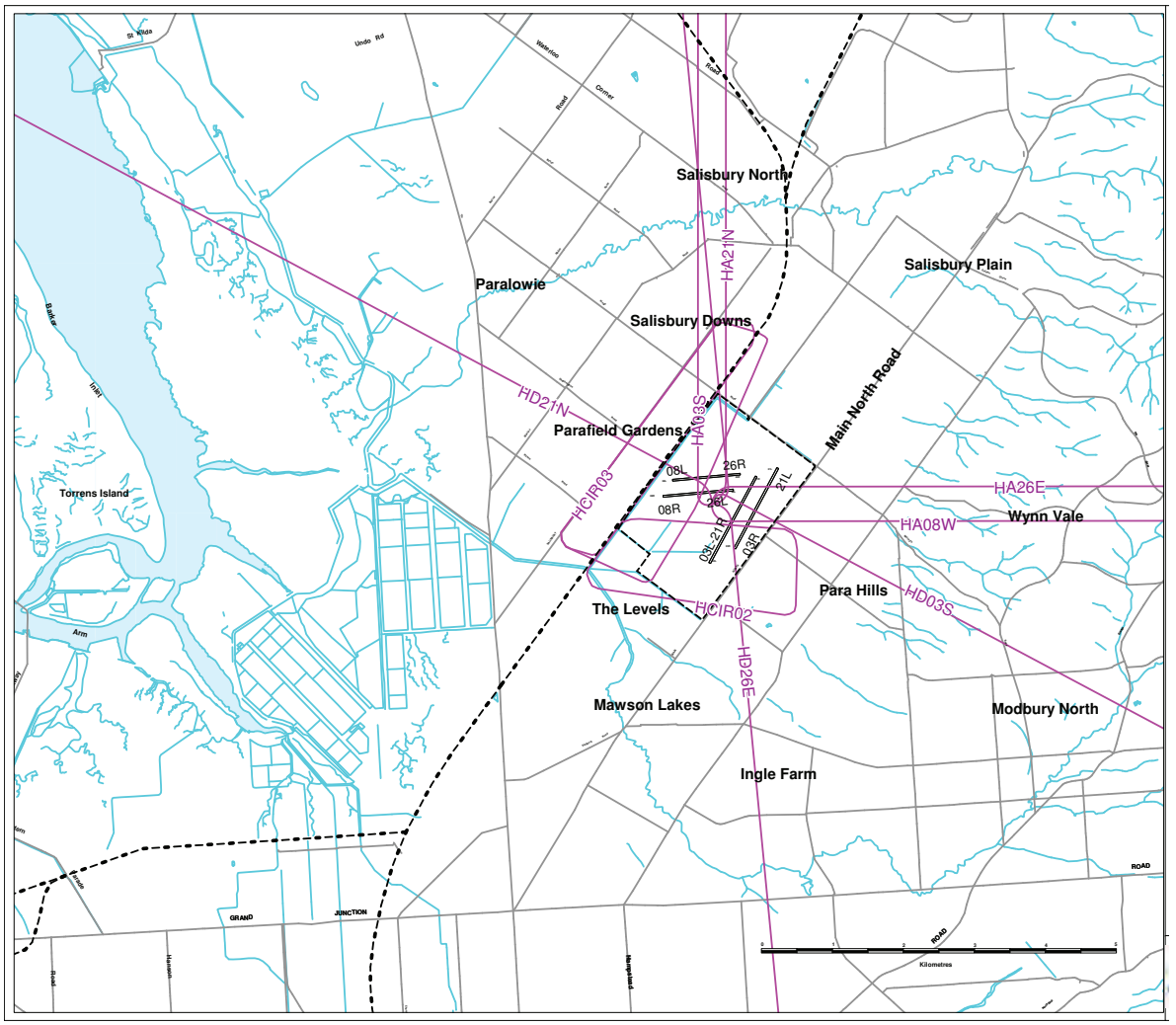
A8: Departure Flight Tracks



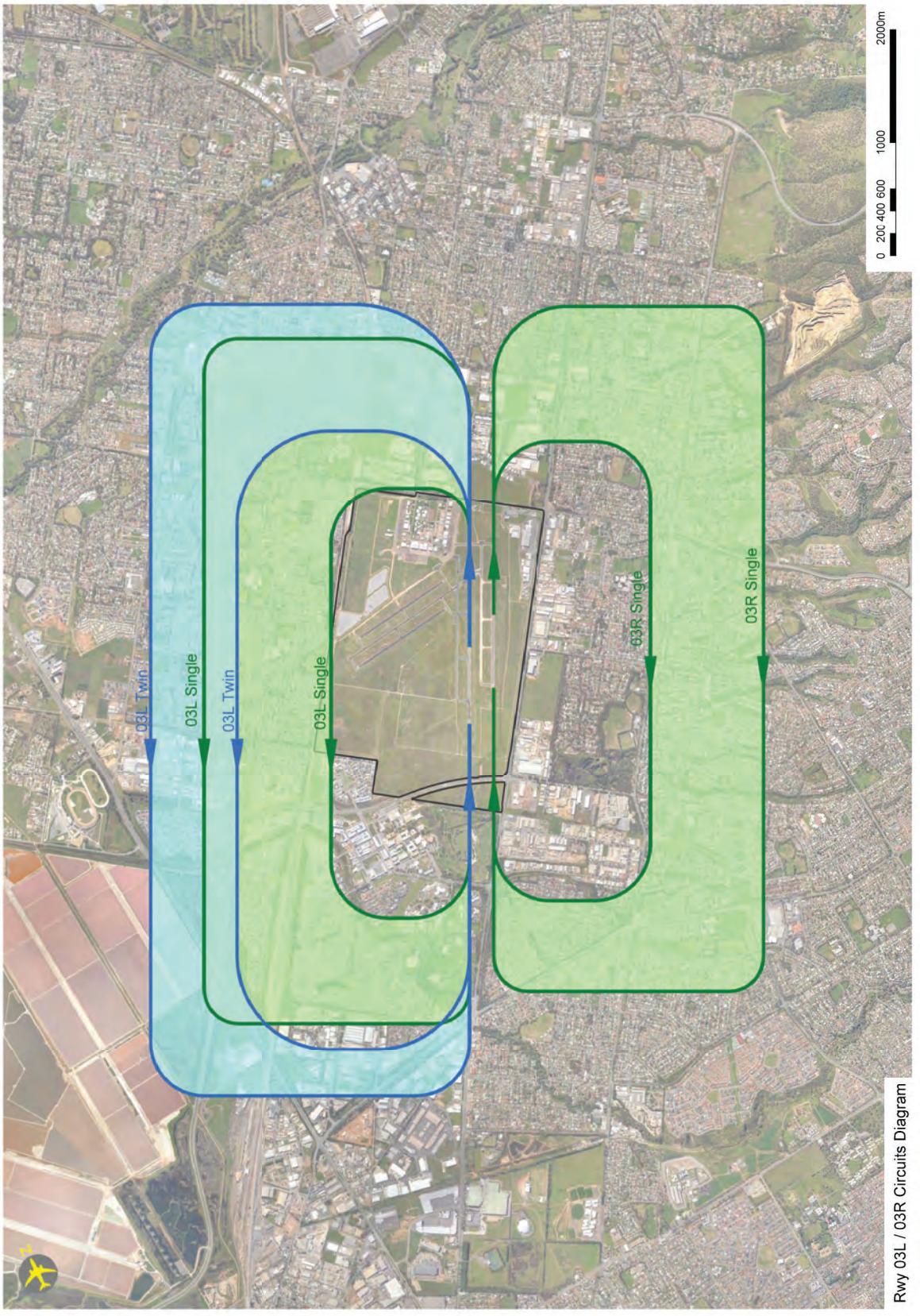
A9: Circuit Flight Tracks



A10: Helicopter Flight Tracks

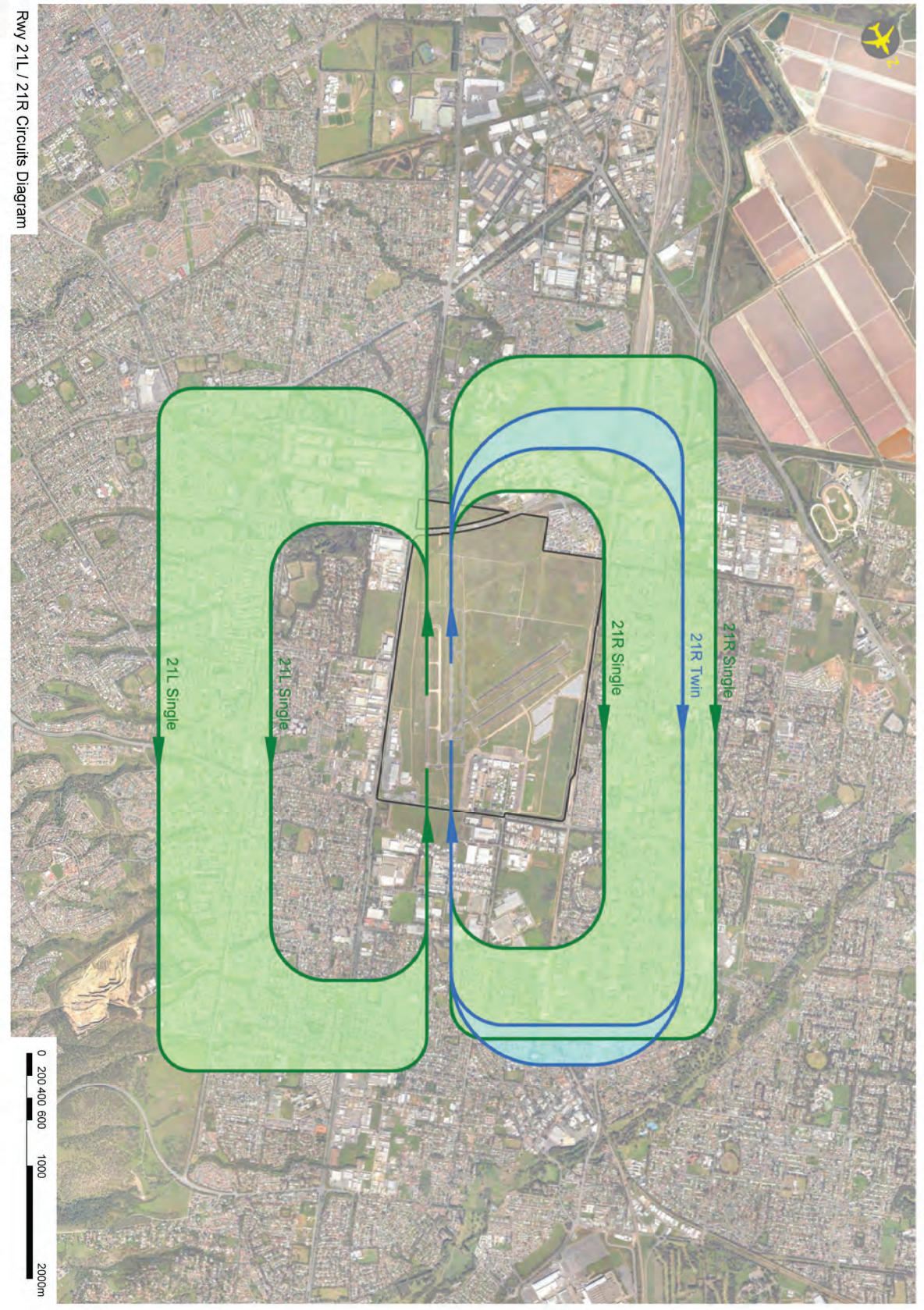


A11: Touch-and-Go Flight Tracks



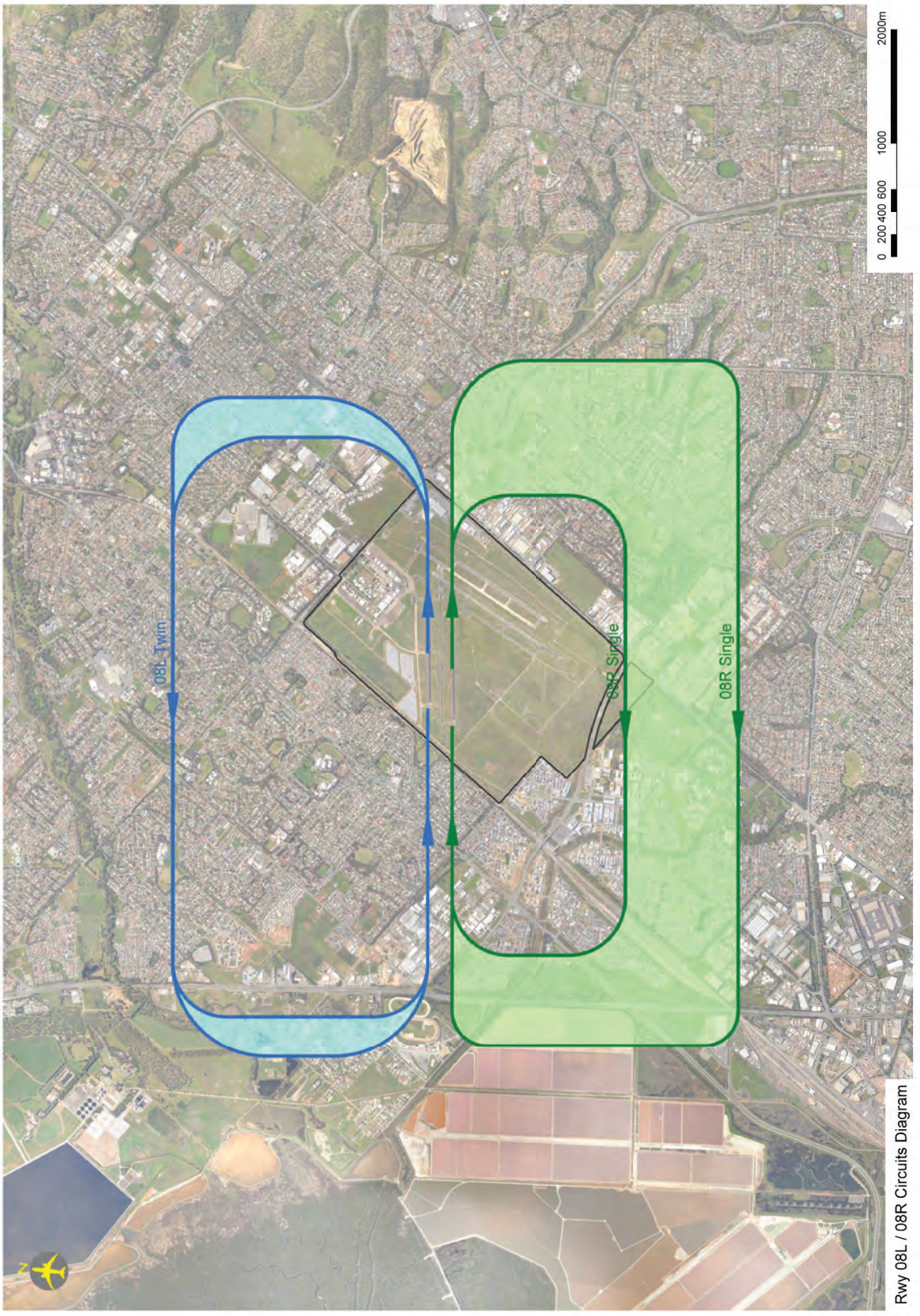
Rwy 03L / 03R Circuits Diagram

A12: Touch-and-Go Flight Tracks



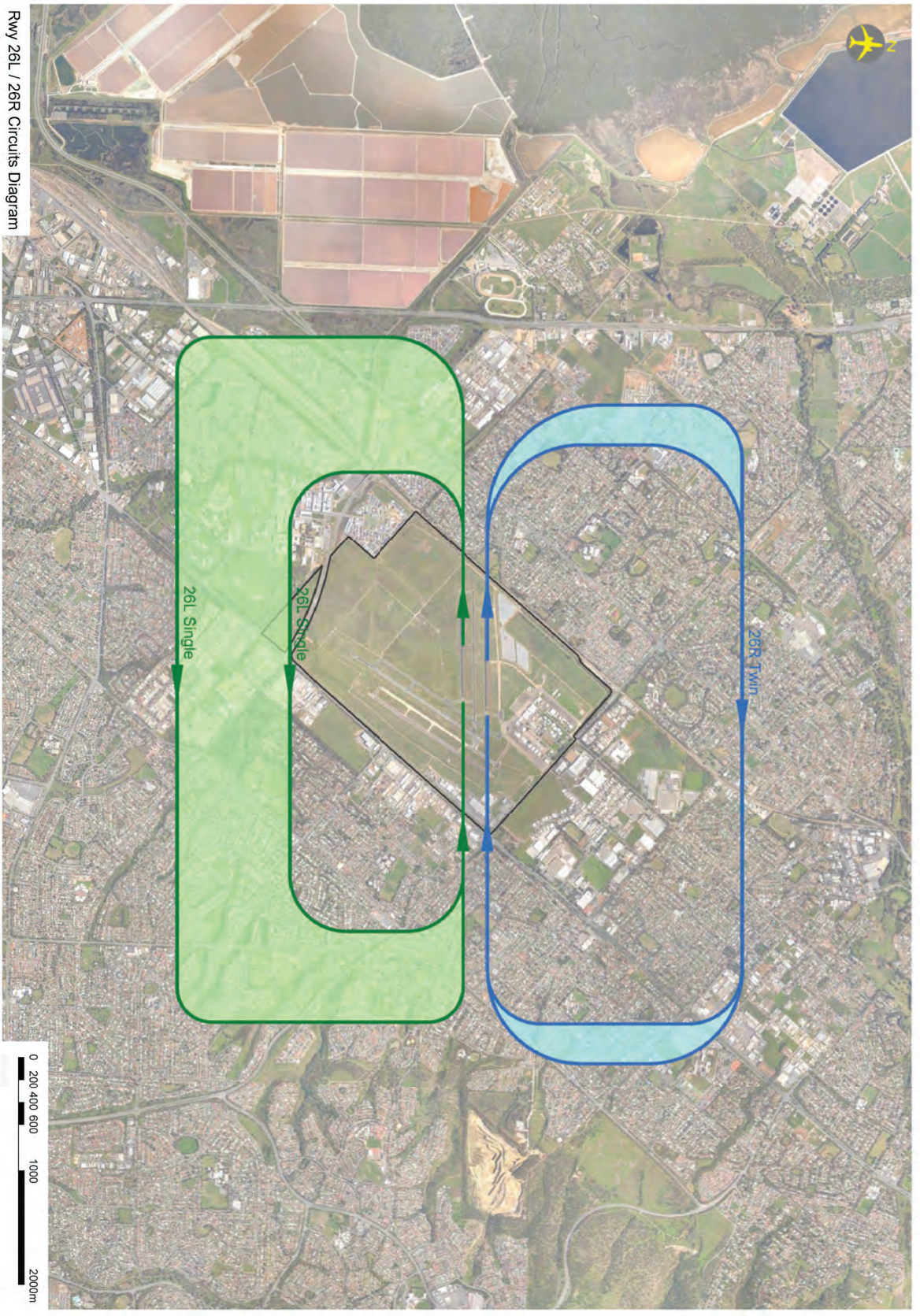
Rwy 21L / 21R Circuits Diagram

A13: Touch-and-Go Flight Tracks



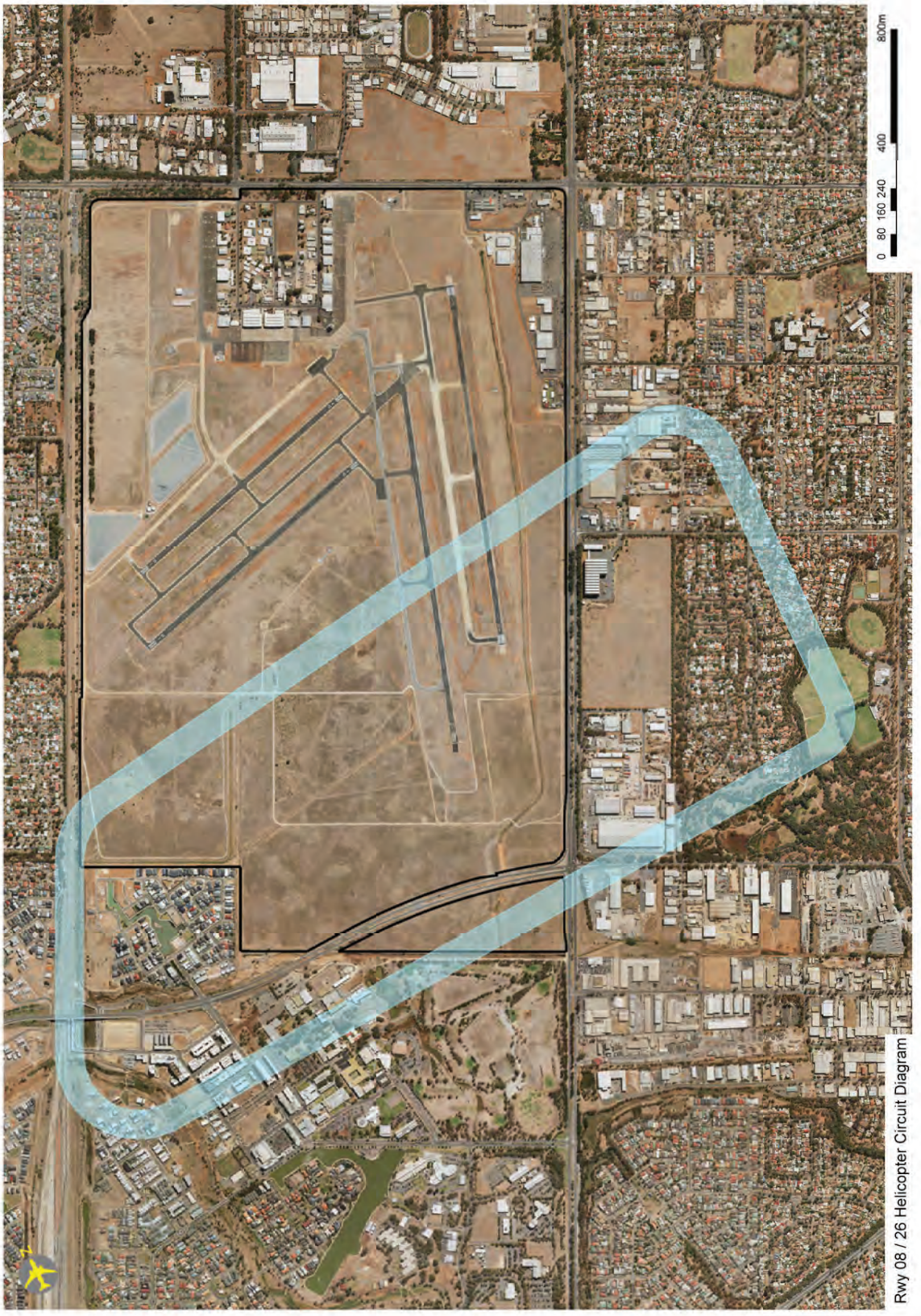
Rwy 08L / 08R Circuits Diagram

A14: Touch-and-Go Flight Tracks



Rwy 26L / 26R Circuits Diagram

A15: Helicopter Circuit Flight Tracks



A16: Helicopter Circuit Flight Tracks

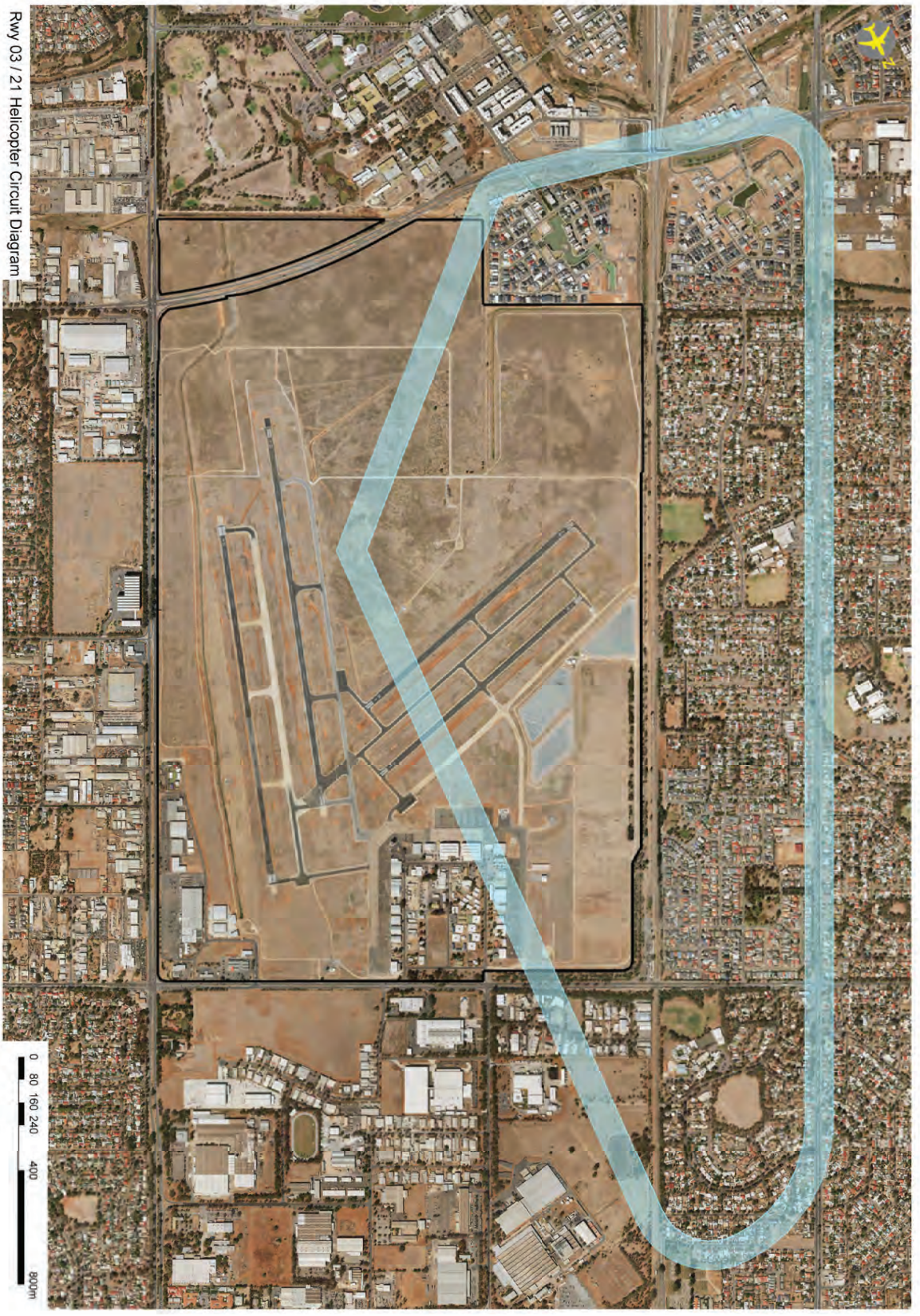


Table 3.3.1: Total numbers of aircraft movements used for INM modelling from INM databases for each runway

Parafield 2031 ANEF

RUNWAY	INM Code	INM Description	Arrivals Day	Arrivals Night	Arrivals Total	Arrivals Annual	Departures Day	Departures Night	Departures Total	Departures Annual	Touch Go/ Circuits (2 movements) Day	Touch Go/ Circuits (2 movements) Night	Touch Go/ Circuits (2 movements) Total	Touch Go/ Circuits (2 movements) Annual	Total Movements Total	Total Movements Annual
03L	DHC830	DE HAVILLAND CANADA Dash 8 - 400	0.1846	0.1709	0.3555	129.8	0.1846	0.1709	0.3555	129.8	0.0000	0.0000	0.0000	0	0.7110	260
	EMB145	EMBRAER G-SRIA	0.0109	0.0021	0.0130	4.7	0.0109	0.0024	0.0132	4.8	0.0000	0.0000	0.0000	0	0.0262	10
	CNA441	SHORTS Skyvan	0.0061	0.0050	0.0110	4.2	0.0061	0.0054	0.0115	4.2	0.0052	0.0000	0.0052	2	0.0281	10
	DHC6	BEECH 1900 Airliner	0.1061	0.0986	0.2047	74.7	0.1062	0.0986	0.2048	74.8	0.0000	0.0000	0.0000	0	0.4095	149
	CNA500	CESSNA Citation I, Citation 500	0.0141	0.0034	0.0175	6.4	0.0142	0.0038	0.0180	6.5	0.0000	0.0000	0.0000	0	0.0355	12
	LEAR35	BEECH 400A Beechjet (T1 Jayhawk)	0.0141	0.0034	0.0175	6.4	0.0142	0.0033	0.0175	6.4	0.0000	0.0000	0.0000	0	0.0350	13
	MU300	CESSNA Citation V 560	1.1719	0.4284	2.1403	781.2	1.1718	0.4284	2.1402	781.2	0.0000	0.0000	0.0000	0	4.2805	1562
	BEC58P	Diamond Aircraft Industries DA40 Twin Star	4.4337	4.1052	8.5389	3116.7	4.4336	4.1052	8.5388	3116.7	3.0112	0.8772	4.3884	1602	21.4661	7835
	COMSEP	DE HAVILLAND Chipmunk DHC-1	0.0428	0.0035	0.0463	30.0	0.0428	0.0034	0.0462	30.0	0.0284	0.0154	0.0438	16	0.3363	76
	GASEPF	1985 1-ENG FP PROP	27.0864	25.0894	52.1958	19047.8	27.0864	25.0890	52.1957	19047.8	17.4852	10.8070	28.3522	10349	132.7237	48444
	GASEPV	1985 1-ENG VP PROP	1.1355	1.0246	2.1515	785.0	1.1356	1.0247	2.1511	785.0	0.2578	0.1389	0.4176	152	4.8606	1775
		Total For Runway: 03L	**34.7275**	**30.9710**	**65.6985**	**23980**	**34.7275**	**30.9684**	**65.6959**	**23979**	**21.2670**	**11.9164**	**33.2070**	**12121**	**164.6815**	**60080**
03R	DHC830	DE HAVILLAND CANADA Dash 8 - 400	0.0940	0.0000	0.0940	107.3	0.0940	0.0000	0.0940	107.3	0.0000	0.0000	0.0000	0	0.1880	215
	CNA441	SHORTS Skyvan	0.0099	0.0000	0.0099	3.6	0.0099	0.0000	0.0099	3.6	0.0000	0.0000	0.0000	0	0.0198	7
	DHC6	BEECH 1900 Airliner	0.1862	0.0000	0.1862	61.8	0.1862	0.0000	0.1862	61.8	0.0000	0.0000	0.0000	0	0.3724	124
	BEC58P	Diamond Aircraft Industries DA40 Twin Star	7.0809	0.0000	7.0809	2577.2	7.0809	0.0000	7.0809	2577.2	0.0000	0.0000	0.0000	0	14.1618	5154
	COMSEP	DE HAVILLAND Chipmunk DHC-1	0.0860	0.0000	0.0860	24.9	0.0860	0.0000	0.0860	24.9	0.0446	0.0000	0.0446	16	0.1811	66
	GASEPF	1985 1-ENG FP PROP	43.1537	0.0000	43.1537	15751.1	43.1536	0.0000	43.1536	15751.1	27.4766	1.3742	28.8508	10521	115.1581	42033
	GASEPV	1985 1-ENG VP PROP	1.7828	0.0000	1.7828	650.4	1.7828	0.0000	1.7828	650.4	0.4050	0.0204	0.4254	155	3.9510	1442
		Total For Runway: 03R	**52.5187**	**0.0000**	**52.5187**	**19169**	**52.5187**	**0.0000**	**52.5187**	**19169**	**27.8262**	**1.3946**	**29.2208**	**10702**	**134.2562**	**49001**
08L	DHC830	DE HAVILLAND CANADA Dash 8 - 400	0.1146	0.0000	0.1146	41.8	0.1146	0.0000	0.1146	41.8	0.0000	0.0000	0.0000	0	0.2292	84
	CNA441	SHORTS Skyvan	0.0039	0.0000	0.0039	1.4	0.0039	0.0000	0.0039	1.4	0.0000	0.0000	0.0000	0	0.0158	4
	DHC6	BEECH 1900 Airliner	0.0859	0.0000	0.0859	34.1	0.0859	0.0000	0.0859	34.1	0.0000	0.0000	0.0000	0	0.1318	48
	BEC58P	Diamond Aircraft Industries DA40 Twin Star	2.7504	0.0000	2.7504	1003.9	2.7504	0.0000	2.7504	1003.9	2.1372	0.3330	2.4701	975	8.7718	2983
	COMSEP	DE HAVILLAND Chipmunk DHC-1	0.0267	0.0000	0.0267	9.7	0.0267	0.0000	0.0267	9.7	0.0000	0.0000	0.0000	0	0.0534	19
	GASEPF	1985 1-ENG FP PROP	16.8099	0.0000	16.8099	6135.6	16.8099	0.0000	16.8099	6135.6	9.9954	0.4998	10.4952	3829	33.6198	12271
	GASEPV	1985 1-ENG VP PROP	0.0867	0.0000	0.0867	250.6	0.0867	0.0000	0.0867	250.6	0.0000	0.0000	0.0000	0	0.1734	501
		Total For Runway: 08L	**20.4581**	**0.0000**	**20.4581**	**7467**	**20.4581**	**0.0000**	**20.4581**	**7467**	**12.1372**	**0.8328**	**2.4701**	**976**	**43.9663**	**15918**
08R	DHC830	DE HAVILLAND CANADA Dash 8 - 400	0.0864	0.0000	0.0864	20.6	0.0864	0.0000	0.0864	20.6	0.0000	0.0000	0.0000	0	0.1728	41
	CNA441	SHORTS Skyvan	0.0019	0.0000	0.0019	0.7	0.0019	0.0000	0.0019	0.7	0.0000	0.0000	0.0000	0	0.0038	1
	DHC6	BEECH 1900 Airliner	0.0324	0.0000	0.0324	11.8	0.0324	0.0000	0.0324	11.8	0.0000	0.0000	0.0000	0	0.0648	24
	BEC58P	Diamond Aircraft Industries DA40 Twin Star	1.3647	0.0000	1.3647	494.5	1.3647	0.0000	1.3647	494.5	0.0000	0.0000	0.0000	0	2.7294	989
	COMSEP	DE HAVILLAND Chipmunk DHC-1	0.0131	0.0000	0.0131	4.8	0.0131	0.0000	0.0131	4.8	0.0062	0.0000	0.0062	3	0.0344	13
	GASEPF	1985 1-ENG FP PROP	8.2754	0.0000	8.2754	3000.0	8.2754	0.0000	8.2754	3000.0	4.9958	0.2498	5.2454	1915	21.8042	7969
	GASEPV	1985 1-ENG VP PROP	0.3382	0.0000	0.3382	123.4	0.3383	0.0000	0.3383	123.5	0.0706	0.0039	0.0774	28	0.7539	275
		Total For Runway: 08R	**10.076 1**	**0.0000**	**10.0761**	**3679**	**10.0762**	**0.0000**	**10.0762**	**3679**	**5.0774**	**0.2536**	**5.3310**	**1946**	**25.4833**	**9301**
21L	DHC830	DE HAVILLAND CANADA Dash 8 - 400	0.4394	0.0000	0.4394	160.4	0.4394	0.0000	0.4394	160.4	0.0000	0.0000	0.0000	0	0.8788	321
	CNA441	SHORTS Skyvan	0.0147	0.0000	0.0147	5.4	0.0148	0.0000	0.0148	5.4	0.0000	0.0000	0.0000	0	0.0295	11
	DHC6	BEECH 1900 Airliner	0.2527	0.0000	0.2527	92.2	0.2528	0.0000	0.2528	92.3	0.0000	0.0000	0.0000	0	0.5055	185
	BEC58P	Diamond Aircraft Industries DA40 Twin Star	10.5503	0.0000	10.5503	3850.9	10.5504	0.0000	10.5504	3850.9	0.0000	0.0000	0.0000	0	21.1007	7702
	COMSEP	DE HAVILLAND Chipmunk DHC-1	0.1021	0.0000	0.1021	37.3	0.1021	0.0000	0.1021	37.3	0.0648	0.0000	0.0648	24	0.2690	98
	GASEPF	1985 1-ENG FP PROP	64.4797	0.0000	64.4797	23535.1	64.4796	0.0000	64.4796	23535.0	39.9658	1.9980	41.9638	15317	170.8230	62367
	GASEPV	1985 1-ENG VP PROP	2.6341	0.0000	2.6341	961.4	2.6341	0.0000	2.6341	961.4	0.5865	0.0289	0.6153	225	5.8670	2141
		Total For Runway: 21L	**78.4730**	**0.0000**	**78.4730**	**28643**	**78.4731**	**0.0000**	**78.4731**	**28643**	**40.6116**	**2.0258**	**42.6404**	**15567**	**199.9865**	**72852**
21R	DHC830	DE HAVILLAND CANADA Dash 8 - 400	0.2769	0.2564	0.5333	194.7	0.2769	0.2564	0.5333	194.7	0.0000	0.0000	0.0000	0	1.0666	389
	EMB145	EMBRAER G-SRIA	0.0164	0.0034	0.0198	7.2	0.0165	0.0033	0.0198	7.2	0.0000	0.0000	0.0000	0	0.0396	14
	CNA441	SHORTS Skyvan	0.0094	0.0081	0.0175	6.4	0.0093	0.0083	0.0176	6.4	0.0074	0.0000	0.0074	3	0.0425	16
	DHC8	BEECH 1900 Airliner	0.1594	0.1485	0.3074	112.2	0.1593	0.1480	0.3073	112.2	0.0000	0.0000	0.0000	0	0.6147	224
	CNA500	CESSNA Citation I, Citation 500	0.0214	0.0049	0.0263	9.6	0.0214	0.0013	0.0227	8.3	0.0000	0.0000	0.0000	0	0.0490	18
	LEAR35	BEECH 400A Beechjet (T1 Jayhawk)	0.0214	0.0049	0.0263	9.6	0.0214	0.0049	0.0263	9.6	0.0000	0.0000	0.0000	0	0.0526	19
	MU300	CESSNA Citation V 560	2.5877	0.6426	3.2303	1171.8	2.5877	0.6427	3.2304	1171.8	0.0000	0.0000	0.0000	0	6.4207	2344
	BEC58P	Diamond Aircraft Industries DA40 Twin Star	5.6004	6.1379	11.8383	4670.0	5.6004	6.1379	11.8383	4670.0	5.1462	1.2966	6.4428	2360	30.1034	11718
	COMSEP	DE HAVILLAND Chipmunk DHC-1	0.0643	0.0592	0.1235	45.1	0.0643	0.0592	0.1235	45.1	0.0496	0.0230	0.0726	23	0.3106	113
	GASEPF	1985 1-ENG FP PROP	40.6446	37.6340	78.2786	28571.7	40.6447	37.6340	78.2787	28571.7	24.9786	16.0574	41.0360	15044	197.7132	72187
	GASEPV	1985 1-ENG VP PROP	1.6903	1.3369	3.1972	1167.0	1.6904	1.3369	3.1973	1167.0	0.3982	0.2388	0.6370	232	7.0015	2556
		Total For Runway: 21R	**52.0862**	**46.0563**	**98.1425**	**35979**	**52.0863**	**46.0429**	**98.1292**	**35969**	**30.9858**	**17.7962**	**48.7812**	**17838**	**245.4749**	**89998**
36L	DHC830	DE HAVILLAND CANADA Dash 8 - 400	0.1146	0.0000	0.1146	41.8	0.1146	0.0000	0.1146	41.8	0.0000	0.0000	0.0000	0	0.2292	84
	CNA441	SHORTS Skyvan	0.0039	0.0000	0.0039	1.4	0.0039	0.0000	0.0039	1.4	0.0000	0.0000	0.0000	0	0.0078	3
	DHC6	BEECH 1900 Airliner	0.0960	0.0000	0.0960	34.1	0.0959	0.0000	0.0959	34.1	0.0000	0.0000	0.0000	0	0.1919	48
	BEC58P	Diamond Aircraft Industries DA40 Twin Star	2.7504	0.0000	2.7504	1003.9	2.7503	0.0000	2.7503	1003.9	0.0000	0.0000	0.0000	0	5.5007	2008
	COMSEP	DE HAVILLAND Chipmunk DHC-1	0.0267	0.0000	0.0267	9.7	0.0266	0.0000	0.0266	9.7	0.0162	0.0000	0.0162	6	0.0695	25
	GASEPF	1985 1-ENG FP PROP	16.8099	0.0000	16.8099	6135.6	16.8099	0.0000	16.8099	6135.6	9.9954	0.4998	10.4812	3829	44.1110	16101
	GASEPV	1985 1-ENG VP PROP	0.0867	0.0000	0.0867	250.6	0.0867	0.0000	0.0867	250.6	0.1474	0.0074	0.1548	57	1.3202	538
		Total For Runway: 36L	**20.4582**	**0.0000**	**20.4582**	**7467**	**20.4579**	**0.0000**	**20.4579**	**7467**	**10.1590**	**0.5072**	**10.6662**	**3892**	**51.5783**	**18828**
36R	DHC830	DE HAVILLAND CANADA Dash 8 - 400	0.0260	0.0000	0.0260	8.7	0.0261	0.0000	0.0261	8.8	0.0000	0.0000	0.0000	0	0.0520	17
	CNA441	SHORTS Skyvan	0.0077	0.0000	0.0077	2.8	0.0077	0.0000	0.0077	2.8	0.0082	0.0000	0.0082	2	0.0316	8
	DHC8	BEECH 1900 Airliner	0.1319	0.0000	0.1319	48.1	0.1318	0.0000	0.1318	48.1	0.0000	0.0000	0.0000	0	0.2637	96
	BEC58P	Diamond Aircraft Industries DA40 Twin Star	5.5009	0.0000	5.5009	2007.8	5.5010	0.0000	5.5010	2007.9	4.2744	1.0678	5.3422	1950	16.3441	5966
	COMSEP	DE HAVILLAND Chipmunk DHC-1	0.0533	0.0000	0.0533	19.5	0.0533	0.0000	0.0533	19.5	0.0000	0.0000	0.0000	0	0.1066	39
	GASEPF	1985 1-ENG FP PROP	33.6197	0.0000	33.6197	12271.2	33.6197	0.0000	33.6197	12271.2	0.0000	0.0000	0.0000	0	67.2394	24542
	GASEPV	1985 1-ENG VP PROP	1.3735	0.0000	1.3735	501.3	1.3734	0.0000	1.3734	501.3	0.0000	0.0000	0.0000	0	2.7469	1003
		Total For Runway: 36R	**40.9192**	**0.0000**	**40.9192**	**14934**	**40.9195**	**0.0000**	**40.9190**	**14934**	**4.2826**	**1.0678**	**5.3504**	**1952**	**87.1888**	**31821**
H	B407	BELL Bell 407 Rolls Royce 250-C47B	4.5479	0.0931	4.6411	1694.0	4.5479	0.0931	4.6411	1694.0	0.0000	0.0000	0.0000	0	9.2822	3388
	EC130	EUROCOPTER Eurocopter EC-130	9.0932	0.1863	9.2795	3387.0	9.0932	0.1863	9.2795	3387.0	0.0000	0.0000	0.0000	0	18.5589	6774
	R22	ROBINSON Robinson R22B w/Lycoming 03	9.0932	0.1863	9.2795	3387.0	9.0932	0.1863	9.2795	3387.0	0.0000	0.0000	0.0000	0	18.5589	6774
	SC300C	SCHWEIZER Schweizer 300C Lycoming H5	22.7753	0.4658	23.2411	8483.0	22.7753	0.4658	23.2411	8483.0	0.0000	0.0000	0.0000	0	46.4822	16966
		Total For Runway: H	**45.5096**	**0.9315**	**46.4411**	**16951**	**45.5096**	**0.9315**	**46.4411**	**16951**	**0.0000**	**0.0000**	**0.0000**	**0**	**92.8822**	**33902**
OVF	B407	BELL Bell 407 Rolls Royce 250-C47B	0.0000	0.0000	0.0000	0.0	0.0000	0.0000	0.0000	0.0	2.2247	0.2965	2.4801	910	2.4801	910
	EC130	EUROCOPTER Eurocopter EC-130	0.0000	0.0000	0.0000	0.0	0.0000	0.0000	0.0000	0.0	4.4438	0.5850	4.9959	1814	4.9959	1814
	R22	ROBINSON Robinson R22B w/Lycoming 03	0.0000	0.0000	0.0000	0.0	0.0000	0.0000	0.0000	0.0	4.4438	0.5850	4.9959	1814	4.9959	1814
	SC300C	SCHWEIZER Schweizer 300C Lycoming H5	0.0000	0.0000	0.0000	0.0	0.0000	0.0000	0.0000	0.0	11.1452	1.3850	12.4712	4552	12.4712	4552
		Total For Runway: OVF	**0.0000**	**0.0000**	**0.0000**	**0**	**0.0000**	**0.0000**	**0.0000**	**0**	**22.2575**	**2.6450**	**24.8431**	**9906**	**24.8431**	**9906**
		Total	**355.2207**	**78.3580**	**433.5585**	**158260**	**355.2204**	**78.3536**	**433.5522**	**158258**	**164.3291**	**38.1480**	**202.4771**	**73904**	**1069.5879**	**390421**

Note: Where figures have been rounded discrepancies may occur between totals and the sums of component items.

(To be used in conjunction with Table 3.3 of AS2021-2000)

Building type	ANEF zone of site: Acceptable	Conditionally acceptable	Unacceptable
House, home unit, flat, caravan park	Less than 20 ANEF (Note 1)	20 to 25 ANEF (Note 2)	Greater than 25 ANEF
Hotel, motel, hostel	Less than 25 ANEF	25 to 30 ANEF	Greater than 30 ANEF
School, university	Less than 20 ANEF (Note 1)	20 to 25 ANEF (Note 2)	Greater than 25 ANEF
Hospital, nursing home	Less than 20 ANEF (Note 1)	20 to 25 ANEF	Greater than 25 ANEF
Public building	Less than 20 ANEF (Note 1)	20 to 30 ANEF	Greater than 30 ANEF
Commercial building	Less than 25 ANEF	25 to 35 ANEF	Greater than 35 ANEF
Light industrial	Less than 30 ANEF	30 to 40 ANEF	Greater than 40 ANEF
Other industrial	Acceptable in all ANEF zones		

NOTES:

1 The actual location of the 20 ANEF contour is difficult to define accurately, mainly because of variation in aircraft flight paths. Because of this, the provision of Clause 2.3.2 may be followed for building sites outside but near to the 20 ANEF contour.

2 Within 20 ANEF to 25 ANEF, some people may find that the land is not compatible with residential or educational uses. Land use authorities may consider that the incorporation of noise control features in the construction of residences or schools is appropriate (see also Figure A1 of Appendix A).

3 There will be cases where a building of a particular type will contain spaces used for activities which would generally be found in a different type of building (e.g. an office in an industrial building). In these cases Table 2.1 should be used to determine site acceptability, but internal design noise levels within the specific spaces should be determined by Table 2.3.

4 This Standard does not recommend development in unacceptable areas. However, where the relevant planning authority determines that any development may be necessary within existing built-up areas designated as unacceptable, it is recommended that such development should achieve the required ANR determined according to Clause 3.2. For residences, schools, etc., the effect of aircraft noise on outdoor areas associated with the buildings should be considered.

ENDORSEMENT FOR TECHNICAL ACCURACY

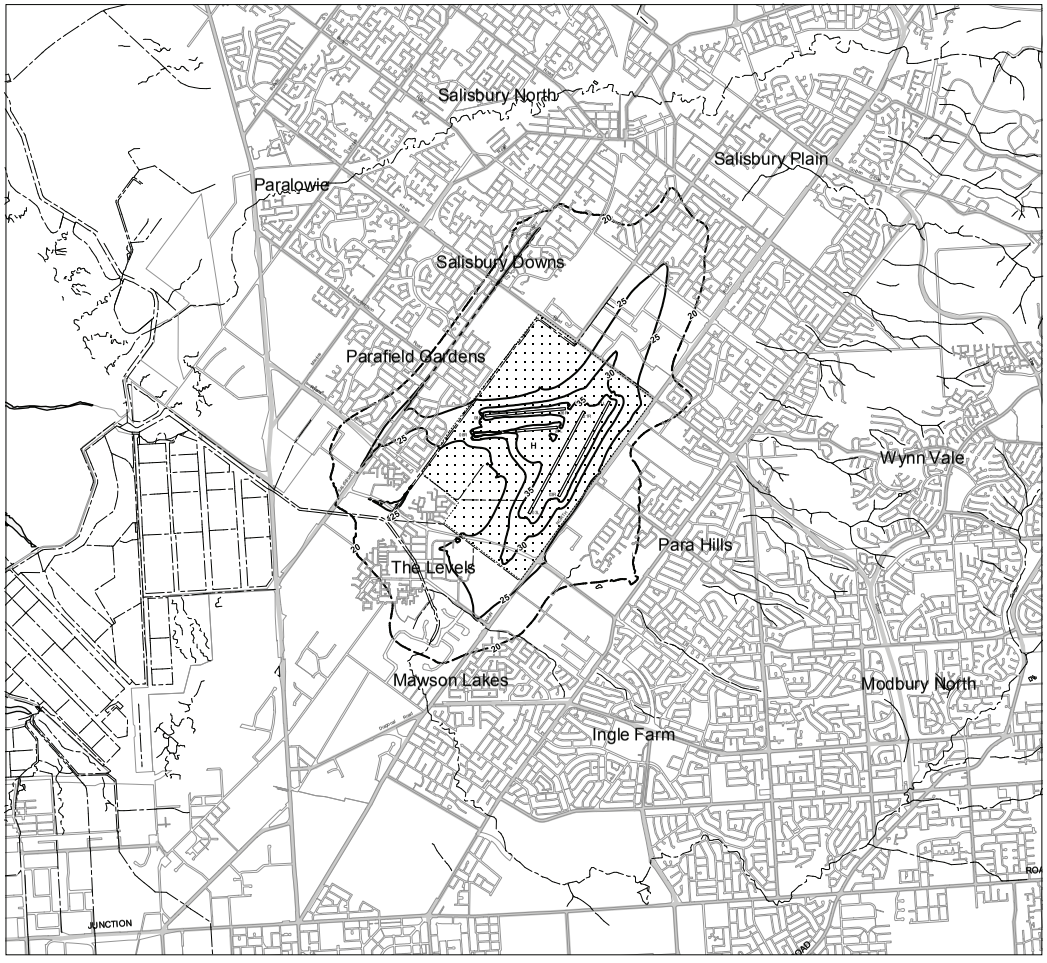
airservices

STANDARD ANEF

Date 28/2/2012

General Manager Environment
Airservices Australia. Canberra

The aircraft noise contours on this chart have been calculated using an appropriate modelling process. Airservices Australia has, in accordance with the approved manner of endorsement, considered the physical ultimate capacity of the existing or proposed runway/s in its endorsement process.
The data input and assumptions made in that process are derived in part from external sources. Airservices Australia makes no warranty in respect of that information and excludes all liability for any loss arising from reliance on that information.



Contours produced using INM 7.0b, settings of refinement = 10.0, and tolerance = 0.1 dB, and using terrain in calculations. Results exported from INM as lat/ long using WGS84 datum.

Issue Date	Drawn By	Checked By
14th Feb, 2012	AP	RC

PARAFIELD AIRPORT

Australian Noise Exposure Forecast

2031 ANEF

Parafield Airport

Table 3.3.2: Total numbers of aircraft movements used for INM modelling from INM databases for each runway

Parafield Ultimate Capacity

RUNWAY	INM Code	INM Description	Arrivals Day	Arrivals Night	Arrivals Total	Arrivals Annual	Departures Day	Departures Night	Departures Total	Departures Annual	Touch Go/ Circuits (2 movements) Day	Night	Total	Annual	Total Movements Total	Annual
03L	DHC830	DE HAVILLAND CANADA Dash 8 - 400	0.5185	0.4800	0.9984	364.4	0.5185	0.4800	0.9984	364.4	0.0000	0.0000	0.0000	0	1.9969	729
	EMB145	EMBRAER G-SIPA	0.0136	0.0026	0.0163	5.9	0.0135	0.0030	0.0165	6.0	0.0000	0.0000	0.0000	0	0.0328	12
	CNA441	SHORTS Sikvan	0.0069	0.0052	0.0132	4.8	0.0069	0.0061	0.0130	4.8	0.0057	0.0000	0.0057	2	0.0319	12
	DHC6	BEECH 1900 Airliner	0.1219	0.1133	0.2352	85.9	0.1220	0.1133	0.2354	85.9	0.0000	0.0000	0.0000	0	0.4706	172
	CNA500	CESSNA Citation I, Citation 500	0.0167	0.0000	0.0167	6.1	0.0168	0.0000	0.0178	6.5	0.0000	0.0000	0.0000	0	0.0346	14
	LEAR35	BEECH 400A Beechjet (TI Jurhawk)	0.0167	0.0040	0.0208	7.6	0.0169	0.0039	0.0208	7.6	0.0000	0.0000	0.0000	0	0.0416	15
	MU300	CESSNA Citation V 560	1.9732	0.4938	2.4670	900.5	1.9731	0.4938	2.4669	900.4	0.0000	0.0000	0.0000	0	4.9340	1801
	BEC58P	Diamond Aircraft Industries DA42 Twin Star	5.1085	4.7310	9.8405	3591.8	5.1094	4.7310	9.8404	3591.7	4.5464	1.0169	5.5573	1948	24.7382	9029
	COMSEP	DE HAVILLAND Chipmunk DHC-1	0.0465	0.0000	0.0465	34.8	0.0465	0.0000	0.0931	34.7	0.0329	0.0178	0.0507	18	0.2439	88
	GASEPF	1985 1-ENG FP PROP	31.2262	28.9133	60.1394	21950.9	31.2262	28.9132	60.1393	21950.9	25.1501	12.5232	32.8734	11908	152.9521	55828
	GASEPV	1985 1-ENG VP PROP	1.9732	0.4938	2.4670	900.5	1.9731	0.4938	2.4669	900.4	0.0201	0.1364	0.3565	130	5.9905	1459
		Total For Runway : 03L	**39.0980**	**35.6608**	**75.6588**	**27618**	**39.9079**	**35.6557**	**75.6636**	**27617**	**34.4552**	**13.6864**	**48.1436**	**13022**	**199.4739**	**69159**
03R	DHC830	DE HAVILLAND CANADA Dash 8 - 400	0.8257	0.0000	0.8257	301.4	0.8257	0.0000	0.8257	301.4	0.0000	0.0000	0.0000	0	1.6514	603
	CNA441	SHORTS Sikvan	0.0112	0.0000	0.0112	4.1	0.0112	0.0000	0.0112	4.1	0.0000	0.0000	0.0000	0	0.0225	8
	DHC6	BEECH 1900 Airliner	0.1944	0.0000	0.1944	71.0	0.1944	0.0000	0.1944	71.0	0.0000	0.0000	0.0000	0	0.3888	142
	BEC58P	Diamond Aircraft Industries DA42 Twin Star	8.1372	0.0000	8.1372	2970.1	8.1372	0.0000	8.1372	2970.1	0.0000	0.0000	0.0000	0	16.2744	5940
	COMSEP	DE HAVILLAND Chipmunk DHC-1	0.0789	0.0000	0.0789	28.8	0.0790	0.0000	0.0790	28.8	0.0516	0.0000	0.0516	19	0.2606	96
	GASEPF	1985 1-ENG FP PROP	49.7508	0.0000	49.7508	18151.7	49.7506	0.0000	49.7506	18151.7	31.8643	1.5898	33.2480	12136	132.7993	48429
	GASEPV	1985 1-ENG VP PROP	1.5051	0.0000	1.5051	549.4	1.5051	0.0000	1.5051	549.4	0.1458	0.0114	0.3022	110	3.3726	1230
		Total For Runway : 03R	**60.4634**	**0.0000**	**60.4634**	**22075**	**60.4634**	**0.0000**	**60.4634**	**22075**	**32.0617**	**1.6011**	**33.6628**	**12287**	**154.6895**	**56450**
08L	DHC830	DE HAVILLAND CANADA Dash 8 - 400	0.3219	0.0000	0.3219	117.5	0.3219	0.0000	0.3219	117.5	0.0000	0.0000	0.0000	0	0.6437	235
	CNA441	SHORTS Sikvan	0.0044	0.0000	0.0044	1.6	0.0044	0.0000	0.0044	1.6	0.0034	0.0000	0.0034	1	0.0133	4
	DHC6	BEECH 1900 Airliner	0.0757	0.0000	0.0757	27.6	0.0757	0.0000	0.0757	27.6	0.0000	0.0000	0.0000	0	0.1515	55
	BEC58P	Diamond Aircraft Industries DA42 Twin Star	3.1686	0.0000	3.1686	1156.9	3.1686	0.0000	3.1686	1156.9	2.4630	0.6152	3.0781	1124	9.4174	3437
	COMSEP	DE HAVILLAND Chipmunk DHC-1	0.0309	0.0000	0.0309	11.3	0.0309	0.0000	0.0309	11.3	0.0000	0.0000	0.0000	0	0.0618	23
	GASEPF	1985 1-ENG FP PROP	19.3719	0.0000	19.3719	7070.7	19.3719	0.0000	19.3719	7070.7	0.0000	0.0000	0.0000	0	38.7438	14141
	GASEPV	1985 1-ENG VP PROP	0.5863	0.0000	0.5863	214.0	0.5863	0.0000	0.5863	214.0	0.0000	0.0000	0.0000	0	1.1727	428
		Total For Runway : 08L	**23.5605**	**0.0000**	**23.5605**	**8600**	**23.5605**	**0.0000**	**23.5605**	**8600**	**2.4664**	**0.6152**	**3.0815**	**1125**	**50.2021**	**18324**
08R	DHC830	DE HAVILLAND CANADA Dash 8 - 400	0.1584	0.0000	0.1584	57.8	0.1584	0.0000	0.1584	57.8	0.0000	0.0000	0.0000	0	0.3168	116
	CNA441	SHORTS Sikvan	0.0022	0.0000	0.0022	0.8	0.0022	0.0000	0.0022	0.8	0.0000	0.0000	0.0000	0	0.0043	2
	DHC6	BEECH 1900 Airliner	0.0372	0.0000	0.0372	13.6	0.0372	0.0000	0.0372	13.6	0.0000	0.0000	0.0000	0	0.0745	27
	BEC58P	Diamond Aircraft Industries DA42 Twin Star	1.5612	0.0000	1.5612	569.9	1.5612	0.0000	1.5612	569.9	0.0000	0.0000	0.0000	0	3.1224	1140
	COMSEP	DE HAVILLAND Chipmunk DHC-1	0.0152	0.0000	0.0152	5.5	0.0152	0.0000	0.0152	5.5	0.0095	0.0000	0.0095	3	0.0398	15
	GASEPF	1985 1-ENG FP PROP	9.5413	0.0000	9.5413	3482.6	9.5413	0.0000	9.5413	3482.6	5.7579	0.2879	6.0458	2206	25.1274	9171
	GASEPV	1985 1-ENG VP PROP	0.2888	0.0000	0.2888	105.4	0.2889	0.0000	0.2889	105.4	0.0928	0.0032	0.0961	24	0.5637	235
		Total For Runway : 08R	**11.6042**	**0.0000**	**11.6042**	**4236**	**11.6043**	**0.0000**	**11.6043**	**4236**	**5.8603**	**0.2911**	**6.1514**	**2234**	**29.3289**	**10705**
21L	DHC830	DE HAVILLAND CANADA Dash 8 - 400	1.2341	0.0000	1.2341	450.4	1.2341	0.0000	1.2341	450.4	0.0000	0.0000	0.0000	0	2.4681	901
	CNA441	SHORTS Sikvan	0.0167	0.0000	0.0167	6.1	0.0168	0.0000	0.0168	6.1	0.0000	0.0000	0.0000	0	0.0335	12
	DHC6	BEECH 1900 Airliner	0.2964	0.0000	0.2964	108.0	0.2965	0.0000	0.2965	108.0	0.0000	0.0000	0.0000	0	0.5929	216
	BEC58P	Diamond Aircraft Industries DA42 Twin Star	12.1585	0.0000	12.1585	4437.8	12.1586	0.0000	12.1586	4437.9	0.0000	0.0000	0.0000	0	24.3171	8875
	COMSEP	DE HAVILLAND Chipmunk DHC-1	0.1181	0.0000	0.1181	43.1	0.1181	0.0000	0.1181	43.1	0.0750	0.0000	0.0750	27	0.3162	114
	GASEPF	1985 1-ENG FP PROP	74.3071	0.0000	74.3071	27122.1	74.3068	0.0000	74.3068	27122.0	46.5570	2.3037	48.8607	17832	196.9745	71896
	GASEPV	1985 1-ENG VP PROP	2.2481	0.0000	2.2481	820.9	2.2481	0.0000	2.2481	820.9	0.5029	0.0254	0.5284	193	5.5296	1935
	EMB145	EMBRAER G-SIPA	0.0205	0.0043	0.0248	9.0	0.0206	0.0041	0.0248	9.0	0.0000	0.0000	0.0000	0	0.0495	18
	CNA441	SHORTS Sikvan	0.0107	0.0060	0.0168	7.3	0.0106	0.0064	0.0200	7.3	0.0064	0.0000	0.0064	3	0.0432	18
	DHC6	BEECH 1900 Airliner	0.1682	0.1701	0.3333	138.9	0.1831	0.1701	0.3532	138.9	0.0000	0.0000	0.0000	0	0.7064	258
	CNA500	CESSNA Citation I, Citation 500	0.0254	0.0058	0.0312	11.4	0.0254	0.0015	0.0270	9.8	0.0000	0.0000	0.0000	0	0.0582	21
	LEAR35	BEECH 400A Beechjet (TI Jurhawk)	0.0254	0.0058	0.0312	11.4	0.0254	0.0039	0.0312	11.4	0.0000	0.0000	0.0000	0	0.0625	23
	MU300	CESSNA Citation V 560	2.9597	0.7407	3.7004	1350.2	2.9597	0.7408	3.7005	1350.2	0.0000	0.0000	0.0000	0	7.4009	2700
	BEC58P	Diamond Aircraft Industries DA42 Twin Star	7.8641	7.0965	14.7607	5387.6	7.8641	7.0965	14.7607	5387.6	5.9813	1.4942	7.4755	2729	36.5969	13304
	COMSEP	DE HAVILLAND Chipmunk DHC-1	0.0744	0.0000	0.1428	52.2	0.0744	0.0685	0.1428	52.2	0.0470	0.0266	0.0736	27	0.3948	139
	GASEPF	1985 1-ENG FP PROP	46.8362	43.3698	90.2060	32905.3	46.8364	43.3698	90.2062	32905.3	28.7695	14.7135	47.4682	17327	227.9164	83169
	GASEPV	1985 1-ENG VP PROP	1.4176	1.3123	2.7299	996.4	1.4177	1.3123	2.7300	996.4	0.3144	0.3339	0.5183	189	5.6781	2192
		Total For Runway : 21R	**59.9070**	**53.5031**	**113.5010**	**41428**	**59.9093**	**53.4996**	**113.4970**	**41428**	**35.1347**	**20.4373**	**55.0740**	**20285**	**282.5720**	**103139**
26L	DHC830	DE HAVILLAND CANADA Dash 8 - 400	0.3219	0.0000	0.3219	117.5	0.3219	0.0000	0.3219	117.5	0.0000	0.0000	0.0000	0	0.6437	235
	CNA441	SHORTS Sikvan	0.0044	0.0000	0.0044	1.6	0.0044	0.0000	0.0044	1.6	0.0000	0.0000	0.0000	0	0.0088	3
	DHC6	BEECH 1900 Airliner	0.0758	0.0000	0.0758	27.7	0.0757	0.0000	0.0757	27.6	0.0000	0.0000	0.0000	0	0.1516	55
	BEC58P	Diamond Aircraft Industries DA42 Twin Star	3.1686	0.0000	3.1686	1156.9	3.1685	0.0000	3.1685	1156.9	0.0000	0.0000	0.0000	0	6.3372	2314
	COMSEP	DE HAVILLAND Chipmunk DHC-1	0.0309	0.0000	0.0309	11.3	0.0308	0.0000	0.0308	11.2	0.0187	0.0000	0.0187	7	0.0804	29
	GASEPF	1985 1-ENG FP PROP	19.3719	0.0000	19.3719	7070.7	19.3719	0.0000	19.3719	7070.7	11.1142	0.5760	12.0902	4413	50.9540	18594
	GASEPV	1985 1-ENG VP PROP	0.5863	0.0000	0.5863	214.0	0.5863	0.0000	0.5863	214.0	0.1293	0.0083	0.1322	48	1.3248	476
		Total For Runway : 26L	**23.5609**	**0.0000**	**23.5609**	**8600**	**23.5605**	**0.0000**	**23.5605**	**8600**	**11.5696**	**0.5843**	**12.2411**	**4469**	**59.3625**	**21667**
26R	DHC830	DE HAVILLAND CANADA Dash 8 - 400	0.6437	0.0000	0.6437	235.0	0.6434	0.0000	0.6434	234.9	0.0000	0.0000	0.0000	0	1.2871	470
	CNA441	SHORTS Sikvan	0.0087	0.0000	0.0087	3.2	0.0087	0.0000	0.0087	3.2	0.0070	0.0000	0.0070	3	0.0245	9
	DHC6	BEECH 1900 Airliner	0.1516	0.0000	0.1516	55.3	0.1515	0.0000	0.1515	55.3	0.0000	0.0000	0.0000	0	0.3030	111
	BEC58P	Diamond Aircraft Industries DA42 Twin Star	6.3384	0.0000	6.3384	2313.9	6.3385	0.0000	6.3385	2313.9	4.9239	1.2306	6.1545	2247	18.8554	6883
	COMSEP	DE HAVILLAND Chipmunk DHC-1	0.0617	0.0000	0.0617	22.5	0.0617	0.0000	0.0617	22.5	0.0000	0.0000	0.0000	0	0.1233	45
	GASEPF	1985 1-ENG FP PROP	38.7437	0.0000	38.7437	14141.4	38.7437	0.0000	38.7437	14141.4	0.0000	0.0000	0.0000	0	77.4874	28283
	GASEPV	1985 1-ENG VP PROP	1.1727	0.0000	1.1727	428.1	1.1727	0.0000	1.1727	428.0	0.0000	0.0000	0.0000	0	2.3454	856
		Total For Runway : 26R	**47.1215**	**0.0000**	**47.1215**	**17199**	**47.1212**	**0.0000**	**47.1212**	**17198**	**4.9309**	**1.2306**	**6.1615**	**2250**	**103.4042**	**36448**
H	B407	BELL Bell 407 Rolls Royce 250-C47B	5.2407	0.1073	5.3481	1952.0	5.2407	0.1073	5.3481	1952.0	0.0000	0.0000	0.0000	0	10.6961	3904
	EC130	EUROCOPTER Eurocopter EC-130	10.4786	0.2147	10.6933	3903.0	10.4786	0.2147	10.6933	3903.0	0.0000	0.0000	0.0000	0	21.3866	7806
	R22	ROBINSON Robinson R22B w/Lycoming 032	10.4786	0.2147	10.6933	3903.0	10.4786	0.2147	10.6933	3903.0	0.0000	0.0000	0.0000	0	21.3866	7806
	SC300C	SCHWEISER Schweizer 300C Lycoming H	26.2458	0.5367	26.7825	9775.0	26.2458	0.5367	26.7825	9775.0	0.0000	0.0000	0.0000	0	53.5650	19550
		Total For Runway : H	**52.4437**	**1.0734**	**53.5171**	**19533**	**52.4437**	**1.0734**	**53.5171**	**19534**	**0.0000**	**0.0000**	**0.0000**	**0**	**107.0342**	**39066**
OVF	B407	BELL Bell 407 Rolls Royce 250-C47B	0.0000	0.0000	0.0000	0.0	0.0000	0.0000	0.0000	0.0	2.9335	0.3084	3.2419	1049	2.8729	1049
	EC130	EUROCOPTER Eurocopter EC-130	0.0000	0.0000	0.0000	0.0	0.0000	0.0000	0.0000	0.0	5.1209	0.0062	5.1271	2090	5.1271	2090
	R22	ROBINSON Robinson R22B w/Lycoming 032	0.0000	0.0000	0.0000	0.0	0.0000	0.0000	0.0000	0.0	5.1209	0.0062	5.1271	2090	5.1271	2090
	SC300C	SCHWEISER Schweizer 300C Lycoming H	0.0000	0.0000	0.0000	0.0	0.0000	0.0000	0.0000	0.0	12.8440	1.5391	14.3721	5246	14.3721	5246
		Total For Runway : OVF	**0.0000**	**0.0000**	**0.0000**	**0**	**0.0000**	**0.0000**	**0.0000**	**0**	**26.0193**	**2.0598**	**28.0791**	**10475**	**28.0991**	**10475**
		Total	**409.1452**	**90.2453**	**499.3905**	**182278**	**409.1447**	**90.2382**	**499.3829**	**182273**	**180.8252**	**43.8208**	**232.6501**	**84917**	**1231.0235**	**449475**

Note: Where figures have been rounded discrepancies may occur between totals and the sums of component items.

(to be used in conjunction with Table 3.3 of AS2021-2000)

Building type	ANEF zone of site: Acceptable	Conditionally acceptable	Unacceptable
House, home unit, flat, caravan park	Less than 20 ANEF (Note 1)	20 to 25 ANEF (Note 2)	Greater than 25 ANEF
Hotel, motel, hostel	Less than 25 ANEF	25 to 30 ANEF	Greater than 30 ANEF
School, university	Less than 20 ANEF (Note 1)	20 to 25 ANEF (Note 2)	Greater than 25 ANEF
Hospital, nursing home	Less than 20 ANEF (Note 1)	20 to 25 ANEF	Greater than 25 ANEF
Public building	Less than 20 ANEF (Note 1)	20 to 30 ANEF	Greater than 30 ANEF
Commercial building	Less than 25 ANEF	25 to 35 ANEF	Greater than 35 ANEF
Light industrial	Less than 30 ANEF	All areas	Greater than 40 ANEF
Other industrial	Acceptable in all ANEF zones		

NOTES:

1 The actual location of the 20 ANEF contour is difficult to define accurately, mainly because of variation in aircraft flight paths. Because of this, the procedure of Clause 2.3.2 may be followed for building sites outside but near to the 20 ANEF contour.

2 Within 20 ANEF to 25 ANEF, some people may find that the land is not compatible with residential or educational uses. Local authorities may consider that the incorporation of noise control features in the construction of residences or schools is appropriate (see also Figure A1 of Appendix A).

3 There will be cases where a building of a particular type will contain spaces used for activities which are different from those for which the building is designed (e.g. an office in an industrial building). In these cases Table 2.3 should be used to determine site acceptability, but internal design noise levels within the specific spaces should be determined by Table 2.2.

4 This Standard does not recommend development in unacceptable areas. However, where the relevant planning authority determines that any development may be necessary within existing built-up areas designated as unacceptable, it is recommended that such developments should achieve the required ANR determined according to Clause 3.2. For residences, schools, etc., the effect of aircraft noise on

ENDORSEMENT FOR TECHNICAL ACCURACY

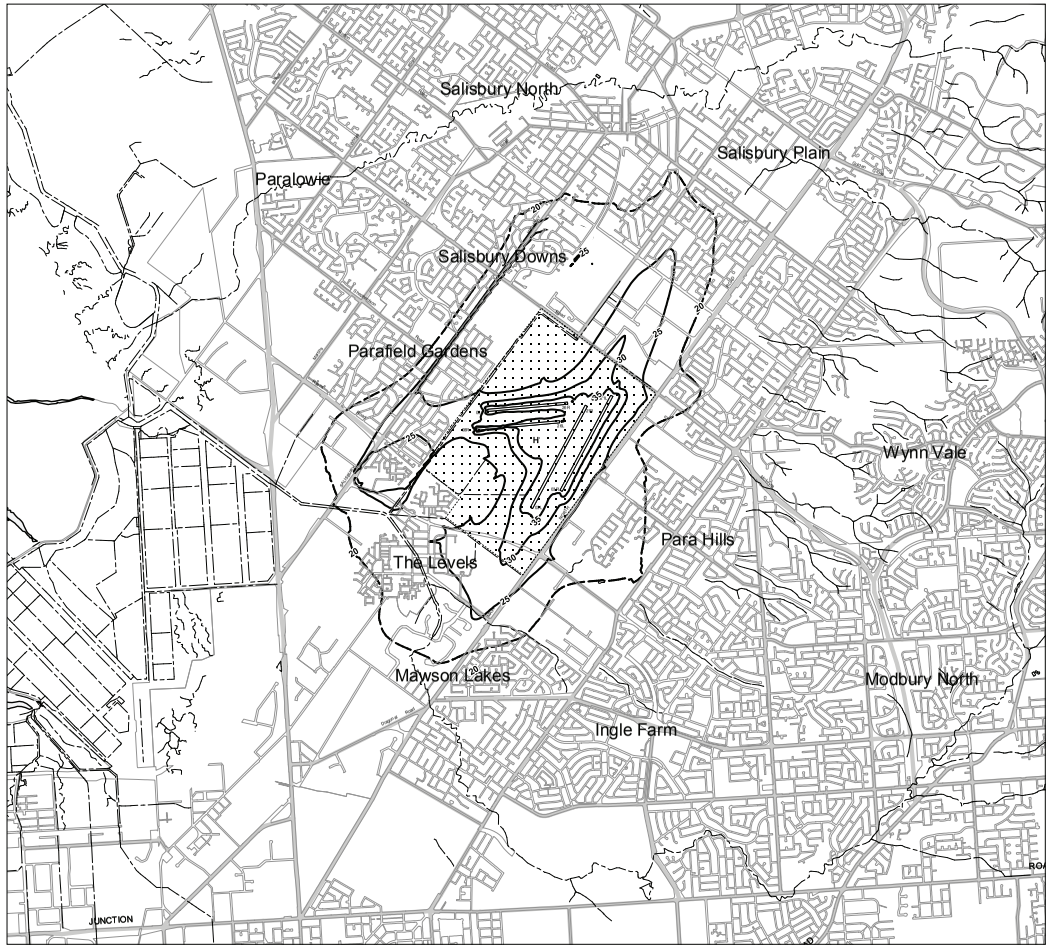
STANDARD ANEF

airservices

Date:...../...../.....

General Manager Environment
Airservices Australia, Canberra

The aircraft noise contours on this chart have been calculated using an appropriate modelling process. Airservices Australia has, in accordance with the approved manner of endorsement, considered the physical ultimate capacity of the existing or proposed runway(s) in its endorsement process.
The data input and assumptions made in that process are derived in part from external sources. Airservices Australia makes no warranty in respect of that information and excludes all liability for any loss arising from reliance on that information



Contours produced using INM 7.0b, settings of refinement = 10.0, and tolerance = 0.1 dB, and using terrain in calculations. Results exported from INM as lat/ long using WGS84 datum.

Issue Date	Drawn By	Checked By
14th Feb, 2012	AP	RC

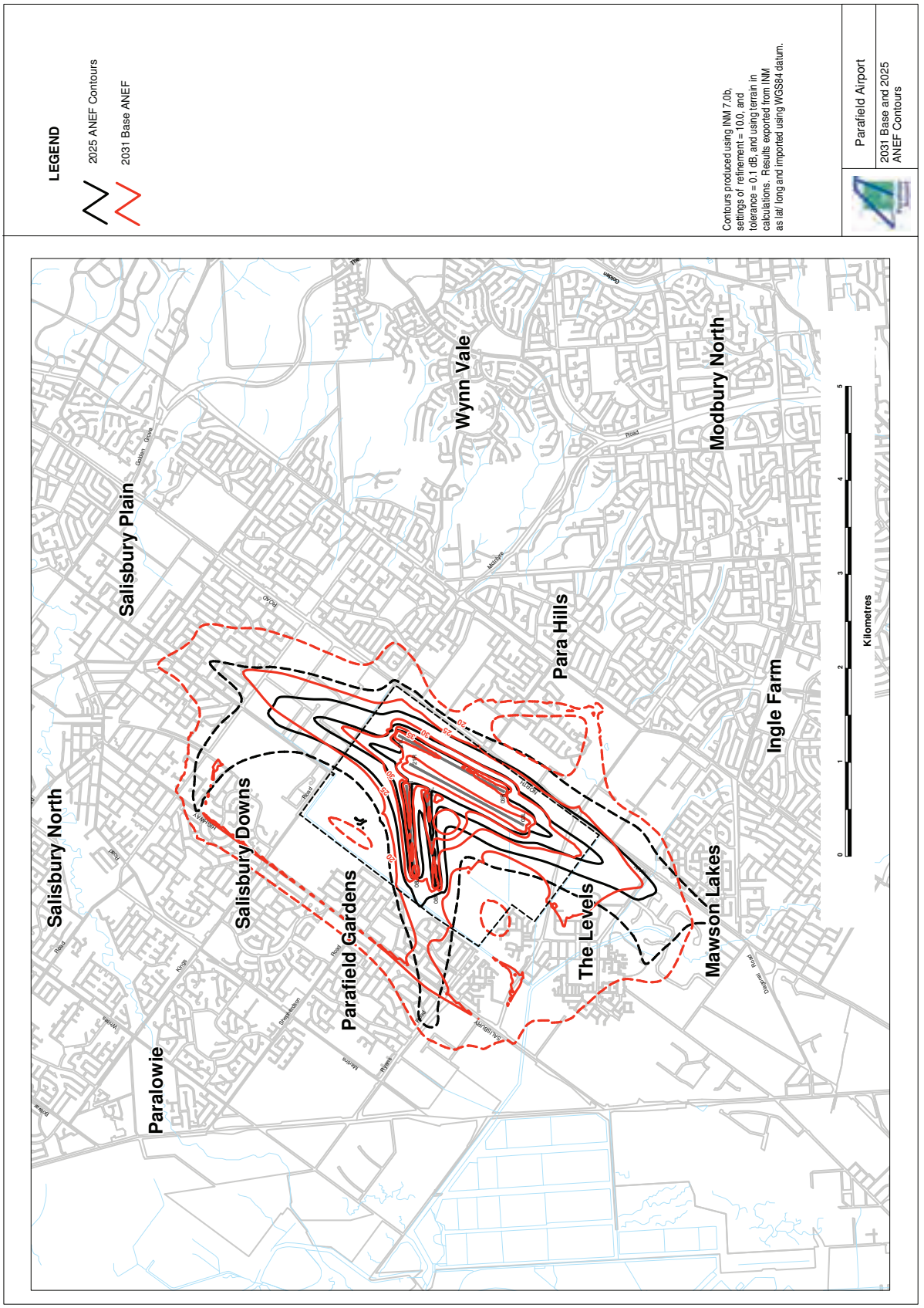
PARAFIELD AIRPORT

Australian Noise Exposure Concept

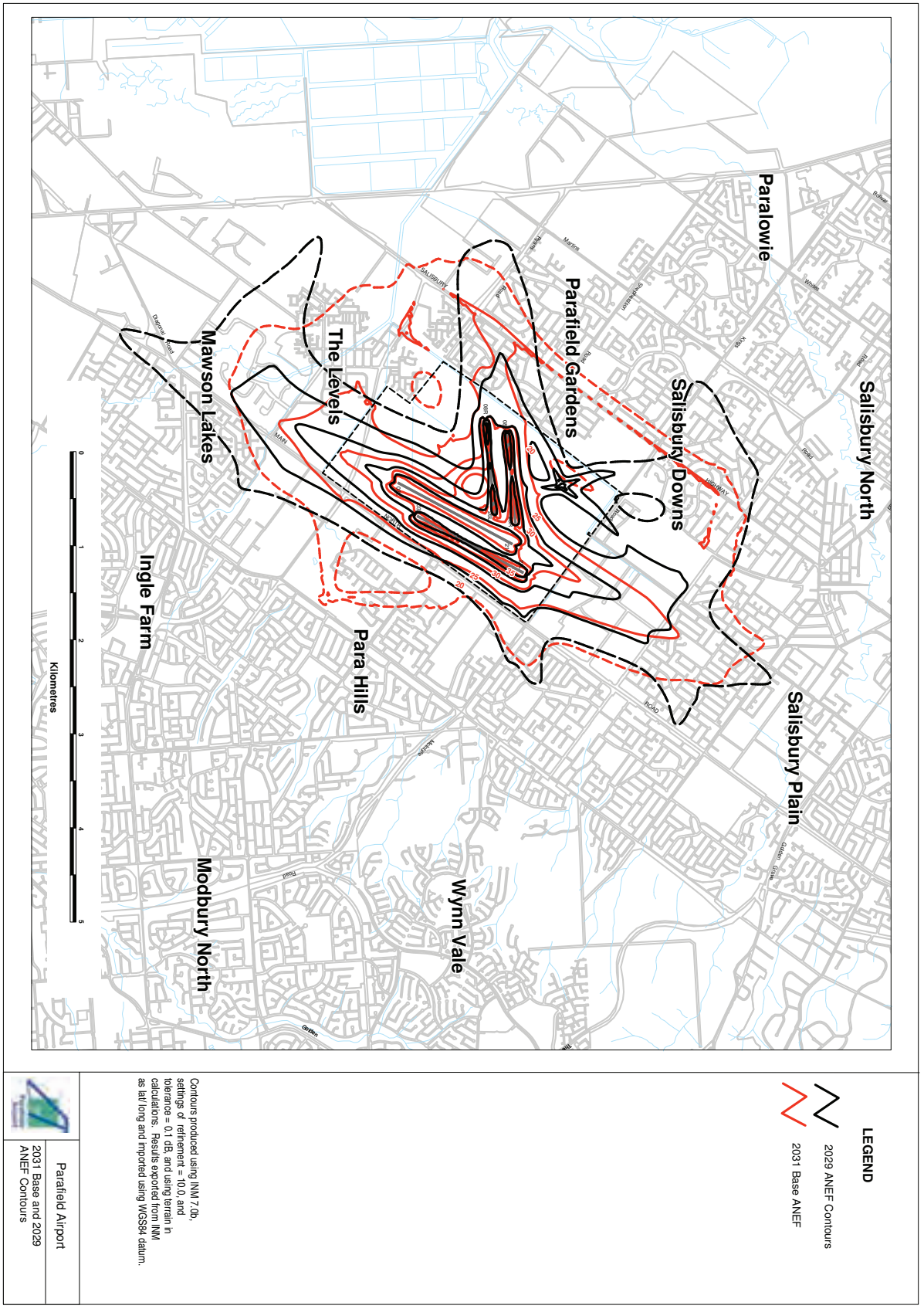
Ultimate Capacity

Parafield Airport

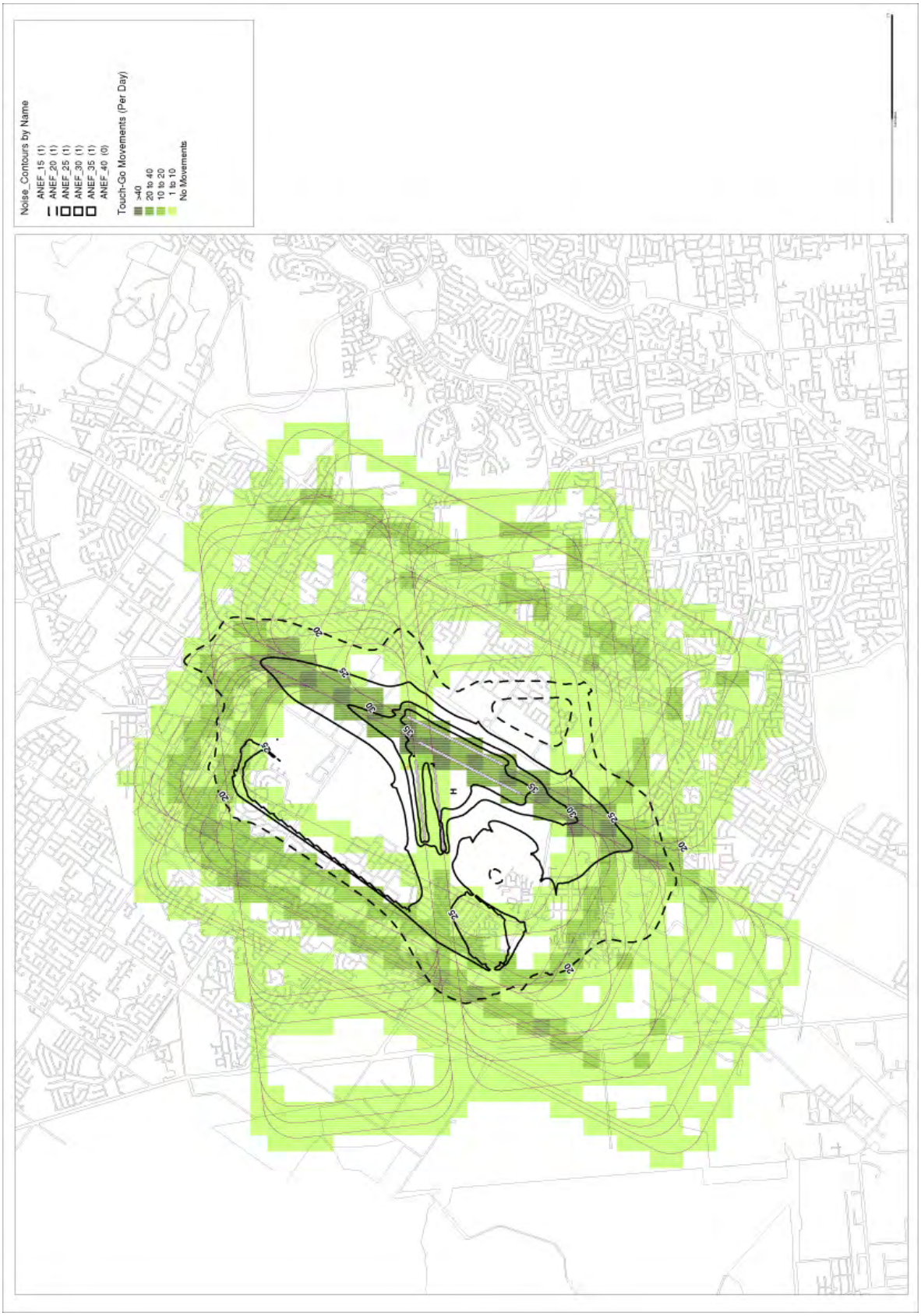
A19: Comparison of 2031 and 2025 ANEFs



A20: Comparison of 2031 and 2029 ANEFs

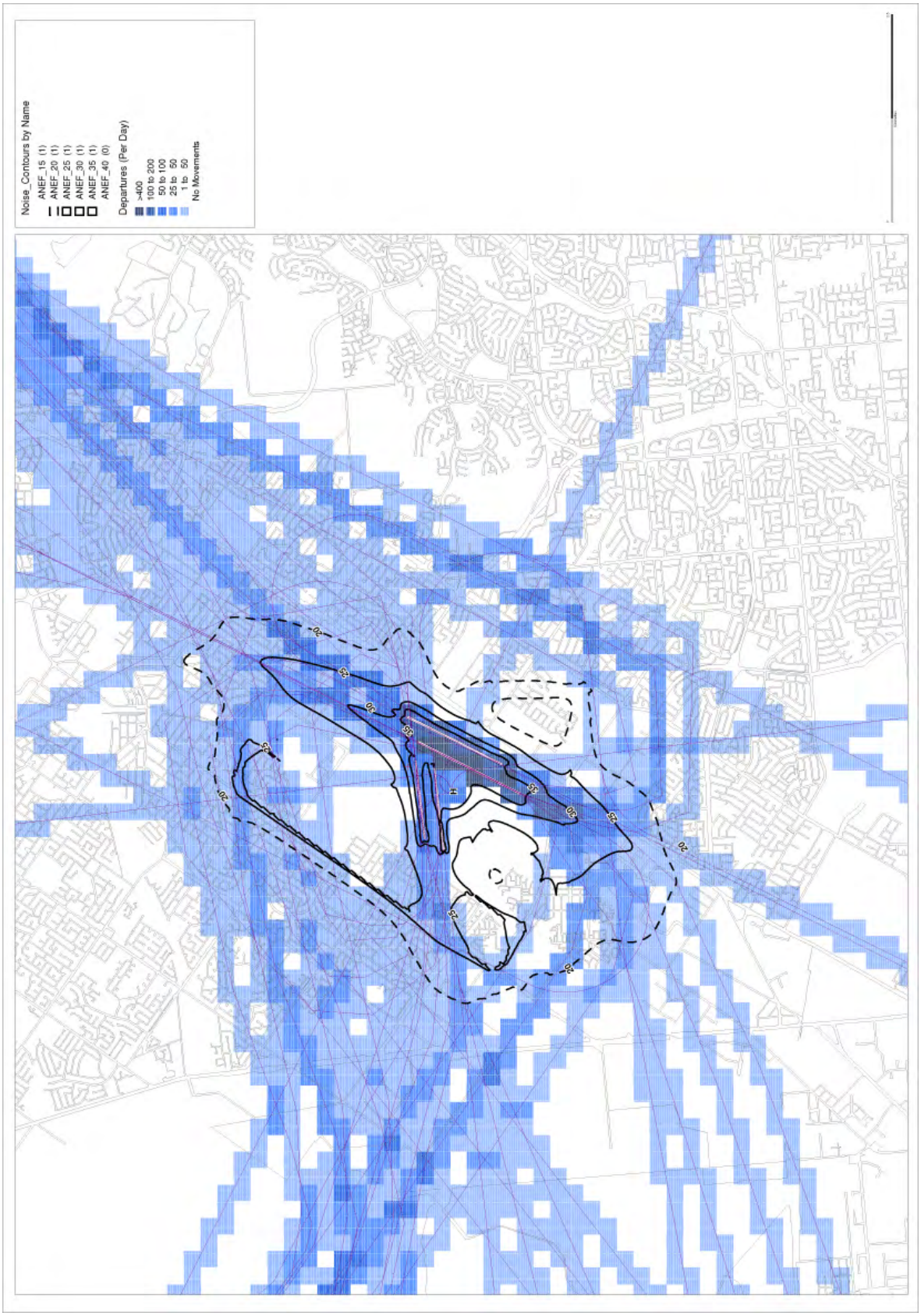


A21: Circuit Overflights

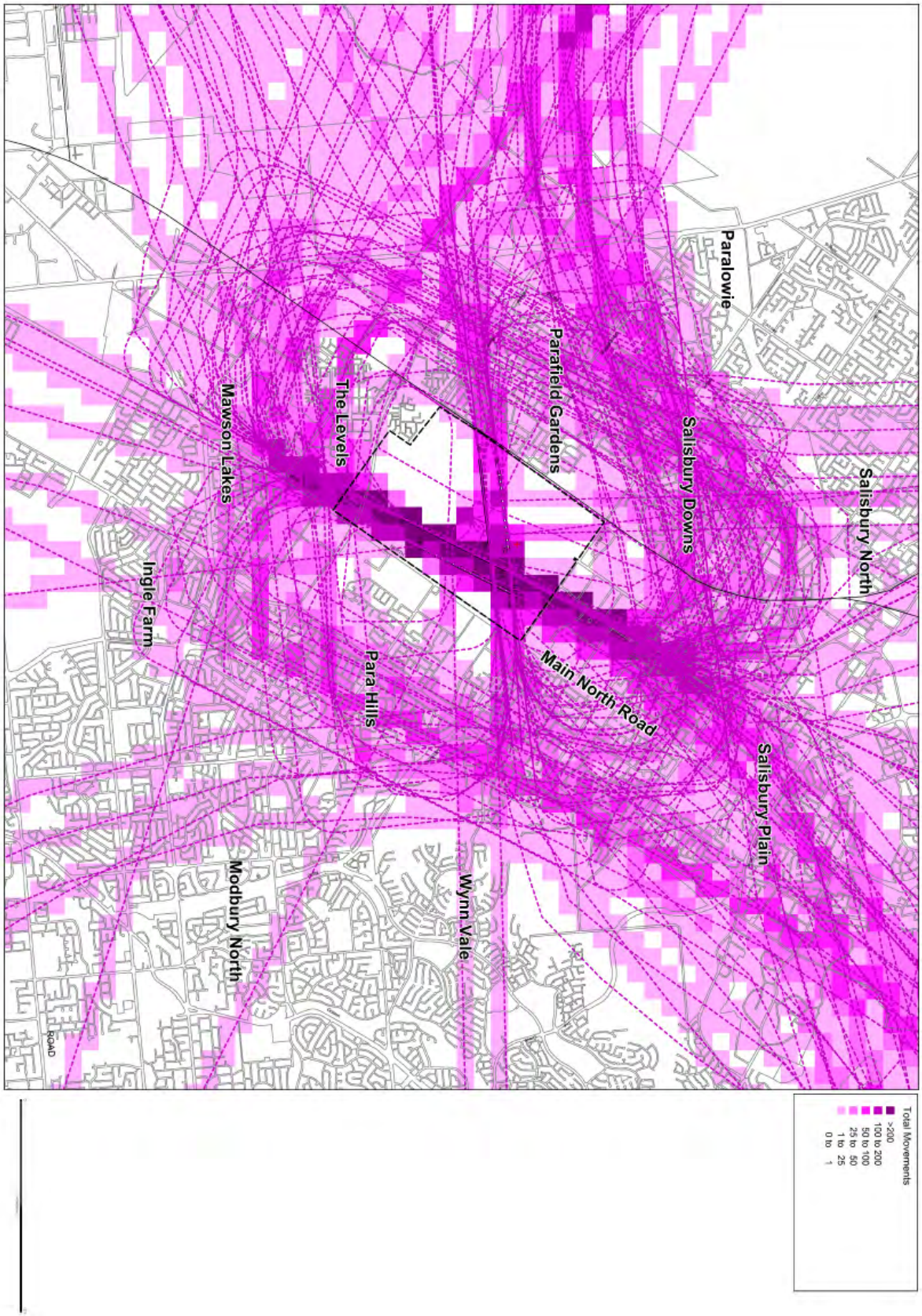


A22: Arrivals

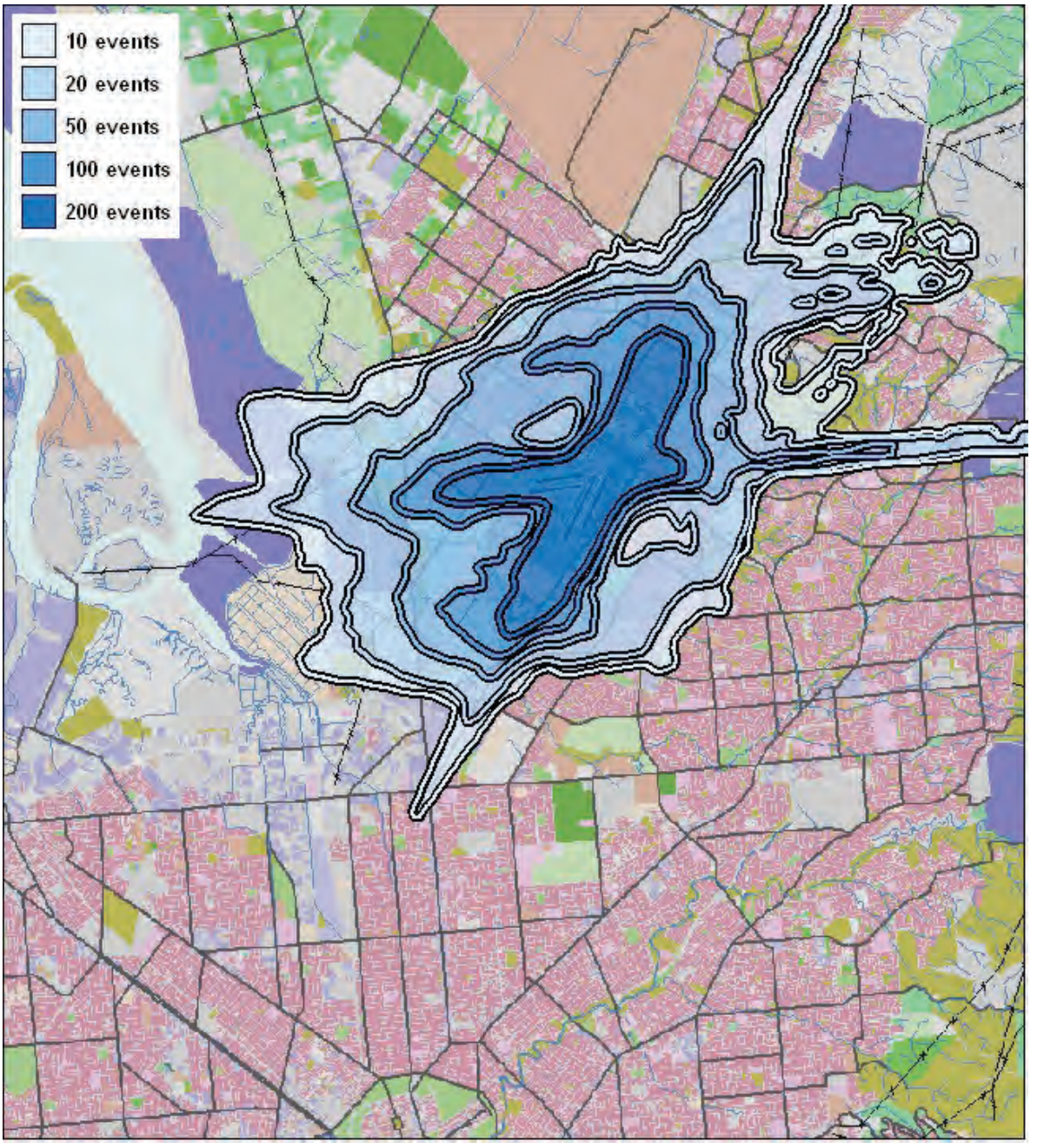
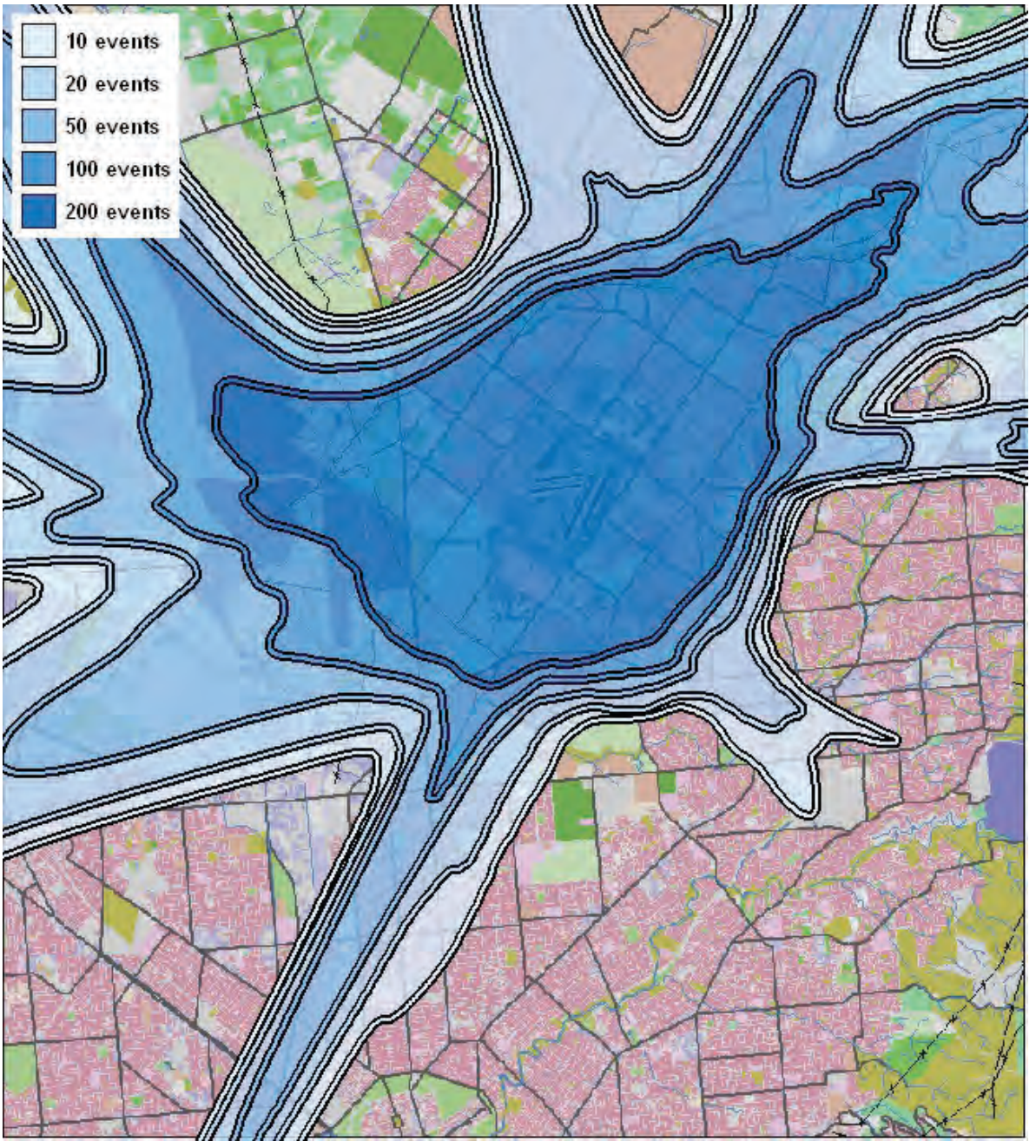
A23: Departures



A24: Combined Overflights



A25: N70 Diagram



A26: N60 Diagram