10.1071/MF08333_AC

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Table A1. Suite of pesticides analysed in the present study, including the analytical reporting limits

Pesticide	*Units*	*Reporting Limit*
Aldrin (OC)	µg L^{-1}	0.1
Chlordane cis (OC)	µg L^{-1}	0.1
Chlordane trans (OC)	µg L^{-1}	0.1
Chlordene (OC)	µg L^{-1}	0.1
Chlordene epoxide (OC)	µg L^{-1}	0.1
op-DDD (OC)	µg L^{-1}	0.1
pp-DDD (OC)	µg L^{-1}	0.1
op-DDE (OC)	µg L^{-1}	0.1
pp-DDE (OC)	µg L^{-1}	0.1
op-DDT (OC)	µg L^{-1}	0.1
pp-DDT (OC)	µg L^{-1}	0.1
Total DDT (OC)	µg L^{-1}	0.3
Dicofol (OC)	µg L^{-1}	0.1
Dieldrin (OC)	µg L^{-1}	0.05
Endosulfan alpha (OC)	µg L^{-1}	0.05
Endosulfan beta (OC)	µg L^{-1}	0.05
Endosulfan Sulphate (OC)	µg L^{-1}	0.05
Endosulfan Ether (OC)	µg L^{-1}	0.1
Endosulfan Lactone (OC)	µg L^{-1}	0.1
Total Endosulfan (OC)	µg L^{-1}	0.15
Endrin (OC)	µg L^{-1}	0.1
Endrin Aldehyde (OC)	µg L^{-1}	0.1
HCB (OC)	µg L^{-1}	0.1
HCH alpha (OC)	µg L^{-1}	0.1
HCH beta (OC)	µg L^{-1}	0.1
HCH delta (OC)	µg L^{-1}	0.1
Heptachlor (OC)	µg L^{-1}	0.1
Heptachlor Epoxide (OC)	µg L^{-1}	0.1
Lindane (OC)	µg L^{-1}	0.1
Methoxychlor (OC)	µg L^{-1}	0.1
Nonachlor trans (OC)	µg L^{-1}	0.1
Oxychlordane (OC)	µg L^{-1}	0.1
Azinphos ethyl (OP)	µg L^{-1}	0.1
Azinphos methyl (OP)	µg L^{-1}	0.1
Bromophos ethyl (OP)	µg L^{-1}	0.1
Cadusafos (OP)	µg L^{-1}	0.1
Carbophenothion (OP)	µg L^{-1}	0.1
Chlorfenvinphos (OP)	µg L^{-1}	0.1
Chlorpyrifos (OP)	µg L^{-1}	0.1
Chlorpyrifos methyl (OP)	µg L^{-1}	0.1
Chlorpyrifos oxon (OP)	µg L^{-1}	0.1
Coumaphos (OP)	µg L^{-1}	0.1
Diazinon (OP)	µg L^{-1}	0.1
Dichlorvos (OP)	µg L^{-1}	0.1
Dimethoate (OP)	µg L^{-1}	0.1
Ethion (OP)	µg L^{-1}	0.1
Ethoprophos (OP)	µg L^{-1}	0.1
Etrimphos (OP)	µg L^{-1}	0.1
Famphur (OP)	µg L^{-1}	0.1
Fenamiphos (OP)	µg L^{-1}	0.1
Fenchlorphos (OP)	µg L^{-1}	0.1
Fenitrothion (OP)	µg L^{-1}	0.1
Fenthion ethyl (OP)	µg L^{-1}	0.1
Fenthion methyl (OP)	µg L^{-1}	0.1
Isophenphos (OP)	µg L^{-1}	0.1
Malathion (OP)	µg L^{-1}	0.1
Methidathion (OP)	µg L^{-1}	0.1
Mevinphos (OP)	µg L^{-1}	0.1
Parathion ethyl (OP)	µg L^{-1}	0.1
Parathion methyl (OP)	µg L^{-1}	0.1
Phorate (OP)	µg L^{-1}	0.1
Phosmet (OP)	µg L^{-1}	0.1
Pirimiphos methyl (OP)	µg L^{-1}	0.1
Profenofos (OP)	µg L^{-1}	0.1
Prothiofos (OP)	µg L^{-1}	0.1
Pyrazophos (OP)	µg L^{-1}	0.1
Tetrachlorvinphos (OP)	µg L^{-1}	0.1
Terbufos (OP)	µg L^{-1}	0.1
Diclofop methyl (HGCMS)	µg L^{-1}	0.1
Haloxyfop-2-etotyl (HGCMS)	µg L^{-1}	0.1
Haloxyfop methyl (HGCMS)	µg L^{-1}	0.1
Metolachlor (HGCMS)	µg L^{-1}	0.1
Metribuzin (HGCMS)	µg L^{-1}	0.1
Oxyfluorfen (HGCMS)	µg L^{-1}	0.1
Pendimethalin (HGCMS)	µg L^{-1}	0.1
Propanil (HGCMS)	µg L^{-1}	0.1
Propazine (HGCMS)	µg L^{-1}	0.1
Terbuthylazine (HGCMS)	µg L^{-1}	0.1
Tri-allate (HGCMS)	µg L^{-1}	0.1
Trifluralin (HGCMS)	µg L^{-1}	0.1
Ametryn (HLCMS)	µg L^{-1}	0.01
Atrazine (HLCMS)	µg L^{-1}	0.01
Bromacil (HLCMS)	µg L^{-1}	0.01
Desethyl Atrazine (HLCMS)	µg L^{-1}	0.01
Desisopropyl Atrazine (HLCMS)	µg L^{-1}	0.01

Pesticide	*Units*	*Reporting Limit*
Diuron (HLCMS)	**µg L^{-1}**	**0.01**
Fluometuron (HLCMS)	**µg L^{-1}**	**0.01**
Hexazinone (HLCMS)	**µg L^{-1}**	**0.01**
Prometryn (HLCMS)	**µg L^{-1}**	**0.01**
Simazine (HLCMS)	**µg L^{-1}**	**0.01**
Tebuthiuron (HLCMS)	**µg L^{-1}**	**0.01**
Terbutryn (HLCMS)	**µg L^{-1}**	**0.01**
Benalaxyl (OTHER)	**µg L^{-1}**	**0.1**
Bitertinol (OTHER)	**µg L^{-1}**	**0.1**
Carbaryl (OTHER)	**µg L^{-1}**	**0.1**
Dichlorfluanid (OTHER)	**µg L^{-1}**	**0.1**
Dichloran (OTHER)	**µg L^{-1}**	**0.1**
Fipronil (OTHER)	**µg L^{-1}**	**0.1**
Furalaxyl (OTHER)	**µg L^{-1}**	**0.1**
Metalaxyl (OTHER)	**µg L^{-1}**	**0.1**
Oxadiazinon (OTHER)	**µg L^{-1}**	**0.1**
Piperonyl Butoxide (OTHER)	**µg L^{-1}**	**0.1**
Pirimicarb (OTHER)	**µg L^{-1}**	**0.1**
Procymidone (OTHER)	**µg L^{-1}**	**0.1**
Propiconazole (OTHER)	**µg L^{-1}**	**0.1**
Propoxur (OTHER)	**µg L^{-1}**	**1**
Tebuconazole (OTHER)	**µg L^{-1}**	**0.1**
Tetradifon (OTHER)	**µg L^{-1}**	**0.1**
Vinclozolin (OTHER)	**µg L^{-1}**	**0.1**
Bifenthrin (SP)	**µg L^{-1}**	**0.1**
lambda-Cyhalothrin (SP)	**µg L^{-1}**	**0.1**
Cyfluthrin (SP)	**µg L^{-1}**	**0.1**
Cypermethrin (SP)	**µg L^{-1}**	**0.1**
Deltamethrin (SP)	**µg L^{-1}**	**0.1**
Fluvalinate (SP)	**µg L^{-1}**	**0.1**
Phenothrin (SP)	**µg L^{-1}**	**0.1**
Tetramethrin (SP)	**µg L^{-1}**	**0.1**
Transfluthrin (SP)	**µg L^{-1}**	**0.1**
Permethrin (SP)	**µg L^{-1}**	**0.1**
Fenvalerate (SP)	**µg L^{-1}**	**0.1**
Allethrin (SP)	**µg L^{-1}**	**0.1**
Bioresmethrin (SP)	**µg L^{-1}**	**0.1**
2-Nitro-m-Xylene (SURR)	**%**	
Dibromobiphenyl (SURR)	**%**	
Pyrene-D10 (SURR)	**%**	
Triphenyl Phosphate (SURR)	**%**	
Decachlorobiphenyl (SURR)	**%**	

OC = Organochlorine Pesticides
OP = Organophosphorus Pesticides

Pesticide	*Units*	*Reporting Limit*

HGCMS = Herbicides by GCMS
HLCMS = Herbicides by LCMS
OTHER = Other Pesticides
SP = Synthetic Pyrethroids
SURR = Surrogates

Table A2*a*. Summary suspended sediment (mg L^{-1}) and nitrogen and phosphorus species (µg L^{-1}) concentration data for the subcatchment monitoring sites

Site name	Land-use category	Date collected	Total suspended solids (mg L^{-1})	Particulate N (µg L^{-1})	DON (µg L^{-1})	NH_4-N (µg L^{-1})	NO_X-N (µg L^{-1})	Particulate P (µg L^{-1})	DOP (µg L^{-1})	Filterable reactive P (µg L^{-1})
Banyan Ck, H'way	Cane	12-01-06	56.2	193	82.0	222.0	1660	54	6	12.5
Banyan Ck, H'way	Cane	14-01-06	17.2	107	207.1	29.9	695	19	11	1.1
Banyan Ck, H'way	Cane	16-01-06	5.2	60	123.9	6.1	426	12	5	1.7
Banyan Ck, H'way	Cane	30-01-06	30.2	–	260.4	24.6	757	–	4	9.6
Banyan Ck, H'way	Cane	13-03-06	24.4	49	161.8	9.2	283	29	7	6.5
Banyan Ck, H'way	Cane	19-03-06	7.0	15	43.5	3.5	509	3	<1	3.7
Banyan Ck, H'way	Cane	22-03-06	23.2	162	154.4	3.6	46	44	6	17.8
Banyan Ck, H'way	Cane	27-03-06	8.0	79	98.2	1.8	303	14	4	1.7
Banyan Ck, H'way	Cane	05-04-06	7.0	–	89.9	16.1	329	–	4	1.2
Banyan Ck, H'way	Cane	12-04-06	25.8	110	142.8	12.2	185	34	8	7.6
Banyan Ck, H'way	Cane	30-01-07	–	87	194.2	9.8	658	1.7	1.5	9.4
Banyan Ck, H'way	Cane	31-01-07	25.8	8	161	13	658	7.5	2.1	12.2
Banyan Ck, H'way	Cane	01-02-07	–	50	185.3	6.7	329	12.9	4.7	34.4
Banyan Ck, H'way	Cane	14-02-07	13.2	15	62.5	8.5	433	2	1.5	1.5
Banyan Ck, H'way	Cane	02-03-07	11.2	98	38.4	5.6	346	6.5	2.3	3
Bulgun Ck	Forest	12-01-06	2.6	60	118.1	5.9	130	6	4	1.8
Bulgun Ck	Forest	14-01-06	0.8	8	134.2	1.8	34	4	3	3.4
Bulgun Ck	Forest	16-01-06	1.0	23	57.0	3.0	30	4	4	3.3
Bulgun Ck	Forest	30-01-06	0.8	25	84.2	2.8	28	3	4	3.6
Bulgun Ck	Forest	13-03-06	4.0	47	38.4	2.6	61	2	3	1.6
Bulgun Ck	Forest	19-03-06	< 0.2	65	40.9	2.1	39	<1	<1	4.4
Bulgun Ck	Forest	22-03-06	6.8	26	47.6	1.4	48	5	<1	0.7
Bulgun Ck	Forest	27-03-06	0.8	13	39.4	0.6	45	5	3	1.5
Bulgun Ck	Forest	05-04-06	0.4	15	33.7	3.3	57	3	1	3.3
Bulgun Ck	Forest	12-04-06	3.6	31	36.3	9	82	2	2	2.4
Bulgun Ck	Forest	30-01-07	9.2	5	107.9	2.1	277	1	0.4	3.6
Bulgun Ck	Forest	31-01-07	52.3	5	162.9	22.1	235	12.4	1.1	1.9
Bulgun Ck	Forest	01-02-07	–	24	63.5	4.5	352	2	1.3	1.7

Site name	Land-use category	Date collected	Total suspended solids (mg L^{-1})	Particulate N (µg L^{-1})	DON (µg L^{-1})	NH_4-N (µg L^{-1})	NO_X-N (µg L^{-1})	Particulate P (µg L^{-1})	DOP (µg L^{-1})	Filterable reactive P (µg L^{-1})
Bulgun Ck	Forest	14-02-07	1.3	15	48	4	202	23.5	1.7	1.3
Bulgun Ck	Forest	02-03-07	1	20	60.9	1.1	167	1.5	4.2	2.4
Campbell's Creek	Grazing	12-01-06	29.0	426	567.5	22.5	7	80	28	33.7
Campbell's Creek	Grazing	14-01-06	5.0	58	1548.1	25.9	3	49	67	66.1
Campbell's Creek	Grazing	16-01-06	2.2	139	1266.9	9.1	17	34	50	63.9
Campbell's Creek	Grazing	31-01-06	5.6	112	507.8	11.2	3	37	42	44.5
Campbell's Creek	Grazing	13-03-06	0.4	47	253.4	4.6	22	6	12	26.6
Campbell's Creek	Grazing	19-03-06	1.6	54	220.6	24.4	15	12	17	17.8
Campbell's Creek	Grazing	27-03-06	0.8	63	226.5	3.5	17	9	11	23.9
Campbell's Creek	Grazing	05-04-06	0.7	16	200.8	9.2	38	4	6	22.6
Campbell's Creek	Grazing	12-04-06	1.4	7	239.1	7.9	53	9	13	32.8
Campbell's Creek	Grazing	30-01-07	–	26	633.9	14.2	6.9	2.1	18.2	74.1
Campbell's Creek	Grazing	31-01-07	24.3	20	372.5	4.5	25	10	18.5	131.9
Campbell's Creek	Grazing	14-02-07	4.6	20	256.7	16.1	4.2	30.8	1.4	47.6
Campbell's Creek	Grazing	02-03-07	2	24	253	1.8	4.2	18	19.8	25.1
Davidson Ck, Fishtail	Forest	12-01-06	4.6	155	151.7	3.3	66	11	6	1.8
Davidson Ck, Fishtail	Forest	14-01-06	1.4	38	108.1	1.9	28	4	8	2.2
Davidson Ck, Fishtail	Forest	16-01-06	2.2	13	95.0	3.0	17	5	8	1.1
Davidson Ck, Fishtail	Forest	30-01-06	–	–	70.1	2.9	34	–	8	1.8
Davidson Ck, Fishtail	Forest	13-03-06	5.4	50	52.6	3.4	32	11	5	1.7
Davidson Ck, Fishtail	Forest	19-03-06	0.8	26	51.6	4.4	35	<1	<1	4.7
Davidson Ck, Fishtail	Forest	27-03-06	8.2	65	30.1	2.9	375	10	6	2.4
Davidson Ck, Fishtail	Forest	05-04-06	1.2	16	58.7	4.3	36	3	2	6.2
Davidson Ck, Fishtail	Forest	12-04-06	1.6	27	67.6	4.4	51	3	6	4.2
Davidson Ck, Fishtail	Forest	14-02-07	1.4	4	73.7	2.3	117	5.7	0.8	2.2
Jarra Ck	Forest	12-01-06	18.0	99	239.4	30.6	392	23	6	9.7
Jarra Ck	Forest	14-01-06	12.0	117	91.0	34.0	116	16	4	4.8
Jarra Ck	Forest	16-01-06	8.6	31	85.8	4.2	154	11	5	4.8
Jarra Ck	Forest	30-01-06	2.8	–	97.4	4.6	117	–	5	5.4
Jarra Ck	Forest	13-03-06	30.6	78	80.2	11.8	78	27	5	8.5
Jarra Ck	Forest	19-03-06	7.2	–	18.4	6.6	65	–	3	5.9
Jarra Ck	Forest	22-03-06	25.2	50	138.6	4.4	2	21	5	5.4
Jarra Ck	Forest	27-03-06	6.8	31	56.5	0.5	25	12	5	4.6

Site name	Land-use category	Date collected	Total suspended solids (mg L^{-1})	Particulate N (µg L^{-1})	DON (µg L^{-1})	NH_4-N (µg L^{-1})	NO_X-N (µg L^{-1})	Particulate P (µg L^{-1})	DOP (µg L^{-1})	Filterable reactive P (µg L^{-1})
Jarra Ck	Forest	05-04-06	6.0	34	46.4	12.6	46	7	3	6.4
Jarra Ck	Forest	12-04-06	6.5	61	54.0	12.0	60	10	4	6.4
Jarra Ck	Forest	30-01-07	38.3	17	257.1	8.9	448	16	4.4	15.6
Jarra Ck	Forest	31-01-07	44.8	24	136.7	7.3	397	5.9	1.8	15.7
Jarra Ck	Forest	01-02-07	–	41	141.3	6.7	398	1.9	2.6	12.2
Jarra Ck	Forest	14-02-07	13.3	14	8.6	8.4	213	8.1	1.8	5.1
Jarra Ck	Forest	02-03-07	15.2	41	52.3	3.7	230	5.2	7.4	5.9
Kyambul, Copperhead Rd	Cane	12-01-06	71.6	1064	29.0	218.0	4090	74	18	35.8
Kyambul, Copperhead Rd	Cane	14-01-06	13.0	55	454.6	193.4	2560	42	18	26.0
Kyambul, Copperhead Rd	Cane	16-01-06	13.6	599	222.7	110.3	1590	29	17	14.0
Kyambul, Copperhead Rd	Cane	31-01-06		121	420.4	45.6	1260	22	17	10.7
Kyambul, Copperhead Rd	Cane	13-03-06	10.6	147	297.1	13.9	558	31	10	8.5
Kyambul, Copperhead Rd	Cane	22-03-06	9.6	147	262.2	3	709	11	10	4.6
Kyambul, Copperhead Rd	Cane	27-03-06	10.2	155	253.6	42.4	575	24	15	8.2
Kyambul, Copperhead Rd	Cane	05-04-06	9.6	126	278.6	44.4	450	25	14	8.5
Kyambul, K1	Cane	12-01-06	171.6	17	329.0	164.0	4990	58	44	4.1
Kyambul, K1	Cane	14-01-06	7.2	353	614.0	287.0	2700	50	21	20.4
Kyambul, K1	Cane	16-01-06	14.1	73	757.2	79.8	1790	41	18	17.0
Kyambul, K1	Cane	31-01-06	12.8	204	235.6	20.4	1510	23	16	10.1
Kyambul, K1	Cane	13-03-06	16.2	176	276.8	13.2	658	25	11	8.1
Kyambul, K1	Cane	19-03-06	9.4	124	129.2	1.8	1030	15	4	8.3
Marquette Ck	Banana	30-01-07	–	44	5.7	20.3	254	3.3	0.3	5.7
Marquette Ck	Banana	31-01-07	38.2	79	38.2	3.8	235	3.3	0.7	6
Marquette Ck	Banana	01-02-07	7.6	49	61	6	336	1	0.7	3.3
Marquette Ck	Banana	14-02-07	2	159	35.9	4.1	255	3.9	1	2
Marquette Ck	Banana	02-03-07	2.2	9	65.8	2.2	243	0	5.2	1.9
Murray R, H'way	Cane	12-01-06	35.0	183	308.2	19.8	512	42	34	4.9
Murray R, H'way	Cane	14-01-06	12.4	212	432.9	37.1	1170	32	35	1.9
Murray R, H'way	Cane	16-01-06	5.4	139	392.8	20.2	373	25	13	14.6
Murray R, H'way	Cane	31-01-06	7.0	117	477.6	22.4	252	28	18	10.6
Murray R, H'way	Cane	13-03-06	10.2	135	282.7	13.3	80	30	8	11.5

Site name	Land-use category	Date collected	Total suspended solids (mg L^{-1})	Particulate N (µg L^{-1})	DON (µg L^{-1})	NH_4-N (µg L^{-1})	NO_X-N (µg L^{-1})	Particulate P (µg L^{-1})	DOP (µg L^{-1})	Filterable reactive P (µg L^{-1})
Murray R, H'way	Cane	19-03-06	3.4	61	168.7	24.3	187	13	12	6.6
Murray R, H'way	Cane	27-03-06	4.6	139	266.1	3.9	61	29	16	7.2
Murray R, H'way	Cane	05-04-06	5.6	103	277.6	26.4	55	19	10	10.2
Murray R, H'way	Cane	12-04-06	6.6	91	256.8	20.2	27	20	11	6.5
Murray R, H'way	Cane	30-01-07	31.5	90	343.8	53.2	643	17.7	8.9	14.1
Murray R, H'way	Cane	14-02-07	5.9	104	98.6	30.4	98	8.2	8.2	7.4
Murray R, H'way	Cane	02-03-07	5	20	145.4	9.6	90	6.8	5.2	7.7
Murray R, Jumbun	Forest	12-01-06	5.6	54	251.2	4.8	58	10	8	3.3
Murray R, Jumbun	Forest	14-01-06	2.4	48	187.4	4.6	56	6	9	3.3
Murray R, Jumbun	Forest	16-01-06	2.6	12	162.3	3.7	22	6	1	10.1
Murray R, Jumbun	Forest	31-01-06	2.0	55	72.2	2.8	32	5	9	4.4
Murray R, Jumbun	Forest	13-03-06	4.4	28	88.0	10.0	44	3	12	4.4
Murray R, Jumbun	Forest	19-03-06	2.2	19	82.3	9.7	60	6	3	6.4
Murray R, Jumbun	Forest	27-03-06	3.6	26	76.2	2.8	60	7	2	6.9
Murray R, Jumbun	Forest	05-04-06	5.8	–	76.2	4.8	48	–	1	4.6
Murray R, Jumbun	Forest	12-04-06	7.0	48	90.6	7.4	73	10	5	4.6
Murray R, Jumbun	Forest	30-01-07	12.8	2	190	5	23	3.2	0.4	5.1
Murray R, Jumbun	Forest	31-01-07	17.4	44	345.6	31.4	492	4.9	10.1	18.4
Murray R, Jumbun	Forest	14-02-07	2.4	25	69.7	4.3	44	5.4	1.8	1.7
Murray R, Jumbun	Forest	02-03-07	0.8	7	49.2	2.8	30	2.9	9.2	2.8
Murray R, Murray Falls	Forest	12-01-06	2.2	73	156.0	1.2	7	9	6	1.5
Murray R, Murray Falls	Forest	14-01-06	0.2	38	157.1	1.9	3	4	10	1.4
Murray R, Murray Falls	Forest	16-01-06	0.6	54	111.7	1.2	2	4	7	3.6
Murray R, Murray Falls	Forest	31-01-06	< 0.2	30	67.0	3.7	4	4	8	1.7
Murray R, Murray Falls	Forest	13-03-06	< 0.2	30	64.3	1.3	6	4	6	2.4
Murray R, Murray Falls	Forest	19-03-06	0.4	21	52.3	2.4	6	3	4	3.7
Murray R, Murray Falls	Forest	05-04-06	< 0.2	37	51.2	3.8	7	3	5	1.7
Murray R, Murray Falls	Forest	12-04-06	0.6	32	42.5	3.5	21	3	4	3.7
Murray R, Murray Falls	Forest	01-12-06	0.5	24	120.3	0.5	10.2	1.8	8.5	3.6
Murray R, Murray Falls	Forest	30-01-07	3.4	40	130	1.6	13.4	3	0.7	3.3

Site name	Land-use category	Date collected	Total suspended solids (mg L^{-1})	Particulate N (µg L^{-1})	DON (µg L^{-1})	NH_4-N (µg L^{-1})	NO_X-N (µg L^{-1})	Particulate P (µg L^{-1})	DOP (µg L^{-1})	Filterable reactive P (µg L^{-1})
Murray R, Murray Falls	Forest	14-02-07	0.3	30	46	2.6	10.4	2	1.3	1.7
Murray R, Murray Falls	Forest	02-03-07	0.1	2	41	2.8	4.2	3.1	6.1	3.7
Nth Hull R	Forest	12-01-06	22.4	109	208.1	20.9	107	21	5	2.5
Nth Hull R	Forest	14-01-06	4.0	44	141.9	17.1	11	9	7	3.1
Nth Hull R	Forest	16-01-06	2.8	50	92.3	26.7	27	11	4	3.0
Nth Hull R	Forest	31-01-06	3.0	25	72.9	19.1	23	7	5	2.0
Nth Hull R	Forest	19-03-06	2.0	20	31.5	11.5	28	4	4	1.0
Nth Hull R	Forest	22-03-06	37.2	213	–	–	–	23	–	–
Nth Hull R	Forest	27-03-06	3.2	56	47.8	5.2	6	9	4	1.9
Nth Hull R	Forest	05-04-06	2.3	35	91.7	44.3	19	8	2	2.3
Nth Hull R	Forest	12-04-06	22.9	118	230.5	19.5	121	25	6	2.4
Nth Hull R	Forest	31-01-07	8.2	10	138.3	17.7	246	5.9	0.5	2.5
Nth Hull R	Forest	02-03-07	3.6	19	35	11	99	5	4.6	2.4
Porters Ck	Urban	12-01-06	88.8	141	122.0	152.0	94	38	7	2.0
Porters Ck	Urban	16-01-06	13.6	132	295.2	109.8	3	67	22	6.8
Porters Ck	Urban	31-01-06	–	165	459.2	104.7	2	111	45	15.8
Porters Ck	Urban	13-03-06	2.0	102	402.0	114.0	126	20	13	15.4
Porters Ck	Urban	19-03-06	7.6	71	294.6	100.4	40	20	24	8.5
Porters Ck	Urban	22-03-06	20.6	516	–	–	–	41	–	–
Porters Ck	Urban	27-03-06	17.6	–	273.8	55.9	6	–	23	10.1
Porters Ck	Urban	05-04-06	18.8	110	201.6	107.4	135	29	8	4.6
Porters Ck	Urban	12-04-06	29.6	–	452.1	68.9	265	–	14	16.2
Porters Ck	Urban	31-01-07	125	50	324	8	13	30	6.1	2.8
Porters Ck	Urban	02-03-07	4.4	36	46.9	30.1	447	2.1	6.2	2.4
Tully Gorge	Forest	12-01-06	4.6	59	139.4	3.6	43	13	7	4.1
Tully Gorge	Forest	14-01-06	5.2	47	131.2	2.8	28	8	7	2.8
Tully Gorge	Forest	16-01-06	1.4	17	119.9	9.1	26	7	3	3.9
Tully Gorge	Forest	30-01-06	4.2	16	77.1	2.9	27	6	6	2.8
Tully Gorge	Forest	13-03-06	8.6	125	95.7	6.3	51	16	4	4.7
Tully Gorge	Forest	19-03-06	1.4	18	60.1	2	13	4	3	6.6
Tully Gorge	Forest	22-03-06	20.2	121	123.2	1.8	19	26	1	4.4
Tully Gorge	Forest	27-03-06	1.2	16	68.1	1.7	4	7	< 1	9.7

Site name	Land-use category	Date collected	Total suspended solids (mg L^{-1})	Particulate N (µg L^{-1})	DON (µg L^{-1})	NH_4-N (µg L^{-1})	NO_X-N (µg L^{-1})	Particulate P (µg L^{-1})	DOP (µg L^{-1})	Filterable reactive P (µg L^{-1})
Tully Gorge	Forest	05-04-06	1.4	25	66.1	4.9	14	6	< 1	7.7
Tully Gorge	Forest	12-04-06	2.8	24	87.7	5.3	30	7	4	5.5
Tully Gorge	Forest	30-01-07	19.1	82	102.8	15.2	329	5.4	0.2	6.8
Tully Gorge	Forest	31-01-07	15.3	23	103.6	10.4	394	3.7	0.5	8
Tully Gorge	Forest	01-02-07	16.4	14	118.4	10.6	346	5.1	1.4	4.6
Tully Gorge	Forest	14-02-07	2.4	0	79.7	2.3	61	2	0.5	2.5
Tully Gorge	Forest	02-03-07	1.8	10	53.5	0.5	77	4.6	3.5	4.6
Tully River-Euramo	Cane	30-01-07	56.8	64	178.5	8.5	413	12.1	2.7	10.8
Tully River-Euramo	Cane	31-01-07	54.3	13	185.4	10.6	438	5.9	4.4	17.2
Tully River-Euramo	Cane	01-02-07	50	12	175.1	12.9	356	6.5	3.7	30.3
Tully River-Euramo	Cane	14-02-07	17.1	17	76.5	8.5	285	7	0.7	2.3
Tully River-Euramo	Cane	02-03-07	12	45	87.3	3.7	236	3.1	5.2	4.6
Warrami Ck, Blackman Rd	Cane	12-01-06	27.6	283	213.7	44.3	1600	33	14	7.1
Warrami Ck, Blackman Rd	Cane	14-01-06	3.2	459	136.8	29.2	2035	15	5	13.7
Warrami Ck, Blackman Rd	Cane	16-01-06	7.0	49	349.3	25.7	1630	17	12	5.4
Warrami Ck, Blackman Rd	Cane	31-01-06	9.2	8	53.2	16.8	1240	17	6	8.0
Warrami Ck, Blackman Rd	Cane	13-03-06	58.6	196	102.0	13.0	857	33	9	6.1
Warrami Ck, Blackman Rd	Cane	19-03-06	8.4	3	96.5	14.5	1090	9	5	4.9
Warrami Ck, Blackman Rd	Cane	27-03-06	11.6	145	62.9	45.1	1140	11	7	4.6
Warrami Ck, Blackman Rd	Cane	05-04-06	14.0	63	409.3	29.7	968	9	5	7.1
Warrami Ck, Blackman Rd	Cane	12-04-06	27.0	127	80.2	23.8	842	21	6	5.5
Warrami Ck, Blackman Rd	Cane	30-01-07	124	130	148.6	31.4	1040	13.6	6.2	13.4
Warrami Ck, Blackman Rd	Cane	31-01-07	520	34	344.4	26.6	545	21.7	4.9	9.4
Warrami Ck, Blackman Rd	Cane	14-02-07	8.2	30	100.6	9.4	1200	0.7	1.3	4
Warrami Ck, Blackman Rd	Cane	02-03-07	7	70	627.2	1.8	531	6.6	7.9	4.8

Table A2*b*. Summary herbicide concentration (µg L^{-1}) data for the subcatchment monitoring sites

Site Name	Land Use	Date Collected	Ametryn (µg L^{-1})	Atrazine (µg L^{-1})	Desethyl atrazine (µg L^{-1})	Desisopropyl atrazine (µg L^{-1})	Diuron (µg L^{-1})	Fluometuron (µg L^{-1})	Hexazinone (µg L^{-1})	Prometryn (µg L^{-1})	Simazine (µg L^{-1})	Tebuthiuron (µg L^{-1})
Banyan Ck, H'way	Cane	12-01-06	0.01	0.46	0.06	0.02	1.2	<0.01	0.38	<0.01	<0.01	<0.01
Banyan Ck, H'way	Cane	14-01-06	0.01	0.12	0.03	<0.01	0.39	<0.01	0.24	<0.01	<0.01	<0.01
Banyan Ck, H'way	Cane	30-01-06	0.005	0.05	0.02	<0.01	0.69	<0.01	0.26	<0.01	<0.01	<0.01
Banyan Ck, H'way	Cane	13-03-06	0.005	0.06	0.04	<0.01	0.28	<0.01	0.15	<0.01	<0.01	<0.01
Banyan Ck, H'way	Cane	22-03-06	0.005	0.04	0.02	<0.01	0.36	<0.01	0.06	<0.01	<0.01	<0.01
Banyan Ck, H'way	Cane	27-03-06	0.005	0.02	0.02	<0.01	0.05	<0.01	0.06	<0.01	<0.01	<0.01
Banyan Ck, H'way	Cane	05-04-06	0.005	0.02	0.03	<0.01	0.04	<0.01	0.08	<0.01	<0.01	<0.01
Banyan Ck, H'way	Cane	02-03-07	<0.01	0.03	0.01	<0.01	0.03	<0.01	0.06	<0.01	<0.01	<0.01
Bulgun Ck	Forest	13-03-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Bulgun Ck	Forest	27-03-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Bulgun Ck	Forest	05-04-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Campbell's Creek	Grazing	31-01-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Campbell's Creek	Grazing	13-03-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Campbell's Creek	Grazing	27-03-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Campbell's Creek	Grazing	05-04-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Campbell's Creek	Grazing	30-01-07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Campbell's Creek	Grazing	02-03-07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Davidson Ck, Fishtail	Forest	12-01-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Davidson Ck, Fishtail	Forest	14-01-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Davidson Ck, Fishtail	Forest	13-03-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Davidson Ck, Fishtail	Forest	27-03-06	0.005	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
Davidson Ck, Fishtail	Forest	05-04-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Jarra Ck	Forest	12-01-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Jarra Ck	Forest	14-01-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Jarra Ck	Forest	16-01-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Jarra Ck	Forest	30-01-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Jarra Ck	Forest	13-03-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Jarra Ck	Forest	22-03-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Jarra Ck	Forest	27-03-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Jarra Ck	Forest	05-04-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Jarra Ck	Forest	30-01-07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Site Name	Land Use	Date Collected	Ametryn (µg L^{-1})	Atrazine (µg L^{-1})	Desethyl atrazine (µg L^{-1})	Desisopropyl atrazine (µg L^{-1})	Diuron (µg L^{-1})	Fluometuron (µg L^{-1})	Hexazinone (µg L^{-1})	Prometryn (µg L^{-1})	Simazine (µg L^{-1})	Tebuthiuron (µg L^{-1})
Jarra Ck	Forest	02-03-07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Kyambul, Copperhead Rd	Cane	12-01-06	0.005	0.29	0.02	<0.01	8.7	<0.01	1.6	<0.01	<0.01	<0.01
Kyambul, Copperhead Rd	Cane	14-01-06	0.005	0.14	0.01	<0.01	3.4	<0.01	1.2	<0.01	<0.01	<0.01
Kyambul, Copperhead Rd	Cane	16-01-06	0.005	0.15	0.02	<0.01	2.3	<0.01	1.8	<0.01	<0.01	<0.01
Kyambul, Copperhead Rd	Cane	31-01-06	0.005	0.57	0.05	<0.01	0.46	<0.01	0.84	<0.01	<0.01	<0.01
Kyambul, Copperhead Rd	Cane	13-03-06	0.005	0.11	0.06	0.01	0.18	<0.01	0.27	<0.01	<0.01	<0.01
Kyambul, Copperhead Rd	Cane	27-03-06	0.005	0.17	0.05	<0.01	0.26	<0.01	0.17	<0.01	<0.01	<0.01
Kyambul, Copperhead Rd	Cane	05-04-06	0.005	0.1	0.06	<0.01	0.17	<0.01	0.19	<0.01	<0.01	<0.01
Kyambul, K1	Cane	12-01-06	0.005	1	0.03	<0.01	19	<0.01	3.6	<0.01	<0.01	<0.01
Kyambul, K1	Cane	14-01-06	0.005	0.28	0.02	<0.01	4.4	<0.01	2	<0.01	<0.01	<0.01
Kyambul, K1	Cane	31-01-06	0.005	0.82	0.06	<0.01	0.48	<0.01	0.96	<0.01	<0.01	<0.01
Kyambul, K1	Cane	13-03-06	0.005	0.18	0.08	0.02	0.2	<0.01	0.3	<0.01	<0.01	<0.01
Marquette Ck	Banana	30-01-07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Marquette Ck	Banana	02-03-07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Murray R, H'way	Cane	12-01-06	0.005	0.14	0.01	<0.01	0.59	<0.01	0.17	<0.01	<0.01	<0.01
Murray R, H'way	Cane	14-01-06	0.005	0.14	0.02	<0.01	1.6	<0.01	0.6	<0.01	<0.01	<0.01
Murray R, H'way	Cane	16-01-06	0.005	0.07	0.01	<0.01	0.92	<0.01	0.43	<0.01	0.03	<0.01
Murray R, H'way	Cane	31-01-06	0.005	0.59	0.05	<0.01	1.2	<0.01	0.43	<0.01	0.06	<0.01
Murray R, H'way	Cane	13-03-06	0.005	0.08	0.03	0.01	0.25	<0.01	0.16	<0.01	<0.01	<0.01
Murray R, H'way	Cane	27-03-06	0.005	0.06	0.02	<0.01	0.25	<0.01	0.1	<0.01	<0.01	<0.01
Murray R, H'way	Cane	05-04-06	0.005	0.03	0.02	<0.01	0.12	<0.01	0.09	<0.01	<0.01	<0.01
Murray R, H'way	Cane	02-03-07	<0.01	0.03	0.02	<0.01	0.15	<0.01	0.13	<0.01	<0.01	<0.01
Murray R, Jumbun	Forest	12-01-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Murray R, Jumbun	Forest	31-01-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Murray R, Jumbun	Forest	27-03-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Murray R, Jumbun	Forest	05-04-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Murray R, Jumbun	Forest	02-03-07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Murray R, Jumbun	Forest	30-01-07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Murray R, Murray Falls	Forest	12-01-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Murray R, Murray Falls	Forest	05-04-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Murray R, Murray Falls	Forest	02-03-07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nth Hull R	Forest	27-03-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nth Hull R	Forest	05-04-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Site Name	Land Use	Date Collected	Ametryn (µg L^{-1})	Atrazine (µg L^{-1})	Desethyl atrazine (µg L^{-1})	Desisopropyl atrazine (µg L^{-1})	Diuron (µg L^{-1})	Fluometuron (µg L^{-1})	Hexazinone (µg L^{-1})	Prometryn (µg L^{-1})	Simazine (µg L^{-1})	Tebuthiuron (µg L^{-1})
Nth Hull R	Forest	02-03-07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Porters Ck	Urban	31-01-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Porters Ck	Urban	27-03-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Porters Ck	Urban	05-04-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tully Gorge	Forest	13-03-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01
Tully Gorge	Forest	22-03-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tully Gorge	Forest	27-03-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tully Gorge	Forest	05-04-06	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tully Gorge	Forest	02-03-07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tully R, Euramo	Cane	30-01-07	<0.01	0.4	<0.01	<0.01	<0.01	<0.01	0.3	<0.01	<0.01	<0.01
Tully R, Euramo	Cane	02-03-07	<0.01	0.01	<0.01	<0.01	0.03	<0.01	0.04	<0.01	<0.01	<0.01
Warrami Ck, Blackman Rd	Cane	12-01-06	0.03	0.73	0.01	<0.01	1.2	<0.01	1.2	<0.01	<0.01	<0.01
Warrami Ck, Blackman Rd	Cane	31-01-06	0.005	0.04	0.01	<0.01	0.15	<0.01	0.81	<0.01	<0.01	<0.01
Warrami Ck, Blackman Rd	Cane	13-03-06	0.005	0.06	0.01	<0.01	0.09	<0.01	0.39	<0.01	<0.01	<0.01
Warrami Ck, Blackman Rd	Cane	27-03-06	0.005	<0.01	<0.01	<0.01	0.05	<0.01	0.29	<0.01	<0.01	<0.01
Warrami Ck, Blackman Rd	Cane	05-04-06	0.005	<0.01	<0.01	<0.01	0.002	<0.01	0.27	<0.01	<0.01	<0.01
Warrami Ck, Blackman Rd	Cane	30-01-07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	1.1	<0.01	<0.01	<0.01
Warrami Ck, Blackman Rd	Cane	02-03-07	<0.01	<0.01	0.01	<0.01	0.03	<0.01	0.25	<0.01	<0.01	<0.01

Table A3. Summary data for the river water plume monitoring including the concentrations of herbicides (µg L^{-1}) detected

Date	Latitude	Long-itude	Salinity (PSU)	Diuron	Atrazine	Desethyl atrazine	Desisopropyl atrazine	Hexazinone	Tebuthiuron	Ametryn	Simazine
2/02/07	–17.954	146.107	28.9	0.13	0.02	BDL	BDL	0.01	BDL	BDL	BDL
2/02/07	–17.957	146.118	27.5	0.38	0.06	0.01	BDL	0.03	BDL	BDL	BDL
2/02/07	–17.950	146.125	23.7	0.06	0.01	BDL	BDL	BDL	BDL	BDL	BDL
2/02/07	–17.971	146.182	31.3	0.10	0.02	BDL	BDL	0.01	BDL	BDL	BDL
2/02/07	–17.993	146.089	30.5	0.06	0.01	BDL	BDL	0.01	BDL	BDL	BDL
2/02/07	–18.035	146.113	27.0	0.30	0.04	BDL	BDL	0.04	BDL	BDL	BDL
2/02/07	–18.009	146.130	26.6	0.10	0.02	BDL	BDL	0.02	BDL	BDL	BDL
2/02/07	–18.006	146.091	30.9	0.12	0.02	BDL	BDL	0.02	BDL	BDL	BDL
2/02/07	–18.008	146.140	23.8	0.23	0.05	BDL	BDL	0.04	BDL	BDL	BDL
4/04/06	–18.022	146.087	24.6	0.019	0.005	0.001	BDL	0.006	BDL	BDL	0.001
4/04/06	–18.001	146.141	24.2	0.017	0.005	BDL	BDL	0.005	BDL	BDL	BDL
4/04/06	–17.978	146.179	31.8	0.008	0.003	BDL	BDL	0.002	BDL	BDL	BDL
4/04/06	–17.960	146.214	31.4	0.008	0.004	BDL	BDL	0.003	BDL	BDL	BDL

BDL= Below level of analytical detection (<0.01 $\mu g L^{-1}$)