

Appendix A: Waterways cost apportionment

Table A.1: Impervious area

	Impervious
Very low density residential	0.20
Low density residential	0.50
Mixed housing	0.70
Mixed and attached housing	0.75
General industry	0.90
Light industry	0.90
Convenience centres	0.90

Table A.2: Catchment summary - Gumdale-Tingalpa catchment

	Very low density residential	Low density residential	Mixed housing	Mixed and attached housing	General industry	Light industry	Convenience centres	Total
Existing situation	0.0	0.0	14.0	0.0	34.6	0.0	0.0	48.6
Ultimate situation	4.4	20.1	39.9	10.9	34.6	3.6	0.0	113.5

Table A.3: Annual development - Gumdale-Tingalpa catchment

	Very low density residential	Low density residential	Mixed housing	Mixed and attached housing	General industry	Light industry	Convenience centres	Total
Year 2000	0.0	0.0	3.7	0.0	0.0	0.0	0.0	3.7
Year 2001	0.0	1.3	2.6	0.0	0.0	0.0	0.0	3.8
Year 2002	0.0	1.3	2.5	0.4	0.0	0.0	0.0	4.1
Year 2003	0.0	2.5	1.9	0.0	0.0	0.0	0.0	4.4
Year 2004	1.2	4.4	0.0	0.9	0.0	0.0	0.0	6.5
Year 2005	0.2	1.2	5.4	1.5	0.0	0.0	0.0	8.2
Year 2006	1.5	1.8	3.7	1.5	0.0	0.0	0.0	8.5
Year 2007	1.5	4.8	0.0	1.5	0.0	0.0	0.0	7.8
Year 2008	0.0	2.3	1.8	1.5	0.0	0.0	0.0	5.5
Year 2009	0.0	0.0	1.9	1.2	0.0	0.0	0.0	3.1
Year 2010	0.0	0.0	1.9	0.9	0.0	1.8	0.0	4.6
Year 2011	0.0	0.8	0.7	0.9	0.0	1.8	0.0	4.2
Year 2012	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.6
Total	4.4	20.1	25.9	10.9	0.0	3.6	0.0	64.9
NPV @ 6%	3	14	19	7	0	2	0	44.7

Table A.4: Catchment summary - Lota catchment

	Very low density residential	Low density residential	Mixed housing	Mixed and attached housing	General industry	Light industry	Convenience centres	Total
Existing situation	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0
Ultimate situation	4.1	52.9	16.6	4.6	0.0	0.0	0.9	79.1

Table A.5: Annual development - Lota catchment

	Very low density residential	Low density residential	Mixed housing	Mixed and attached housing	General industry	Light industry	Convenience centres	Total
Year 2000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year 2001	0.0	2.7	0.0	0.0	0.0	0.0	0.0	2.7
Year 2002	0.0	6.0	1.6	0.0	0.0	0.0	0.0	7.6
Year 2003	0.0	5.6	1.4	0.0	0.0	0.0	0.0	7.0
Year 2004	0.0	6.6	0.9	0.0	0.0	0.0	0.0	7.5
Year 2005	0.0	6.0	0.0	0.0	0.0	0.0	0.9	6.9
Year 2006	0.6	5.8	0.0	0.3	0.0	0.0	0.0	6.7
Year 2007	0.0	3.0	2.3	1.2	0.0	0.0	0.0	6.5
Year 2008	1.0	3.0	2.8	1.2	0.0	0.0	0.0	8.0
Year 2009	0.0	3.5	1.4	0.9	0.0	0.0	0.0	5.8
Year 2010	0.0	3.5	1.4	1.0	0.0	0.0	0.0	5.9
Year 2011	2.0	2.5	2.6	0.0	0.0	0.0	0.0	7.1
Year 2012	0.5	2.8	2.2	0.0	0.0	0.0	0.0	5.4
Total	4.1	50.9	16.6	4.6	0.0	0.0	0.9	77.1
NPV @ 6%	2	35	10	3	0	0	1	50.5

Table A.6: Cost of apportioned items (Gumdale - Tingalpa catchment - Charge Area 1-3)

No.	Item Description	Cost				Total Cost	Year constructed	Discounted Cost (6%)	
		Construction			Contingency Rate & O'heads				Subtotal
		Quantity	Rate	Subtotal					
	Retarding basin downstream of Basella Street on eastern tributary of north drain at Wakerley			\$525,000	20%	\$105,000	\$630,000	2005	\$444,125
	Sedimentation pond downstream of Basella Street on eastern tributary north drain at Wakerley			\$240,000	20%	\$48,000	\$288,000	2005	\$203,029
	Wet basin near the industrial estate on the western tributary of north drain			\$133,333	20%	\$26,667	\$160,000	2005	\$112,794
									\$0
	Trunk drainage south of Besella Street			\$222,500	20%	\$44,500	\$267,000	2005	\$188,224
	Culvert - Besella Street			\$50,000	20%	\$10,000	\$60,000	2005	\$42,298
	Natural channel D/S of Besella Street			\$291,667	20%	\$58,333	\$350,000	2005	\$246,736
									\$0
	Revegetation Tinagalpa drain between Wynnum Road and Bulimba Creek			\$283,333	20%	\$56,667	\$340,000	2005	\$239,687
	Revegetation north drain			\$33,333	20%	\$6,667	\$40,000	2005	\$28,198
Total				\$1,779,167		\$355,833	\$2,135,000		\$1,505,091

Base Year	2000
Discount Rate	6%

Table A.7: Cost apportionment (Gumdale - Tingalpa catchment)

Item No.	Description	Discounted Cost	External use		Existing use		Future use		Charge	
			% total use	Apportioned cost	% total use	Apportioned cost	% total use	Apportioned cost	NPV future demand (ImpHa)	Charge (\$/Ha)
	Retarding basin downstream of Basella Street on eastern tributary of north drain at Wakerley	\$444,125	0%	\$0	43%	\$190,071	57%	\$254,054	45	\$5,682
	Sedimentation pond downstream of Basella Street on eastern tributary north drain at Wakerley	\$203,029	0%	\$0	43%	\$86,890	57%	\$116,139	45	\$2,597
	Wet basin near the industrial estate on the western tributary of north drain	\$112,794	17%	\$19,175	36%	\$40,042	48%	\$53,577	45	\$1,198
	Trunk drainage south of Besella Street	\$188,224	0%	\$0	43%	\$80,554	57%	\$107,671	45	\$2,408
	Culvert - Besella Street	\$42,298	0%	\$0	43%	\$18,102	57%	\$24,196	45	\$541
	Natural channel D/S of Besella Street	\$246,736	0%	\$0	43%	\$105,595	57%	\$141,141	45	\$3,156
	Revegetation Tinagalpa drain between Wynnum Road and Bulimba Creek	\$239,687	62%	\$148,606	16%	\$39,069	22%	\$52,012	45	\$1,163
	Revegetation north drain	\$28,198	24%	\$6,768	33%	\$9,164	44%	\$12,266	45	\$274
Total		\$1,505,091		\$174,548		\$569,487		\$761,056		\$17,020

Table A.8: Charge for land acquisition (Gumdale - Tingalpa catchment)

Item	Area			Cost			Charge (\$/Ha)
	Total	% in catchment	Subtotal	Total	% in catchment	Subtotal	
Land and dwelling acquisition	192.6	74.3%	143.1	\$4,005,000	74.3%	\$2,975,715	\$20,794

Component	\$/Ha
Augmentation works	\$17,020
Land & Dwelling acquisition	\$20,794
Total	\$37,814

Table A.9: Cost of apportioned items (Lota catchment - Charge Area 4)

No.	Item Description	Cost				Total Cost	Year constructed	Discounted Cost (6%)	
		Construction		Contingency Rate & O'heads	Subtotal				
		Quantity	Rate						
	Constructed wetland at corner Green Camp Road and Tilley Road			\$1,166,667	20%	\$233,333	\$1,400,000	2005	\$986,945
	Gross Pollutant traps and other structural SQIDs			\$275,000	20%	\$55,000	\$330,000	2004	\$246,595
	Gross Pollutant traps and other structural SQIDs			\$391,667	20%	\$78,333	\$470,000	2007	\$294,884
	Culvert at Tilley Road (S9)			\$189,167	20%	\$37,833	\$227,000	2002	\$190,594
	Culvert at New Cleveland Road (S14)			\$8,333	20%	\$1,667	\$10,000	2012	\$4,688
	Culvert at Green Camp Road (S15)			\$62,500	20%	\$12,500	\$75,000	2012	\$35,163
	Culvert at Green Camp Road (S21)			\$59,167	20%	\$11,833	\$71,000	2008	\$42,025
	Culvert at Green Camp Road (S23)			\$289,167	20%	\$57,833	\$347,000	2008	\$205,389
	Trunk drainage north of Tilley Road*								
	Trunk drainage corner Green Camp Road and Rickertr Road			\$170,833	20%	\$34,167	\$205,000	2005	\$144,517
	Natural channel north of Tilley Road			\$666,667	20%	\$133,333	\$800,000	2002	\$671,695
	Natural channel corner Green Camp Road and Rickertr Road			\$208,333	20%	\$41,667	\$250,000	2008	\$147,975
Total				\$3,487,500		\$697,500	\$4,185,000		\$2,970,469

Base Year	2000
Discount Rate	6%

Table A.10: Cost apportionment (Lota catchment)

No.	Item Description	Discounted Cost	External use		Existing use		Future use		Charge	
			% total use	Apportioned cost	% total use	Apportioned cost	% total use	Apportioned cost	NPV future demand	Charge
0	Constructed wetland at corner Green Camp Road and Tilley Road	\$986,945	0%	\$0	2.4%	\$23,687	97.6%	\$963,258	50	\$19,081
0	Gross Pollutant traps and other structural SQIDs	\$246,595	0%	\$0	2.4%	\$5,918	97.6%	\$240,677	50	\$4,768
0	Gross Pollutant traps and other structural SQIDs	\$294,884	0%	\$0	2.4%	\$7,077	97.6%	\$287,807	50	\$5,701
0	Culvert at Tilley Road (S9)	\$190,594	0%	\$0	2.4%	\$4,574	97.6%	\$186,019	50	\$3,685
0	Culvert at New Cleveland Road (S14)	\$4,688	42%	\$1,969	1.4%	\$66	56.6%	\$2,654	50	\$53
0	Culvert at Green Camp Road (S15)	\$35,163	42%	\$14,768	1.4%	\$492	56.6%	\$19,902	50	\$394
0	Culvert at Green Camp Road (S21)	\$42,025	0%	\$0	2.4%	\$1,009	97.6%	\$41,016	50	\$812
0	Culvert at Green Camp Road (S23)	\$205,389	17%	\$34,916	2.0%	\$4,108	81.0%	\$166,365	50	\$3,296
0	Trunk drainage north of Tilley Road*	\$0	0%	\$0	2.4%	\$0	97.6%	\$0	50	\$0
0	Trunk drainage corner Green Camp Road and Rickertr Road	\$144,517	0%	\$0	2.4%	\$3,468	97.6%	\$141,049	50	\$2,794
0	Natural channel north of Tilley Road	\$671,695	0%	\$0	2.4%	\$16,121	97.6%	\$655,575	50	\$12,986
0	Natural channel corner Green Camp Road and Rickertr Road	\$147,975	0%	\$0	2.4%	\$3,551	97.6%	\$144,423	50	\$2,861
Total		\$2,970,469		\$51,654		\$70,071		\$2,848,745		\$56,431

* To be constructed and paid for as internal infrastructure (no offset) as part of Infrastructure Agreement.

Table A.11: Charge for land and dwelling acquisition (Lota catchment)

Item	Area (Ha)			Cost			Charge (\$/Ha)
	Total	% in catchment	Subtotal	Total	% in catchment	Subtotal	
Land and dwelling acquisition	192.6	25.7%	49.5	\$4,005,000	25.7%	\$1,029,285	\$20,794

(Note: Imprevious hectares and land acquisition costs have not been discounted - acquisition will occur at time of development)

Component	\$/Ha
Augmentation works	\$56,431
Land & Dwelling acquisiton	\$20,794
Total	\$77,225

Appendix B: Transport apportionment

Table B.1: Trip rates

	Trips/Ha
Very low density residential	16
Low density residential	90
Mixed housing	90
Mixed and attached housing	145
General industry	200
Light industry	200
Convenience Centres	225

Table B.2: Summary

	Very low density residential	Low density residential	Mixed housing	Mixed and attached housing	General industry	Light industry	Convenience centres	Total
Existing situation	0	360	1,800	0	7,680	0	0	9,840
Future situation	680	10,953	6,768	3,857	0	800	225	23,283
								33,123

Table B.3: Annual development

	Very low density residential	Low density residential	Mixed housing	Mixed and attached housing	General industry	Light industry	Convenience centres	Total
Year 2000	0	0	480	0	0	0	0	480
Year 2001	0	225	810	0	0	0	0	1,035
Year 2002	0	1,035	798	70	0	0	0	1,903
Year 2003	0	1,170	600	174	0	0	0	1,944
Year 2004	96	1,872	120	348	0	0	0	2,436
Year 2005	16	1,107	690	580	0	0	225	2,618
Year 2006	168	1,215	480	580	0	0	0	2,443
Year 2007	120	1,395	300	522	0	0	0	2,337
Year 2008	80	945	588	522	0	0	0	2,135
Year 2009	0	450	600	406	0	0	0	1,456
Year 2010	0	450	600	365	0	400	0	1,815
Year 2011	160	594	420	174	0	400	0	1,748
Year 2012	40	495	282	116	0	0	0	933
Total	680	10,953	6,768	3,857	0	800	225	23,283
NPV @ 6%	416	7,433	4,743	2,447	0	410	159	15,607

Table B.4: Cost of apportioned items

Item description	Construction cost			Traffic Signals	Services	Culverts / Structures	Land Acquisition	Contingency rate & O'heads	Subtotal	Total cost	Year constructed	Net Present Value
	Quantity	Rate	Roads									
Greencamp Road / Manly Road / Whites Road Intersection (3): Replace round-a-bout, install signals and configure priority movements										\$4,250,000	1999	\$4,250,000
Rickertt Road / Chelsea Road Intersection (3): Install traffic signals										\$255,000	2001	\$226,949
Randall Road / Wondall Road Intersection (3): Install traffic signals										\$170,000	2005	\$119,843
Tilley Road / London Road Intersection (3): Channelisation work										\$42,500	2005	\$29,961
Tilley Road extension - Stage 1 (2 lanes): new two lane road between New Cleveland Rd and Kianawah Rd			\$4,600,000	\$600,000	\$500,000	\$0	\$2,400,000	20%	\$920,000	\$9,020,000	2009	\$5,036,721
Tilley Road extension - Stage 2 (4 lanes): Upgrade to 4 lanes New Cleveland Rd to Kianawah Rd.			\$6,000,000	\$180,000	\$200,000	\$0	\$0	20%	\$1,200,000	\$7,580,000	2020	\$2,229,698
Kianawah Road road widening: Upgrade to 4 lanes from Wynnum Rd through to new Port Rd connection - 33.0m cross section			\$4,335,000	\$120,000	\$500,000	\$0	\$497,250	20%	\$867,000	\$6,319,250	2015	\$2,487,549
Arenga Street road widening: Upgrade existing road to typical 23.0m cross section			\$640,000	\$0	\$50,000	\$0	\$36,000	20%	\$128,000	\$854,000	2010	\$449,877
Basella Street road widening: Upgrade existing road to typical 23.0m cross section			\$320,000	\$0	\$25,000	\$0	\$18,000	20%	\$64,000	\$427,000	2010	\$224,938
Caladium Street road widening: Upgrade existing road to typical 23.0m cross section			\$120,000	\$0	\$25,000	\$0	\$6,750	20%	\$24,000	\$175,750	2010	\$92,583
Dianthus Street road widening: Upgrade existing road to typical 23.0m cross section			\$640,000	\$0	\$50,000	\$0	\$36,000	20%	\$128,000	\$854,000	2010	\$449,877
New Cleveland Road road widening: Old Cleveland Rd to Greencamp Rd - 33.0m cross section			\$4,250,000	\$60,000	\$500,000	\$500,000	\$487,500	20%	\$850,000	\$6,647,500	2009	\$3,711,929
New Cleveland Road road widening: Greencamp Rd to Tilley Road - 33.0m cross section			\$2,550,000	\$0	\$300,000	\$250,000	\$292,500	20%	\$510,000	\$3,902,500	2008	\$2,309,884
New Cleveland Road road widening: Tilley Road to Ermelo Road - 33.0m cross section			\$1,105,000	\$0	\$150,000	\$250,000	\$126,750	20%	\$221,000	\$1,852,750	2008	\$1,096,640
New Cleveland Road road widening: Ermelo Road to Manly Road - 33.0m cross section			\$2,762,500	\$240,000	\$300,000	\$250,000	\$316,875	20%	\$552,500	\$4,421,875	2008	\$2,617,301
Ermelo Road road widening: Upgrade existing to 4 lanes and construct new road from New Cleveland Road to Meadowlands Road - 33.0m cross section			\$1,700,000	\$240,000	\$100,000	\$0	\$195,000	20%	\$340,000	\$2,575,000	2010	\$1,356,478
Meadowlands Road road widening: Upgrade to 4 lanes from Preston Road to Belmont Road. Includes two bridge widenings - 33.0m cross section			\$2,040,000	\$180,000	\$500,000	\$3,000,000	\$331,500	20%	\$408,000	\$6,459,500	2010	\$3,402,784
Greencamp Road road widening - upgrade from 2 lanes to 4 lanes: Manly Road to Rickertt Road - 33.0m cross section			\$1,360,000	\$60,000	\$150,000	\$250,000	\$156,000	20%	\$272,000	\$2,248,000	2004	\$1,679,836
Greencamp Road road widening - upgrade from 2 lanes to 4 lanes: Rickertt Road to New Cleveland Road - 33.0m cross section			\$1,360,000	\$60,000	\$150,000	\$0	\$156,000	20%	\$272,000	\$1,998,000	2004	\$1,493,022
Manly Road road widening - upgrade from 2 lanes to 4 lanes: Wondall Road to Tilley Road (excluding Tilley Road Intersection)			\$1,530,000	\$0	\$150,000	\$0	\$175,500	20%	\$306,000	\$2,161,500	2005	\$1,523,772
Manly Road road widening - upgrade from 2 lanes to 4 lanes: Tilley Road to Greencamp Road (excluding Tilley Road Intersection and including signals at Moss St)			\$567,500	\$0	\$150,000	\$0	\$107,250	20%	\$113,500	\$938,250	2007	\$588,670
Manly Road road widening - upgrade from 2 lanes to 4 lanes: Greencamp Road to Radford Road - 33.0 m cross section			\$1,190,000	\$0	\$100,000	\$0	\$136,500	20%	\$238,000	\$1,664,500	2009	\$929,448
Tilley Road road widening - upgrade from 2 lanes to 4 lanes: New Cleveland Road to Greencamp Road - 33.0 m cross section			\$2,380,000	\$0	\$250,000	\$0	\$273,000	20%	\$476,000	\$3,379,000	2008	\$2,000,025
Tilley Road road widening - upgrade from 2 lanes to 4 lanes: New Cleveland Road to Old Cleveland Road - 33.0 m cross section			\$3,740,000	\$360,000	\$250,000	\$0	\$429,000	20%	\$748,000	\$5,527,000	2012	\$2,591,273
Rickertt Road road widening - upgrade from 2 lanes to 4 lanes: Greencamp Road to Chelsea Road - 33.0 m cross section			\$2,380,000	\$120,000	\$250,000	\$500,000	\$273,000	20%	\$476,000	\$3,999,000	2009	\$2,233,021
Wondall Road road widening - upgrade from 2 lanes to 4 lanes: Manly Road to Tilley Road extension - 33.0m cross section			\$1,870,000	\$120,000	\$100,000	\$0	\$214,500	20%	\$374,000	\$2,678,500	2004	\$2,001,531
Wynnum Road road widening - upgrade form 4 lanes to 6 lanes: Gateway Motorway to Manly Road - 40.0m cross section			\$2,040,000	\$240,000	\$400,000	\$0	\$0	20%	\$408,000	\$3,088,000	2015	\$1,215,580
Revegetation of projects @ \$11,000 per hectare			\$166,667	\$0	\$0	\$0	\$0	20%	\$33,333	\$200,000	2008	\$118,380
Fauna movement opportunity and environmental impacts investigations			\$50,000	\$0	\$0	\$0	\$0	20%	\$10,000	\$60,000	2005	\$42,298
Fauna movement infrastructure			\$1,666,667	\$0	\$0	\$0	\$0	20%	\$333,333	\$2,000,000	2008	\$1,183,797
Caladium St/ Ingelston Rd Bikeway			\$100,886	\$0	\$0	\$0	\$0	20%	\$20,177	\$121,063	2005	\$85,345
Basella St Bikeway			\$139,722	\$0	\$0	\$0	\$0	20%	\$27,944	\$167,666	2010	\$88,325
Greencamp / Moss Rd Bikeway			\$209,218	\$0	\$0	\$0	\$0	20%	\$41,844	\$251,062	2012	\$117,707
Tilley Road Bikeway			\$140,744	\$0	\$0	\$0	\$0	20%	\$28,149	\$168,893	2012	\$79,184
									\$10,390,781	\$86,457,059		\$48,064,224

Base year	2000
Discount rate	6%

Component	NPV
Road network	\$46,349,189
Natural environment	\$1,344,474
Bikeways	\$370,560
Total	\$48,064,224

Table B.5: Cost apportionment

Item description	Discounted Cost	External use		Existing use		Future use		Charge	
		% total use	Apportioned cost	% total use	Apportioned cost	% total use	Apportioned cost	NPV future demand	Charge (\$/Trip)
Greencamp Road / Manly Road / Whites Road Intersection (3): Replace round-a-bout, install signals and configure priority movements	\$4,250,000	95.5%	\$4,059,148	1.3%	\$56,697	3.2%	\$134,154.95	15,607	\$9
Rickertt Road / Chelsea Road intersection (3): Install traffic signals	\$226,949	94.6%	\$214,756	1.6%	\$3,622	3.8%	\$8,570.59	15,607	\$1
Randall Road / Wondall Road intersection (3): Install traffic signals	\$119,843	80.7%	\$96,760	5.7%	\$6,858	13.5%	\$16,226.10	15,607	\$1
Tilley Road / London Road intersection (3): Channelisation work	\$29,961	77.3%	\$23,168	6.7%	\$2,018	15.9%	\$4,775.17	15,607	\$0
Tilley Road extension - Stage 1 (2 lanes): new two lane road between New Cleveland Rd and Kianawah Rd	\$5,036,721	63.2%	\$3,182,130	10.9%	\$0	25.9%	\$0.00	15,607	\$0
Tilley Road extension - Stage 2 (4 lanes): Upgrade to 4 lanes New Cleveland Rd to Kianawah Rd.	\$2,229,698	100.0%	\$2,229,698	0.0%	\$0	0.0%	\$0.00	15,607	\$0
Kianawah Road road widening: Upgrade to 4 lanes from Wynnum Rd through to new Port Rd connection - 33.0m cross section	\$2,487,549	97.3%	\$2,419,381	0.8%	\$20,251	1.9%	\$47,917.26	15,607	\$3
Arenga Street road widening: Upgrade existing road to typical 23.0m cross section	\$449,877	0.0%	\$0	29.7%	\$133,647	70.3%	\$316,229.68	15,607	\$20
Basella Street road widening: Upgrade existing road to typical 23.0m cross section	\$224,938	0.0%	\$0	29.7%	\$66,823	70.3%	\$158,114.84	15,607	\$10
Caladium Street road widening: Upgrade existing road to typical 23.0m cross section	\$92,583	0.0%	\$0	29.7%	\$27,504	70.3%	\$65,078.88	15,607	\$4
Dianthus Street road widening: Upgrade existing road to typical 23.0m cross section	\$449,877	0.0%	\$0	29.7%	\$133,647	70.3%	\$316,229.68	15,607	\$20
New Cleveland Road road widening: Old Cleveland Rd to Greencamp Rd - 33.0m cross section	\$3,711,929	87.3%	\$3,241,212	3.8%	\$139,838	8.9%	\$330,879.16	15,607	\$21
New Cleveland Road road widening: Greencamp Rd to Tilley Road - 33.0m cross section	\$2,309,884	81.8%	\$1,888,544	5.4%	\$125,169	12.8%	\$296,170.15	15,607	\$19
New Cleveland Road road widening: Tilley Road to Ermelo Road - 33.0m cross section	\$1,096,640	57.9%	\$634,907	12.5%	\$137,169	29.6%	\$324,563.58	15,607	\$21
New Cleveland Road road widening: Ermelo Road to Manly Road - 33.0m cross section	\$2,617,301	94.7%	\$2,477,802	1.6%	\$41,442	3.7%	\$98,057.44	15,607	\$6
Ermelo Road road widening: Upgrade existing to 4 lanes and construct new road from New Cleveland Road to Meadowland Road - 33.0m cross section	\$1,356,478	72.4%	\$981,946	8.2%	\$111,264	19.4%	\$263,268.04	15,607	\$17
Meadowlands Road road widening: Upgrade to 4 lanes from Preston Road to Belmont Road. Includes two bridge widenings - 33.0m cross section	\$3,402,784	78.2%	\$2,662,596	6.5%	\$219,891	15.3%	\$520,296.95	15,607	\$33
Greencamp Road road widening - upgrade from 2 lanes to 4 lanes: Manly Road to Rickertt Road - 33.0m cross section	\$1,679,836	94.9%	\$1,595,003	1.5%	\$25,202	3.5%	\$59,631.59	15,607	\$4
Greencamp Road road widening - upgrade from 2 lanes to 4 lanes: Rickertt Road to New Cleveland Road - 33.0m cross section	\$1,493,022	94.2%	\$1,406,675	1.7%	\$25,651	4.1%	\$60,695.15	15,607	\$4
Manly Road road widening - upgrade from 2 lanes to 4 lanes: Wondall Road to Tilley Road (excluding Tilley Road Intersection)	\$1,523,772	77.8%	\$1,185,357	6.6%	\$100,534	15.6%	\$237,880.55	15,607	\$15
Manly Road road widening - upgrade from 2 lanes to 4 lanes: Tilley Road to Greencamp Road (excluding Tilley Road Intersection and including signals at Moss St)	\$588,670	97.0%	\$570,855	0.9%	\$5,292	2.1%	\$12,522.60	15,607	\$1
Manly Road road widening - upgrade from 2 lanes to 4 lanes: Greencamp Road to Radford Road - 33.0 m cross section	\$929,448	95.5%	\$887,328	1.3%	\$12,513	3.2%	\$29,607.19	15,607	\$2
Tilley Road road widening - upgrade from 2 lanes to 4 lanes: New Cleveland Road to Greencamp Road - 33.0 m cross section	\$2,000,025	88.0%	\$1,760,130	3.6%	\$71,267	8.4%	\$168,628.33	15,607	\$11
Tilley Road road widening - upgrade from 2 lanes to 4 lanes: New Cleveland Road to Old Cleveland Road - 33.0 m cross section	\$2,591,273	87.5%	\$2,266,510	3.7%	\$96,479	8.8%	\$228,284.71	15,607	\$15
Rickertt Road road widening - upgrade from 2 lanes to 4 lanes: Greencamp Road to Chelsea Road - 33.0 m cross section	\$2,233,021	94.3%	\$2,104,810	1.7%	\$38,088	4.0%	\$90,122.26	15,607	\$6
Wondall Road road widening - upgrade from 2 lanes to 4 lanes: Manly Road to Tilley Road extension - 33.0m cross section	\$2,001,531	80.0%	\$1,601,406	5.9%	\$118,867	14.1%	\$281,257.73	15,607	\$18
Wynnum Road road widening - upgrade form 4 lanes to 6 lanes: Gateway Motorway to Manly Road - 40.0m cross section	\$1,215,580	91.3%	\$1,110,169	2.6%	\$31,315	6.1%	\$74,095.98	15,607	\$5
Revegetation of projects @ \$11,000 per hectare	\$118,380	0.0%	\$0	29.7%	\$35,168	70.3%	\$83,212.10	15,607	\$5
Fauna movement opportunity and environmental impacts investigations	\$42,298	0.0%	\$0	29.7%	\$12,566	70.3%	\$29,732.08	15,607	\$2
Fauna movement infrastructure	\$1,183,797	0.0%	\$0	29.7%	\$351,676	70.3%	\$832,121.00	15,607	\$53
Caladium St/ Ingelston Rd Bikeway	\$85,345	0.0%	\$0	29.7%	\$25,354	70.3%	\$59,991.02	15,607	\$4
Basella St Bikeway	\$88,325	0.0%	\$0	29.7%	\$26,239	70.3%	\$62,085.59	15,607	\$4
Greencamp / Moss Rd Bikeway	\$117,707	0.0%	\$0	29.7%	\$34,968	70.3%	\$82,739.58	15,607	\$5
Tilley Road Bikeway	\$79,184	0.0%	\$0	29.7%	\$23,523	70.3%	\$55,660.13	15,607	\$4
	\$48,064,224		\$38,600,291		\$2,260,542		\$5,348,800		\$343

Component	\$/Trip
Road network	\$265
Natural environment	\$61
Bikeways	\$17
Total	\$343

Appendix C: Community facilities cost apportionment

Table C.1: Trip rates

	ET/Ha
Very low density residential	2
Low density residential	10
Mixed housing	15
Mixed and attached housing	25
General industry	2.5
Light industry	2.5
Convenience Centres	2.5

Table C.2: Summary

	Very low density residential	Low density residential	Mixed housing	Mixed and attached housing	General industry	Light industry	Convenience centres	Total
Existing situation	0	40	300	0	96	0	0	436
Ultimate situation	75	1,257	1,354	577	96	10	3	3,372

Table C.3: Annual development

	Very low density residential	Low density residential	Mixed housing	Mixed and attached housing	General industry	Light industry	Convenience centres	Total
Year 2000	0	0	80	0	0	0	0	80
Year 2001	0	25	100	0	0	0	0	125
Year 2002	0	115	100	12	0	0	0	227
Year 2003	0	130	95	30	0	0	0	255
Year 2004	12	208	20	42	0	0	0	282
Year 2005	2	123	115	60	0	0	3	303
Year 2006	16	135	80	70	0	0	0	301
Year 2007	10	155	50	90	0	0	0	305
Year 2008	10	105	98	90	0	0	0	303
Year 2009	0	50	100	70	0	0	0	220
Year 2010	0	50	100	63	0	5	0	218
Year 2011	20	66	70	30	0	5	0	191
Year 2012	5	55	46	20	0	0	0	126
Total	75	1217	1054	577	0	10	2.5	2,936

C.4 Parks cost apportionment

Type	Costs (per Ha)			Total Ha	Sub total costs			Total costs	Equivalent Tenements	Charge (\$/ET)
	Remedial Works	Parks Facilities	Acquisition		Sub Total RW	Sub Total PF	Sub Total Acquisition			
Local Sports Park	\$42,000	\$87,500	\$250,000	5	\$210,000	\$437,500	\$1,250,000	\$1,897,500	2,936	\$646
Local Park/District >1 Ha	\$34,800	\$41,625	\$250,000	4.1	\$142,680	\$170,663	\$1,025,000	\$1,338,343	2,936	\$456
Local Park (0.5 - 1 ha)	\$35,260	\$32,500	\$250,000	6.1	\$215,086	\$198,250	\$1,525,000	\$1,938,336	2,936	\$660
Local Park (<0.5)	\$48,000	\$32,500	\$250,000	2.5	\$120,000	\$81,250	\$625,000	\$826,250	2,936	\$281
Natural Park	\$39,360	\$58,000	\$250,000	6.5	\$255,840	\$377,000	\$1,625,000	\$2,257,840	2,936	\$769
Dwelling Acquisition								\$150,000	2,936	\$51
Total				24.2	\$943,606	\$1,264,663	\$6,050,000	\$8,408,269		\$2,864