

Appendix A: Summary of demographic trends to 1996

Plan area

- Residential population:
 - Declined between 1981 and 1991 by 1253 people to 11734 (9.6%)
 - Increased between 1991 and 1996 by 12918 people (10%)
- The proportion of single parent families, group households and lone person households increased between 1986 and 1996, in common with broader trends.
- There was a decrease between 1986 and 1996 in the proportion of couples with children, other family households and multiple family households, once again reflecting broader trends.
- The proportion of 'nuclear' families has decreased.
- Compared to Brisbane, the inner north-eastern suburbs have a lower proportion of couples with children and a higher proportion of group and lone person households.
- Between 1981 and 1996, the number of people aged 0 to 24 years and 55 years and over decreased. The biggest decrease was in people aged 0 to 14 years. The number of people aged 25 to 34 years increased significantly.
- A decreasing proportion of dwellings are occupied by the owner. The number of rental properties exceeds the Brisbane average and is increasing.
- More households own cars than previously. A third of households still do not own a car, which is higher than the Brisbane average.
- There has been an increase in the number of employed persons, made up of both full time and part time jobs.
- There was in 1996 a high proportion lower income households compared with Brisbane as a whole (30% households earn less than \$300/week).
- There was an increase in managers and professionals between 1986 and 1996. The number of white collar workers is now higher than Brisbane as a whole. The number of blue collar workers has declined.
- The population is highly mobile. Only a third of the people were at the same address in 1991 and 1996.

Bowen Hills

- About a quarter of residents were born overseas.
- The number of residents aged 15 years or under is low, with most in the range of 15 to 24 years.
- Many lone person households, and an increasing number of group households.
- A large proportion of rental accommodation.
- An increasing number of professionals and managers.
- The unemployment rate is higher than the Brisbane average.
- A large number of households earn less than \$300 a week.
- About 35% of households do not own a car.
- Levels of education are increasing.

Fortitude Valley

- About a third of residents were born overseas.
- There is a low proportion of people aged under 15 years, and large proportion of people aged 65 and over.
- There is a large proportion of lone person households and rental accommodation.
- Significant levels of public housing stock.

Appendix B: Forecast development

Table B.1: Total Development (Planning Units)

Planning Unit	House			Multi-Unit Dwellings			Commercial and retail GFA			Industrial GFA		
	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	500	3,000	8,000	5,000	5,000	5,000
3	0	0	0	0	0	0	1,000	3,000	3,000	0	0	0
4	0	0	0	65	60	0	6,500	13,500	9,000	0	0	0
5	0	0	0	10	40	0	0	0	0	0	0	0
6	0	0	0	225	650	25	28,415	29,500	29,500	3,000	3,000	3,000
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	50	150	0	0	0	6,000	0	0	0
10	0	0	0	16	0	0	7,000	0	0	1,000	3,473	0
11	0	0	0	10	0	0	0	0	0	3,000	3,000	3,000
12	0	0	0	50	160	0	0	0	0	0	0	0
13	0	0	0	601	220	0	1,200	0	0	0	0	0
14	0	0	0	85	0	0	0	0	0	0	0	0
15	0	0	0	30	100	0	1,000	1,500	24,000	0	0	0
16	0	0	0	50	0	0	36,000	19,374	1,000	1,000	1,000	1,000
17	0	0	0	25	35	50	0	0	0	0	0	0
18	0	0	0	25	30	30	0	0	0	0	0	0
19	0	0	0	15	15	0	500	1,500	1,500	0	0	0
20	0	0	0	200	200	30	2,000	23,750	16,000	0	0	0
21	0	0	0	5	10	20	8,000	2,000	4,000	0	0	0
22	0	0	0	25	30	50	0	0	0	0	0	0
23	0	0	0	0	0	0	2,000	0	0	0	0	0
24	0	0	0	100	140	195	2,000	1,000	1,000	0	0	0
25	0	0	0	336	0	0	0	0	0	0	0	0
26	0	0	0	200	150	0	0	0	0	0	0	0
27	0	0	0	135	105	135	1,000	0	0	0	0	0
Total	0	0	0	2,258	2,095	535	97,115	98,124	103,000	13,000	15,473	12,000

Table B.2: Total Development (Suburbs)

Suburb	House			Multi-Unit Dwellings			Commercial and retail GFA			Industrial GFA		
	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015
Bowen Hills	0	0	0	141	250	0	15,000	19,500	26,000	6,000	8,473	5,000
Fortitude Valley	0	0	0	360	355	100	13,500	28,750	45,500	0	0	0
New Farm	0	0	0	796	425	360	3,000	1,000	1,000	0	0	0
Newstead	0	0	0	961	1,065	75	65,615	48,874	30,500	7,000	7,000	7,000
Total	0	0	0	2,258	2,095	535	97,115	98,124	103,000	13,000	15,473	12,000

Table B.3: Total Development (Charge Areas)

Charge Area	House			Multi-Unit Dwellings			Commercial and retail GFA			Industrial GFA		
	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015
1	0	0	0	160	100	0	8,000	19,500	20,000	5,000	5,000	5,000
2	0	0	0	626	1,155	125	82,915	77,624	82,000	8,000	10,473	7,000
3	0	0	0	701	445	80	1,200	0	0	0	0	0
4	0	0	0	300	290	195	4,000	1,000	1,000	0	0	0
5	0	0	0	471	105	135	1,000	0	0	0	0	0
Total	0	0	0	2,258	2,095	535	97,115	98,124	103,000	13,000	15,473	12,000

Table B.4: Total Development less existing approvals (Planning Units)

Planning Unit	House			Multi-Unit Dwellings			Commercial and retail GFA			Industrial GFA		
	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	500	3,000	8,000	5,000	5,000	5,000
3	0	0	0	0	0	0	1,000	3,000	3,000	0	0	0
4	0	0	0	65	60	0	6,500	13,500	9,000	0	0	0
5	0	0	0	10	40	0	0	0	0	0	0	0
6	0	0	0	225	650	25	28,415	29,500	29,500	3,000	3,000	3,000
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	150	0	0	0	6,000	0	0	0
10	0	0	0	0	0	0	4,000	0	0	1,000	3,473	0
11	0	0	0	10	0	0	0	0	0	3,000	3,000	3,000
12	0	0	0	50	160	0	0	0	0	0	0	0
13	0	0	0	601	220	0	1,200	0	0	0	0	0
14	0	0	0	85	0	0	0	0	0	0	0	0
15	0	0	0	30	100	0	1,000	1,500	24,000	0	0	0
16	0	0	0	0	0	0	0	1,000	1,000	1,000	1,000	1,000
17	0	0	0	25	35	50	0	0	0	0	0	0
18	0	0	0	25	30	30	0	0	0	0	0	0
19	0	0	0	15	15	0	500	1,500	1,500	0	0	0
20	0	0	0	200	200	30	2,000	23,750	16,000	0	0	0
21	0	0	0	5	10	20	2,000	2,000	4,000	0	0	0
22	0	0	0	25	30	50	0	0	0	0	0	0
23	0	0	0	0	0	0	2,000	0	0	0	0	0
24	0	0	0	100	140	195	2,000	1,000	1,000	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	200	150	0	0	0	0	0	0	0
27	0	0	0	135	105	135	1,000	0	0	0	0	0
Total	0	0	0	1,806	2,095	535	52,115	79,750	103,000	13,000	15,473	12,000

Table B.5: Total Development less existing approvals (Suburbs)

Suburb	House			Multi-Unit Dwellings			Commercial and retail GFA			Industrial GFA		
	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015
Bowen Hills	0	0	0	75	250	0	12,000	19,500	26,000	6,000	8,473	5,000
Fortitude Valley	0	0	0	360	355	100	7,500	28,750	45,500	0	0	0
New Farm	0	0	0	460	425	360	3,000	1,000	1,000	0	0	0
Newstead	0	0	0	911	1,065	75	29,615	30,500	30,500	7,000	7,000	7,000
Total	0	0	0	1,806	2,095	535	52,115	79,750	103,000	13,000	15,473	12,000

Table B.6: Total Development less existing approvals (Charge Areas)

Charge Area	House			Multi-Unit Dwellings			Commercial and retail GFA			Industrial GFA		
	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015
1	0	0	0	160	100	0	8,000	19,500	20,000	5,000	5,000	5,000
2	0	0	0	510	1,155	125	37,915	59,250	82,000	8,000	10,473	7,000
3	0	0	0	701	445	80	1,200	0	0	0	0	0
4	0	0	0	300	290	195	4,000	1,000	1,000	0	0	0
5	0	0	0	135	105	135	1,000	0	0	0	0	0
Total	0	0	0	1,806	2,095	535	52,115	79,750	103,000	13,000	15,473	12,000

Table B.7: New Development (Planning Units)

Planning Unit	House			Multi-Unit Dwellings			Commercial and retail GFA			Industrial GFA		
	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	390	2,340	6,240	1,370	-280	-3,580
3	0	0	0	0	0	0	780	2,340	2,340	-660	-1,980	-1,980
4	0	0	0	65	60	0	5,070	10,530	7,020	-7,150	-9,900	-3,960
5	-2	-8	0	10	40	0	0	0	0	0	0	0
6	0	0	0	225	650	25	28,415	29,500	29,500	3,000	3,000	3,000
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	150	0	0	0	4,680	0	-9,900	-2,640
10	0	0	0	0	0	0	3,120	0	0	-1,420	0	0
11	0	0	0	10	0	0	0	0	0	360	0	0
12	-6	-19	0	50	160	0	0	0	0	-1,320	-4,224	0
13	-72	-26	0	601	220	0	1,200	0	0	-16,658	-5,808	0
14	-9	0	0	85	0	0	0	0	0	-2,805	0	0
15	0	0	0	30	100	0	780	1,170	18,720	-2,420	-7,260	-10,560
16	0	0	0	0	0	0	0	780	780	0	-100	-100
17	-5	-7	-10	25	35	50	0	0	0	0	0	0
18	-5	-6	-6	25	30	30	0	0	0	0	0	0
19	0	0	0	15	15	0	390	1,170	1,170	-970	-1,410	-660
20	-20	-20	-3	200	200	30	1,560	18,525	12,480	-7,480	-17,050	-8,030
21	0	0	0	5	10	20	1,560	1,560	3,120	-1,210	-1,540	-3,080
22	-3	-3	-5	25	30	50	0	0	0	-825	-990	-1,650
23	-3	0	0	0	0	0	1,560	0	0	0	0	0
24	-24	-30	-41	100	140	195	2,000	1,000	1,000	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	200	150	0	0	0	0	0	0	0
27	-29	-21	-27	135	105	135	1,000	0	0	0	0	0
Total	-177	-141	-92	1,806	2,095	535	47,825	68,915	87,050	-38,188	-57,442	-33,240

Table B.8: New Development (Suburbs)

Suburb	House			Multi-Unit Dwellings			Commercial and retail GFA			Industrial GFA		
	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015
Bowen Hills	-2	-8	0	75	250	0	9,360	15,210	20,280	-7,862	-22,060	-12,160
Fortitude Valley	-34	-23	-8	360	355	100	5,850	22,425	35,490	-15,710	-28,250	-23,980
New Farm	-58	-57	-74	460	425	360	3,000	1,000	1,000	0	0	0
Newstead	-83	-53	-10	911	1,065	75	29,615	30,280	30,280	-14,618	-7,132	2,900
Total	-177	-141	-92	1,806	2,095	535	47,825	68,915	87,050	-38,190	-57,442	-33,240

Table B.9: New Development (Charge Areas)

Charge Area	House			Multi-Unit Dwellings			Commercial and retail GFA			Industrial GFA		
	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015
1	-11	-8	0	160	100	0	6,240	15,210	15,600	-9,245	-12,160	-9,520
2	-23	-23	-8	510	1,155	125	35,825	52,705	70,450	-10,965	-35,250	-23,720
3	-88	-59	-16	701	445	80	1,200	0	0	-17,978	-10,032	0
4	-27	-30	-41	300	290	195	3,560	1,000	1,000	0	0	0
5	-29	-21	-27	135	105	135	1,000	0	0	0	0	0
Total	-177	-141	-92	1,806	2,095	535	47,825	68,915	87,050	-38,188	-57,442	-33,240

Table B.10: Future Development (Suburbs)

Suburb	House				Multi-Unit Dwellings				Commercial and retail GFA				Industrial GFA			
	Existing & approved	2000 to 2005	2006 to 2010	2011 to 2015	Existing & approved	2000 to 2005	2006 to 2010	2011 to 2015	Existing & approved	2000 to 2005	2006 to 2010	2011 to 2015	Existing & approved	2000 to 2005	2006 to 2010	2011 to 2015
Bowen Hills	88	86	78	78	628	703	953	953	114,045	123,405	138,615	158,895	131,570	123,708	101,648	89,488
Fortitude Valley	153	119	96	88	1,717	2,077	2,432	2,532	334,310	340,160	362,585	398,075	71,440	55,730	27,480	3,500
New Farm	1,046	988	931	857	5,118	5,578	6,003	6,363	40,484	43,484	44,484	45,484	0	0	0	0
Newstead	236	153	100	90	1,704	2,615	3,680	3,755	155,318	184,933	215,213	245,493	124,650	110,032	102,900	105,800
Total	1,523	1,346	1,206	1,114	9,167	10,973	13,068	13,603	644,157	691,982	760,897	847,947	327,660	289,470	232,028	198,788

Table B.11: Future Development (Charge Areas)

Charge Area	House				Multi-Unit Dwellings				Commercial and retail GFA				Industrial GFA			
	Existing & approved	2000 to 2005	2006 to 2010	2011 to 2015	Existing & approved	2000 to 2005	2006 to 2010	2011 to 2015	Existing & approved	2000 to 2005	2006 to 2010	2011 to 2015	Existing & approved	2000 to 2005	2006 to 2010	2011 to 2015
1	104	94	86	86	558	718	818	818	122,895	129,135	144,345	159,945	108,810	99,565	87,405	77,885
2	217	195	172	164	2,222	2,732	3,887	4,012	512,598	548,423	601,128	671,578	188,750	177,785	142,535	118,815
3	358	270	211	195	2,166	2,867	3,312	3,392	75,550	76,750	76,750	76,750	29,900	11,922	1,890	1,890
4	550	523	493	452	2,548	2,848	3,138	3,333	9,215	12,775	13,775	14,775	0	0	0	0
5	294	265	244	217	1,673	1,808	1,913	2,048	14,199	15,199	15,199	15,199	0	0	0	0
Total	1,523	1,346	1,206	1,114	9,167	10,973	13,068	13,603	734,457	782,282	851,197	938,247	327,460	289,272	231,830	198,590

Table B.12: Future Development (Suburbs)

Suburb	Existing & approved	2005	2010	2015
Bowen Hills	1,146	1,302	1,753	1,753
Fortitude Valley	3,366	3,734	4,298	4,455
New Farm	11,095	11,491	12,135	12,635
Newstead	3,395	4,844	6,615	6,729
Total	19,002	21,370	24,801	25,572

Table B.13: Forecast age profile

Note that the population estimates contained in Table C.13 are inaccurate. In applying this data, the proportions of the total population should be combined with the figures contained in Table C.12.

Age profile	1996		2001		2006		2011		Change 1996 to 2011		
	Number of people	% of total	Number of people	% of total	Number of people	% of total	Number of people	% of total	Number of people	% of total	% change
Below 14	865	7%	1,341	9%	1,992	11%	2,352	12%	1,487	24%	172%
15 to 24	2,099	16%	1,094	7%	1,083	6%	1,376	7%	-723	-12%	-34%
25 to 34	3,105	24%	3,894	26%	2,825	16%	1,357	7%	-1,748	-29%	-56%
35 to 44	1,778	14%	2,670	18%	4,403	24%	5,049	26%	3,271	54%	184%
45 to 54	1,486	11%	1,962	13%	2,616	15%	3,522	18%	2,036	33%	137%
55 to 64	1,156	9%	1,499	10%	1,907	11%	2,198	12%	1,042	17%	90%
65 to 74	1,082	8%	1,114	7%	1,358	8%	1,513	8%	431	7%	40%
Above 75	1,407	11%	1,605	11%	1,812	10%	1,707	9%	300	5%	21%
Total	12,978	100%	15,179	100%	17,995	100%	19,073	100%	6,095	100%	47%

Source: Planning Information and Forecasting Unit (2000)

Appendix C: Assumed development characteristics

Table C.1: Key residential development characteristics

Characteristic	House	Multi-Unit Dwelling
Yield (dwellings/developable hectare)	20	100
Site area for each dwelling (sqm)	500	100
Water consumption (litres/second)	0.06	0.04
Sewerage generation (litres/second)	0.0347	0.0243
Trip generation (trips/day)	8	8
Impervious area (developable area)	0.60	0.85

Table C.2: Key commercial, retail and industrial development characteristics

Characteristic	Commercial and retail (sqm GFA)	Industrial (sqm GFA)
Plot ratio (% of developable hectare)	1.00	1.00
Site area for each sqm of GFA (sqm)	1.00	1.00
GFA for each employee (sqm)	40	60
Water consumption (litres/second)	0.00004	0.00004
Sewerage generation (litres/second)	0.00004	0.00004
Trip generation (trips/day)	0.09	0.10
Impervious area (developable area)	0.95	0.95

Table C.3: Household occupancy (Suburb)

	2000 estimate	2005 forecast	2010 forecast	2015 forecast
Bowen Hills	1.6	1.65	1.7	1.7
Fortitude Valley	1.8	1.7	1.7	1.7
New Farm	1.8	1.75	1.75	1.75
Newstead	1.75	1.75	1.75	1.75

Table C.4: Planning Units contained within Suburbs

Suburb	Planning Unit
Bowen Hills	1-5, 7-10
Fortitude Valley	14, 15, 19-23
New Farm	18, 24-27
Newstead	6, 11-13, 16, 17

Table C.5: Planning Units contained within Charge Areas

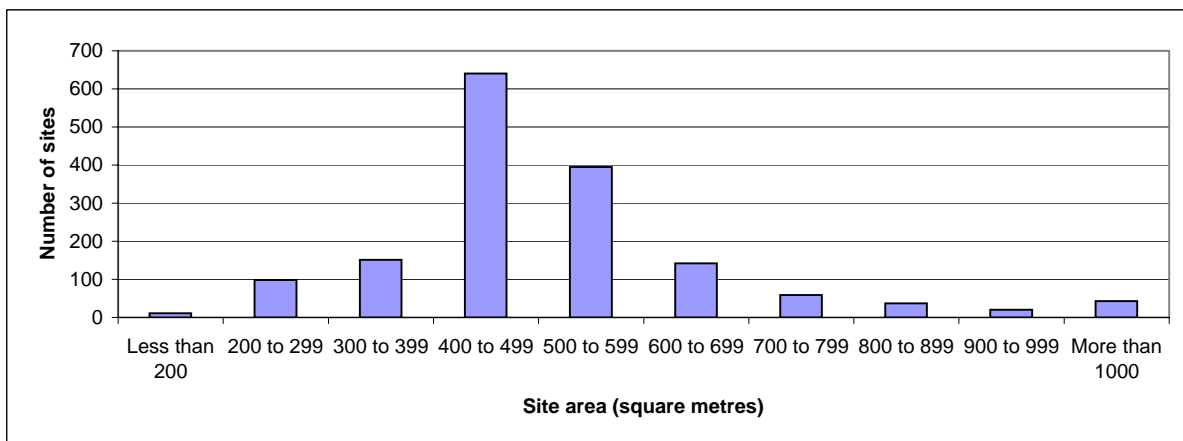
Charge Area	Planning Unit
1	1-5, 8, 14
2	6, 7, 9-11, 15,16,19-22
3	12, 13, 17, 18
4	23, 24, 26
5	25, 27

Table C.6: Sample development yields

	Site area (sqm)	Dwellings	Site area for each dwelling (sqm)	Yield (dwellings/hectare developable area)
Capricorn Wharf	10,500	31	339	30
The Bond Store	10,503	39	269	37
Greenwich Residences	11,110	54	206	49
CSR	73,200	365	201	50
Freshwater	11,600	70	166	60
100 Kent Street, New Farm	1,030	7	147	68
1 Griffith Street, New Farm	407	3	136	74
Parkside 108	2,557	22	116	86
Bells Square	8,900	80	111	90
The River Gallery	12,050	134	90	111
124 Sydney Street, New Farm	1,012	12	84	119
Parkleigh	5,059	64	79	127
The Moslyn on the Park	1,204	18	67	150
Teneriffe Village	5,020	79	64	157
Teneriffe Hill	3,981	66	60	166
McWhirters	5,628	114	49	203
The Cannery	9,984	205	49	205
Fortitude Village	1,633	36	45	220
Cathedral Place	15,049	519	29	345
Sun Apartments	1,186	42	28	354
Total	191,613	1,960	98	102

Source: Adapted from Matusik Property Insights (2000)

Figure C.1: Size of existing house sites



Appendix D: Waterways cost apportionment

Table D.1: Waterways ET conversion rates

	Conversion rate
House	1.0000
Multi unit dwelling	0.2833
Commercial and retail floor area	0.0032
Industrial floor area	0.0032

Table D.2: Forecast development as waterways ETs (Charge Areas 1, 3, 4 & 5)

	House	Multi unit dwelling	Commercial and retail floor area	Industrial floor area	Total
Existing Development	1,306	1,968	417	440	4,130
Future Development (2015)	950	2,717	559	253	4,479

Table D.4: Forecast Total Development as waterways ETs (Charge Areas 1, 3, 4 & 5)

	House	Multi unit dwelling	Commercial and retail floor area	Industrial floor area	Total
Year 2001	0	73	9	3	86
Year 2002	0	73	9	3	86
Year 2003	0	73	9	3	86
Year 2004	0	73	9	3	86
Year 2005	0	73	9	3	86
Year 2006	0	53	13	3	69
Year 2007	0	53	13	3	69
Year 2008	0	53	13	3	69
Year 2009	0	53	13	3	69
Year 2010	0	53	13	3	69
Year 2011	0	23	13	3	40
Year 2012	0	23	13	3	40
Year 2013	0	23	13	3	40
Year 2014	0	23	13	3	40
Year 2015	0	23	13	3	40
Total	0	750	176	48	974
NPV @ 6%	0	532	110	31	672

Table D.6: Forecast New Development as waterways ETs (Charge Areas 1, 3, 4 & 5)

	House	Multi unit dwelling	Commercial and retail floor area	Industrial floor area	Total
Year 2001	-31	73	8	-17	33
Year 2002	-31	73	8	-17	33
Year 2003	-31	73	8	-17	33
Year 2004	-31	73	8	-17	33
Year 2005	-31	73	8	-17	33
Year 2006	-24	53	10	-14	26
Year 2007	-24	53	10	-14	26
Year 2008	-24	53	10	-14	26
Year 2009	-24	53	10	-14	26
Year 2010	-24	53	10	-14	26
Year 2011	-17	23	11	-6	11
Year 2012	-17	23	11	-6	11
Year 2013	-17	23	11	-6	11
Year 2014	-17	23	11	-6	11
Year 2015	-17	23	11	-6	11
Total	-356	750	142	-187	349
NPV @ 6%	-244	532	89	-131	246

Table D.3: Forecast development as waterways ETs (Charge Area 2)

	House	Multi unit dwelling	Commercial and retail floor area	Industrial floor area	Total
Existing Development	217	630	1,623	598	3,068
Future Development (2015)	164	1,137	2,127	376	3,803

Table D.5: Forecast Total Development as waterways ETs (Charge Area 2)

	House	Multi unit dwelling	Commercial and retail floor area	Industrial floor area	Total
Year 2001	0	29	24	5	58
Year 2002	0	29	24	5	58
Year 2003	0	29	24	5	58
Year 2004	0	29	24	5	58
Year 2005	0	29	24	5	58
Year 2006	0	65	38	7	110
Year 2007	0	65	38	7	110
Year 2008	0	65	38	7	110
Year 2009	0	65	38	7	110
Year 2010	0	65	38	7	110
Year 2011	0	7	52	4	63
Year 2012	0	7	52	4	63
Year 2013	0	7	52	4	63
Year 2014	0	7	52	4	63
Year 2015	0	7	52	4	63
Total	0	507	567	81	1,155
NPV @ 6%	0	344	341	53	738

Table D.7: Forecast New Development as waterways ETs (Charge Area 2)

	House	Multi unit dwelling	Commercial and retail floor area	Industrial floor area	Total
Year 2001	-5	29	23	-7	40
Year 2002	-5	29	23	-7	40
Year 2003	-5	29	23	-7	40
Year 2004	-5	29	23	-7	40
Year 2005	-5	29	23	-7	40
Year 2006	-5	65	33	-22	72
Year 2007	-5	65	33	-22	72
Year 2008	-5	65	33	-22	72
Year 2009	-5	65	33	-22	72
Year 2010	-5	65	33	-22	72
Year 2011	-2	7	45	-15	35
Year 2012	-2	7	45	-15	35
Year 2013	-2	7	45	-15	35
Year 2014	-2	7	45	-15	35
Year 2015	-2	7	45	-15	35
Total	-54	507	503	-221	736
NPV @ 6%	-37	344	306	-135	478

Table D.8: Estimated and actual costs for LSMP work

LSMP	Project	Stage	Year of construction	LSMP estimate	Actual or quote	Variation	LSMP mult. Factor
Hendra - Doomben (Racecourse)	Mordant St	1	1998 to 2001	\$1,026,000	\$2,149,000	52%	2.09
Woolcock Park	Gilday St	D	1998/1999	\$301,237	\$983,538	69%	3.26
Sydney Street/Merthyr	Mark St	1	1998/2000	\$180,783	\$349,913	48%	1.94
	Sargent St	2	1998/2001	\$156,315	\$187,243	17%	1.20
	Sydney St	3	1999 to 2002	\$1,841,996	\$3,115,000	41%	1.69
	Grove St	H1	1998 to 2003	\$1,304,300	\$3,952,372	67%	3.03
Gelibrand St	Franz Rd	1	1999/2000	\$322,332	\$272,000	-19%	0.84
Hendra - Doomben (Kemble Street)	Park Av	13	1998/1999	\$151,000	\$275,913	45%	1.83
	Lydia St	1	1999 to 2001	\$326,000	\$750,000	57%	2.30
Castlemaine - Caxton	Black St	1	1999 to 2001	\$2,049,000	\$6,586,000	69%	3.21
Langsville	Coronation Drive	1	1999/2000	\$473,935	\$1,617,000	71%	3.41
Westerham Street	Westerham St	1	2001 to 2003	\$869,668	\$1,500,000	42%	1.72
Total				\$9,002,566	\$21,737,979	59%	2.41

Table D.9: Estimated and actual costs for LSMP work

LSMP	Project	Stage	Year of construction	LSMP estimate	Actual or quote	Variation	LSMP mult. Factor
Hendra - Doomben (Racecourse)	Mordant St	1	1998 to 2001	\$1,026,000	\$2,149,000	52%	2.09
Woolcock Park	Gilday St	D	1998/1999	\$301,237	\$983,538	69%	3.26
Sydney Street/Merthyr	Mark St	1	1998/2000	\$180,783	\$349,913	48%	1.94
	Sargent St	2	1998/2001	\$156,315	\$187,243	17%	1.20
	Sydney St	3	1999 to 2002	\$1,841,996	\$3,115,000	41%	1.69
	Grove St	H1	1998 to 2003	\$1,304,300	\$3,952,372	67%	3.03
Gelibrand St	Franz Rd	1	1999/2000	\$322,332	\$272,000	-19%	0.84
Hendra - Doomben (Kemble Street)	Park Av	13	1998/1999	\$151,000	\$275,913	45%	1.83
	Lydia St	1	1999 to 2001	\$326,000	\$750,000	57%	2.30
Castlemaine - Caxton	Black St	1	1999 to 2001	\$2,049,000	\$6,586,000	69%	3.21
Langsville	Coronation Drive	1	1999/2000	\$473,935	\$1,617,000	71%	3.41
Westerham Street	Westerham St	1	2001 to 2003	\$869,668	\$1,500,000	42%	1.72
Stratton Street	Valley Drainage	1	1998 to 2003	\$16,670,000	\$15,750,000	-6%	0.94
Total				\$25,672,566	\$37,487,979	32%	1.46

Table D.10: Cost estimates

LSMP	Stages	LSMP estimate	Years for construction	Revised budget estimates						Revised estimate
				98/99 FY	99/00 FY	00/01 FY	01/02 FY	02/03 FY	Future	
Sydney St / Merthyr	4 stages	\$2,550,000	5	\$537,000	\$850,000	\$850,000	\$1,275,000	\$788,000	\$0	\$4,300,000
Water-Campbell Streets	8 stages	\$3,800,000	8	\$0	\$0	\$0	\$1,200,000	\$0	\$6,400,000	\$7,600,000
New Farm - Teneriffe	4 stages	\$5,050,000	12	\$653,000	\$1,450,000	\$1,100,000	\$1,100,000	\$1,100,000	\$4,697,000	\$10,100,000
Stratton	18 stages	\$26,000,000	17	\$1,827,000	\$2,850,000	\$2,600,000	\$2,600,000	\$1,500,000	\$18,623,000	\$30,000,000
Total		\$37,400,000		\$3,017,000	\$5,150,000	\$4,550,000	\$6,175,000	\$3,388,000	\$29,720,000	\$52,000,000

Table D.11: Cost of apportioned items (Charge Areas 1, 3, 4 & 5)

Item description	Construction cost			Overhead cost				Total Cost	Year constructed	Discounted Cost (6%)
	Quantity	Rate	Subtotal	Contingency	Project	Construction	Subtotal			
Sydney Street/Merthyr catchment relief drainage (stage 1)			\$2,574,000			0%	\$0	\$2,574,000	2000	\$2,574,000
Sydney Street/Merthyr catchment relief drainage (stage 2)			\$2,585,000			10%	\$258,500	\$2,843,500	2003	\$2,387,457
Minor drainage			\$700,000			10%	\$70,000	\$770,000	2006	\$542,820
Preparation of LSMP			\$0			0%	\$75,000	\$75,000	2000	\$75,000
New Farm/Teneriffe catchment relief drainage (stage 1)			\$2,258,300			0%	\$0	\$2,258,300	2000	\$2,258,300
New Farm/Teneriffe catchment relief drainage (stage 2)			\$1,825,000			10%	\$182,500	\$2,007,500	2003	\$1,685,536
New Farm/Teneriffe catchment relief drainage (stage 3)			\$5,250,000			10%	\$525,000	\$5,775,000	2008	\$3,623,306
New Farm/Teneriffe catchment relief drainage (stage 4)			\$2,250,000			10%	\$225,000	\$2,475,000	2011	\$1,303,799
Minor drainage			\$600,000			10%	\$60,000	\$660,000	2006	\$465,274
Preparation of LSMP			\$0			0%	\$75,000	\$75,000	2000	\$75,000
Water Street/Campbell Street catchment relief drainage (stage 1)			\$1,200,000			10%	\$120,000	\$1,320,000	2003	\$1,108,297
Water Street/Campbell Street catchment relief drainage (stage 2)			\$2,550,000			10%	\$255,000	\$2,805,000	2008	\$1,759,892
Water Street/Campbell Street catchment relief drainage (stage 3)			\$1,250,000			10%	\$125,000	\$1,375,000	2013	\$644,654
Preparation of LSMP			\$0			0%	\$120,000	\$120,000	2000	\$120,000
ICP preparation			\$0			0%	\$22,500	\$22,500	2000	\$22,500
Total			\$23,042,300				\$2,113,500	\$25,155,800		\$18,645,835

Table D.12: Cost of apportioned items (Charge Area 2)

Item description	Construction cost			Overhead cost				Total Cost	Year constructed	Discounted Cost (6%)
	Quantity	Rate	Subtotal	Contingency	Project	Construction	Subtotal			
Stratton Street catchment relief drainage (stage 1)			\$7,630,700			0%	\$0	\$7,630,700	2000	\$7,630,700
Stratton Street catchment relief drainage (stage 2)			\$4,930,000			10%	\$493,000	\$5,423,000	2003	\$4,553,255
Stratton Street catchment relief drainage (stage 3)			\$1,450,000			10%	\$145,000	\$1,595,000	2008	\$1,000,723
Stratton Street catchment relief drainage (stage 4)			\$5,575,000			10%	\$557,500	\$6,132,500	2013	\$2,875,155
Stratton Street catchment relief drainage (stage 5)			\$8,050,000			10%	\$805,000	\$8,855,000	2015	\$3,694,882
Minor drainage			\$1,200,000			10%	\$120,000	\$1,320,000	2006	\$930,548
Preparation of LSMP			\$0			0%	\$140,000	\$140,000	2000	\$140,000
Detailed design			\$0			0%	\$250,000	\$250,000	2000	\$250,000
ICP preparation			\$0			0%	\$7,500	\$7,500	2000	\$7,500
Total			\$28,835,700				\$2,518,000	\$31,353,700		\$21,082,763

Base Year	2000
Discount Rate	6%

Table D.13: Cost apportionment (Charge Areas 1, 3, 4 & 5)

Item	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
Sydney Street/Merthyr catchment relief drainage (stage 1)	\$2,574,000	0%	\$0	78%	\$2,014,542	22%	\$559,458	672	\$832
Sydney Street/Merthyr catchment relief drainage (stage 2)	\$2,387,457	0%	\$0	78%	\$1,868,544	22%	\$518,913	672	\$772
Minor drainage	\$542,820	0%	\$0	0%	\$0	100%	\$542,820	672	\$807
Preparation of LSMP	\$75,000	0%	\$0	78%	\$58,699	22%	\$16,301	672	\$24
New Farm/Teneriffe catchment relief drainage (stage 1)	\$2,258,300	0%	\$0	78%	\$1,767,459	22%	\$490,841	672	\$730
New Farm/Teneriffe catchment relief drainage (stage 2)	\$1,685,536	0%	\$0	78%	\$1,319,185	22%	\$366,351	672	\$545
New Farm/Teneriffe catchment relief drainage (stage 3)	\$3,623,306	0%	\$0	78%	\$2,835,781	22%	\$787,525	672	\$1,171
New Farm/Teneriffe catchment relief drainage (stage 4)	\$1,303,799	0%	\$0	78%	\$1,020,419	22%	\$283,380	672	\$421
Minor drainage	\$465,274	0%	\$0	0%	\$0	100%	\$465,274	672	\$692
Preparation of LSMP	\$75,000	0%	\$0	78%	\$58,699	22%	\$16,301	672	\$24
Water Street/Campbell Street catchment relief drainage (stage 1)	\$1,108,297	0%	\$0	78%	\$867,409	22%	\$240,888	672	\$358
Water Street/Campbell Street catchment relief drainage (stage 2)	\$1,759,892	0%	\$0	78%	\$1,377,380	22%	\$382,512	672	\$569
Water Street/Campbell Street catchment relief drainage (stage 3)	\$644,654	0%	\$0	78%	\$504,538	22%	\$140,115	672	\$208
Preparation of LSMP	\$120,000	0%	\$0	78%	\$93,918	22%	\$26,082	672	\$39
ICP preparation	\$22,500	0%	\$0	0%	\$0	100%	\$22,500	672	\$33
Total	\$18,503,335		\$0		\$13,786,572		\$4,859,263		\$7,226

Component	\$/ET
Major trunk drainage	\$5,606
Minor trunk drainage	\$1,499
ICP preparation	\$121
Total	\$7,226

	Charge (ICUs)	Credit (ICUs)
House	7.226	0
Multi unit dwelling	2.047	0
Commercial and retail floor area	22.88	0.00
Industrial floor area	22.88	0.00

Table D.14: Cost apportionment (Charge Area 2)

Item	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
Stratton Street catchment relief drainage (stage 1)	\$7,630,700	0%	\$0	70%	\$5,312,911	30%	\$2,317,789	738	\$3,139
Stratton Street catchment relief drainage (stage 2)	\$4,553,255	0%	\$0	70%	\$3,170,226	30%	\$1,383,030	738	\$1,873
Stratton Street catchment relief drainage (stage 3)	\$1,000,723	0%	\$0	70%	\$696,758	30%	\$303,965	738	\$412
Stratton Street catchment relief drainage (stage 4)	\$2,875,155	0%	\$0	70%	\$2,001,841	30%	\$873,315	738	\$1,183
Stratton Street catchment relief drainage (stage 5)	\$3,694,882	0%	\$0	70%	\$2,572,579	30%	\$1,122,303	738	\$1,520
Minor drainage	\$930,548	0%	\$0	0%	\$0	100%	\$930,548	738	\$1,260
Preparation of LSMP	\$140,000	0%	\$0	70%	\$97,476	30%	\$42,524	738	\$58
Detailed design	\$250,000	0%	\$0	70%	\$174,064	30%	\$75,936	738	\$103
ICP preparation	\$7,500	0%	\$0	0%	\$0	100%	\$7,500	738	\$10
Total	\$21,082,763		\$0		\$14,025,854		\$7,056,909		\$9,556

Component	\$/ET
Major trunk drainage	\$8,125
Minor trunk drainage	\$1,260
ICP preparation	\$171
Total	\$9,556

	Charge (ICUs)	Credit (ICUs)
House	9.556	0
Multi unit dwelling	2.707	0
Commercial and retail floor area	30.26	0.00
Industrial floor area	30.26	0.00

Appendix E: Transport cost apportionment

Calculation of the value of using the road system

A lane of a Suburban Route level road costs about \$739,000 a kilometre to construct, based on the following formula:

$$\text{Cost (\$/km)} = (\text{Lane Width} \times 1,000 \times \text{Cost}) + \text{Services} + \text{Design and Construction Administration} + \text{Land Acquisition}$$

Where:

- Land Width is 3.5 metres
- Cost is \$100 per square metre
- Services add 40% to the direct construction costs (in established urban area)
- Design and Construction Administration is 10% of the construction cost (including services)
- Acquisitions is \$200,000 (1,000 m at \$200 m)

The cost per vehicle kilometre is \$73.90, based on a daily capacity of 10 000 vehicles per day.

The cost of intersections is \$1 million for each kilometre, which is calculated in the following way:

$$\text{Cost (\$)} = (1,000 / \text{Intersection Spacing}) \times \text{Cost of Intersection Upgrades}$$

Where:

- Intersection Spacing is 500 m
- Cost of Intersection Upgrades is \$500,000

Assuming that the capacity of a 4 leg Suburban Route standard intersection is 60 000 vehicles per day, the cost for each vehicle is \$16.67.

The total cost per vehicle kilometre is therefore \$90.57.

Table E.1: Trips from Total Development less existing approvals (Planning Units)

Planning Unit	House			Multi-Unit Dwellings			Commercial and retail			Industrial			Total			
	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	Total
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	45	270	720	500	500	500	545	770	1,220	2,535
3	0	0	0	0	0	0	90	270	270	0	0	0	90	270	270	630
4	0	0	0	520	480	0	585	1,215	810	0	0	0	1,105	1,695	810	3,610
5	0	0	0	80	320	0	0	0	0	0	0	80	320	0	400	
6	0	0	0	1,800	5,200	200	2,557	2,655	2,655	300	300	300	4,657	8,155	3,155	15,967
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	1,200	0	0	0	540	0	0	0	0	1,200	540	1,740
10	0	0	0	0	0	0	360	0	0	100	347	0	460	347	0	807
11	0	0	0	80	0	0	0	0	0	300	300	300	380	300	300	980
12	0	0	0	400	1,280	0	0	0	0	0	0	0	400	1,280	0	1,680
13	0	0	0	4,808	1,760	0	108	0	0	0	0	0	4,916	1,760	0	6,676
14	0	0	0	680	0	0	0	0	0	0	0	0	680	0	0	680
15	0	0	0	240	800	0	90	135	2,160	0	0	0	330	935	2,160	3,425
16	0	0	0	0	0	0	0	90	90	100	100	100	100	190	190	480
17	0	0	0	200	280	400	0	0	0	0	0	0	200	280	400	880
18	0	0	0	200	240	240	0	0	0	0	0	0	200	240	240	680
19	0	0	0	120	120	0	45	135	135	0	0	0	165	255	135	555
20	0	0	0	1,600	1,600	240	180	2,138	1,440	0	0	0	1,780	3,738	1,680	7,198
21	0	0	0	40	80	160	180	180	360	0	0	0	220	260	520	1,000
22	0	0	0	200	240	400	0	0	0	0	0	0	200	240	400	840
23	0	0	0	0	0	0	180	0	0	0	0	0	180	0	0	180
24	0	0	0	800	1,120	1,560	180	90	90	0	0	0	980	1,210	1,650	3,840
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	1,600	1,200	0	0	0	0	0	0	0	1,600	1,200	0	2,800
27	0	0	0	1,080	840	1,080	90	0	0	0	0	0	1,170	840	1,080	3,090
Total	0	0	0	14,448	16,760	4,280	4,690	7,178	9,270	1,300	1,547	1,200	20,438	25,485	14,750	60,673

Table E.2: Trips from Total Development less existing approvals (Suburbs)

Suburb	House			Multi-Unit Dwellings			Commercial and retail GFA			Industrial GFA			Total			
	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	Total
Bowen Hills	0	0	0	600	2,000	0	1,080	1,755	2,340	600	847	500	2,280	4,602	2,840	9,722
Fortitude Valley	0	0	0	2,880	2,840	800	675	2,588	4,095	0	0	0	3,555	5,428	4,895	13,878
New Farm	0	0	0	3,680	3,400	2,880	270	90	90	0	0	0	3,950	3,490	2,970	10,410
Newstead	0	0	0	7,288	8,520	600	2,665	2,745	2,745	700	700	700	10,653	11,965	4,045	26,663
Total	0	0	0	14,448	16,760	4,280	4,690	7,178	9,270	1,300	1,547	1,200	20,438	25,485	14,750	60,673

Table E.3: Trips from Total Development less existing approvals (Charge Areas)

Planning Unit	House			Multi-Unit Dwellings			Commercial and retail			Industrial			Total			
	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	2000 to 2005	2006 to 2010	2011 to 2015	Total
1	0	0	0	1,280	800	0	720	1,755	1,800	500	500	500	2,500	3,055	2,300	7,855
2	0	0	0	4,080	9,240	1,000	3,412	5,333	7,380	800	1,047	700	8,292	15,620	9,080	32,992
3	0	0	0	5,608	3,560	640	108	0	0	0	0	0	5,716	3,560	640	9,916
4	0	0	0	2,400	2,320	1,560	360	90	90	0	0	0	2,760	2,410	1,650	6,820
5	0	0	0	1,080	840	1,080	90	0	0	0	0	0	1,170	840	1,080	3,090
Total	0	0	0	14,448	16,760	4,280	4,690	7,178	9,270	1,300	1,547	1,200	20,438	25,485	14,750	60,673

Table E.4: Mode split from plan area (1992)

	Walk or bike	Private vehicle	Bus or ferry	Truck	Other	Total	Private vehicle (%)
Bowen Hills	2,062	15,394	451	0	2,262	20,169	76%
Fortitude Valley	4,624	8,658	1,715	88	2,081	17,166	50%
Fortitude Valley	3,383	9,724	877	56	1,253	15,293	64%
New Farm	6,223	10,302	1,869	605	505	19,504	53%
Newstead	1,065	12,234	261	0	309	13,869	88%

Table E.5: Mode split to plan area (1992)

	Walk or bike	Private vehicle	Bus or ferry	Truck	Other	Total	Private vehicle (%)
Bowen Hills	2,122	15,321	353	0	2,471	20,267	76%
Fortitude Valley	4,675	8,888	1,223	87	2,134	17,007	52%
Fortitude Valley	3,165	9,569	1,097	0	1,419	15,250	63%
New Farm	5,779	10,290	2,122	605	630	19,426	53%
Newstead	1,176	12,068	265	0	400	13,909	87%

Table E.6: Assumed proportion of trips by private vehicle

	% of trips
Bowen Hills	80%
Fortitude Valley - Inner	60%
Fortitude Valley - Outer	70%
New Farm	60%
Newstead	90%

Table E.7: Summary of forecast minor road deficiencies

Rd	Section		Level in hierarchy	Existing trips	Forecast additional trips	Total trips at the end of 2015	Deficiency volume
	From	To					
Barker St	Brunswick St	Moray St	Neighbourhood	3,400	1,500	4,900	3,000
Bowen Tce	Moray St	Barker St	Neighbourhood	2,300	350	2,650	3,000
Brunswick St	McLachlan St	Heal St	Suburban	15,000	7,000	22,000	20,000
Chester St	Ann St	Doggett St	Neighbourhood	2,000	2,000	4,000	3,000
Commercial Rd	Ann St	Florence St	District	6,000	5,000	11,000	10,000
Doggett St	Commercial Rd	Longland St	Neighbourhood	3,600	1,500	5,100	3,000
James St	McLachlan St	Merthyr Rd	District	8,000	8,000	16,000	10,000
Kingsholme St	Beeston St	MacQuarie St	Local	600	400	1,000	1,000
Lamington St	Merthyr Rd	Sydney St	District	3,700	2,000	5,700	10,000
Longland St	Ann St	Skyring Tce	Neighbourhood	6,000	2,000	8,000	3,000
Skyring Tce	Wyandra St	Commercial Rd	Neighbourhood	5,700	1,500	7,200	3,000
Sydney St	Brunswick St	James St	Neighbourhood	1,800	780	2,580	3,000
Sydney St	Brunswick St	Moray St	Neighbourhood	2,700	500	3,200	3,000
Wandoo St	Ann St	Doggett St	Neighbourhood	0	1,700	1,700	3,000
Welsby St	Brunswick St	James St	Neighbourhood	1,800	520	2,320	3,000

Table E.8: Summary of planned minor road treatments

Rd	Section	Planned treatment	Notes
Barker St	Between Brunswick St & Moray St	Modify Rd hierarchy	Encourage use instead of Moray St
Bowen Tce	Between Moray St & Barker St	Improvements	Encourage use instead of Moray St
Brunswick St	Between McLachlan St & Heal St	Accept increased volumes	Greater than 20,000 vpd
Chester St	Between Ann St & Doggett St	Accept increased volumes	Commercial Rd extension will reduce traffic volumes
Commercial Rd	Between Ann St & Florence St	Accept increased volumes	Commercial Rd extension will reduce traffic volumes
Doggett St	Between Commercial Rd & Longland St	Accept increased volumes	Commercial Rd extension will reduce traffic volumes
Evelyn St		Provide right turn out	Need for right turn out of Newstead area
Gray St	East of Merthyr St	Closure	Part of Freshwater Development (not included in ICP)
Helen St	Between Commercial Rd & Skyring Tce	Intersection & midblock treatments	Commercial Rd extension will reduce traffic volumes
James St	Between McLachlan St & Merthyr Rd	Review corridor requirements	Already constructed (volumes may already be lower)
Kingsholme St	Between Beeston St & MacQuarie St	Midblock treatments (100 m)	
Lamington St	Between Merthyr Rd & Sydney St	Accept increased volumes	Need access to Merthyr Rd
Longland St	Between Ann St & Skyring Tce	Accept increased volumes	Commercial Rd extension will reduce traffic volumes
Skyring Tce	Between Wyandra St & Commercial Rd	Intersection & midblock treatments	Commercial Rd extension will reduce traffic volumes
Sydney St	Between Brunswick St & James St	Midblock treatments (900 m)	
Sydney St	Between Brunswick St & Moray St	Midblock treatments (950 m)	Encourage use of Merthyr Rd or Oxlade St
Wandoo St	Between Ann St & Doggett St	Accept increased volumes	Significant new trips, will reduce with the Commercial Rd extension
Welsby St	Between Brunswick St & James St	Midblock treatments (900 m)	40% of 1,300 new trips
Wyandra St	Between Commercial Rd & Skyring Tce	Intersection & midblock treatments	Commercial Rd extension will reduce traffic volumes
Intersection	James St & Merthyr St	Upgrade	Improve traffic capacity and provide pedestrian facilities
Intersection	Moray St & Barker St	Improvements	Encourage use instead of Moray St
Intersection	Moray St & Bowen Tce	Improvements	Encourage use instead of Moray St
Intersection	Barker St & Bowen Tce	Upgrade	Better control with hierarchy modifications
Intersection	Longland Rd & Ann St	Left in/left out	With future Commercial Rd extension
Intersection	Commercial Rd & Florence St	Closure (change priority)	Use Vernon Tce & Commercial Rd
Intersection	Commercial Rd & Vernon Tce	Upgrade	Accommodate use of Commercial Rd
Intersection	Commercial Rd & Doggett St	Upgrade	Approaching capacity
Intersection	James St & Doggett St	Upgrade	Approaching capacity
Intersection	Chester St & Doggett St	Possible upgrade	Approaching capacity
Intersection	James St & Kent St	Possible upgrade	Approaching capacity
Intersection	Chester St & Arthur St	Upgrade	Safety
Intersection	Chester St & Harcourt St	Upgrade	Safety

Table E.9: Costs of planned minor road treatments

Rd	Section	Planned treatment	Quantity	Rate	Cost	Total link costs
Bowen Tce	Between Moray St & Barker St	Corridor improvements	300	\$20	\$6,000	
Bowen Tce	Intersection Bowen Tce & Bowen St	Minor intersection works	1	\$20,000	\$20,000	
Bowen Tce	Intersection Bowen Tce & Balfour St	Minor intersection works	1	\$20,000	\$20,000	
Bowen Tce	Intersection Bowen Tce & Barker St	Minor intersection works	1	\$20,000	\$20,000	\$66,000
Chester St	Intersection Chester St & Doggett St	Intersection upgrade	1	\$75,000	\$75,000	
Chester St	Intersection Chester St & Harcourt Rd	Intersection upgrade	1	\$75,000	\$75,000	
Chester St	Intersection Chester St & Arthur Tce	Intersection upgrade	1	\$75,000	\$75,000	\$225,000
Commercial Rd	Intersection Commercial Rd & Doggett St	Intersection upgrade	1	\$100,000	\$100,000	
Commercial Rd	Intersection Commercial Rd & Florence St	Intersection upgrade	1	\$100,000	\$100,000	
Commercial Rd	Intersection Commercial Rd & Vernon St	Intersection upgrade	1	\$200,000	\$200,000	\$400,000
Helen St	At Commercial Rd	Entry thresholds	1	\$20,000	\$20,000	\$20,000
James St	Between McLachlan St & Merthyr St	Remove treatments	1300	\$20	\$26,000	
James St	Intersection James St & Doggett St	Intersection upgrade	1	\$75,000	\$75,000	
James St	Intersection James St & Merthyr Rd	Intersection upgrade	1	\$75,000	\$75,000	
James St	Intersection James St & Kent St	Intersection upgrade	1	\$150,000	\$150,000	\$326,000
Kingsholme St	Between Gibbon St & Macquarie St	Midblock treatments	700	\$250	\$175,000	
Kingsholme St	At Gibbon St	Minor intersection works	1	\$20,000	\$20,000	\$195,000
Moray St	Between Bowen St & Barker St	Midblock treatments	300	\$250	\$75,000	
Moray St	Intersection Moray St & Bowen St	Minor intersection works	1	\$20,000	\$20,000	
Moray St	Intersection Moray St & Barker St	Minor intersection works	1	\$20,000	\$20,000	\$115,000
Sydney St	North of Brunswick St	Midblock treatments	500	\$250	\$125,000	
Sydney St	At Brunswick St (north) and James St	Entry thresholds	2	\$20,000	\$40,000	
Sydney St	South of Brunswick St	Midblock treatments	500	\$250	\$125,000	
Sydney St	At Brunswick St (south)	Entry thresholds	1	\$20,000	\$20,000	\$310,000
Welsby St	Between Brunswick St & James St	Midblock treatments	500	\$250	\$125,000	
Welsby St	Between Brunswick St & James St	Entry thresholds	2	\$20,000	\$40,000	\$165,000
Wyandra St	At Commercial Rd	Entry thresholds	1	\$20,000	\$20,000	\$20,000
Total					\$1,842,000	\$1,842,000

Table E.10: Apportionment of minor road treatment costs

Road	Section	Contributing Planning Areas	Proportion of total use	Proportion of treatment Costs	Total
Bowen Tce	Between Moray St & Barker St	26	100%	\$6,000	\$6,000
		26	85%	\$40,000	\$34,000
	Intersection Bowen Tce & Bowen St	27	10%	\$40,000	\$4,000
		56	5%	\$40,000	\$2,000
		26	70%	\$20,000	\$14,000
Intersection Bowen Tce & Barker St	27	30%	\$20,000	\$6,000	
	Chester St	Intersection Chester St & Doggett St	11	13%	\$75,000
12			8%	\$75,000	\$6,000
13			22%	\$75,000	\$16,500
16			36%	\$75,000	\$27,000
17			9%	\$75,000	\$6,750
18			2%	\$75,000	\$1,500
21			4%	\$75,000	\$3,000
22			1%	\$75,000	\$750
24			2%	\$75,000	\$1,500
26			1%	\$75,000	\$750
27		2%	\$75,000	\$1,500	
Intersections with Harcourt Rd & Arthur Tce		12	21%	\$150,000	\$31,500
		13	28%	\$150,000	\$39,000
		17	40%	\$150,000	\$60,000
		18	7%	\$150,000	\$10,500
		21	1%	\$150,000	\$1,500
		22	1%	\$150,000	\$1,500
	24	3%	\$150,000	\$4,500	
	26	1%	\$150,000	\$1,500	
Commercial Rd	Intersection Commercial Rd & Doggett St	11	14%	\$100,000	\$14,000
		12	12%	\$100,000	\$12,000
		13	59%	\$100,000	\$59,000
		16	5%	\$100,000	\$5,000
		17	4%	\$100,000	\$4,000
		18	1%	\$100,000	\$1,000
		21	1%	\$100,000	\$1,000
		24	1%	\$100,000	\$1,000
		25	1%	\$100,000	\$1,000
		27	2%	\$100,000	\$2,000
	Intersection Commercial Rd & Florence St	13	96%	\$100,000	\$96,000
		18	1%	\$100,000	\$1,000
		25	2%	\$100,000	\$2,000
	Intersection Commercial Rd & Vernon St	13	82%	\$200,000	\$164,000
		18	2%	\$200,000	\$4,000
25		16%	\$200,000	\$32,000	
Helen St	At Commercial Rd	12	20%	\$20,000	\$4,000
		13	71%	\$20,000	\$14,200
		17	5%	\$20,000	\$1,000
		18	1%	\$20,000	\$200
		25	2%	\$20,000	\$400
		27	1%	\$20,000	\$200
James St	Between McLachlan St & Merthyr St	27	6%	\$26,000	\$1,560
		13	53%	\$26,000	\$13,780
		18	6%	\$26,000	\$1,560
		24	10%	\$26,000	\$2,600
		25	20%	\$26,000	\$5,200
		26	5%	\$26,000	\$1,300
	Intersection James St & Doggett St	6	4%	\$75,000	\$3,000
		11	2%	\$75,000	\$1,500
		12	2%	\$75,000	\$1,500
		13	34%	\$75,000	\$25,500
		16	7%	\$75,000	\$5,250
		17	1%	\$75,000	\$750
		18	3%	\$75,000	\$2,250
		21	9%	\$75,000	\$6,750
		22	3%	\$75,000	\$2,250
		24	8%	\$75,000	\$6,000
		25	18%	\$75,000	\$13,500
	Intersection James St & Merthyr Rd	13	94%	\$75,000	\$70,500
		25	3%	\$75,000	\$2,250
		27	3%	\$75,000	\$2,250
		13	53%	\$150,000	\$79,500
18		6%	\$150,000	\$9,000	
Intersection James St & Kent St	24	10%	\$150,000	\$15,000	
	25	20%	\$150,000	\$30,000	
	26	5%	\$150,000	\$7,500	
	27	6%	\$150,000	\$9,000	
	13	60%	\$195,000	\$117,000	
	18	40%	\$195,000	\$78,000	
Moray St	Between Bowen St & Barker St	26	85%	\$75,000	\$63,750
		27	15%	\$75,000	\$11,250
	Intersection Moray St & Bowen St	26	85%	\$20,000	\$17,000
		27	10%	\$20,000	\$2,000
		56	5%	\$20,000	\$1,000
Intersection Moray St & Barker St	26	80%	\$20,000	\$16,000	
	27	20%	\$20,000	\$4,000	
Sydney St	North of Brunswick St	25	90%	\$165,000	\$148,500
		27	10%	\$165,000	\$16,500
	South of Brunswick St	27	100%	\$145,000	\$145,000
Welsby St	Total	25	90%	\$165,000	\$148,500
		27	10%	\$165,000	\$16,500
Wyandra St	At Commercial Rd	12	20%	\$20,000	\$4,000
		13	71%	\$20,000	\$14,200
		17	5%	\$20,000	\$1,000
		18	1%	\$20,000	\$200
		25	2%	\$20,000	\$400
		27	1%	\$20,000	\$200
Total					\$1,842,000

Table E.11: Summary of apportionment of minor road treatment costs

Contributing Planning Areas	Total costs	Proportion of total costs
6	\$3,000	0.2%
11	\$25,250	1.4%
12	\$59,000	3.2%
13	\$709,180	38.5%
16	\$37,250	2.0%
17	\$73,500	4.0%
18	\$109,210	5.9%
21	\$12,250	0.7%
22	\$4,500	0.2%
24	\$30,600	1.7%
25	\$383,750	20.8%
26	\$164,800	8.9%
27	\$226,750	12.3%
56	\$3,000	0.2%
Total	\$1,842,040	100.0%

Table E.12: Minor roads cost apportionment (Contribution Areas 1 to 5)

Contribution Area	Total costs	Trips from new development	Contribution for trip from new development	Contributions			
				House	Multi unit dwelling	Commercial & retail floor area	Industrial floor area
1	\$0	7,855	\$0.00	\$0	\$0	\$0.00	\$0.00
2	\$280,250	32,992	\$8.49	\$68	\$68	\$0.76	\$0.85
3	\$972,890	9,916	\$98.11	\$785	\$785	\$8.83	\$9.81
4	\$417,350	6,820	\$61.20	\$490	\$490	\$5.51	\$6.12
5	\$391,550	3,090	\$126.72	\$1,014	\$1,014	\$11.40	\$12.67
	\$2,062,040						

Table E.13: Components of the transport contribution rate (\$/ET)

Component	Contribution Area 1	Contribution Area 2a	Contribution Area 2b	Contribution Area 3a	Contribution Area 3b	Contribution Area 4	Contribution Area 5
Major roads	\$1,012	\$1,012	\$1,012	\$1,012	\$1,012	\$1,012	\$1,012
Minor roads	\$0	\$68	\$68	\$783	\$783	\$490	\$1,014
Infrastructure for buses	\$56	\$56	\$56	\$56	\$56	\$56	\$56
Infrastructure for ferries	\$0	\$0	\$453	\$0	\$453	\$0	\$550
Paths	\$135	\$135	\$135	\$135	\$135	\$135	\$135
Preparation	\$5	\$5	\$5	\$5	\$5	\$5	\$5
Total	\$1,208	\$1,276	\$1,729	\$1,991	\$2,444	\$1,698	\$2,772

Table E.14: Transport contribution rates (ICUs)

Type of development	Contribution Area 1	Contribution Area 2a	Contribution Area 2b	Contribution Area 3a	Contribution Area 3b	Contribution Area 4	Contribution Area 5
House	1,208	1,276	1,729	1,991	2,444	1,698	2,772
Multi unit dwelling	1,208	1,276	1,729	1,991	2,444	1,698	2,772
Commercial and retail floor area	13.65	14.42	19.54	22.50	27.62	19.18	31.32
Industrial floor area	15.10	15.95	21.61	24.89	30.55	21.22	34.65

Table E.15: Components of the transport credit rate (\$/ET)

	Contribution Areas 1 to 5
Major roads	\$1,012
Minor roads	\$0
Infrastructure for buses	\$56
Infrastructure for ferries	\$0
Paths	\$135
Preparation	\$0
Total	\$1,203

Table E.16: Transport credit rates (ICUs)

	Contribution Areas 1 to 5
House	1,203
Multi unit dwelling	1,203
Commercial and retail floor area	13.59
Industrial floor area	15.04

The vast majority of community facilities and services serve a specific market or group of people from the metropolitan area, such as the Qld Leukaemia Foundation headquarters. Few community facilities and services provide a central community gathering space or information and advice centre that local residents can readily access at any time. For example, of the 165 community facilities and services identified within the inner north-eastern suburbs, only 5 provide a community centre function. Two of these centres are associated with churches, two are associated with particular ethnic groups, and only one operates as a general neighbourhood centre.

Analysis of future requirements

Benchmark rates of provision – Council services

Facility or service	Benchmark	Need for additional facilities
Community centre	1:10 000 to 1:20 000	Additional facilities required
Community hall	1:10 000 to 1:30 000	Additional facilities required
Community information	1:25 000	Existing facilities at library adequate
Community transport	1:20 000 to 1:30000	Existing facilities adequate
Cultural centre or gallery	1:30 000	Existing facilities adequate
Indoor leisure centre	1:50 000 to 1:100 000	Existing facilities adequate
Library	1:20 000	Existing facilities adequate
Local community centre	1:7 000	Additional facilities required
Playgrounds and local parks	Within 500 m of residents	Additional facilities required
Sports fields	1:3,000	Additional kick about area required
Structured recreation facilities	1:2 000	Existing facilities adequate.
Swimming centre	1:50 000	Existing facilities adequate.

Benchmark rates of provision – Other services

Facility or service	Benchmark	Need for additional facilities
Aged persons facility	1:10 000 to 1:20 000	DFYCC to confirm
Child care (including occasional care)	1 place for every 10 children aged >4 years	Office of Child Care. No future facilities planned
Community health centre	1:5 000 (local) 1:10 000 (neighbourhood) 1:30 000 to 1:50 000 (district)	Queensland Health. Broader catchment
Hospital	100 beds for every 20 000 to 30 000 residents	Queensland Health. Broader catchment
Primary schools (600 to 850 places)	1:3 800 to 1:5 800	Education Queensland. No future schools planned
Secondary schools (1 200 to 1 500 places)	1:14 400 to 1:20 800	Education Queensland. No future schools planned
Supported accommodation	1:50 000 (youth) 1:80 000 (women) 1:90 000 (family)	DFYCC to confirm
Youth centre	1:10 000 to 1:20 000	DFYCC to confirm

Appendix F: Community purposes supporting information

Existing facilities

A summary is provided below of the existing provision of community facilities in the inner north-eastern suburbs.

Bowen Hills

Existing services and facilities

	Local	District	Regional	Metropolitan
Community		1 church 1 medical centre 1 railway station	2 clubs 1 community service 1 nursing home 1 reception centre 1 welfare centre/ service	1 exhibition grounds 1 railway station 4 welfare centre/ service
Cultural		2 museums	1 art gallery 1 auditorium 1 theatre	
Recreation	1 park			1 restaurant boardwalk
Sport		1 bowls club		1 soccer ground 1 speedway 1 sport development service

- The existing number of community, cultural, recreation and sport facilities and services in Bowen Hills is relatively low.
- Only 1 of the 24 identified facilities and services serve a local catchment, whilst the rest serve either a district, regional or metropolitan catchment (4%).
- Only 2 of the 24 identified facilities and services provide recreation opportunities (8%).

Conclusions

- There is a lack of *local* community, cultural, recreation and sport opportunities generally, although existing higher level facilities and services may provide some opportunities for the local community.
- There is a lack of recreation opportunities generally. The only park (Bowen Park on Bowen Bridge Road) is further than 500 metres from the Bowen Hill residential area.
- There is a limited range of sporting opportunities. Existing opportunities are restricted to lawn bowls, soccer and the speedway.
- Most sporting facilities and services are major facilities that serve the region or wider metropolitan area, such as the Brisbane Strikers Social Club and soccer ground and the Exhibition Speedway.

Fortitude Valley

Existing services and facilities

	Local	District	Regional	Metropolitan
Community	5 child care centres 2 churches 5 medical centres/ services 1 police station (shop front)	4 churches 3 clubs 1 health centre/ service 1 hostel 2 medical centres/	2 churches 1 community centre 4 community services 1 fire station 1 nursing home 1 public housing	1 church 7 clubs 3 community services 1 medical centre/ service 1 railway station

	Local	District	Regional	Metropolitan
	1 primary school 2 public housings 1 shop/ shopping centre	services 1 police station 2 shops/ shopping centres 7 welfare centres/ services	1 secondary school 1 SES 10 welfare centres/ services 1 youth centre/ service	1 tertiary college 7 welfare centres/ services 2 youth centres/ services
Cultural		1 cinema	10 art galleries 1 cinema	1 art gallery 2 art/ craft centres 1 club 2 malls
Recreation	1 billiard room 1 park	1 park	1 bingo hall 3 dance studios 1 scouts	
Sport	1 fitness centre/ gym		1 indoor sports centre	1 club 1 darts hall 1 indoor sports centre 1 sports development service 1 swimming pool

- The existing number of community, cultural, recreation and sport facilities and services is relatively high.
- Only 20 of the 118 identified facilities and services serve a local catchment (17%). The majority of identified facilities and services serve a regional or metropolitan catchment (75 of 118 or 64%).
- The vast majority of identified facilities and services are community facilities and services (86 of 118 or 73%).
- Only 8 of the 118 identified facilities and services provide recreation opportunities (7%) and only 7 provide sport opportunities (6%).

Conclusions

- There is a lack of *local* and *district* cultural, recreation and sport opportunities generally, although existing higher level cultural, recreation and sport facilities and services may provide some opportunities for the local and district communities.
- There is a lack of recreation opportunities generally.
- There is a considerable range of sport opportunities, particularly indoor sport.
- The majority of sport facilities and services are major facilities that serve the region or wider metropolitan area, such as the Fortitude Valley Swimming Pool and the Brisbane Indoor Sports Centre.

New Farm

Existing services and facilities

	Local	District	Regional	Metropolitan
Community	5 child care centres 1 church 1 ferry stop 1 health centre/ service 2 primary schools	3 churches 1 club 3 community centres 1 ferry stop 2 halls 1 health centre/ service 2 hostels 1 library 5 medical centres/ services	1 church 2 community services 4 hostels 7 nursing homes 1 shop/ shopping centre 3 welfare centres/ services	1 community service 1 hospital 1 hostel 2 welfare centres/ services

	Local	District	Regional	Metropolitan
		1 police station 1 special school 4 welfare centres/ services		
Cultural		1 theatre	8 art galleries 1 cinema	1 theatre
Recreation	1 park	1 bike track 2 parks 1 riverside promenade		1 park
Sport	1 swimming pool	2 bowls clubs 1 croquet club 1 petanque club 1 soccer ground		

- The existing number of community, cultural, recreation and sport facilities and services is relatively high.
- Only 12 of the 80 identified facilities and services serve a local catchment (15%). The majority of identified facilities and services serve a district or regional catchment (59 of 80 or 74%).
- Only 6 of the 80 identified facilities and services provide recreation opportunities (8%) and only 6 provide sport opportunities (8%).

Conclusions

- There is a lack of *local* cultural, recreation and sport opportunities generally, although existing higher level cultural, recreation and sport facilities and services may provide some opportunities for the local community.
- There is a lack of recreation and sport opportunities generally.
- There is a limited range of sport opportunities. Existing opportunities are restricted to croquet, lawn bowls, pitanque, soccer and swimming.
- All but one of the existing recreation and sport opportunities serve a local or district catchment. Residents are required to travel out of the area to participate in higher level recreation and particularly sport activities.

Newstead

Existing services and facilities

	Local	District	Regional	Metropolitan
Community		1 medical centre/ service		1 club
Cultural			1 art/ craft centre 2 art galleries	1 museum
Recreation	2 parks	1 riverside promenade		1 park
Sport				

- The existing number of community, cultural, recreation and sport facilities and services is relatively low.
 - There are no local or district community or cultural facilities or services.
 - There are no sport facilities or services.
 - The majority of identified facilities and services serve a regional or metropolitan catchment (9 of 12 or 75%).
-

Conclusions

- There is a lack of *local* and *district* community, cultural, recreation and sport opportunities generally, although existing higher level facilities and services may provide some opportunities for the local and district communities.
- There are no sport opportunities. Residents are required to travel out of the area to participate in sport activities.

Teneriffe

Existing services and facilities

	Local	District	Regional	Metropolitan
Community	1 shop/ shopping centre	1 church 1 ferry stop 1 health centre/ service		1 community centre 1 youth centre/ service
Cultural			1 heritage interpretation facility	1 cultural centre
Recreation		1 park 1 riverside promenade		1 park
Sport				

- The existing number of community, cultural, recreation and sport facilities and services is relatively low.
- Only 1 of the 12 identified facilities and services serve a local catchment (8%), whilst the rest serve either a district, regional or metropolitan catchment.
- The majority of facilities and services are community facilities and services (7 of 12 or 58%).
- There are no sport facilities or services.

Conclusions

- There is a lack of *local* community, cultural, recreation and sport opportunities generally, although some of the higher level facilities and services would provide some opportunities for the local community.
- There are no sport opportunities. Residents are required to travel out of the area to participate in sport activities.

Overall conclusions

There is a general lack of *local* community, cultural, recreation and sport facilities in the inner north-eastern suburbs. Most facilities serve a district, regional or metropolitan catchment, although they may provide some opportunities for the local community.

There is also a general lack of sport facilities, particularly in Newstead and Teneriffe. Swimming and indoor sports are well catered for in Fortitude Valley with the swimming pool, the PCYC and the Brisbane Indoor Sports Centre. However, residents are generally required to travel outside the area to participate in outdoor field or court sports. There are a number of outdoor sport facilities within approximately 1 kilometre of the plan area that residents from the area can readily access. These include the Victoria Park Golf Course and Centenary Swimming Pool in Herston, the Downey Park netball, softball and hockey complex, the Windsor Park athletics and football facilities in Windsor, and the Crosby Park cricket and rugby union facilities in Albion.

The vast majority of community facilities and services serve a specific market or group of people from the metropolitan area, such as the Qld Leukaemia Foundation headquarters. Few community facilities and services provide a central community gathering space or information and advice centre that local residents can readily access at any time. For example, of the 165 community facilities and services identified within the inner north-eastern suburbs, only 5 provide a community centre function. Two of these centres are associated with churches, two are associated with particular ethnic groups, and only one operates as a general neighbourhood centre.

Analysis of future requirements

Benchmark rates of provision – Council services

Facility or service	Benchmark	Need for additional facilities
Community centre	1:10 000 to 1:20 000	Additional facilities required
Community hall	1:10 000 to 1:30 000	Additional facilities required
Community information	1:25 000	Existing facilities at library adequate
Community transport	1:20 000 to 1:30000	Existing facilities adequate
Cultural centre or gallery	1:30 000	Existing facilities adequate
Indoor leisure centre	1:50 000 to 1:100 000	Existing facilities adequate
Library	1:20 000	Existing facilities adequate
Local community centre	1:7 000	Additional facilities required
Playgrounds and local parks	Within 500 m of residents	Additional facilities required
Sports fields	1:3,000	Additional kick about area required
Structured recreation facilities	1:2 000	Existing facilities adequate.
Swimming centre	1:50 000	Existing facilities adequate.

Benchmark rates of provision – Other services

Facility or service	Benchmark	Need for additional facilities
Aged persons facility	1:10 000 to 1:20 000	DFYCC to confirm
Child care (including occasional care)	1 place for every 10 children aged >4 years	Office of Child Care. No future facilities planned
Community health centre	1:5 000 (local) 1:10 000 (neighbourhood) 1:30 000 to 1:50 000 (district)	Queensland Health. Broader catchment
Hospital	100 beds for every 20 000 to 30 000 residents	Queensland Health. Broader catchment
Primary schools (600 to 850 places)	1:3 800 to 1:5 800	Education Queensland. No future schools planned
Secondary schools (1 200 to 1 500 places)	1:14 400 to 1:20 800	Education Queensland. No future schools planned
Supported accommodation	1:50 000 (youth) 1:80 000 (women) 1:90 000 (family)	DFYCC to confirm
Youth centre	1:10 000 to 1:20 000	DFYCC to confirm

Appendix G: Community purposes cost apportionment

Table G.1: Community purposes ET conversion rates

	Conversion rates
House	1.0000
Mult unit dwelling	1.0000
Commercial and retail floor area	0.0096
Industrial floor area	0.0064

Table G.2: Forecast development as community purposes ETs (Charge Areas 1 to 5)

	House	Multi unit dwelling	Commercial and retail floor area	Industrial floor area	Total
Existing	1,523	9,167	6,184	2,097	18,971
Year 2015	1,114	13,603	8,140	1,272	24,129

Table G.3: Forecast Total Development (less existing approvals) as community purposes ETs (Charge Areas 1 to 5)

	House	Multi unit dwelling	Commercial and retail floor area	Industrial floor area	Total
Year 2001	0	361	100	17	478
Year 2002	0	361	100	17	478
Year 2003	0	361	100	17	478
Year 2004	0	361	100	17	478
Year 2005	0	361	100	17	478
Year 2006	0	419	153	20	592
Year 2007	0	419	153	20	592
Year 2008	0	419	153	20	592
Year 2009	0	419	153	20	592
Year 2010	0	419	153	20	592
Year 2011	0	107	198	15	320
Year 2012	0	107	198	15	320
Year 2013	0	107	198	15	320
Year 2014	0	107	198	15	320
Year 2015	0	107	198	15	320
Total	0	4,436	2,255	259	6,950
NPV @ 6%	0	3,092	1,369	169	4,629

Table G.4: Forecast New Development as community purposes ETs (Charge Areas 1 to 5)

	House	Multi unit dwelling	Commercial and retail floor area	Industrial floor area	Total
Year 2001	-35	361	92	-49	369
Year 2002	-35	361	92	-49	369
Year 2003	-35	361	92	-49	369
Year 2004	-35	361	92	-49	369
Year 2005	-35	361	92	-49	369
Year 2006	-28	419	132	-74	450
Year 2007	-28	419	132	-74	450
Year 2008	-28	419	132	-74	450
Year 2009	-28	419	132	-74	450
Year 2010	-28	419	132	-74	450
Year 2011	-18	107	167	-43	213
Year 2012	-18	107	167	-43	213
Year 2013	-18	107	167	-43	213
Year 2014	-18	107	167	-43	213
Year 2015	-18	107	167	-43	213
Total	-409	4,436	1,956	-825	5,158
NPV @ 6%	-281	3,092	1,196	-537	3,470

Table G.5: Cost of apportioned items (Charge Areas 1 to 5)

Item description	Land acquisition cost			Construction cost				Total cost	Year constructed	Net Present Value		
	Quantity	Rate	Subtotal	Quantity	Rate	Subtotal	Indirect cost				Subtotal	Total
Acquisition of Bowen Hills local park			\$950,000			\$0		\$0	\$0	\$950,000	2000	\$950,000
Acquisition of Howard Smith Wharves			\$3,600,000			\$0		\$0	\$0	\$3,600,000	2000	\$3,600,000
Acquisition of Bowen Hills local park			\$1,050,000			\$0		\$0	\$0	\$1,050,000	2008	\$658,783
Acquisition of New Farm pocket park			\$340,000			\$0		\$0	\$0	\$340,000	2008	\$213,320
Improvements to Bowen Park			\$0			\$23,000	10%	\$2,300	\$25,300	\$25,300	2003	\$21,242
Improvements to Newstead Park			\$0			\$95,000	10%	\$9,500	\$104,500	\$104,500	2003	\$87,740
Improvements to Mariners Reach			\$0			\$36,000	10%	\$3,600	\$39,600	\$39,600	2003	\$33,249
Improvements to planned Bowen Hills local park			\$0			\$120,000	10%	\$12,000	\$132,000	\$132,000	2003	\$110,830
Improvements to planned Cloudland Park			\$0			\$50,000	10%	\$5,000	\$55,000	\$55,000	2003	\$46,179
Improvements to Sir Manual Hornbybrook Park			\$0			\$60,000	10%	\$6,000	\$66,000	\$66,000	2003	\$55,415
Improvements to New Farm Park			\$0			\$440,000	10%	\$44,000	\$484,000	\$484,000	2006	\$341,201
Improvements to Powerhouse Park			\$0			\$60,000	10%	\$6,000	\$66,000	\$66,000	2008	\$41,409
Improvements to Perry Park			\$0			\$6,000	10%	\$600	\$6,600	\$6,600	2008	\$4,141
Improvements to planned Bowen Hills local park			\$0			\$120,000	10%	\$12,000	\$132,000	\$132,000	2008	\$82,818
Improvements to planned New Farm pocket park			\$0			\$50,000	10%	\$5,000	\$55,000	\$55,000	2008	\$34,508
Improvements to Tenerife Park			\$0			\$80,000	10%	\$8,000	\$88,000	\$88,000	2008	\$55,212
Improvements to Wilson Outlook Reserve			\$0			\$20,000	10%	\$2,000	\$22,000	\$22,000	2008	\$13,803
Improvements to Merthyr Park			\$0			\$125,000	10%	\$12,500	\$137,500	\$137,500	2011	\$72,433
Improvements to Booroodabin Recreation Reserve			\$0			\$6,000	10%	\$600	\$6,600	\$6,600	2013	\$3,094
Improvements to Ross Street			\$0			\$36,000	10%	\$3,600	\$39,600	\$39,600	2013	\$18,566
Construct Amity House boardwalk			\$0			\$265,000		\$0	\$265,000	\$265,000	2001	\$250,000
Upgrade links Griffith Street to Oxlade Drive			\$0			\$2,880,000		\$0	\$2,880,000	\$2,880,000	2001	\$2,716,981
Construct floating walkway			\$0			\$7,400,000		\$0	\$7,400,000	\$7,400,000	2002	\$6,585,974
Improvements to Howard Smith Wharf			\$0			\$4,614,000		\$0	\$4,614,000	\$4,614,000	2003	\$3,874,003
Construct Powerhouse boardwalk			\$0			\$779,000		\$0	\$779,000	\$779,000	2008	\$488,754
Design and coningencies			\$0			\$0		\$900,000	\$900,000	\$900,000	2000	\$900,000
Acquisition and preparation of land for Bowen Hills neighbourhood centre			\$370,000			\$35,000		\$17,500	\$52,500	\$422,500	2010	\$235,922
Acquisition and preparation of land for Fortitude Valley neighbourhood centre			\$630,000			\$35,000		\$30,000	\$65,000	\$695,000	2005	\$519,344
New Farm library site			\$500,000			\$0		\$0	\$0	\$500,000	2000	\$500,000
ICP preparation			\$0			\$35,000		\$0	\$35,000	\$35,000	2000	\$35,000
Total			\$7,440,000			\$17,370,000		\$0	\$35,000	\$25,890,200		\$22,549,923

Base Year	2000
Discount Rate	6%

Component	NPV
Acquisition of PRL	\$5,422,103
Improvements to PRL	\$1,021,841
RiverWalk	\$11,848,731
Acquisition of land for other community purposes	\$1,255,266
ICP preparation	\$35,000
Total	\$19,582,942

Table G.6: Cost Apportionment (Charge Areas 1 to 5)

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 (\$/ET)
Acquisition of Bowen Hills local park	\$950,000	0%	\$0	0%	\$0	100%	\$950,000	3,470	\$274
Acquisition of Howard Smith Wharves	\$3,600,000	67%	\$2,400,000	24%	\$854,374	10%	\$345,626	3,470	\$100
Acquisition of Bowen Hills local park	\$658,783	0%	\$0	0%	\$0	100%	\$658,783	3,470	\$190
Acquisition of New Farm pocket park	\$213,320	0%	\$0	0%	\$0	100%	\$213,320	3,470	\$61
Improvements to Bowen Park	\$21,242	0%	\$0	0%	\$0	100%	\$21,242	3,470	\$6
Improvements to Newstead Park	\$87,740	0%	\$0	0%	\$0	100%	\$87,740	3,470	\$25
Improvements to Mariners Reach	\$33,249	0%	\$0	0%	\$0	100%	\$33,249	3,470	\$10
Improvements to planned Bowen Hills local park	\$110,830	0%	\$0	0%	\$0	100%	\$110,830	3,470	\$32
Improvements to planned Cloudland Park	\$46,179	0%	\$0	0%	\$0	100%	\$46,179	3,470	\$13
Improvements to Sir Manual Hornbybrook Park	\$55,415	0%	\$0	0%	\$0	100%	\$55,415	3,470	\$16
Improvements to New Farm Park	\$341,201	0%	\$0	0%	\$0	100%	\$341,201	3,470	\$98
Improvements to Powerhouse Park	\$41,409	0%	\$0	0%	\$0	100%	\$41,409	3,470	\$12
Improvements to Perry Park	\$4,141	0%	\$0	0%	\$0	100%	\$4,141	3,470	\$1
Improvements to planned Bowen Hills local park	\$82,818	0%	\$0	0%	\$0	100%	\$82,818	3,470	\$24
Improvements to planned New Farm pocket park	\$34,508	0%	\$0	0%	\$0	100%	\$34,508	3,470	\$10
Improvements to Teneriffe Park	\$55,212	0%	\$0	0%	\$0	100%	\$55,212	3,470	\$16
Improvements to Wilson Outlook Reserve	\$13,803	0%	\$0	0%	\$0	100%	\$13,803	3,470	\$4
Improvements to Merthyr Park	\$72,433	0%	\$0	0%	\$0	100%	\$72,433	3,470	\$21
Improvements to Booroodabin Recreation Reserve	\$3,094	0%	\$0	0%	\$0	100%	\$3,094	3,470	\$1
Improvements to Ross Street	\$18,566	0%	\$0	0%	\$0	100%	\$18,566	3,470	\$5
Construct Amity House boardwalk	\$250,000	67%	\$166,667	24%	\$59,332	10%	\$24,002	4,629	\$5
Upgrade links Griffith Street to Oxlade Drive	\$2,716,981	67%	\$1,811,303	24%	\$644,823	10%	\$260,855	4,629	\$56
Construct floating walkway	\$6,585,974	67%	\$4,390,605	24%	\$1,563,054	10%	\$632,314	4,629	\$137
Improvements to Howard Smith Wharf	\$3,874,003	67%	\$2,582,643	24%	\$919,420	10%	\$371,940	4,629	\$80
Construct Powerhouse boardwalk	\$488,754	67%	\$325,833	24%	\$115,996	10%	\$46,925	4,629	\$10
Design and contingencies	\$900,000	67%	\$599,994	24%	\$213,598	10%	\$86,408	4,629	\$19
Acquisition and preparation of land for Bowen Hills neighbourhood centre	\$235,922	20%	\$47,184	57%	\$134,377	23%	\$54,361	4,629	\$12
Acquisition and preparation of land for Fortitude Valley neighbourhood centre	\$519,344	20%	\$103,869	57%	\$295,809	23%	\$119,666	4,629	\$26
New Farm library site	\$500,000	10%	\$50,000	64%	\$320,390	26%	\$129,610	4,629	\$28
ICP preparation	\$35,000	0%	\$0	0%	\$0	100%	\$35,000	4,629	\$8
Total	\$22,549,923		\$12,478,097		\$5,121,173		\$4,950,652		\$1,300

Component	\$/ET
New parks	\$625
Park upgrades	\$294
RiverWalk	\$307
Land for community purposes	\$66
ICP preparation	\$8
Total	\$1,300

	Charge (ICUs)	Credit (ICUs)
House	1,300	885
Multi unit dwelling	1,300	885
Commercial and retail floor area	12.48	8.50
Industrial floor area	8.32	5.66

Appendix H: Explanatory Notes for Newstead Ferry Catchment

Summary of Projections for Newstead Ferry Catchment

	Existing and Future Growth (Number of dwellings or GFA (m ²))		
	2006	2011	2016
Residential – Attached Dwellings	1,845	2,387	3,146
Residential – Detached Dwellings	272	278	278
Commercial GFA (m ²)	101,972	128,372	165,003
Industrial GFA (m ²)	49,037	61,733	79,348

	Existing and Future Demand in ETs			
	2006	2006-2011	2011-2016	Total ETs
Residential – Attached Dwellings	1,845	542	759	3146
Residential – Detached Dwellings	272	6	0	278
Commercial	1152	298	414	1865*
Industrial	613	159	220	992
TOTALS	3882	1,005	1,393	

*Decimal points have been rounded to the nearest whole ET

	2006	2009#	2014#	
Total ETs	3882	1,005	1,393	
Present Value of ETs (discounted to 2001)**	2901	631	653	4185

Year illustrated is the mid-point of the five year planning period

** A 6% real discount rate has been used to calculate demand

Cost Apportionment for Sub-Contribution Areas 2B and 3B

Cost of Ferry Terminal (2012)	\$4,000,000
Cost discounted by 6% to 2001 (dollars)	\$2,107,150
Percentage of total cost apportioned to external users (5% within INES PSP area and 5% external to PSP area)	10%
Percentage of total cost apportioned to Sub-Contribution Areas 2b and 3b	90%
90% of total ferry terminal cost apportioned to Sub-Contribution Areas 2b and 3b	\$1,896,435
Present Value of ETs (discounted to 2001) (see above)	4185
Total Cost per ET (2001 dollars)	\$453