

Rockdale Section 94 Contributions Plan 2004

(Incorporating Amendments 1-5)

Prepared for

Rockdale City Council

by

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- Scott Carver Pty Ltd, and
- Rockdale City Council

Effected 1 June 2004
Last amended 4 November 2010

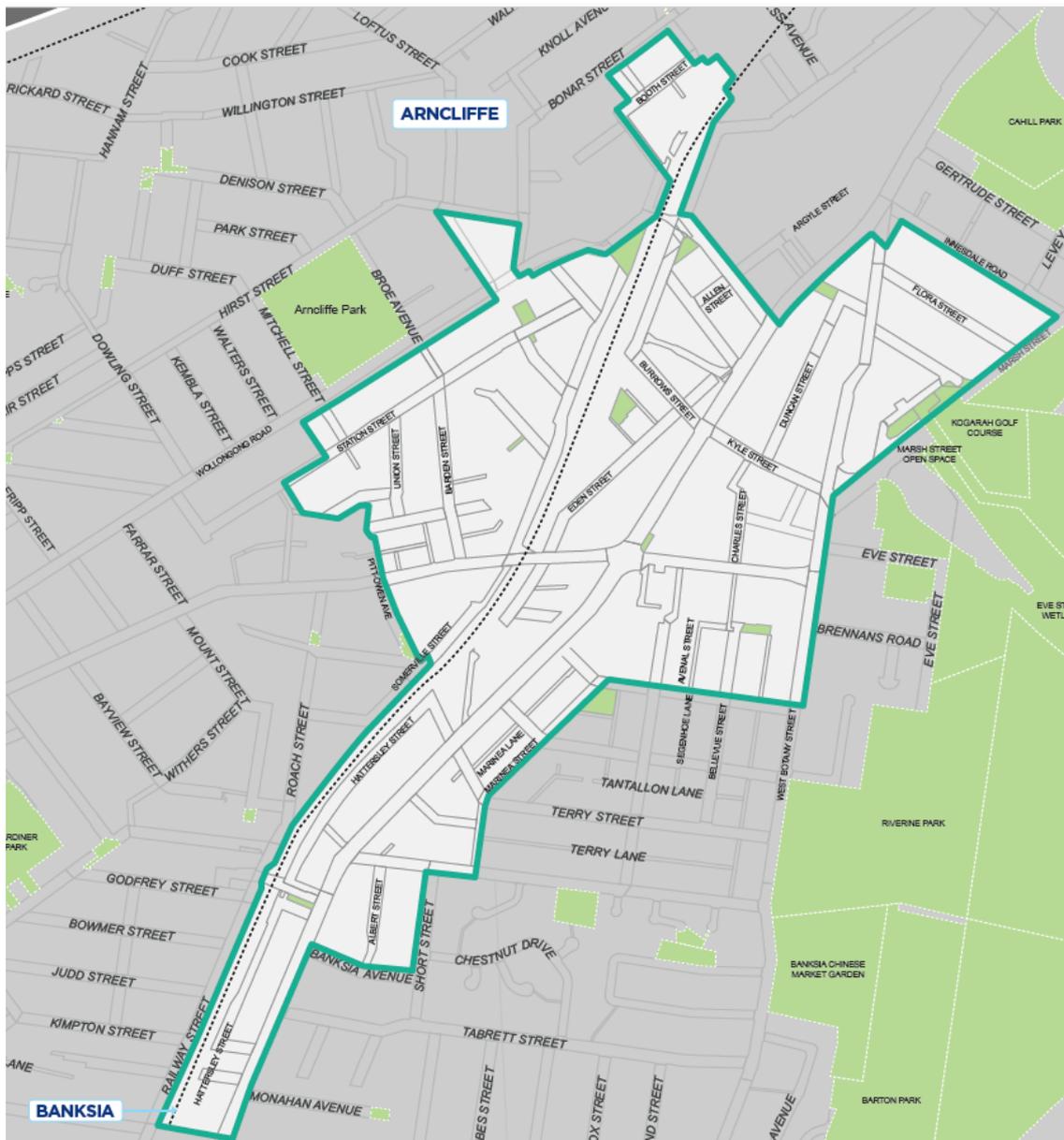
Important Notice

Arncliffe and Banksia Local Infrastructure Contribution Plan 2020 (CP 2020) came into effect on 26 August 2020.

CP 2020 applies exclusively to the Arncliffe and Banksia Priority Precincts as shown below.

As such, CP 2020 repeals this Plan (CP 2004) to the extent that CP 2004 authorises imposition of section 94 contributions on development in the Arncliffe and Banksia Priority Precincts.

CP 2004 will continue to apply to development nominated in Section 2.11 of this Plan for the rest of the City of Rockdale, just not for the development in the Arncliffe and Banksia Priority Precincts.



Important Notice

Rockdale Contributions Plan 2016 – Urban Renewal Area (CP 2016) came into effect on March 30 2016.

CP 2016 applies exclusively to the urban renewal areas of Wolli Creek and the Bonar Street precinct as shown below.

As such, CP 2016 repeals this Plan (CP 2004) to the extent that CP 2004 authorises imposition of section 94 contributions on development in the Urban Renewal Area.

CP 2004 will continue to apply to development nominated in Section 2.11 of this Plan for the rest of the City of Rockdale, just not for development in the Wolli Creek or Bonar Street precinct.

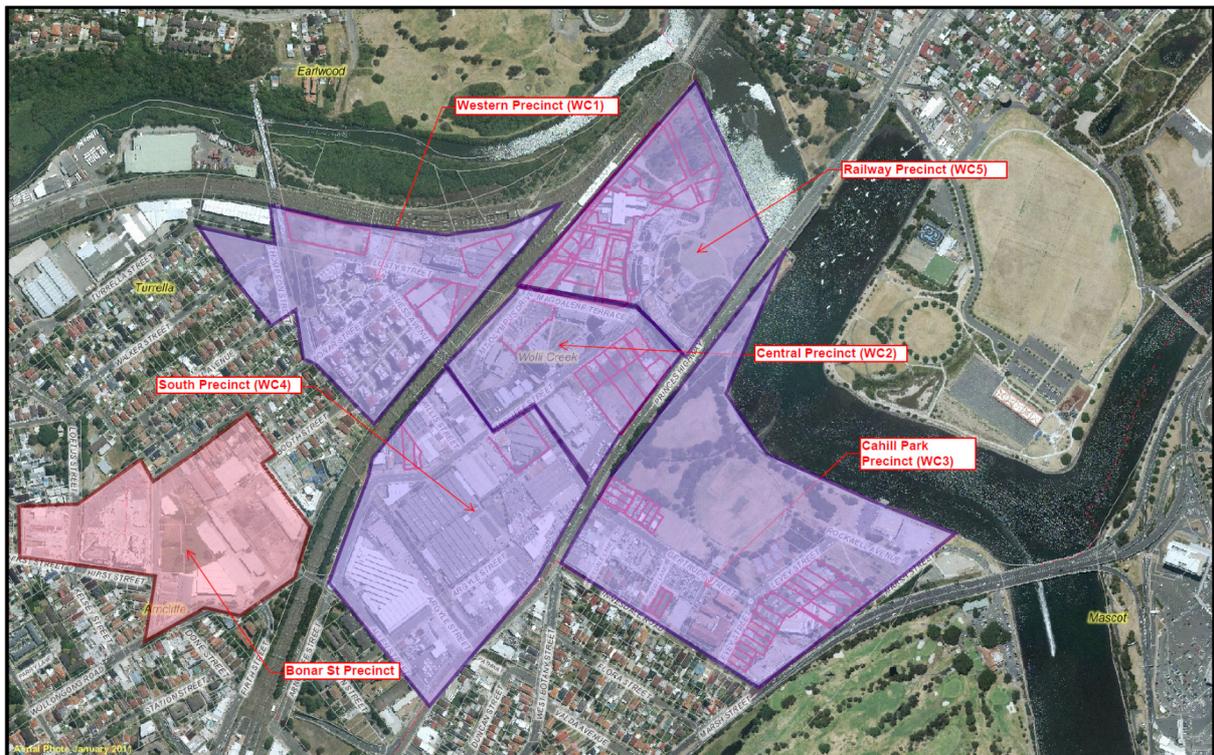


Table of contents

	Statement of ethics	6
	Executive summary	7
1	Introduction	11
2	Statutory requirements	12
2.1	What is the name of the plan?	12
2.2	When did the plan come into effect?	12
2.3	What is the background to the plan?	12
2.4	What are the principles of section 94?	12
2.5	What is the purpose of the plan?	13
2.6	What are the aims and objectives of this plan?	13
2.7	To what land does this plan apply?	13
2.8	What is the relationship of this plan to other plans, codes and studies?	23
2.9	For what amenities and services will contributions be levied?	23
2.10	Over what time period will this plan be implemented?	23
2.11	To what development does this plan apply?	24
2.12	Strategy to implement the provision of facilities in the Wollie Creek Redevelopment Area	26
2.13	Strategy to implement the provision of facilities in the Bonar Street Redevelopment Area ..	27
2.14	How does this plan operate?	29
2.15	What are the contribution rates under this plan?	29
2.16	How will the plan be monitored?	31
3	Calculation of contributions, method and timing of payments	32
3.1	What formula is used to determine the contribution rates?	32
3.2	How will contribution rates be reviewed?	33
3.3	How are the contributions calculated?	34
3.4	What are the methods of payment available?	36
3.5	When will contributions be payable to Council?	37
3.6	Will Council allow deferred or periodic payments?	38
3.7	Will Council reimburse applicants for works in kind that exceed their section 94 contributions?	39
3.8	Complying development and the obligations of accredited certifiers	39
3.9	Construction certificates and the obligations of accredited certifiers	40
4	Administration and financial management	41
4.1	Contributions register	41
4.2	Savings and transitional arrangements	41
5	Development and population analysis	43
5.1	Development and environmental factors	43
5.2	Existing population distribution and change	44
5.3	Age structure and trends	45
5.4	Age structure distribution	46
5.5	Ethnicity	47
5.6	Household types	48
5.7	Household income	49
5.8	Low income households	49
5.9	Housing tenure	50
5.10	Types of housing	51
5.11	Dwelling sizes and occupancy rates	51
5.12	Household type by number of vehicles	52

6	Future development and projected population changes	53
6.1	Methodology	53
6.2	Wolli Creek Redevelopment Area	54
6.3	Bonar Street Precinct	62
6.4	Residential population projections	64
6.5	Employment population projections	66
6.6	Conclusions	68
7	Open space	69
7.1	Introduction	69
7.2	Section 94 implementation strategies	69
7.3	Nexus	70
7.4	Other funding sources	74
7.5	Apportionment	76
7.6	Cost apportionment within the Ramsgate commercial centre	77
7.7	Works schedules	78
7.8	Calculation of contribution rates	89
8	Car parking	93
8.1	Introduction	93
8.2	Nexus	94
8.3	Money collected under previous contributions plan	95
8.4	Calculation of contribution rates	96
9	Roads, traffic management and on-street parking facilities – Wolli Creek Redevelopment Area	100
9.1	Key principles	100
9.2	Section 94 implementation strategy for Wolli Creek	103
9.3	Nexus	103
9.4	Calculation of contribution rates	107
9.5	Works schedule	113
10	Town centre and streetscape improvements	115
10.1	Introduction	115
10.2	Section 94 implementation strategies	118
10.3	Nexus	118
10.4	Apportionment	121
10.5	Cost apportionment within the Ramsgate commercial centre	122
10.6	Works schedules	123
10.7	Calculation of contribution rates	131
11	Flood mitigation and stormwater management – Wolli Creek Redevelopment Area	136
11.1	Key principles	136
11.2	Section 94 implementation strategy for Wolli Creek	139
11.3	Nexus	140
11.4	Calculation of contribution rates	143
11.5	Works schedule	146
12	Community services and facilities	148
12.1	Objectives	148
12.2	Existing community services and facilities	148
12.3	Factors affecting demand	149
12.4	Nexus	150
12.5	Required community services and facilities	155
12.6	Contribution rates	157
12.7	Works schedule	161
12.8	Material public benefits	161

13	Pollution control	162
13.1	Nexus	162
13.2	Calculation of contribution rates	163
14	Pedestrian and cyclist facilities – Wolli Creek Redevelopment Area	164
14.1	Section 94 implementation strategy for Wolli Creek	164
14.2	Nexus	165
14.3	Calculation of contribution rates	168
14.4	Works schedule	171
15	Local Infrastructure and facilities – Bonar Street Precinct.....	173
15.1	Section 94 implementation strategy for the Bonar Street Precinct.....	173
15.2	Key principles	174
15.3	Nexus	179
15.4	Calculation of contribution rates	183
15.5	Works schedule	186
16	Plan administration and management	194
16.1	Objectives	194
16.2	Areas to which this strategy applies	194
16.3	Development and population analysis	194
16.4	Key principles	195
16.5	Nexus	195
16.6	Works schedules	198
16.7	Calculation of contribution rates	199
	Schedule 1 – Standard section 94 development consent condition	200
	Supporting material	201

List of tables

0.1	Estimated population change for each planning precinct	8
0.2	Total contributions payable	9
0.3	Total car parking contributions	10
2.1	Total contributions payable	30
2.2	Total car parking contributions	30
5.1	Population change for each planning precinct	44
5.2	Age structure, 1991-1996	45
5.3	Age group distribution by planning precinct, 1996	46
5.4	Persons born in non-English speaking countries by planning precinct, 1991-1996	47
5.5	Number of non-English speaking people by planning precinct, 1991-1996	47
5.6	Household types by planning precinct, 1991-1996	48
5.7	Household income change, 1991-1996	49
5.8	Distribution of low income households by planning precinct, 1996	49
5.9	Housing tenure, 1991-1996	50
5.10	Population by housing tenure and by planning precinct, 1991-1996	50
5.11	Breakdown of housing types (occupied private dwellings), 1991-1996	51
5.12	Dwelling numbers by size and housing types, 2001	51
5.13	Dwelling occupancy rates by size and housing types, 2001	52
5.14	Standard dwelling occupancy rates used in this plan	52
5.15	Car ownership by household type, 1991-1996	52
6.1	Population projections for Wolli Creek Redevelopment Area	61
6.2	Planning precinct residential population projections	66
6.3	Estimated growth in commercial and retail workforce to the year 2014	67
7.1	Open space facilities and contributions carried over from previous plan	75
7.2	Local open space facilities shared between planning precincts - Apportionment of costs	77
7.3	Regional open space embellishment - Works schedule	79
7.4	City-wide open space acquisitions - Works schedule	80
7.5	City-wide open space embellishment - Works schedule	81
7.6	Arncliffe local open space acquisitions - Works schedule	82
7.7	Arncliffe local open space embellishment - Works schedule	83
7.8	Bexley local open space acquisitions - Works schedule	83
7.9	Bexley local open space embellishment - Works schedule	84
7.10	Bexley North local open space acquisitions - Works schedule	84
7.11	Bexley North local open space embellishment - Works schedule	85
7.12	Brighton Le Sands local open space embellishment - Works schedule	85
7.13	Kogarah local open space acquisitions - Works schedule	85
7.14	Kogarah local open space embellishment - Works schedule	86
7.15	Rockdale local open space acquisitions - Works schedule	86
7.16	Rockdale local open space embellishment - Works schedule	87
7.17	Sans Souci local open space embellishment - Works schedule	87
7.18	Wolli Creek local open space acquisitions - Works schedule	88
7.19	Wolli Creek local open space embellishment - Works schedule	88
7.20	Open space contribution rates	92
8.1	Location and description of works - Car parking facilities	94
8.2	Use of contributions held in discontinued car parking funds under previous plan	96
8.3	Estimated cost of works - Bexley Town Centre car parking facility	96
8.4	Estimated cost of works - Bexley North Town Centre car parking facility	96
8.5	Estimated cost of works - Kingsgrove Town Centre car parking facility	97
8.6	Estimated cost of works - Rockdale Town Centre car parking facilities	97
8.7	Cost of works - Brighton Le Sands Town Centre car parking facility	98
8.8	Car parking contribution rates	99
9.1	Location and description of works - Roads, traffic management and on-street parking facilities	105
9.2	Estimated cost of works - Roads, traffic management and on-street parking facilities	111
9.3	Roads, traffic management and on-street parking contribution rates	113
9.4	Works schedule - Roads, traffic management and on-street parking facilities	114

10.1	City-wide town centre improvements - Rockdale Town Centre streetscape improvements - Works schedule	124
10.2	City-wide town centre improvements - Rockdale Town Centre roadworks - Works schedule ...	125
10.3	City-wide town centre improvements - Highway business precincts - Works schedule	126
10.4	Arncliffe local town centre improvements - Works schedule	127
10.5	Bexley local town centre improvements - Works schedule	127
10.6	Bexley North local town centre improvements - Works schedule	128
10.7	Brighton Le Sands local town centre improvements - Works schedule	128
10.8	Kogarah local town centre improvements - Works schedule	129
10.9	Rockdale local town centre improvements - Works schedule	129
10.10	Sans Souci local town centre improvements - Works schedule	130
10.11	Wolli Creek local streetscape improvements - Works schedule	131
10.12	Town centre and streetscape improvement contribution rates	134
11.1	Location and description of works - Flood mitigation and stormwater management facilities	141
11.2	Estimated cost of works - Flood mitigation and stormwater management facilities	145
11.3	Flood mitigation and stormwater management facilities contribution rates	146
11.4	Works schedule - Flood mitigation and stormwater management facilities	147
12.1	Location and estimated cost of community facilities	157
12.2	Community services and facilities contributions rates	161
12.3	Works schedule - Community services and facilities	161
13.1	Pollution control contribution rates	163
14.1	Location and description of works - Pedestrian and cyclist facilities	166
14.2	Estimated cost of works - Pedestrian and cyclist facilities	170
14.3	Pedestrian and cyclist facilities contribution rates	171
14.4	Works schedule - Pedestrian and cyclist facilities	172
15.1	Location and description of works - Local infrastructure and facilities - Bonar Street Precinct .	181
15.2	Estimated cost of works - Local infrastructure and facilities - Bonar Street Precinct	185
15.3	Bonar Street Precinct contribution rates	186
15.4	Works schedule - Local infrastructure and facilities Bonar Street Precinct	187
16.1	Plan administration and management - Wolli Creek Redevelopment Area - Works schedule ...	198
16.2	Plan administration and management – Bonar Street Precinct - Works schedule	198
16.3	Plan administration and management - Remainder of City - Works schedule	198

List of figures

2.1	Arncliffe Planning Precinct	15
2.2	Bexley Planning Precinct	16
2.3	Bexley North Planning Precinct	17
2.4	Brighton Le Sands Planning Precinct	18
2.5	Kogarah Planning Precinct	19
2.6	Rockdale Planning Precinct	20
2.7	Sans Souci Planning Precinct	21
2.8	Wolli Creek Redevelopment Area	22
5.1	Age structure - Rockdale vs Sydney	45
6.1	Wolli Creek Redevelopment Area showing development precincts and sites	56
6.2	Bonar Street Precinct showing development sites	62
7.1	Open space land supply (ha) by planning precinct	72
9.1	Roads, traffic management and on-street parking facilities in Wolli Creek	106
11.1	Location of flood mitigation and stormwater management facilities	142
14.1	Location of pedestrian and cyclist facilities	167
15.1	Location of local infrastructure in Bonar Street Precinct	182

Statement of ethics

The following seven principles of public life for Rockdale City Council guide us in achieving the highest ethical standards of behaviour.

Selflessness

We will make all our decisions based solely on what is in the public interest.

Integrity

We will do what we say we will we do. However, we will not put ourselves under any financial or other obligation to any person or organisation when we perform our public duties.

Objectivity

When carrying out public duties, including making public appointments, awarding contracts, recommending individuals for rewards and benefits, or making determination on development applications and planning matters we will make all those decisions based on merit.

Accountability

We are accountable for our decisions and actions to the public and submit ourselves to the scrutiny appropriate to our office.

Openness

We will be open about all the decisions and actions that we take. We will give reasons for our decisions and restrict information only when the wider public interest clearly demands it.

Honesty

We have a duty to publicly declare any private interests we may have which conflict with our public duties and will resolve any conflicts so that the public interest is protected at all times.

Leadership

We will promote and support these principles by our own example to others.

Executive summary

- This document is called the *Rockdale Section 94 Contributions Plan 2004* and provides the legal and administrative mechanisms to require contributions in cash or, in some cases, by in-kind works or the dedication of land, towards the provision or embellishment of public amenities and services within the City of Rockdale that are required as a result of the needs of future development over the next 10 years.
- This plan originally came into effect on 1 June 2004 and was subsequently amended by the following contributions plans:
 - ❖ *Rockdale Section 94 Contributions Plan 2004 (Amendment 1)*, effected 21 September 2006.
 - ❖ *Ramsgate Commercial Centre Development Contributions Plan 2006*, effected 19 October 2006 (Schedule 2 to this plan - *Rockdale Section 94 Contributions Plan 2004 (Amendment 2)*).
 - ❖ *Rockdale Section 94 Contributions Plan 2004 (Amendment 3) – Bonar Street Precinct*, effected 31 October 2008.
 - ❖ *Rockdale Section 94 Contributions Plan 2004 (Amendment 4) – Bonar Street Precinct*, effected 16 July 2009.
 - ❖ *Rockdale Section 94 Contributions Plan 2004 (Amendment 5)*, effected 4 November 2010.

The plan applies to development applications and applications for complying development certificates made from 1 June 2004. However, any such application made after an amendment to the plan has come into effect will be subject to provisions of that amendment.¹

- This plan replaces the preceding section 94 contributions plans, known as *Rockdale Section 94 Contributions Plan (Amendment No. 4)* and *Rockdale Section 94 Contributions Plan 1998*. Both of these preceding plans are repealed by *Rockdale Section 94 Contributions Plan 2004*. However, these plans will continue to apply to all development application and applications for complying development certificates made prior to 1 June 2004.
- Separate strategies provide guidance on the provision of open space, town centre improvements and car parking facilities over the next 10 years based on the demand likely to be generated by new development and its associated incoming population. These strategies establish a basis for levying section 94 contributions for these facilities.
- The estimated population growth over the next 10 years within each of the planning precincts is shown below.

¹ Amendments made by *Rockdale Section 94 Contributions Plan 2004 (Amendment 3) – Bonar Street Precinct* and *Rockdale Section 94 Contributions Plan 2004 (Amendment 4) – Bonar Street Precinct* will apply to all applications within the Bonar Street Precinct made under the provisions of *Rockdale Local Environmental Plan 2000 (Amendment No 29)* and *Rockdale Local Environmental Plan 2000 (Amendment No 48)*, whether or not those applications are made before the amendments came into effect.

Table 0.1 – Estimated population change for each planning precinct

Planning precinct	Population 2001 (1)	Estimated population 2004 (2)	Projected population 2014	Additional population 2004-2014	Additional commercial / retail workforce 2004-2014
Arncliffe	12,475	12,457	(3) 14,072	(3) 1,615	(7)
Bexley	19,275	19,455	20,650	1,195	(7)
Bexley North	9,078	9,173	9,494	321	(7)
Brighton Le Sands	13,319	13,496	13,959	463	(7)
Kogarah	10,962	11,041	11,344	303	(7)
Rockdale	15,882	16,387	18,530	2,143	(7)
Sans Souci	11,802	11,914	(4) 12,388	(4) 474	(7)
Wolli Creek	76	(5) 603	(6) 6,727	(6) 4,445	(8) 2,121
Total	92,869	(5) 94,526	(6) 107,164	(6) 10,959	(7)(8)(9) 2,481

Notes

- (1) The 2001 population figures are based on 2001 census data for the City of Rockdale, as adjusted by the ABS for temporary absences, visitors and under-enumeration. Such adjusted figures are not available at planning precinct level and the planning precinct populations are therefore estimated by apportionment based on the unadjusted census data. These figures are further adjusted to account for changes to census collection district boundaries in the 2001 census that would otherwise skew the planning precinct data.
- (2) The 2004 population estimate is based on an extrapolation of the whole of City population growth rates over the 6 year period from 1996 (ABS adjusted census figure) to 2002 (ABS estimate) and apportioned to each planning precinct in accordance with the growth rates in those precincts between the 1996 and 2001 censuses.
- (3) The population forecast for the Arncliffe precinct includes the estimated population increase from redevelopment within the Bonar Street Precinct to 2014 (1,367 persons), plus the estimated population from the rezoning of two sites for mixed residential / commercial development under *Rockdale Local Environmental Plan 2000 (Amendment No 46)* (374 persons) coupled with an estimated population decline of 126 persons that would otherwise have been expected in Arncliffe over this period.
- (4) Includes anticipated population growth within the Ramsgate commercial centre under the *Ramsgate Centre Masterplan* and the associated LEP and DCP during the life of this plan (200 persons).
- (5) The 2004 population estimate includes the estimated population of developments in the Wolli Creek Redevelopment Area for which contributions have been levied under previous contributions plans and which are now completed and occupied (total 527 persons).
- (6) The projected 2014 population includes the estimated population of developments previously approved in the Wolli Creek Redevelopment Area for which contributions have been levied under previous contributions plans (total 2,206 persons, including the population referred to in Note (5)). However, this population is not included in the 2004-2014 additional resident population figures.
- (7) The additional workforce to 2014 has not been separately estimated for individual planning precinct, apart from the Wolli Creek Redevelopment Area. The combined increase in the commercial and retail workforce in all other precincts is estimated at 360 persons.
- (8) The estimated additional workforce to 2014 excludes the estimated workforce of developments previously approved in the Wolli Creek Redevelopment Area for which contributions have been levied under previous contributions plans (total 92 workers).
- (9) Includes anticipated employment growth within the Ramsgate commercial centre under the *Ramsgate Centre Masterplan* and the associated LEP and DCP during the life of this plan (62 persons).

- This expected population growth, resulting from new development within the City, will create a demand for the additional public amenities and services identified in this plan and require these developments to make contributions towards the provision of those amenities and services.
- The total contribution rates payable by future residential and employment generating development within each planning precinct are shown in the following table.

Table 0.2 - Total contributions payable

Planning precinct	Multi-unit residential development (1)			Dwelling houses (per allotment) (3)	Employment development (per person) (4)
	0-1 bedroom dwellings (2)	2 bedroom dwellings	3+ bedroom dwellings		
Arncliffe (excluding Bonar Street Precinct)	\$5,767.00	\$9,174.50	\$11,271.40	\$13,193.70	Nil
Bexley	\$4,973.80	\$7,912.70	\$9,721.20	\$11,379.00	Nil
Bexley North	\$2,429.70	\$3,865.30	\$4,748.70	\$5,558.60	Nil
Brighton Le Sands	\$3,896.50	\$6,198.80	\$7,615.60	\$8,914.50	Nil
Kogarah	\$4,750.80	\$7,557.90	\$9,285.20	\$10,868.90	Nil
Rockdale	\$2,800.90	\$4,455.80	\$5,474.10	\$6,407.70	Nil
Sans Souci (excluding Ramsgate commercial centre)	\$2,797.40	\$4,450.30	\$5,467.10	\$6,400.00	Nil
Wolli Creek	\$7,563.50	\$12,032.80	\$14,782.90	\$17,304.00	Retail (5) \$8,624.40 Other employment (5) \$6,479.60
Ramsgate commercial centre	\$916.10	\$1,457.50	\$1,790.50	\$2,095.80	(6) -\$1,425.30
Bonar Street Precinct	\$12,348.20	\$19,644.50	(7) \$24,134.60	(7) \$28,250.70	Nil

Notes

- (1) Includes attached and detached dual occupancies, medium density housing (villas and townhouses), residential flat buildings and the residential component of mixed use premises.
- (2) 0-1 bedroom dwellings include bedsitters and studio apartments.
- (3) Dwelling house allotments include existing parcels of land, whether or not these parcels are, or contain, separate allotments. See Footnote 8 for definition of "parcel of land".
- (4) Means the number of persons likely to be employed within a development based on the standard occupancy rates provided in Section 6.2.1 of this plan (unless an applicant can satisfy Council, by way of an expert study or the like, that another occupancy rate should apply).
- (5) Applying these contribution rates and the employment occupancy rates in Section 6.2.1, the contribution rates for various employment developments in Wolli Creek are:
- | | |
|---|--|
| supermarkets | \$344.98 / m ² gross floor area |
| bulky goods retail | \$172.49 / m ² gross floor area |
| all other retail | \$246.41 / m ² gross floor area |
| "high tech" industry with high office components | \$143.99 / m ² gross floor area |
| offices and other commercial industry (including warehouses and car yards but excluding "high tech" industry) | \$259.18 / m ² gross floor area |
| | \$81.00 / m ² gross floor area |
- (6) This negative contribution means the amount is credited against the contribution otherwise payable by the development under the *Ramsgate Commercial Centre Development Contributions Plan 2006*. Applying these contribution rates and the employment occupancy rates in Section 3.4.3 of that plan, the contribution credits for employment developments in the Ramsgate centre under this plan are:
- | | |
|------------------------------|--|
| retail | \$40.72 credit / m ² gross floor area |
| offices and other commercial | \$57.01 credit / m ² gross floor area |
- (7) This plan recognises that, under a direction issued by the Minister for Planning pursuant to section 94E of the EP&A Act, Council must not grant development consent to a residential development with a monetary contribution exceeding an average \$20,000 per dwelling. Where the monetary contribution of a residential development levied under this plan would exceed this, the amount of the contribution will be reduced to comply, as permitted by clause 5 of the direction.
- (8) Where land dedications are accepted by Council, contributions are to be discounted as per the formula in the contributions plan.
- (9) Where works in kind are accepted by Council, which accord with the requirements of the contributions plan, contributions are to be discounted by the value of the work.
- (10) These contribution rates are the totals of all contributions payable for all of the amenities and services required to be provided for under each contribution strategy relevant to the development.
- (11) These contribution rates are those applying at the time when this plan commenced. The rates will be regularly reviewed to reflect changes in the costs of providing amenities and services and other potential variables such as population projections.

- The total contribution rates payable by developments within specified town centres that require on-site car parking to meet projected demands are shown in the following table.

Table 0.3 – Total car parking contributions

Town centre	Contribution (per car space)
Bexley	\$21,197.00
Bexley North	\$20,101.00
Brighton Le Sands	\$24,927.00
Kingsgrove	\$23,947.00
Rockdale	\$24,851.00

Notes

- (1) These contribution rates are the total contributions payable, including the contributions required towards the costs of administering and managing this plan.
- (2) These contribution rates are those applying at the time when this plan commenced. The rates will be regularly reviewed to reflect changes in the costs of providing amenities and services and other potential variables such as projected development rates.

1 Introduction

In accordance with the legislative requirements, this section 94 contributions plan and associated strategies establish a basis for levying development contributions towards the provision or embellishment of public amenities and services within the City of Rockdale over the next 10 years.

Don Fox Planning Pty Ltd was commissioned by Rockdale City Council to prepare *Rockdale Section 94 Contributions Plan 2004*. A comprehensive document was required, which combines and updates the two existing contributions plans, plus new contribution strategies, into a single new contributions plan.

This plan incorporates and updates prior contribution strategies for community facilities and infrastructure works within the Wollie Creek Redevelopment Area, that were previously prepared for Council by Scott Carver Pty Ltd.

Subsequent amendments to the plan provide for:

- contributions to be levied towards the cost of providing beachfront promenade improvement works at Brighton Le Sands (Amendment 1),
- contributions towards the cost of providing local open space and town centre improvements within the Ramsgate commercial centre identified in the *Ramsgate Commercial Centre Development Contributions Plan 2006* (Amendment 2),
- additional facilities and infrastructure required by the redevelopment of the Bonar Street Precinct in Arncliffe and Turrella (Amendments 3 and 4), and
- the payment of development contributions by complying developments where an additional dwelling house is created and modification of the time when contributions are to be paid (Amendment 5).

This consolidated section 94 contributions plan is supported by detailed strategies that present desirable planning outcomes which can be partially or fully implemented through the application of section 94 of the *Environmental Planning and Assessment Act*.

2 Statutory requirements

2.1 What is the name of the plan?

This plan is *Rockdale Section 94 Contributions Plan 2004*.

2.2 When did the plan come into effect?

This plan was approved by Council under clause 31 (1) of the *Environmental Planning and Assessment Regulation 2000* on 26 May 2004 and came into effect on 1 June 2004. The plan was subsequently amended by:

- *Rockdale Section 94 Contributions Plan 2004 (Amendment 1)*, which was approved by Council on 6 September 2006 and came into effect on 21 September 2006.
- *Ramsgate Commercial Centre Development Contributions Plan 2006*, which was approved by Council on 4 October 2006 and came into effect on 19 October 2006. (Schedule 2 of that plan affects *Rockdale Section 94 Contributions Plan 2004 (Amendment 2)*).
- *Rockdale Section 94 Contributions Plan 2004 (Amendment 3) – Bonar Street Precinct*, which was approved by Council on 20 August 2008 and came into effect on 31 October 2008.
- *Rockdale Section 94 Contributions Plan 2004 (Amendment 4) – Bonar Street Precinct*, which was approved by the Council on 1 July 2009 and came into effect on 16 July 2009.
- *Rockdale Section 94 Contributions Plan 2004 (Amendment 5)*, which was approved by the Council on 20 October 2010 and came into effect on 4 November 2010.

2.3 What is the background to the plan?

Section 94 of the *Environmental Planning and Assessment Act 1979* enables Council to levy a contribution from development that will, or is likely to, generate a need for additional public amenities or services. The contribution may be required and provided in cash, by in-kind works or facilities or by dedication of land. Cash contributions may be used to recoup the costs of amenities and services already constructed in anticipation of the demand.

2.4 What are the principles of section 94?

There are a number of principles that underlie the application of section 94 to obtain developer contributions. The relevant principles are:

- A contribution is only sought where it is in accordance with a section 94 contributions plan adopted by Council in accordance with the requirements of the *Environmental Planning and Assessment Act* and the Regulation.
- A contribution is only sought where Council is satisfied that the development will increase demand for public amenities and public services within the Rockdale City Council area.
- Only a reasonable contribution is payable. The Court may determine that the contribution be disallowed or amended if it considers it unreasonable, even if it is in accordance with the adopted contributions plan.

- A contribution (cash, land or works in kind) and any interest earned must be kept for the purpose for which it was collected and the public facility must be provided in a reasonable time and in such a manner as to meet the increased demand.
- Reasonable contributions may be levied to recoup costs where public facilities have already been provided to facilitate the carrying out of development, and the development will benefit from the provision of public facilities already provided in anticipation.

These principles form the basis of this contributions plan.

2.5 What is the purpose of the plan?

The primary purpose of this plan is to satisfy the requirements of the *Environmental Planning and Assessment Act* and the Regulation to enable Rockdale City Council to require contributions towards the provision, extension or augmentation of public amenities and services that are required as a consequence of development in the area, or which were provided in anticipation of, or to facilitate, such development.

2.6 What are the aims and objectives of this plan?

The aims and objectives of this plan are to:

- a. Provide a clear and transparent basis for levying contributions under the provisions of section 94 of the *Environmental Planning and Assessment Act 1979*,
- b. Support a strategy which enables the timely provision of facilities identified in this plan,
- c. Enable Council to require a contribution as a condition of development consent, or on a complying development certificate, towards the provision or dedication of amenities and services identified in this plan,
- d. Enable Council to be both publicly and financially accountable in its application and administration of the contributions plan,
- e. Establish the relationship between new development and intended amenities and services to demonstrate the required contributions are reasonable,
- f. Allow for the provision of facilities as works in kind in lieu of a monetary contribution,
- g. Provide for the dedication of land at no cost to Council in lieu of a monetary contribution, and
- h. Provide public information.

2.7 To what land does this plan apply?

This contributions plan applies to all land within the City of Rockdale. However, certain contributions strategies apply only to specific parts of the City, such as the Wolli Creek Redevelopment Area. Further details are provided in Section 2.11 and in the particular contribution strategies.

Contributions will be levied on all new development that creates a demand for additional public amenities or services that may be approved by the relevant consent authority. For the purposes of section 94 of the *Environmental Planning and Assessment Act* and this plan, the City of Rockdale has been divided into the following planning precincts:

1. **Arncliffe** - incorporating the suburbs of Arncliffe, Bardwell Valley and Turrella and those parts of the suburb of Wolli Creek that are not within the Wolli Creek Redevelopment area, including those parts of Arncliffe and Turrella within the Bonar Street Precinct (where a special contributions strategy also applies).
2. **Bexley** - incorporating the suburb of Bexley.
3. **Bexley North** - incorporating the suburbs of Bardwell Park, Bexley North and those parts of the suburb of Kingsgrove within the Rockdale City Council area.
4. **Brighton Le Sands** - incorporating the suburbs of Brighton Le Sands, Kyeemagh and Monterey.
5. **Kogarah** - incorporating those parts of the suburbs of Carlton and Kogarah within the Rockdale City Council area.
6. **Rockdale** - incorporating the suburbs of Banksia and Rockdale.
7. **Sans Souci** - incorporating the suburbs of Dolls Point, Ramsgate Beach and Sandringham and those parts of the suburbs of Ramsgate and Sans Souci within the Rockdale City Council area (including land within the Ramsgate commercial centre to which the *Ramsgate Commercial Centre Development Contributions Plan 2006* also applies).
8. **Wolli Creek** – incorporating the Wolli Creek Redevelopment Area.

These planning precincts are shown in Figures 2.1 to 2.8 on the following pages.

Figure 2.1 – Arncliffe Planning Precinct

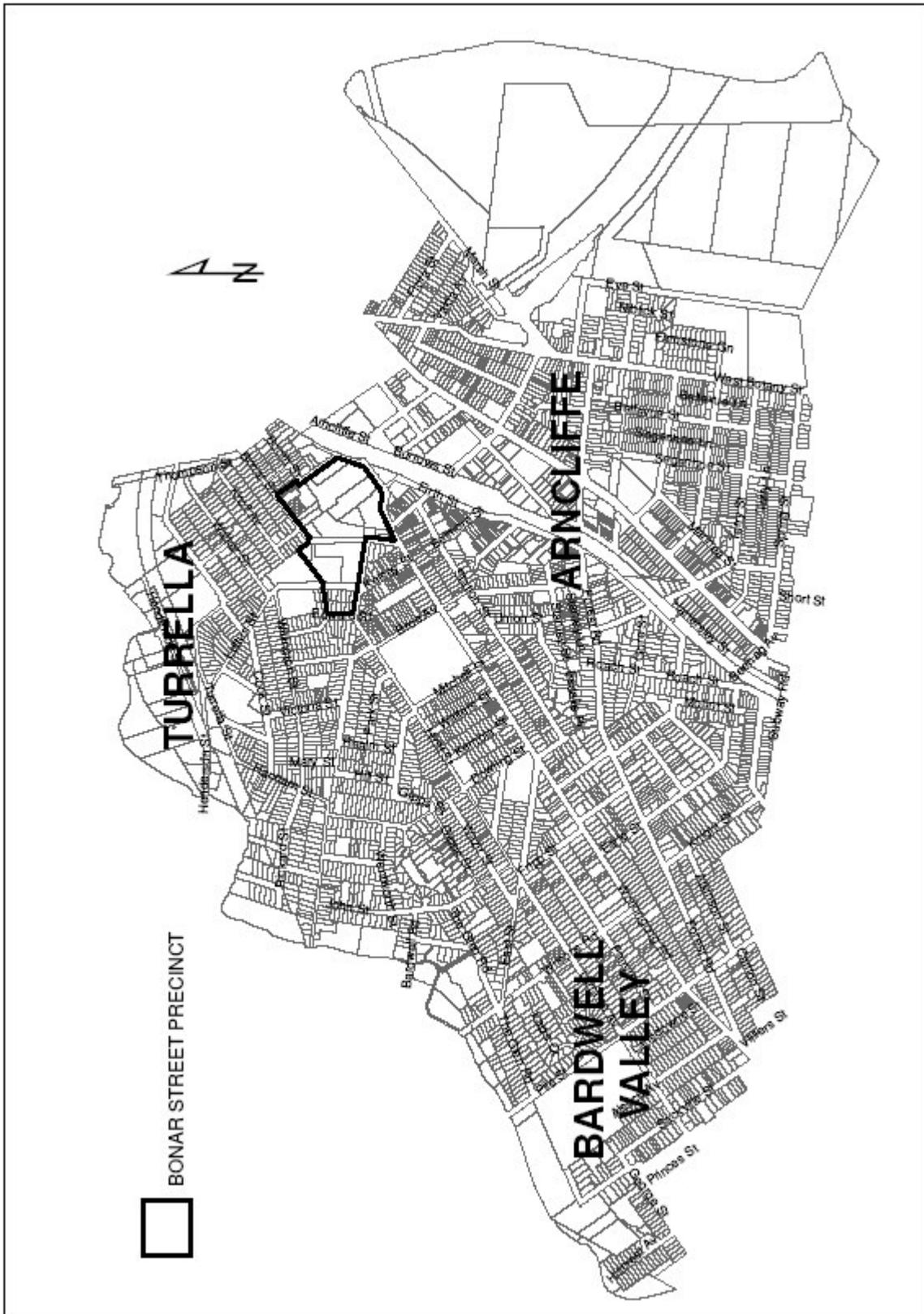


Figure 2.2 – Bexley Planning Precinct



Figure 2.3 – Bexley North Planning Precinct



Figure 2.4 – Brighton Le Sands Planning Precinct

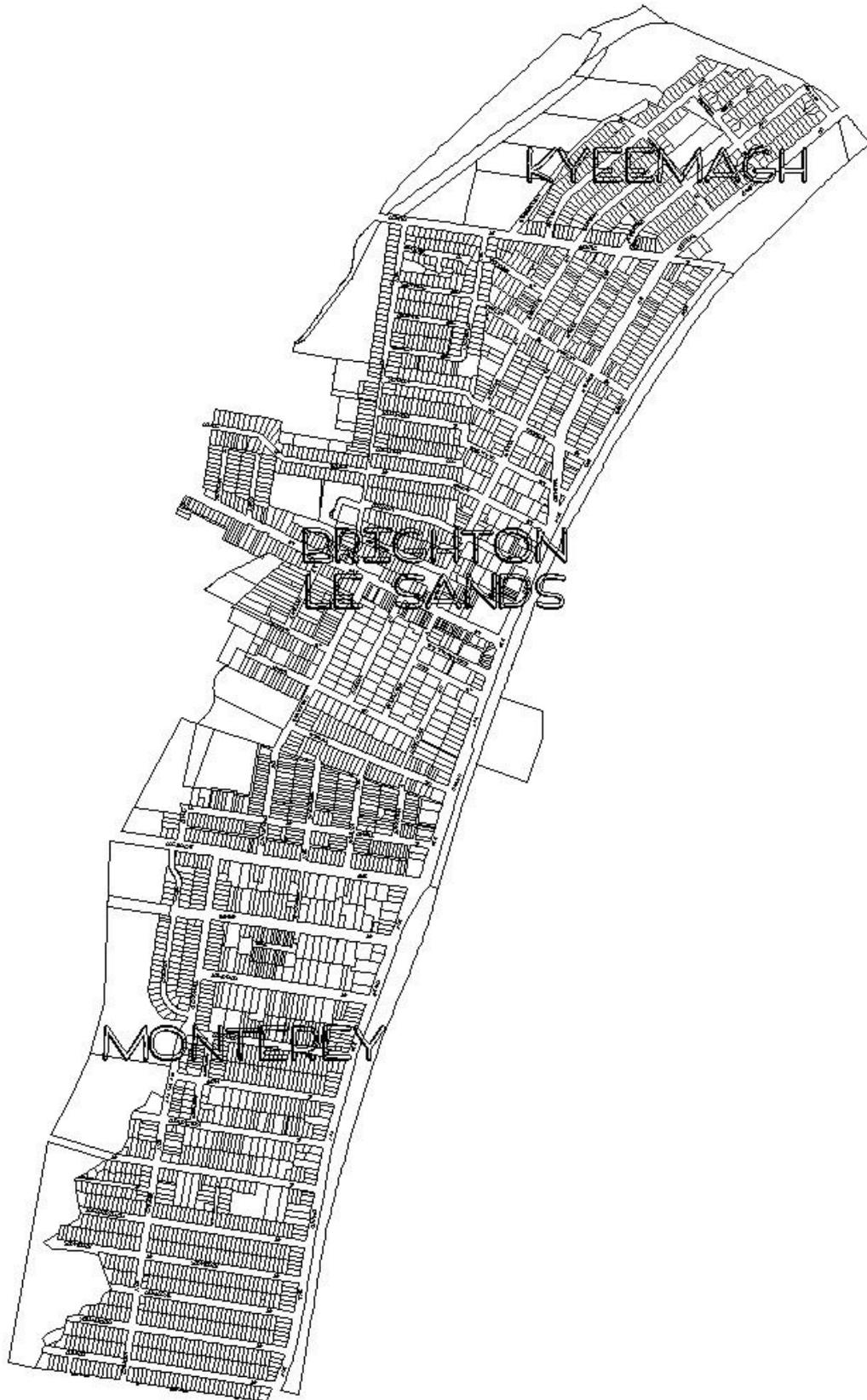


Figure 2.5 – Kogarah Planning Precinct

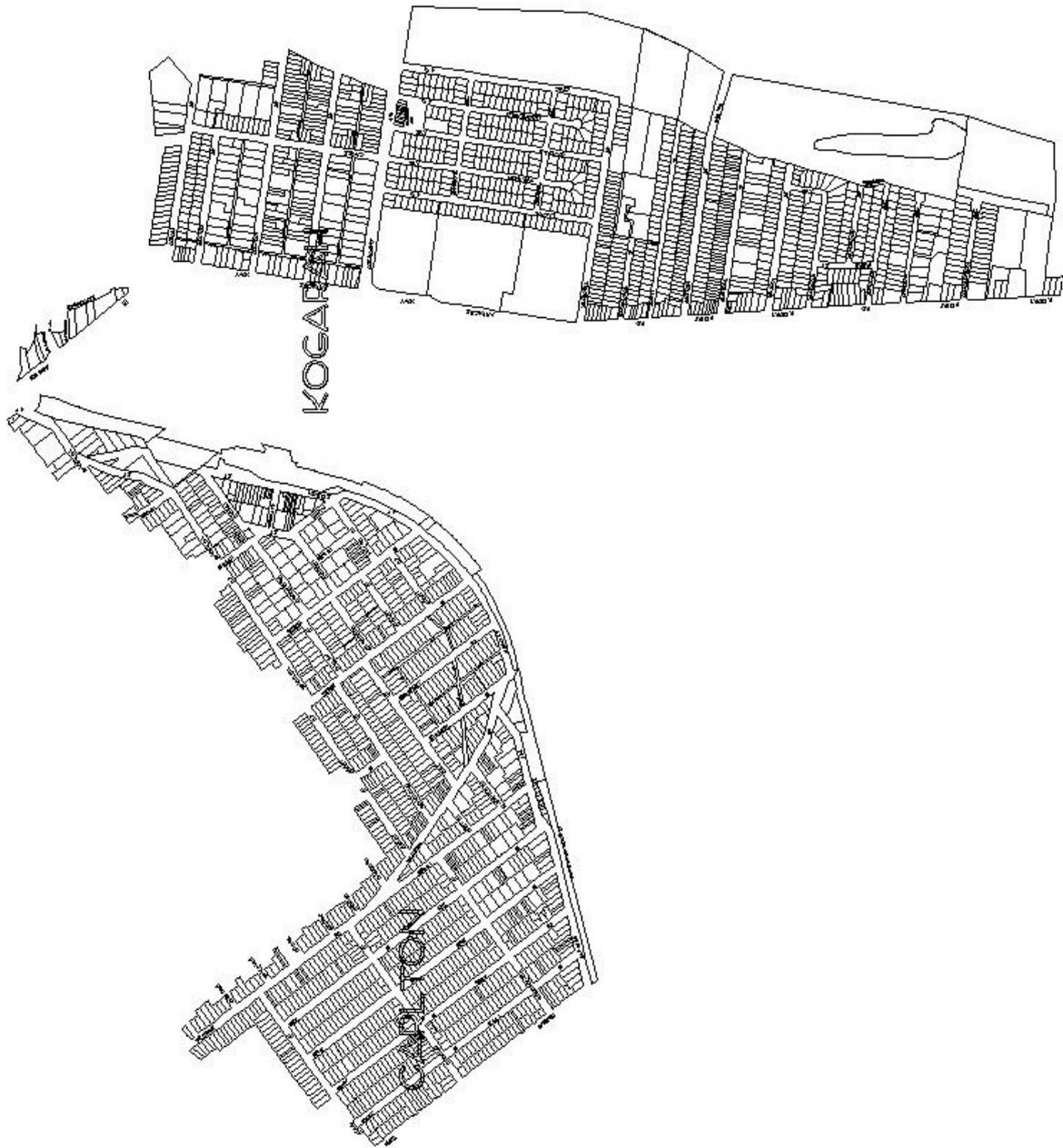


Figure 2.6 – Rockdale Planning Precinct



Figure 2.7 – Sans Souci Planning Precinct

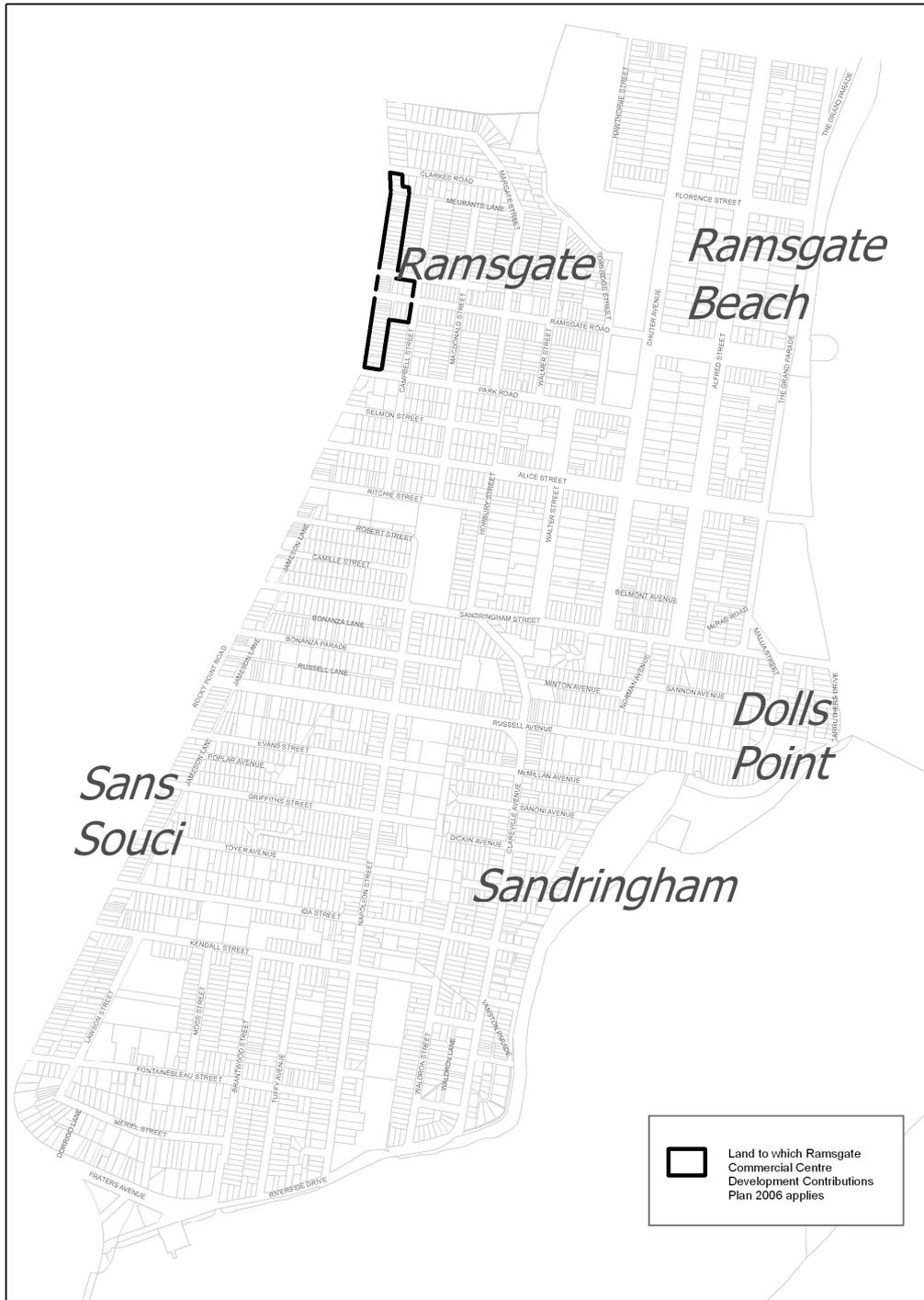
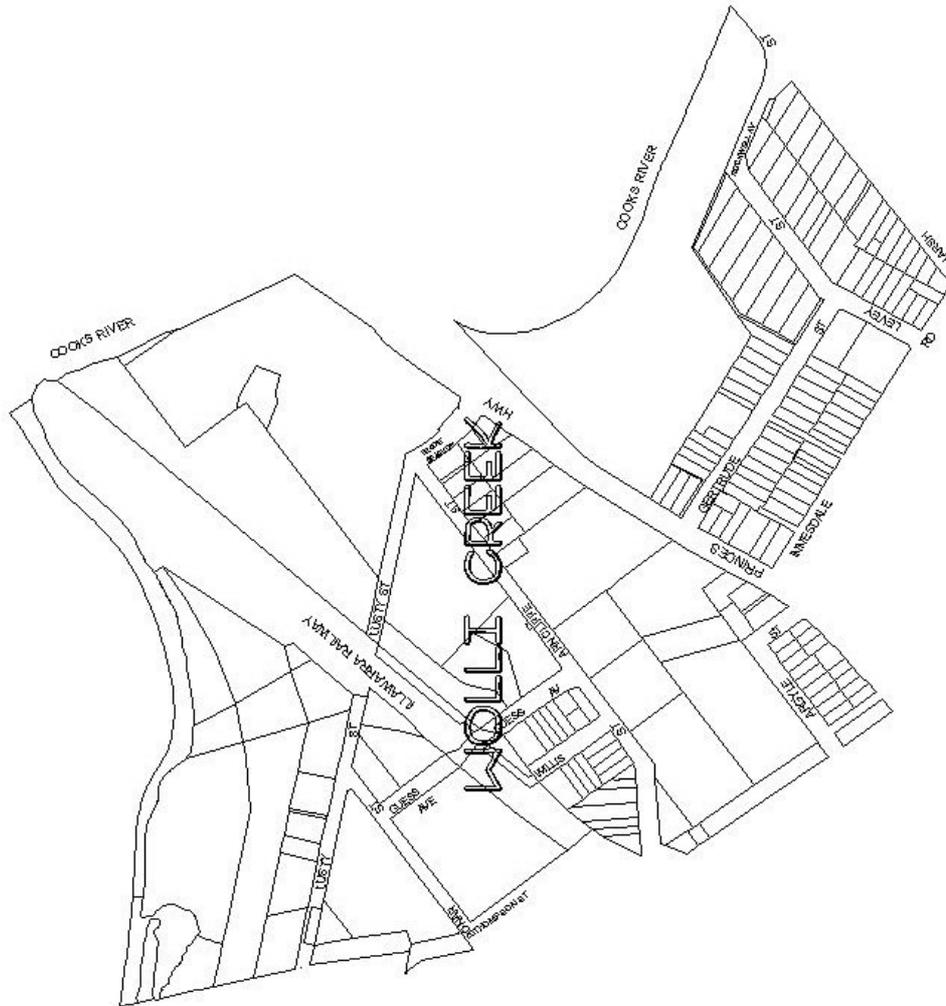


Figure 2.8 – Wollie Creek Redevelopment Area



2.8 What is the relationship of this plan to other plans, codes and studies?

This plan supersedes *Rockdale Section 94 Contributions Plan (Amendment No. 4)* and *Rockdale Section 94 Contributions Plan 1998*. Both of these plans are repealed by this plan. However, these plans will continue to apply to all development applications and applications for complying development certificates made prior to the commencement of *Rockdale Section 94 Contributions Plan 2004* (ie. prior to 1 June 2004).

This plan continues to apply to land within the Ramsgate commercial centre to which the *Ramsgate Commercial Centre Development Contributions Plan 2006* also applies.

The contributions plan should be read in conjunction with Council's and the State government's existing environmental planning instruments and development control plans that are applicable to the City of Rockdale.

2.9 For what amenities and services will contributions be levied?

The plan establishes strategies that allow section 94 contributions to be levied towards the provision of the following amenities and services insofar as they relate to the demands generated by new development:

1. Open space
2. Car parking
3. Roads, traffic management and on-street parking facilities (Wolli Creek Redevelopment Area)
4. Town centre and streetscape improvements
5. Flood mitigation and stormwater management (Wolli Creek Redevelopment Area)
6. Community services and facilities
7. Pollution control
8. Pedestrian and cyclist facilities (Wolli Creek Redevelopment Area)
9. Local infrastructure and facilities within the Bonar Street Precinct
10. Administration and management of the plan.

2.10 Over what time period will this plan be implemented?

This plan is intended to provide for the additional public facilities and services required in the City of Rockdale to meet the needs of the residents and occupants of future development expected in the City over the next 10 years to 2014.

Implementation of the plan is based on the anticipated rates of development forecast in the plan, but the rate at which this development actually occurs will depend on market forces and other macro variables outside Council's control. This may result in growth rates that are faster or slower than predicted.

Should development occur more rapidly than anticipated, it will be possible to provide all of the facilities and complete this plan in less than the 10 year period indicated. If, on the other hand, development does not proceed as rapidly as predicted, it may not be possible to fully implement the plan within the nominated 10 year timeframe and Council may need to consider alternative strategies to ensure that any additional facilities required to meet the needs of future development will continue to be provided within a reasonable time.

This plan also identifies certain facilities and services that will not be provided, or fully provided, within the 10 year lifespan of this plan but that are intended to be implemented over an extended period to meet the needs of development expected to occur in the longer-term and that will need to be partly funded under future contributions plans. These facilities are:

- **Public car parking facilities within specified town centres.** The plan identifies the requirements for public car parking within five major town centres in the City that will need to be provided for over an extended period of about 20 to 25 years. Works associated with these facilities will nonetheless be implemented progressively to coincide as closely as possible with the timing of development from which contributions are obtained.
- **Facilities intended to serve the Wolli Creek Redevelopment Area.** The Wolli Creek area is planned for comprehensive redevelopment over a period of 15 to 25 years and this plan adopts a strategy to ensure the ongoing provision of the additional facilities and services required over this entire period. This strategy is outlined in Section 2.12.
- **Open space and town centre improvements within the Ramsgate commercial centre.** Contributions will be levied under this plan towards the cost of providing local open space and town centre improvements within the Ramsgate commercial centre identified in the *Ramsgate Commercial Centre Development Contributions Plan 2006*. That plan indicates that these facilities will be progressively provided over a 20 to 30 year period. However, it is intended that a reasonable proportion of those facilities will be provided within the 10 year lifespan of this plan.
- **Facilities intended to serve the Bonar Street Precinct.** The Bonar Street Precinct is planned for comprehensive redevelopment over a period of 15 to 25 years and this plan adopts a strategy that will ensure the timely provision of the additional facilities and services required in the area as it is developed over this entire period. This strategy is outlined in Section 2.13.

2.11 To what development does this plan apply?

This plan applies generally to any development within the City of Rockdale that will, or is likely to, create a demand for any of the public amenities or services identified in the plan and for which a developmental application or an application for a complying development certificate is made on or after 1 June 2004. However, the application of the specific strategies in the plan varies, depending on the type and location of development, as indicated below.

2.11.1 Residential development

All of the strategies in this plan, apart from the car parking strategy, apply to all types of residential development, including:

- Residential subdivision (where additional house lots are created)
- Dwelling houses (where additional dwellings are created)
- Dual occupancy development (excluding granny flat housing)
- Medium density housing (such as villas and townhouses)
- Residential flat buildings
- Residential components of mixed use premises
- Seniors housing (including housing for people with a disability), as defined in *State Environmental Planning Policy (Seniors Living) 2004*, except where the applicant is the Department of Housing, a local government housing provider or a community housing provider.

However, some of the strategies only apply to residential developments that are within the Wollie Creek Redevelopment Area or the Bonar Street Precinct (see subsections 2.11.3 and 2.11.4 below).

The car parking strategy does not apply to residential developments, as residential developments are always required to meet their entire car parking requirements on site.

2.11.2 Non-residential Development

This Plan only applies to the following non-residential development:

- Non-residential developments within the Wollie Creek Redevelopment Area (see subsection 2.11.3 below)
- Non-residential developments that are deficient in on-site car parking and are located within, or in the vicinity of, the following town centres:
 - ❖ Bexley Town Centre
 - ❖ Bexley North Town Centre
 - ❖ Brighton Le Sands Town Centre
 - ❖ Kingsgrove Town Centre
 - ❖ Rockdale Town Centre

2.11.3 Development within the Wollie Creek Redevelopment Area

All development within the Wollie Creek Redevelopment Area, including both residential and employment-generating development (such as offices and commercial premises, shops and industries), will be required to make contributions towards the provision of the following amenities and services:

- Open space
- Roads, traffic management and on-street parking facilities
- Town centre and streetscape improvements
- Flood mitigation and stormwater management
- Community services and facilities
- Pedestrian and cyclist facilities
- Costs of administering and managing this plan

Development within the Wollie Creek Redevelopment Area will not be subject to the Pollution Control strategy, as the Flood Mitigation and Stormwater Management strategy makes separate provision for pollution control facilities in this area.

2.11.4 Development within the Bonar Street Precinct

Residential development within the Bonar Street Precinct will be levied for contributions for the following amenities and services:

- Open space
- Town centre and streetscape improvements
- Community services and facilities
- Pollution control
- Local infrastructure and facilities within the Bonar Street Precinct
- Costs of administering and managing this plan

2.11.5 Development outside the Wollli Creek Redevelopment Area and the Bonar Street Precinct

Residential development outside of the Wollli Creek Redevelopment Area and the Bonar Street Precinct will only be levied for contributions for the following amenities and services:

- Open space
- Town centre and streetscape improvements
- Community services and facilities
- Pollution control
- Costs of administering and managing this plan

2.12 What strategy will be used to implement the provision of facilities in the Wollli Creek Redevelopment Area?

Because the Wollli Creek Redevelopment Area is planned for comprehensive redevelopment, and this redevelopment is not expected to be completed within the 10 year lifespan of this plan, but rather will take a longer period of between 15 and 25 years, a special strategy has been adopted in this plan to ensure the ongoing orderly provision of amenities and services within the area throughout this entire redevelopment period and that all of the facilities required can and will be provided progressively as development takes place.

The adoption of such a strategy will provide greater continuity in the provision of the necessary facilities and services over the entire development life of the area, will allow both Council and the development industry to plan ahead with greater certainty, will ensure greater equity in the contributions levied for facilities between those developments that take place during the life of this plan and those which will occur in the longer term, and will allow a greater degree of flexibility in the provision of facilities in response to the actual timing and location of future development.

Such a strategy requires this plan to:

1. Identify the ultimate development potential of the Wollli Creek Redevelopment Area when fully developed in accordance with Council's plans for the area and calculate its ultimate resident and worker population. As indicated above, complete development of this area is expected to occur beyond the life of this plan over a 15 to 25 year period.
2. Determine the full range of facilities and services that will be required in the Wollli Creek area to meet the future needs of all its residents and workers when it is fully developed.
3. Estimate the extent and expected location of development that is likely to occur in the Wollli Creek area during the 10 year life span of this plan and calculate the anticipated incoming population generated by that development.
4. Identify which of those facilities required for ultimate redevelopment of the area will need to be provided to meet the needs of development occurring during the life of this plan, based on the type, location and proportion of development expected during the life of the plan.
5. Calculate an apportionment factor to determine what proportion of the total facilities required for Wollli Creek can be reasonably funded under this plan, based on the estimated medium and long-term population forecasts in 1 and 3 above. The formula used to calculate this apportionment is:

Expected Wolli Creek population growth during life of this plan
 Expected ultimate population of Wolli Creek - Existing population of Wolli Creek

6. Establish a budget and priorities for the implementation of the facilities and services required in the Wolli Creek area, based on the likely timing and location of development in Wolli Creek during the life of the plan, the facilities identified as being required to meet the needs of this development and the expected availability of funding from developer contributions after applying the apportionment factor in 5 above.
7. Where the cost of facilities required to meet the needs of development occurring during the life of this plan exceed what can be reasonably funded by that development, after applying the apportionment factor in 5 above, identify an alternative strategy to fund those facilities in advance.
8. Calculate the contribution rates that will apply to development in the Wolli Creek area during the life of this plan, based on the cost of facilities that are required by development expected during the life of the plan and that could be reasonably funded by that development, after applying the apportionment factor in 5 above, and the anticipated population growth expected in the area during this period. The formula used to calculate the per person contribution rate is:

$$\frac{\text{Apportioned cost of facilities to be provided in Wolli Creek under this plan}}{\text{Expected Wolli Creek population growth during life of this plan}}$$

As a consequence of this strategy, this plan has therefore:

- made population forecasts for the Wolli Creek area for both the life of the plan and for the ultimate development of the area. These are set out in Chapter 6.
- identified, costed and prioritised all the facilities required in Wolli Creek when the area is fully developed, including those facilities which are not intended to be funded under this plan. These have been included in the Works schedules for each facility type. Facilities not required during the life of the plan have generally been given Priority 3 status or an estimated provision date beyond 2014.

This strategy will apply to the full range of facilities and services that are required to be provided under this plan to meet the needs of future development within the Wolli Creek Redevelopment Area, namely:

- Open space
- Roads, traffic management and on-street parking facilities
- Town centre and streetscape improvements
- Flood mitigation and stormwater management
- Community services and facilities
- Pedestrian and cyclist facilities

2.13 What strategy will be used to implement the provision of facilities in the Bonar Street Precinct?

Because the Bonar Street Precinct is planned for comprehensive redevelopment, and this redevelopment is not expected to be completed within the 10 year lifespan of this plan, but rather will take a longer period of between 15 and 25 years, a special strategy has been adopted in this plan to ensure the ongoing orderly and timely provision of amenities and services within the area throughout this entire redevelopment period and that all of the facilities required to meet the needs

of the precinct when it is fully developed can and will be provided progressively, as needed, during the redevelopment process.

The adoption of such a strategy will provide greater continuity in the provision of the necessary facilities and services over the entire development life of the precinct, will allow both Council and the development industry to plan ahead with greater certainty, will ensure greater equity in the contributions levied for facilities between those developments that take place during the life of this plan and those which will occur in the longer term, and will allow a greater degree of flexibility in the provision of facilities in response to the actual timing and location of future development.

Such a strategy requires this plan to:

1. Identify the ultimate development potential of the Bonar Street Precinct when fully developed in accordance with the planning controls for the area and calculate its ultimate resident population. As indicated above, complete development of this area is expected to occur beyond the life of this plan over a 15 to 25 year period.
2. Determine the full range of facilities, services and infrastructure that will be required in the Bonar Street Precinct to allow the area to be redeveloped and to meet the future needs of all its residents when it is fully developed.
3. Estimate the extent of development that is likely to occur in the precinct during the 10 year life span of this plan and calculate the anticipated incoming population generated by that development.
4. Calculate an apportionment factor to determine what proportion of the total facilities required for the Bonar Street Precinct can be reasonably funded under this plan, based on the estimated medium and long-term population forecasts in 1 and 3 above. The formula used to calculate this apportionment is:

$$\frac{\text{Expected population growth in precinct during life of this plan}}{\text{Expected ultimate population of precinct} - \text{Existing population of precinct}}$$

5. Identify which of those facilities and infrastructure elements required for ultimate redevelopment of the area will need to be provided to meet the needs of each development site within the precinct, or to allow that development to take place, based on the location and infrastructure requirements of those sites.
6. Establish a budget and staging strategy for the implementation of the facilities and infrastructure required in the Bonar Street Precinct, based on the location and infrastructure requirements of each development site.
7. Where the cost of facilities required to meet the needs of development occurring during the life of this plan are likely to exceed what can be reasonably funded by that development, after applying the apportionment factor in 5 above, identify a workable strategy to fund those facilities in advance.
8. Calculate the contribution rates that will apply to development in the Bonar Street Precinct during the life of this plan, based on the cost of those facilities that could be reasonably funded by that development, after applying the apportionment factor in 5 above, and the anticipated population growth expected in the area during this period. The formula used to calculate the per person contribution rate is:

$$\frac{\text{Apportioned cost of facilities that could be reasonably funded in the precinct under this plan}}{\text{Expected population growth in the precinct during life of this plan}}$$

As a consequence of this strategy, this plan has therefore:

- made population forecasts for the Bonar Street Precinct for both the life of the plan and for the ultimate development of the area. These are set out in Chapter 6.
- identified, costed and developed a staging strategy for all facilities and infrastructure required in the precinct when it is fully developed, including those facilities that are likely to be funded under subsequent contributions plans. These have been incorporated in the relevant Works schedule.

This strategy will apply to the full range of facilities and services that are required to be provided under this plan to meet the needs of future development within the Bonar Street Precinct, namely:

- Open space
- Town centre and streetscape improvements
- Community services and facilities
- Pollution control
- Local infrastructure and facilities within the Bonar Street Precinct
- Costs of administering and managing this plan

2.14 How does this plan operate?

In determining a development application or an application for a complying development certificate, the consent authority (usually Rockdale City Council), or the certifier (in the case of a complying development certificate), may impose a condition on the development under section 94 of the *Environmental Planning and Assessment Act* requiring the payment of a monetary contribution and/or the dedication of land in accordance with the provisions of this plan.

2.15 What are the contribution rates under this plan?

Table 2.1 sets out the total contribution rates that will be payable by future residential and employment generating development within each planning precinct for each additional dwelling or worker.

Table 2.1 - Total contributions payable

Planning precinct (1)	Multi-unit residential development (1)			Dwelling houses (per allotment) (3)	Employment development (per person) (4)
	0-1 bedroom dwellings (2)	2 bedroom dwellings	3+ bedroom dwellings		
Arncliffe (excluding Bonar Street Precinct)	\$5,767.00	\$9,174.50	\$11,271.40	\$13,193.70	Nil
Bexley	\$4,973.80	\$7,912.70	\$9,721.20	\$11,379.00	Nil
Bexley North	\$2,429.70	\$3,865.30	\$4,748.70	\$5,558.60	Nil
Brighton Le Sands	\$3,896.50	\$6,198.80	\$7,615.60	\$8,914.50	Nil
Kogarah	\$4,750.80	\$7,557.90	\$9,285.20	\$10,868.90	Nil
Rockdale	\$2,800.90	\$4,455.80	\$5,474.10	\$6,407.70	Nil
Sans Souci (excluding Ramsgate commercial centre)	\$2,797.40	\$4,450.30	\$5,467.10	\$6,400.00	Nil
Wolli Creek	\$7,563.50	\$12,032.80	\$14,782.90	\$17,304.00	Retail (5) \$8,624.40 Other employment (5) \$6,479.60
Ramsgate commercial centre	\$916.10	\$1,457.50	\$1,790.50	\$2,095.80	(6) -\$1,425.30
Bonar Street Precinct	\$12,348.20	\$19,644.50	(7) \$24,134.60	(7) \$28,250.70	Nil

Notes

- (1) Includes attached and detached dual occupancies, medium density housing (villas and townhouses), residential flat buildings and the residential component of mixed use premises.
- (2) 0-1 bedroom dwellings include bedsitters and studio apartments.
- (3) Dwelling house allotments include existing parcels of land, whether or not these parcels are, or contain, separate allotments. See Footnote 8 for definition of "parcel of land".
- (4) Means the number of persons likely to be employed within a development based on the standard occupancy rates provided in Section 6.2.1 of this plan (unless an applicant can satisfy Council, by way of an expert study or the like, that another occupancy rate should apply).
- (5) Applying these contribution rates and the employment occupancy rates in Section 6.2.1, the contribution rates for various employment developments in Wolli Creek are:
- | | |
|--|--|
| supermarkets | \$344.98 / m ² gross floor area |
| bulky goods retail | \$172.49 / m ² gross floor area |
| all other retail | \$246.41 / m ² gross floor area |
| "high tech" industry with high office components | \$143.99 / m ² gross floor area |
| offices and other commercial | \$259.18 / m ² gross floor area |
| industry (including warehouses and car yards but excluding "high tech" industry) | \$81.00 / m ² gross floor area |
- (6) This negative contribution means the amount is credited against the contribution otherwise payable by the development under the *Ramsgate Commercial Centre Development Contributions Plan 2006*. Applying these contribution rates and the employment occupancy rates in Section 3.4.3 of that plan, the contribution credits for employment developments in the Ramsgate centre under this plan are:
- | | |
|------------------------------|--|
| retail | \$40.72 credit / m ² gross floor area |
| offices and other commercial | \$57.01 credit / m ² gross floor area |
- (7) This plan recognises that, under a direction issued by the Minister for Planning pursuant to section 94E of the EP&A Act, Council must not grant development consent to a residential development with a monetary contribution exceeding an average \$20,000 per dwelling. Where the monetary contribution of a residential development levied under this plan would exceed this, the amount of the contribution will be reduced to comply, as permitted by clause 5 of the direction.
- (8) Where land dedications are accepted by Council, contributions are to be discounted as per the formula in the contributions plan.
- (9) Where works in kind are accepted by Council, which accord with the requirements of the contributions plan, contributions are to be discounted by the value of the work.

Table 2.2 sets out the total contribution rates that will be payable by development within or adjacent to the five designated town centres for each deficient car parking space.

Table 2.2 - Total car parking contributions

Town centre	Contribution (per car space)
Bexley	\$21,197.00
Bexley North	\$20,101.00
Brighton Le Sands	\$24,927.00
Kingsgrove	\$23,947.00
Rockdale	\$24,851.00

The contribution rates shown in Tables 2.1 and 2.2 are the totals of all contributions payable for all of the amenities and services required to be provided for under each contribution strategy relevant to the development, including the contributions required towards the costs of administering and managing this plan. The individual contribution rates for each facility type are set out in the separate contribution strategies (see Chapters 7 to 16).

The contribution rates are those applying at the time when this plan commenced.² These rates will be regularly reviewed to reflect changes in the costs of providing amenities and services, in accordance with the methodology outlined in Section 3.2, and for other potential variables, such as projected development rates.

2.16 How will the plan be monitored?

Rockdale City Council acknowledges the need to continually monitor and review the contributions plan. For this reason, the contributions will be subject to a number of reviews to take account of such matters as community needs, costs of amenities and services, rate and extent of development, affordability of contributions and progress in providing scheduled works.

In the event of Council identifying changes as a result of the review process, amendments to the contributions plan, apart from the periodic adjustment of contributions that is provided for in Section 3.2 of this plan, based on published indices, will be publicly exhibited in accordance with the requirements of the *Environmental Planning and Assessment Regulation 2000*.

² ie. 1 June 2004. Contribution rates changed by subsequent amendments to this plan have been adjusted to reflect costs applicable at 1 June 2004.

3 Calculation of contributions, method and timing of payments

3.1 What formula is used to determine the contribution rates?

The basic formula used to calculate contributions towards the provision of amenities and services identified under this plan is:

$$\text{Contribution} = \frac{\text{Estimated cost of all public amenities \& services}}{\text{Estimated population increase}}$$

The individual strategies for each facility type provided for under this plan indicate the detailed formulas used for calculating the contribution rates for those particular facilities.

For the purposes of calculating the contribution rates, the following components have been included:

- The capital cost of the public amenity or service, based on comparable projects and accepted industry rates or costings provided by a qualified estimator.
- Current land values provided by Council or independent valuers.

For the purposes of calculating the contribution rates, the following components have been excluded:

- The costs associated with any proposed public amenity or service (capital and land costs) that are intended to serve the existing population, to make up for any existing deficiency of provision or to satisfy an existing demand in the community. The public amenities or services that are to be funded through this contributions plan are intended to meet the demand of the future population only.
- Any contributions that have already been collected for the provision of a particular amenity or service which have not as yet been spent.
- Any assured grants, subsidies or funding from other sources which may be payable in respect of any nominated public amenity or service.
- Any recoverable funding that has been provided for public amenities or services that may have otherwise been provided under section 94.
- Any public amenities or services that may be required by the population but which another organisation or government agency is responsible for providing.
- Maintenance and recurrent expenses for the continued operation of the provided public amenities and services.

3.2 How will contribution rates be reviewed?

It is Council's policy to review contribution rates to ensure that the monetary contributions reflect the costs associated with the provision of the particular public amenities or services.

The contribution rate will be reviewed regularly on the following basis to reflect changes in the costs of providing the nominated facilities and services and to allow for the recoupment of the real costs of facilities and services already provided in anticipation of development:

- a. **For all works, services and facilities**, whether provided in anticipation of development or yet to be provided – the costs of these will be reviewed annually on the basis of the *Consumer Price Index*, in accordance with the following formula:

$$\text{Adjusted cost} = \frac{\text{Contributions plan cost} \times \text{Current CPI}}{\text{Initial CPI}}$$

where:

- *Contributions plan cost* is the cost of providing the facility, as shown in the plan.
- *Current CPI* is the *Consumer Price Index* (All Groups Sydney) last published at the time of adjustment (published by the Australian Bureau of Statistics).
- *Initial CPI* is the *Consumer Price Index* (All Groups Sydney) for the quarter last published at the time this plan came into effect.

- b. **For land acquisitions acquired in anticipation of development** – the costs of these will be reviewed annually on the basis of the *Consumer Price Index*, in accordance with the following formula:

$$\text{Adjusted cost} = \frac{\text{Actual acquisition cost} \times \text{Current CPI}}{\text{CPI at acquisition}}$$

where:

- *Actual acquisition cost* is the actual cost of acquiring the land, as shown in the "Index of Land Acquisition Costs" published by Council in its current *Adopted Fees and Charges*.
- *Current CPI* is the *Consumer Price Index* (All Groups Sydney) last published at the time of adjustment (published by the Australian Bureau of Statistics).
- *CPI at acquisition* is the *Consumer Price Index* (All Groups Sydney) for the quarter last published at the time when the land was acquired.

- c. **For land acquisitions yet to be acquired** – the costs of these will be reviewed annually on the basis of the most recent estimated valuation of the land prepared by a registered valuer, as shown in the "Index of Land Acquisition Costs" published by Council in its current *Adopted Fees and Charges*.

- d. **For cost savings arising out of a voluntary planning agreement (VPA)** – Where Council has entered into a VPA with a developer under the provisions of the *EP&A Act*, under which the developer agrees to provide any facility or service identified in this plan at no cost to Council (or at a cost to Council less than the cost identified in this plan), any cost savings achieved, or expected to be achieved, as a result of that VPA will be passed on to any other developer required to contribute towards that facility or service, through an adjustment in the contributions payable by the developer.

Such an adjustment will only apply:

- i. while the VPA remains in force, or
- ii. where the VPA is no longer in force, the facility or service has been provided under the terms of the VPA, and
- iii. where the contributions payable by the developer have not yet been paid (or otherwise settled in accordance with Section 3.4).

Details of any VPAs applying to the City may be viewed on Council's planning agreement register, available at Council's offices and on Council's website (www.rockdale.nsw.gov.au).

The contribution rates are adjusted based on these adjusted costs and the methodologies set out in the various chapters of this plan.

The adjusted contribution rates and the "Index of Land Acquisition Costs" are published by Council in its *Adopted Fees and Charges* and are available at Council's offices and on Council's website (www.rockdale.nsw.gov.au).

3.3 How are the contributions calculated?

The actual contributions payable by a particular development are based on the following attributes of the development:

- For residential developments - the number of 0-1 bedroom dwellings³, 2 bedroom dwellings, 3 or more bedroom dwellings⁴ and dwelling house allotments (or parcels of land)⁵ within the development.
- For non-residential developments (within the Wollri Creek Redevelopment Area only) - the number of workers that are likely to be employed within the development.⁶
- For non-residential developments that are deficient in on-site car parking - the number of car spaces by which the development will be deficient.

As section 94 contributions may only be levied towards any increase in demand for amenities and services created by a development, the calculation of the contributions must take into account any demand for those amenities and services which might be attributed to the existing development on the land and, generally speaking, must give credit for that existing demand by way of a deduction from the total contribution payable.

The following formulas are used for calculating the contributions payable by a particular development:

³ Includes bedsitters and studio apartments.

⁴ Means dwellings within multi-unit developments, including dual occupancies, medium density housing, residential flat buildings and the residential components of mixed use premises.

⁵ Whichever is the lesser. See Footnote 8 for the definition of "parcel of land".

⁶ Based on the standard occupancy rates provided in Section 6.2.1 of this plan (unless an applicant can satisfy Council, by way of an expert study or the like, that another occupancy rate should apply).

- a. **For all contributions, other than car parking contributions, contributions towards the cost of administering and managing the plan and contributions involving the erection of additional dwelling houses on an existing parcel of land:**

$$\text{Contribution} = [nD(P)_{1BR} \times R_{1BR} + nD(P)_{2BR} \times R_{2BR} + nD(P)_{3BR} \times R_{3BR} + nD(P)_{DH} \times R_{DH} + nW(P) \times R_W] \text{ minus } [nD(E)_{1BR} \times R_{1BR} + nD(E)_{2BR} \times R_{2BR} + nD(E)_{3BR} \times R_{3BR} + nD(E)_{DH} \times R_{DH} + nW(E) \times R_W],$$

where:

- $nD(P)_{1BR}$, $nD(P)_{2BR}$, $nD(P)_{3BR}$, and $nD(P)_{DH}$ are the numbers of 0-1 bedroom dwellings, 2 bedroom dwellings, 3 or more bedroom dwellings and dwelling house allotments, respectively, within the proposed development,
- $nD(E)_{1BR}$, $nD(E)_{2BR}$, $nD(E)_{3BR}$, and $nD(E)_{DH}$ are, respectively, the numbers of 0-1 bedroom dwellings, 2 bedroom dwellings, 3 or more bedroom dwellings and dwelling house allotments (or parcels of land)⁵ presently existing on the development site,
- $nW(P)$ is the number of workers that are likely to be employed within the proposed development (Wolli Creek Redevelopment Area only)⁶,
- $nW(E)$ is the number of workers that are presently employed on the development site⁷, and
- R_{1BR} , R_{2BR} , R_{3BR} , R_{DH} , and R_W are the contribution rates (in \$), respectively, for 0-1 bedroom dwellings, 2 bedroom dwellings, 3 or more bedroom dwellings, dwelling house allotments and employment development (per person), as adopted by this plan (or as subsequently adjusted in accordance with Section 3.2).

- b. **For car parking contributions:**

$$\text{Contribution} = [P(R) - P(P)] \times R_{CS},$$

where:

- $P(R)$ is the number of additional on-site car parking spaces needed by the proposed development under Council's requirements,
- $P(P)$ is the number of additional on-site car parking spaces actually proposed to be provided by the development (where this number is less than the number needed under Council's requirements), and
- R_{CS} is the car parking contribution rate (in \$ per space) adopted by this plan (or as subsequently adjusted in accordance with Section 3.2).

- c. **For contributions towards the cost of administering and managing the plan:**

$$\text{Contribution} = C_{TOTAL} \times R_{A\&M},$$

where:

⁷ In the Wolli Creek Redevelopment Area no allowance will be made for the workforce in the area prior to commencement of redevelopment as the future workers will be an entirely new workforce with different needs and requirements.

- C_{TOTAL} is the total value (in \$) of all other section 94 contributions payable by the proposed development, and
- $R_{A\&M}$ is the contribution rate (in cents in the \$) for the costs of administering and managing this plan, as adopted in the plan.

d. For contributions involving the erection of additional dwelling houses on an existing parcel of land:

There exist within the City of Rockdale a number of parcels of land⁸ containing a single dwelling house erected over, or occupying, 2 or more allotments. In the case where each of these existing allotments are subsequently developed separately for a dwelling house, this contributions plan requires a section 94 contribution to be paid for the additional dwelling or dwellings created (unless a contribution was paid at the original subdivision stage).

As the carrying out of such development does not require further subdivision (whereby a development contribution for the total net dwelling increase could be collected) the following formula will apply to each new dwelling house to ensure it contributes equitably towards the additional public facilities and services required:

$$\text{Contribution} = C_{DH} \times \frac{DH_{New} - DH_{Exist}}{DH_{New}}$$

where:

- C_{DH} is the development contribution usually payable for a new dwelling house erected on the land under this contributions plan (as calculated under Section 3.3(a)),
- DH_{New} is the total number of new dwelling houses that are able to be erected on the previously existing parcel of land (ie. the total number of developable allotments within the parcel), and
- DH_{Exist} is the number of dwelling houses existing, or previously existing, on that former parcel of land.

For example, the contribution payable by a new dwelling house erected on a previous parcel of land comprising 3 developable allotments within the Bexley North Planning Precinct would be:

$$\begin{aligned} \text{Contribution} &= \$5,558.60 \times \frac{3 - 1}{3} \\ &= \$3,705.70 \end{aligned}$$

3.4 What are the methods of payment available?

Council will accept section 94 payments by monetary contribution, or by a combination of money, a material public benefit (works in kind) or the dedication of land. Works in kind or the dedication of land will be accepted by Council only under the following circumstances:

1. A written request is made to Council by the applicant or other person entitled to act upon the relevant consent, and

⁸ The definition of "parcel of land" was established by *Ku-ring-gai Municipal Council v Kuttner* ([1980] 41 LGRA 1) and means a piece of land that is separately occupied and used, whether or not it consist of, or contains, one or more allotments.

2. Council determines that the works in kind are, or the land to be dedicated is, appropriate, and
3. The works to be carried out are, or the land to be dedicated is, identified in the works schedule attached to this contributions plan, and
4.
 - a. The value of the works to be undertaken or the land to be dedicated is at least equal to the value of the contribution assessed in accordance with this plan, or
 - b. Where the value of the proposed works in kind or the land to be dedicated is less than the monetary value of the contribution, the difference will be met by way of a monetary contribution.

In assessing the request, Council will take into account the following:

1. Consistency with the detailed design of the facilities, as agreed to by Council, and
2. The proposed works or land dedication will not constrain the future provision of facilities identified in the works schedule, or conflict with what Council has prioritised.

Plans and cost estimates of the proposed works, or a valuation by a registered valuer of the land to be dedicated, are to be prepared and submitted by the applicant.

Should an offer of works in kind or land dedication be accepted, Council will establish with the applicant the following as relevant:

- An acceptable standard for workmanship and materials,
- Timing of inspection of works in progress,
- A program for completion of the works or dedication of the land, and
- An appropriate defects liability period.

The decision to accept settlement of a contribution by way of works in kind or the dedication of land is at the sole discretion of Council.

3.5 When will contributions be payable to Council?

A contribution is payable at the following times:

- a. In the case of a development where no further approvals are required – before the compliance certificate is issued.
- b. In the case of a development where a construction certificate is required – before the issue of the construction certificate for any works above the floor level of the ground floor.⁹
- c. In the case of a development where a subdivision certificate is required – before the issue of the subdivision certificate.
- d. In the case of any other development – before the compliance certificate is issued.

⁹ This will allow the applicant to commence site preparation works and construction of basement levels prior to payment of the contribution by applying for separate construction certificates for this work. Such an allowance is incorporated in the wording of Council's standard section 94 development consent condition (see Schedule 1 to this plan). However, where the conditions in an existing development consent do not specifically authorise this it will be first necessary for the applicant to lodge a section 96 application to modify the consent accordingly.

3.6 Will Council allow deferred or periodic payments?

Council may accept a written request for the deferred or periodic payment of a contribution if the applicant (including any other person entitled to act upon the relevant consent) satisfies Council that:

- Compliance with the provisions relating to when contributions are payable is unreasonable or unnecessary in the circumstances of the case, or would cause the applicant undue hardship, and
- Deferred or periodic payment will not prejudice the timing or the manner of the provision of the public amenity or service for which the contribution was required, as outlined in the works schedule, and
- There will be no prejudice to the community deriving benefit from the public amenity or service required by the proposed development, and
- There will be no prejudice to the operation of this contributions plan.

The decision to accept a deferred or periodic payment is at the sole discretion of Council.

Council may accept deferred or periodic settlements of contributions over a maximum period of 5 years from the date on which the contribution would otherwise be payable (as set out in this contributions plan) by way of equal six monthly instalments (plus interest and Council charges), or as otherwise agreed to by Council.

Council may, if it decides to accept the deferred or periodic payment of a contribution, require the applicant to provide a bank guarantee by an Australian bank for the amount of the contribution, or the outstanding balance, plus any interest or charges required by Council, on condition that:

- a. the bank guarantee requires the bank to pay the guaranteed amount unconditionally to Council where it so demands in writing if the applicant has defaulted on the payment of the contribution, or any instalment of the contribution (including interest and Council charges), under the terms of their deferred or periodic payment agreement with Council,
- b. the guarantee prohibits the bank from:
 - i. having recourse to the applicant or other person entitled to act upon the consent, and
 - ii. having regard to any appeal, dispute, controversy, issue or other matter relating to the consent or the carrying out of development in accordance with the consent, before paying the guaranteed amount,
- c. the bank's obligation under the guarantee is discharged:
 - i. when payment is made to Council in accordance with the terms of the bank guarantee, or
 - ii. if the related consent lapses, or
 - iii. if Council otherwise notifies the bank in writing that the bank guarantee is no longer required, and
- d. the applicant pays to Council:

- i. interest on the contribution, or the outstanding balance, at the overdraft rate on and from the date when the contribution would have been otherwise payable, as set out in this contributions plan, and
- ii. an administration charge of 2% on the contribution, or the outstanding balance, at the end of each six monthly period,

such payments to be made when each instalment of the contribution is due.

Where Council does not require the applicant to provide a bank guarantee, it may require a public positive covenant under section 88E of the *Conveyancing Act 1919* to be registered on the title to the land to which the relevant application relates.

Where Council agrees to a request for deferred or periodic payment, the applicant will be required to lodge a section 96 application to modify the development consent to specify the new payment arrangements.

3.7 Will Council reimburse applicants for works in kind that exceed their section 94 contributions?

Council will consider reimbursing an applicant who provides works in kind in excess of the monetary contribution payable by their development, under the following circumstances:

- a. the works in kind provided by the development are for a facility that is identified in this contributions plan and for which the development would have been required to pay a contribution,
- b. the amount of the reimbursement is limited to the value of the facility identified in the contributions plan, adjusted to reflect cost changes over time as allowed by this plan,
- c. the reimbursement will be drawn only from the monies available in the same contributions fund from which the facility would have normally been funded,
- d. Council is satisfied that sufficient monies would become available in that contributions fund to fully fund the facilities required to be provided under that fund, and
- e. if Council has previously agreed to the applicant offsetting their works in kind against another contributions fund, any future contributions received would be used to fully reimburse these offsets in the first instance.

Where Council agrees to reimburse an applicant over a period of time they will be required to enter into a deed of agreement with Council to establish the arrangements under which the reimbursement will be made.

3.8 Complying development creating additional dwellings and the obligations of accredited certifiers

In accordance with section 94EC(1) of the *Environmental Planning and Assessment Act*, accredited certifiers must impose a condition on complying development certificates requiring a monetary section 94 contribution to be paid in accordance with this contributions plan where the

development involves the creation of one or more additional dwelling,¹⁰ unless the certifier is satisfied that:

:

- development to which the certificate relates is exempted from payment of the contribution by a direction of the Minister under section 94E of the Act, or
- a development contribution has already been paid in relation to the allotment on which development will be erected.

The condition imposed must be consistent with Council's standard section 94 development consent condition, as set out in Schedule 1 of this plan, and be strictly in accordance with this contributions plan. It is the professional responsibility of accredited certifiers to accurately calculate the contribution and to apply the section 94 condition correctly. The precise method by which the amount of the monetary contribution is to be determined is set out in Section 3.3 of this plan. Current contribution rates are contained in Council's *Adopted Fees and Charges*, which are available at Council's offices and on Council's website (www.rockdale.nsw.gov.au).¹¹

An accredited certifier must not impose a condition requiring the payment of a section 94 contribution unless Council, as the consent authority, has certified that the contribution has been calculated correctly in accordance with this plan.

3.9 Construction certificates and the obligations of accredited certifiers

In accordance with clause 146(b) of the *Environmental Planning and Assessment Regulation*, a certifying authority must not issue a construction certificate for building work or subdivision work under a development consent unless it has verified that each condition requiring the payment of a section 94 contribution has been satisfied.

In particular, the certifier must ensure that the applicant provides receipts confirming that the contribution has been fully paid and copies of such receipts must be included with copies of the certified plans provided to Council in accordance with clause 142(2) of the Regulation. Failure to follow this procedure may render such a certificate invalid.

¹⁰ The attention of certifiers is specifically drawn to the existence, within the City of Rockdale, of a number of parcels of land containing a single dwelling house erected over, or occupying, 2 or more allotments. In the case where each of these existing allotments are subsequently developed separately for a dwelling house, this contributions plan requires a section 94 contribution to be paid for each additional dwelling created. It is the obligation of certifiers to ascertain whether these circumstances apply to all applications they receive for new dwelling houses by, for example, reference to aerial photographs or Council's previous rating information, and to apply the appropriate contribution where necessary. Further details are provided in Section 3.3(d) of this plan.

¹¹ For applications lodged on and from 16 July 2009 the applicable contribution rates are those applying under Rockdale Section 94 Contributions Plan 2004 (Amendment 4).

4 Administration and financial management

Monies levied under section 94 are held separately from the rest of Council's income, as they are collected for a specific expenditure purpose. Council is required to list such money separately from other funds and provide detailed statements of income and expenditure from the section 94 accounts.

4.1 Contributions register

A contributions register will be maintained for this contributions plan in accordance with the *Environmental Planning and Assessment Regulation 2000* and may be inspected upon request. This register will be updated at regular intervals and include the following:

1. Particulars sufficient to identify each development consent for which contributions have been sought,
2. Nature and extent of the contribution required by the relevant condition of consent,
3. Name of the contributions plan under which the condition of consent was imposed, and
4. Date the contribution was received, for what purpose and the amount.

At the end of the each financial year, Council is required to make an annual statement within the financial statements. This statement must include the following:

- a. Opening and closing balances of section 94 contributions held by Council for the accounting period,
- b. Total amounts received by way of monetary contributions under this plan,
- c. Total amount spent in accordance with the plan, and
- d. Outstanding obligations of Council to provide works for which contributions have been received.

4.2 Savings and transitional arrangements

This plan came into effect on 1 June 2004. A development application or an application for a complying development certificate that is made after the commencement of this plan will be assessed in accordance with the provisions of this plan.

A development application or an application for a complying development certificate that has been made prior to the commencement of this plan but not determined, will be determined in accordance with the provisions of the contributions plan that applied at the date of submission of the application.

A development application or an application for a complying development certificate that has been determined in accordance with a previous contributions plan and that requires the making of a contribution but which has not been settled, will be reviewed and if necessary adjusted in accordance with the provisions of the contributions plan that applied at the date of determining the application.

Where this contributions plan has been amended, any reference in this section to a previous or pre-existing contributions plan includes a reference to this plan prior to the relevant amendment and a reference to the commencement of this plan includes a reference to the commencement of that amendment.

Exception for applications within the Bonar Street Precinct. Despite the savings and transitional provisions above, all applications within the Bonar Street Precinct made under the provisions of *Rockdale Local Environmental Plan 2000 (Amendment No 29)* or *Rockdale Local Environmental Plan 2000 (Amendment No 48)* will be subject to the amendments made to this plan by *Rockdale Section 94 Contributions Plan 2004 (Amendment 3) – Bonar Street Precinct* and *Rockdale Section 94 Contributions Plan 2004 (Amendment 4) – Bonar Street Precinct*, whether or not those applications are made before the amendments came into effect. This is because these LEPs and section 94 plan amendments are interdependent, being integral parts of the total strategy for the redevelopment of the precinct. Any proposal that takes advantage of the development regime allowed by the LEP should also meet its public facilities obligations identified in the associated contributions plan.

5 Development and population analysis

This chapter describes the existing pattern of development throughout the City of Rockdale as well as the characteristics of the existing population. On the basis of this information, it is possible to establish the likely pattern of future development (as a consequence of planning and development controls and environmental constraints) as well as the scope of future demand for public amenities and public services associated with an increase in population.

5.1 Development and environmental factors

This section identifies the factors that may influence the future development of the City and the locations where future development is likely to occur. These factors need to be understood, as they will influence the pattern and rate of development and therefore the demand for public facilities.

The City of Rockdale is a middle ring local government area located south of the Sydney Central Business District (CBD). The City extends from Wolli Creek and the Cooks River in the north to the Georges River in the south. It includes the suburbs of Bexley North, Bardwell Park, Kingsgrove (part), Turrella, Arncliffe, Wolli Creek, Bardwell Valley, Banksia, Rockdale, Bexley, Kyeemagh, Brighton Le Sands, Kogarah (part), Carlton (part), Monterey, Ramsgate (part), Ramsgate Beach, Sans Souci (part), Dolls Point and Sandringham.

The City has good road (Princes Highway and M5 Motorway) and rail access (East Hills, Illawarra and Airport lines) to and from the City, City South and the southern and south-western suburbs. The character and amenity of Rockdale is influenced by its location, its proximity to Sydney Airport and access to Botany Bay. The Cooks River corridor to the north of the City and the wetlands corridor which traverses the eastern side of the City both contain a range of recreational and sporting facilities catering for football, cricket, tennis, cycling and golf.

The City is predominantly residential in land use with a major commercial centre at Rockdale (on the Illawarra Railway line at the intersection of Princes Highway and Bay Street) with a new retail centre, Rockdale Plaza, recently established on the Princes Highway south of the existing Rockdale Town Centre. The City also contains a number of suburban and neighbourhood shopping and commercial centres catering predominantly to the needs of the local population, although the centre at Brighton-le-Sands (The Grand Parade and Bay Street) also serves tourists and visitors to the area. Outside of the City are the Hurstville sub regional centre and the Kogarah commercial centre both of which provide a much broader range of retail and personal services as well as educational and medical services.

Rockdale also includes a number of light industrial precincts, characterised by older style, largely small scale, manufacturing and local service industries, together with commercial strip development along the Princes Highway from Rockdale to Arncliffe, dominated by automotive businesses.

The older industrial area in Wolli Creek, located in the northern end of the City at the junction of the Illawarra, East Hills and Airport railway lines and known as the Wolli Creek Redevelopment Area, is in the process of redevelopment with higher density residential and employment generating uses. Another older industrial area, located near the intersection of Wollongong Road and Bonar Street, in Arncliffe and Turrella, is about to commence being redeveloped for high density residential.

The key factors that will influence the future pattern of development include:

- Accessibility to the Sydney CBD, Sydney Airport and the major centres at Kogarah and Hurstville,
- Well established road and rail infrastructure, including recent major upgrading of these facilities,
- Proximity to and impact of Sydney Airport,
- Potential flooding along various waterways and within low-lying areas, especially in the eastern side of the City,
- Amenity and recreational opportunities provided by its location on Botany Bay, and
- Controls applied through statutory zoning patterns and development standards.

5.2 Existing population distribution and change

Between 1986 and 1996 there was a gradual increase in the population of the City of Rockdale from 86,700 to 88,944 persons. Since then there has been a more rapid population growth, reaching 92,869 persons by 2001. These increases in population were attributed primarily to an increase in occupied private dwellings over this 15 year period (from 31,066 in 1986 to 33,224 in 2001).

The population change within each planning precinct between 1986 and 2001 is shown in Table 5.1.

Table 5.1 – Population change for each planning precinct

Precinct	1986	1991	Change 1986-1991	1996	Change 1991-1996	2001 (2)	Change 1996-2001 (2)	Change 1986-2001 (2)
Arncliffe	12,622	12,526	-0.8%	12,033	-3.9%	12,170	1.1%	-3.6%
Bexley	16,808	17,151	2.0%	17,791	3.7%	18,451	3.7%	9.8%
Bexley North	8,347	8,368	0.3%	8,343	-0.3%	8,653	3.7%	3.7%
Brighton Le Sands	12,243	12,285	0.3%	12,122	-1.3%	12,678	4.6%	3.6%
Kogarah	10,101	10,253	1.5%	10,193	-0.6%	10,071	-1.2%	-0.3%
Rockdale	12,176	12,666	4.0%	13,478	6.4%	15,139	12.3%	24.3%
Sans Souci	11,053	10,825	-2.1%	10,887	0.6%	11,361	4.4%	2.8%
Total	83,350	84,074	0.9%	84,847	0.9%	88,523	4.3%	6.2%
Adjusted population (3)	86,700	87,983	1.5%	88,944	1.1%	92,869	4.4%	7.1%

(Sources: 1996 Rockdale Community Profile, 2001 Census, 2001 Australian LGA populations - ABS)

Notes

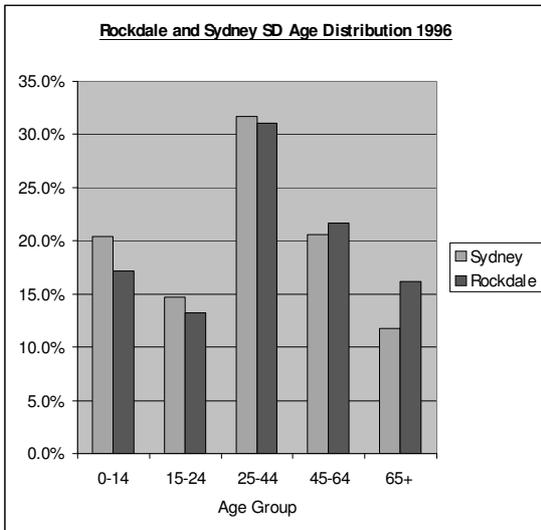
- (1) The planning precinct figures in this table are derived from raw census data and include only those present in the City on the night of the census, including visitors to the area but excluding normal residents who were temporarily absent. The ABS adjusts these figures to account for such discrepancies but these adjusted figures are only available at whole of City level. The adjusted population figures for the City of Rockdale are provided for comparison in the bottom row of this table.
- (2) Between 1996 and 2001 many census collection district boundaries were altered by the ABS, resulting in changes in the boundaries of all of the planning precincts except Bexley North and Rockdale. Because of this, caution should be exercised in comparing the 2001 precinct population figures with those from previous censuses.
- (3) Adjusted population figures are based on the 1986 - 2001 Census figures for the City of Rockdale, as adjusted by the ABS for temporary absences, visitors and under-enumeration. Such adjusted figures are not available at planning precinct level.

In the 15 years between 1986 and 2001, population increase in the precincts of Rockdale (24.3%) and Bexley (9.8%) significantly contributed towards the population growth in the City of Rockdale. Arncliffe experienced a significant decline in population of 3.6% over the 15 year period, equivalent to 452 people.

Other precincts remained fairly stable between 1986 and 1996, but, with the exception of Kogarah, recorded accelerated population growth rates of between 3.7% and 4.6% from 1996 to 2001, about the same rate of increase as the City of Rockdale as a whole.

5.3 Age structure and trends

Figure 5.1 - Age structure - Rockdale vs Sydney



The average age of the population in the City of Rockdale is higher than that of the Sydney Statistical Division, with proportionately fewer people in the younger age groups and more in the older age groups (see Figure 5.1).

The age structure for the City of Rockdale between 1991 and 1996 shows little change, as shown in Table 5.2 below.

Source: Australian Bureau of Statistics 1996

Table 5.2 - Age structure, 1991 – 1996

Age	1991	%	1996	%	Sydney 1996(%)
0-4	5,019	6	5,389	6	7
5-9	4,580	5	4,679	6	7
10-14	4,761	6	4,535	5	7
15-19	5,620	7	5,053	6	7
20-24	6,970	8	6,285	7	8
25-34	14,247	17	14,377	17	17
35-44	11,545	14	12,191	14	15
45-54	9,529	11	10,482	12	13
55-64	8,180	10	8,056	9	8
65-74	7,590	9	7,185	8	7
75+	6,033	7	6,615	8	5
Total	84,074		84,847		

Source: Australian Bureau of Statistics.

The key features of the age structure are as follows:

- A smaller proportion of children (under 15 years) than the Sydney average, ie. 17% in Rockdale compared to 21% in Sydney in 1996. The components of this population have remained relatively stable in Rockdale between 1991 and 1996.
- An older population than the Sydney average. Persons over 55 represented 26% of population in Rockdale in 1996, whereas the Sydney figure is 20%. The “older” aged population (ie. aged 75 and over) has increased in Rockdale from 7% in 1991 to 8% in 1996.
- A decline in persons aged 15-24 years between 1991 and 1996.

5.4 Age structure distribution

The demand for public services, facilities and infrastructure within precincts is directly related to the number of people within different age groups. Precincts with a younger population will require a different range of services and facilities compared to a precinct containing a larger proportion of older people. Precincts with younger age groups will require more active recreational open space and child care facilities while precincts with older people will require more passive recreational open space, aged services and facilities. Table 5.3 shows the population distribution by age groups within each precinct in 1996.

Table 5.3 - Age group distribution by planning precinct, 1996

Age	Arncliffe	Bexley North	Bexley	Brighton Le Sands	Kogarah	Rockdale	Sans Souci
0-4	7.6% (917)	5.6% (466)	7.4% (1,313)	4.9% (596)	7.3% (745)	6.3% (844)	4.7% (508)
5-9	7.3% (882)	5.3% (446)	5.7% (1,006)	4.0% (490)	5.8% (586)	5.9% (798)	4.3% (471)
10-14	6.6% (799)	6.2% (515)	5.4% (969)	4.0% (483)	5.4% (547)	6.0% (812)	3.8% (410)
15-19	6.5% (783)	7.4% (614)	6.0% (1,068)	5.4% (652)	5.7% (584)	6.6% (892)	4.2% (460)
20-24	7.2% (868)	7.1% (593)	7.4% (1,313)	7.3% (883)	7.5% (761)	8.3% (1,120)	6.9% (747)
25-34	16.4% (1,975)	14.0% (1,167)	16.5% (2,944)	17.8% (2,159)	20.4% (2,078)	17.9% (2,409)	15.1% (1,645)
35-44	14.0% (1,685)	12.2% (1,022)	14.7% (2,616)	13.8% (1,669)	16.6% (1,687)	15.9% (2,138)	12.6% (1,374)
45-54	12.4% (1,491)	12.9% (1,080)	12.2% (2,170)	13.4% (1,628)	10.7% (1,095)	12.0% (1,620)	12.8% (1,398)
55-64	8.8% (1,064)	10.2% (856)	8.5% (1,504)	10.9% (1,322)	8.5% (870)	9.2% (1,241)	11.0% (1,199)
65-74	7.1% (851)	9.3% (775)	7.8% (1,387)	9.7% (1,173)	7.0% (713)	6.9% (934)	12.4% (1,352)
75+	6.0% (719)	9.8% (819)	8.4% (1,501)	8.8% (1,063)	5.2% (525)	5.0% (668)	12.1% (1,322)

Source: Australian Bureau of Statistics (1996) Rockdale Community Profile

From the above table, the highest proportion of children aged 0-9 was found in Arncliffe (14.9%), followed by Bexley (13.1%) and Kogarah (13.1%). The lowest proportions of children aged 0-9 were found in Brighton (8.9%) and Sans Souci (9.0%).

Older children and teenagers aged 10-19 were concentrated in Bexley North (13.6%), Arncliffe (13.1%) and Rockdale (12.6%). The smallest proportions were found in Sans Souci (8.0%) and Brighton (9.4%).

The highest proportions of young adults aged 20-34 resided in Kogarah (27.9%), Rockdale (26.2%), Brighton (25.1%), Bexley (23.9%) and Arncliffe (23.6%). This age group was least represented in Bexley North with 21.1% and Sans Souci (22.0%).

Middle-aged adults (aged 35-54) were evenly spread throughout the City of Rockdale, ranging between 25.1% in Bexley North, to 27.9% in Rockdale, 27.3% in Kogarah, 27.2% in Brighton and 26.9% in Bexley.

The population aged 55-64 was highest in Sans Souci (11.0%), followed by Brighton (10.9%) and Bexley North (10.2%). The lowest proportions of the population in this age group were found in Bexley (8.5%), Kogarah (8.5%) and Arncliffe (8.8%).

The older group of the population aged 65+ was found in greatest numbers in Sans Souci (24.5%), followed by Bexley North (19.1%) and Brighton (18.5%). The lowest proportions of this age group were in Rockdale (11.9%), Kogarah (12.2%) and Arncliffe (13.1%).

5.5 Ethnicity

In 1996, Rockdale had a higher proportion of overseas born persons than the Sydney Statistical Division, ie. 40% compared to 31% (ABS 1998:85). Table 5.4 below shows persons born in non-English speaking countries, by planning precinct.

Table 5.4 - Persons born in non-English speaking countries by planning precinct, 1991-1996

Precinct	1991	% total population	1996	% total population	% change 1991-96
Arncliffe	4,733	37.8	4,326	36.0	-5
Bexley North	2,491	29.8	2,626	31.5	6
Bexley	5,172	30.2	5,784	32.5	8
Brighton Le Sands	3,218	26.2	3,490	28.8	10
Kogarah	3,555	34.7	4,045	39.7	14
Rockdale	5,521	43.6	6,128	45.5	4
Sans Souci	1,674	15.5	1,930	17.7	15
Total	26,364	31.4	28,329	33.4	6

Source: Australian Bureau of Statistics

Sans Souci (15%), Kogarah (14%), Brighton (10%) and Bexley (8%) experienced the greatest increases in the proportions of people born in non-English speaking countries between 1991 and 1996. The smallest increases were found in Rockdale (4%) and Bexley North (6%). Arncliffe experienced a 5% decline during this period.

Table 5.5 shows the number of persons who speak a language other than English at home.

Table 5.5 - Number of non-English speaking people by planning precinct, 1991-1996

Precinct	Persons 1991	% total households 1991	Persons 1996	% total households 1996	% change persons 1991-96
Arncliffe	6,083	52.7	5,935	54.0	-2
Bexley North	3,419	43.0	3,653	46.6	7
Bexley	6,571	40.9	7,330	44.8	12
Brighton Le Sands	4,114	35.1	4,435	38.7	8
Kogarah	4,253	44.3	4,701	50.1	11
Rockdale	6,775	57.4	7,498	59.7	11
Sans Souci	2,213	21.3	2,440	23.6	10
Total	33,428	42.3	35,992	45.6	8

Source: Australian Bureau of Statistics

Between 1991 and 1996, there was a general increase in the number of non-English speaking people residing in the City of Rockdale, except in Arncliffe where there was a 2% decline. In the other precincts increases ranged from 7% in Bexley North to 12% in Bexley. Moderate growth in the number of non-English speaking people occurred in Rockdale (11%), Kogarah (11%) and Sans Souci (10%).

By 1996, Rockdale (59.7%), Arncliffe (54.0%) and Kogarah (50.1%) had over half of their households speaking a language other than English compared to Sans Souci (23.6%), Brighton (38.7%), Bexley (44.8%) and Bexley North (46.6%) where less than half of the households spoke another language.

Proficiency in English of those with a non-English speaking background tends to be better among the younger age groups (ie. under 25) and worse in the older age groups (ABS 1988:3).

5.6 Household types

Table 5.6 shows the distribution of household types by planning precincts.

Table 5.6 - Household types by planning precinct, 1991-1996

Precinct	Single parent % of households		Couple only % of households		Couple / children % of households		Single only % of households	
	1991	1996	1991	1996	1991	1996	1991	1996
Arncliffe	7.3%	8.6%	24.2%	26.1%	42.8%	37.5%	25.7%	27.8%
Bexley North	5.1%	6.2%	32.3%	30.0%	37.8%	35.0%	24.9%	28.8%
Bexley	6.0%	7.2%	26.8%	27.5%	37.2%	35.6%	29.9%	29.8%
Brighton Le Sands	5.0%	5.6%	32.7%	31.8%	24.1%	21.5%	38.2%	41.0%
Kogarah	6.5%	7.2%	28.5%	27.4%	32.4%	34.3%	32.6%	31.2%
Rockdale	6.8%	8.5%	26.7%	28.3%	41.4%	37.0%	25.3%	26.2%
Sans Souci	6.3%	5.9%	35.3%	32.6%	21.2%	18.3%	37.2%	43.2%
Total	6.1%	7.0%	29.4%	29.1%	33.4%	30.9%	31.0%	33.0%

Source: Australian Bureau of Statistics

Single parent households made up less than 10% of all households in 1991 and 1996 within all precincts. With the exception of Sans Souci (-0.4%), all precincts experienced increases in the proportions of single parent households.

The proportions of couples only households increased only in Arncliffe (1.9%), Bexley (0.7%) and Rockdale (1.6%). Bexley North (-2.3%), Brighton-le-Sands (-0.9%), Kogarah (-0.1%) and Sans Souci (-2.7%) all experienced declines.

Couples with children, as a percentage of all households, ranged from 18.3% to 42.8% among precincts in 1991 and 1996. Kogarah (1.9%) was the only precinct that recorded an increase in the proportion of couples with children households. All other precincts, Arncliffe (-5.3%), Bexley North (-2.8%), Bexley (-1.6%), Brighton-le-Sands (-2.6%), Rockdale (-4.4%) and Sans Souci (-2.9%), experienced declines.

The proportions of single person households increased in Arncliffe (2.1%), Bexley North (3.9%), Brighton-le-Sands (2.8%), Rockdale (0.9%) and Sans Souci (6.0%). Minor declines in single person households occurred in Bexley (-0.1%) and Kogarah (-1.4%).

For the City of Rockdale as a whole, single parent households (up 0.9%) and single person households (up 2.0%) increased as a proportion of all households. Couples only households remained fairly constant with a small decline of 0.3%. The greatest change was in couples with children households, which declined by 2.5% between 1991 and 1996.

5.7 Household income

Table 5.7 shows changes in household income between 1991 and 1996

Table 5.7 - Household income change, 1991-1996

1991 income bands	1996 income bands	Households 1991	% 1991	Households 1996	% 1996	% change 1991-1996
\$0-\$8,000	\$0-\$8,319*	2,200	7	1,159	4	-47
\$8,001-\$16,000	\$8,320-\$15,599	4,324	14	4,786	16	11
\$16,001-\$20,000	\$15,600-\$20,799	1,904	6	2,223	7	17
\$20,001-\$25,000	\$20,800-\$25,999	1,790	6	1,713	6	-4
\$25,001-\$30,000	\$26,000-\$31,199	2,008	7	2,161	7	8
\$30,001-\$50,000	\$31,200-\$51,999	6,606	22	6,473	21	-2
\$50,001+	\$52,000+	6,412	21	8,952	29	40
Not stated	Not stated	5,168	17	3,393	11	-34
Total		30,412		30,860		

* Includes negative income

Source: Australian Bureau of Statistics

The number of households earning less than \$20,000 per annum has remained fairly steady, although the number of those earning less than \$8,000 per annum has almost halved. Half of all households were earning more than \$30,000 per annum at the 1996 Census.

In 1996, 78% of aged persons (65+ years) had an annual income of less than \$15,600 per annum. 920 single person households were earning less than \$8,320 per annum, of which many were aged pensioners (ABS 1998:21).

5.8 Low income households

Table 5.8 shows the distribution of low income households, ie. those earning less than \$20,800 per annum in 1996.

Table 5.8 - Distribution of low income households by planning precinct, 1996

Precinct	\$0-\$8,319	%	\$8,320-\$15,599	%	\$15,600-\$20,799	%	Total	%
Arncliffe	174	4.5%	642	16.7%	230	6.0%	1,046	27.2%
Bexley	87	3.0%	460	15.9%	209	7.2%	756	26.1%
Bexley North	210	3.4%	874	14.3%	423	6.9%	1,507	24.5%
Brighton Le Sands	216	4.3%	828	16.5%	360	7.2%	1,404	28.0%
Kogarah	148	3.9%	470	12.5%	256	6.8%	874	23.2%
Rockdale	151	3.4%	587	13.1%	339	7.5%	1,077	24.0%
Sans Souci	222	4.6%	925	19.4%	406	8.5%	1,553	32.5%

Source: Australian Bureau of Statistics

% = % of total households

In 1996, the proportions of low income households ranged from 23.2% to 32.5% among the various precincts. Sans Souci had the highest proportion (32.5%) reflecting the high percentage of aged persons in this precinct. Brighton had the next highest proportion with 28%, followed by Arncliffe (27.2%), Bexley (26.1%), Bexley North (24.5%), Rockdale (24.0%) and Kogarah (23.2%).

5.9 Housing tenure

The following table shows the number of persons by housing tenure for private dwellings. In 1996, about 2% of the City's population (1,770 persons) lived in non-private dwellings of whom half resided in aged hostels or nursing homes (ABS 1998:28).

Table 5.9 - Housing tenure, 1991-1996

Category	1991	% 1991	1996	% 1996
Owned	38,097	46.3	39,750	46.8
Being purchased	17,345	21.1	15,150	17.9
Rented:				
- Private*	17,662	21.5	19,987	23.6
- Public housing	2,578	3.1	1,741	2.1
- Other	819	1.0	807	1.0
- Total	21,059	25.6	22,535	26.6
Other / not stated	5,792	7.0	7,412	8.7
Total	82,293	100.0	84,847	100.0

* Includes "employer" housing for 1996
Source: Australian Bureau of Statistics

Between 1991 and 1996 there was a small increase of 0.5% in the number of people owning their dwelling. The number of people who owned or were in the process of purchasing their dwelling remained fairly constant during this period and represented two-thirds of all residents. The population in public housing declined by 837. However, there has been a moderate increase in the number of people (2,325) living in private rental accommodation.

Table 5.10 shows the percentage of the population in various housing tenure types by precinct.

Table 5.10 - Population by housing tenure and by planning precinct, 1991-1996

Precinct	Owner		Purchaser		Housing authority		Other rental	
	1991	1996	1991	1996	1991	1996	1991	1996
Arncliffe	47.7%	47.4%	22.6%	20.3%	3.3%	3.3%	19.5%	20.0%
Bexley North	57.8%	57.8%	19.6%	16.6%	3.0%	2.9%	13.5%	15.2%
Bexley	44.7%	45.1%	26.1%	21.7%	0.8%	0.7%	22.4%	22.7%
Brighton Le Sands	46.4%	46.2%	16.7%	13.8%	1.8%	1.6%	26.6%	29.0%
Kogarah	37.6%	40.4%	22.1%	17.4%	1.0%	0.4%	31.9%	33.8%
Rockdale	42.1%	44.2%	19.3%	16.7%	1.6%	2.3%	28.6%	28.6%
Sans Souci	51.4%	50.8%	18.9%	16.2%	2.0%	2.2%	21.1%	22.5%

Source: Rockdale Section 94 Contributions Plan 1998

Home ownership was the predominant form of tenure in all precincts in both 1991 and 1996. The highest proportions were found in Bexley North (57.8% in both 1991 and 1996.)

The proportion of the population purchasing a home declined in all precincts between 1991 and 1996. Significant declines were in Kogarah (-4.7%) and Bexley (-4.4%). The remaining precincts declined moderately between 2.3% and 3.0%.

Between 1991 and 1996 the proportions of residents under housing authority tenure remained relatively stable in Arncliffe, Bexley North, Bexley, Brighton-le-Sands and Sans Souci. Kogarah recorded a minor decline of 0.6% and Rockdale (up 0.7%) experienced minor growth.

The numbers of residents in other (private) rental dwellings has remained fairly constant in Arncliffe, Bexley and Rockdale. Moderate increases in private rental occupants occurred in Brighton (2.4%), Kogarah (1.9%), Bexley North (1.7%) and Sans Souci (1.4%).

5.10 Types of housing

Table 5.11 shows a breakdown of housing types.

Table 5.11 – Breakdown of housing types (occupied private dwellings), 1991-1996

Housing type	1991	%	1996	%
Separate dwellings	18,046	57.8	17,399	54.4
Attached dwellings	3,170	10.2	3,581	11.2
Flats / units	9,242	29.6	9,750	30.5
Other *	764	2.4	1,252	3.9
Total	31,222		31,982	

* includes caravans, dwelling attached to shop, houseboat, not stated, etc.
Source: Australian Bureau of Statistics

There has been an overall increase in the amount of housing in Rockdale. While separate dwellings still make up the majority of dwellings, there has been a decline in their number since 1991. However, there has been an increase in multi unit dwellings, accounting for 41.7% of all dwellings in 1996. This is likely to reflect the trend towards smaller households and urban consolidation policies.

5.11 Dwelling sizes and occupancy rates

The numbers of dwelling of various sizes and housing types in the City of Rockdale are set out in Table 5.12.

Table 5.12 - Dwelling numbers by size and housing types, 2001

Housing type	Number of bedrooms												Total
	None		One		Two		Three		Four or more		Not stated		
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
Separate house	9	0.1	141	0.8	3,489	19.9	8,803	50.3	4,276	24.4	785	4.5	17,503
Semi-detached, row or terrace house, townhouse etc	6	0.1	153	3.8	1,758	43.7	1,760	43.7	168	4.2	179	4.4	4,024
Flat, unit or apartment	79	0.7	1,073	9.7	7,887	70.9	1,019	9.2	48	0.4	1,012	9.1	11,118
Others or not stated	8	1.4	104	17.9	223	38.4	103	17.8	35	6.0	107	18.4	580
Total	102	0.3	1,471	4.4	13,357	40.2	11,685	35.2	4,527	13.6	2,083	6.3	33,225

Source: Australian Bureau of Statistics, Rockdale Community Profile 2001

Over three quarters of all dwellings in the City of Rockdale have 2 or 3 bedrooms (40.2% and 35.2% respectively). However, the typical sizes of dwellings vary markedly depending on the type of housing involved.

For separate houses, almost three quarters (74.7%) have three or more bedrooms whereas dwellings within semi-detached, row or terrace house or townhouse developments are almost exclusively of 2 or 3 bedrooms with almost equal numbers of each (both 43.7%). Over two-thirds of flats, units and apartments contain 2 bedrooms (70.9%) with 10.4% being one bedroom or bed sitter units and a further 9.6% being large units of 3 or more bedrooms.

The average numbers of residents in dwellings of various sizes and housing types in the City are given in Table 5.13.

Table 5.13 - Dwelling occupancy rates by size and housing types, 2001

Housing type	Number of bedrooms							
	None	One	None or one	Two	Three	Three or more	Four or more	All dwelling sizes (1)
Separate houses	n.a. (2)	1.66	1.68	2.15	2.96	3.26	3.88	3.02
Semi-detached, row or terrace houses, townhouses etc	n.a. (2)	1.29	1.33	1.93	2.47	2.56	3.54	2.22
Flats, units or apartments	1.29	1.32	1.32	2.14	2.60	2.61	2.92	2.09
All multi-unit housing (3)	1.38	1.32	1.32	2.10	2.52	2.58	3.4	2.13

Source: Australian Bureau of Statistics, Rockdale Community Profile 2001

Notes

- (1) Includes 0, 1, 2, 3 and 4+ bedroom dwellings only. Dwellings where the size was not stated are excluded.
(2) There are insufficient numbers of separate houses or dwellings within semi-detached, row and terrace houses or townhouse developments with no bedrooms for a meaningful occupancy rate to be derived.
(3) Includes semi-detached, row or terrace houses, townhouses etc plus flats, units or apartments.

The standard dwelling occupancy rates used in this contributions plan are based on the occupancy rates above and are set out in Table 5.14.

Table 5.14 - Standard dwelling occupancy rates used in this plan

Housing / dwelling type		Occupancy rate category adopted from Table 5.13	Occupancy rate
Dwelling house allotment		Separate houses - all dwelling sizes	3.02
Multi-unit development	0-1 bedroom dwelling	All multi-unit housing - none or one bedroom	1.32
	2 bedroom dwelling	All multi-unit housing - two bedrooms	2.10
	3+ bedroom dwelling	All multi-unit housing - three or more bedrooms	2.58

5.12 Household type by number of vehicles

Table 5.15 shows the rate (%) of car ownership by household type in Rockdale.

Table 5.15 - Car ownership by household type, 1991-1996

Household type	0 cars	1	2	3+	Not stated
1991					
Single parents	24%	50%	19%	5%	1%
Couples only	13%	61%	22%	3%	1%
Two parent families	5%	42%	38%	14%	1%
Group households	18%	40%	31%	9%	2%
Lone persons	44%	49%	3%	1%	4%
1996					
Single parents	23%	50%	19%	5%	4%
Couples only	12%	58%	24%	2%	4%
Two parent families	5%	39%	40%	14%	3%
Group households	18%	39%	32%	6%	5%
Lone persons	39%	48%	3%	1%	9%

Source: Australian Bureau of Statistics

Lone person households make up a significant proportion of households without access to a motor vehicle, although this percentage has declined since 1991. One quarter of single parent families had no car, while 39% of people living alone had no car. Of the latter, half were 65 years or older (ABS 1998:5).

6 Future development and projected population changes

In order to establish a nexus between the provision of public amenities and services from section 94 contributions it is necessary to estimate the future residential and employment population growth generated from development taking place over the next decade throughout the City of Rockdale.

6.1 Methodology

6.1.1 Residential

The methodology adopted to estimate the future residential population growth over the next 10 years involved the following:

- Researching and analysing population, dwelling stock production, vacancy rates and occupancy rate projections published by the Department of Planning (DoP) through its Metropolitan Development Program and census data and population forecasts from the Australian Bureau of Statistics (ABS).
- Analysing historical population growth rates by planning precincts to establish likely future population growth rates.
- Establishing residential development potential of each precinct by undertaking site inspections and interpretation of existing zoning and planning controls, the property market, interest rates and the building cycle, in comparison with estimated dwelling completions and projections published by the DoP and ABS data and forecasts.
- Detailed analysis of the planning controls for residential development in major rezonings and development precincts, such as the Wollli Creek Redevelopment Area and the Bonar Street Precinct.
- From the above information, arriving at appropriate residential population projections to the year 2014 for each planning precinct for use in the section 94 contributions plan.

6.1.2 Employment

The methodology adopted to estimate the future employment growth over the next 10 years involved the following:

- Reviewing literature from existing reports on the commercial centres within the City of Rockdale.
- Identifying likely growth of commercial centres within the City, taking into account land sizes and shapes, zoning and planning controls, building design and interpretation of the property, interest rate and building cycles.
- Detailed analysis of the planning controls for employment generating development within the Wollli Creek Redevelopment Area.

- Arriving at appropriate employment population projections to the year 2014 for the entire City generally and for the Wollli Creek Redevelopment Area in particular for use in the section 94 contributions plan.

6.2 Wollli Creek Redevelopment Area

The Wollli Creek Redevelopment Area is planned for comprehensive redevelopment as a mixed use precinct and it is expected that a significant component of both resident and employment population growth within the City of Rockdale over the next 10 years will occur in this area.

However, Wollli Creek is not expected to be fully developed within the 10 year lifespan of this plan but rather is likely to take a period of between 15 and 25 years to reach its ultimate form. To facilitate the orderly provision of the necessary facilities that will be required within the area when it is fully developed, a long term section 94 implementation strategy has been adopted for the Wollli Creek area, as outlined in Section 2.12. This strategy requires this plan to estimate not only the development that is expected in the area during the life of the plan but also what is expected when the area is fully developed.

In this chapter, the following terms are used to describe the timing of anticipated future development in Wollli Creek:

- short term** means development expected to occur within the next 3 to 5 years,
- medium term** means development likely to occur between 4 and 10 years into the future (ie. within the last 5 to 7 years of this plan), and
- long term** means development that is unlikely to occur for at least 10 years (ie. beyond the life of this plan).

Figure 6.1 shows the Wollli Creek Redevelopment Area and the development precincts and sites referred to in this chapter.

6.2.1 Development assumptions

It is anticipated that the redevelopment of the area will initially be undertaken on sites in and around the Wollli Creek Railway Station, which will include a mix of residential and non-residential activities, and on sites on the western side of the Illawarra Railway Line that will be predominantly residential.

For the longer term, however, various population growth scenarios have been examined, based on the zoning and other planning controls applying to the area, or likely to apply to the area in the future, and the advice of developers, property investors and real estate agents as to what would be the most likely development outcomes for the area. Based on this, the most likely development scenario for the area is one combining a high residential growth rate with a slow rate of commercial growth.

For the purposes of this strategy, the population projections for Wollli Creek are based on the following assumptions:

- Development of the area will be carried out in accordance with the zoning and other planning controls contained in *Rockdale Local Environmental Plan 2000*, as specifically amended by *Rockdale Local Environmental Plan 2000 (Amendment No. 13) – Wollli Creek*.
- Development will initially (i.e. for the first 3 – 5 years of this strategy) be concentrated in the Railway Precinct (Discovery Point site) and Precinct 1, under master plans previously approved by Council.

- The area will not be fully developed during the life of this plan (10 years) but will require a longer time period (say 15-25 years) for Council's development strategies to be completely realised.
- Only 70% of the area's minimum commercial and retail floor space requirement under the current planning controls will be ultimately developed.¹² (100% commercial / retail take up has been assumed for all previously approved developments – ie. Discovery Point and the site at 35 Arncliffe Street).
- The take-up rate for residential development is likely to be close to 100% of the maximum residential floor space permissible under the current planning controls.¹³

Residential take up rate of between 200 and 275 dwellings per year in the short term (first 3-5 years)¹⁴, reducing to 160 to 220 dwellings per annum in the medium and long term.

- Estimated average annual increases in commercial and retail floor space of about 7,500 m² for the whole Rockdale City area throughout the life of this plan. The total increase to 2014 is estimated to be around 75,000 m². The bulk of this increased floor space would be located in Wolli Creek.¹⁵

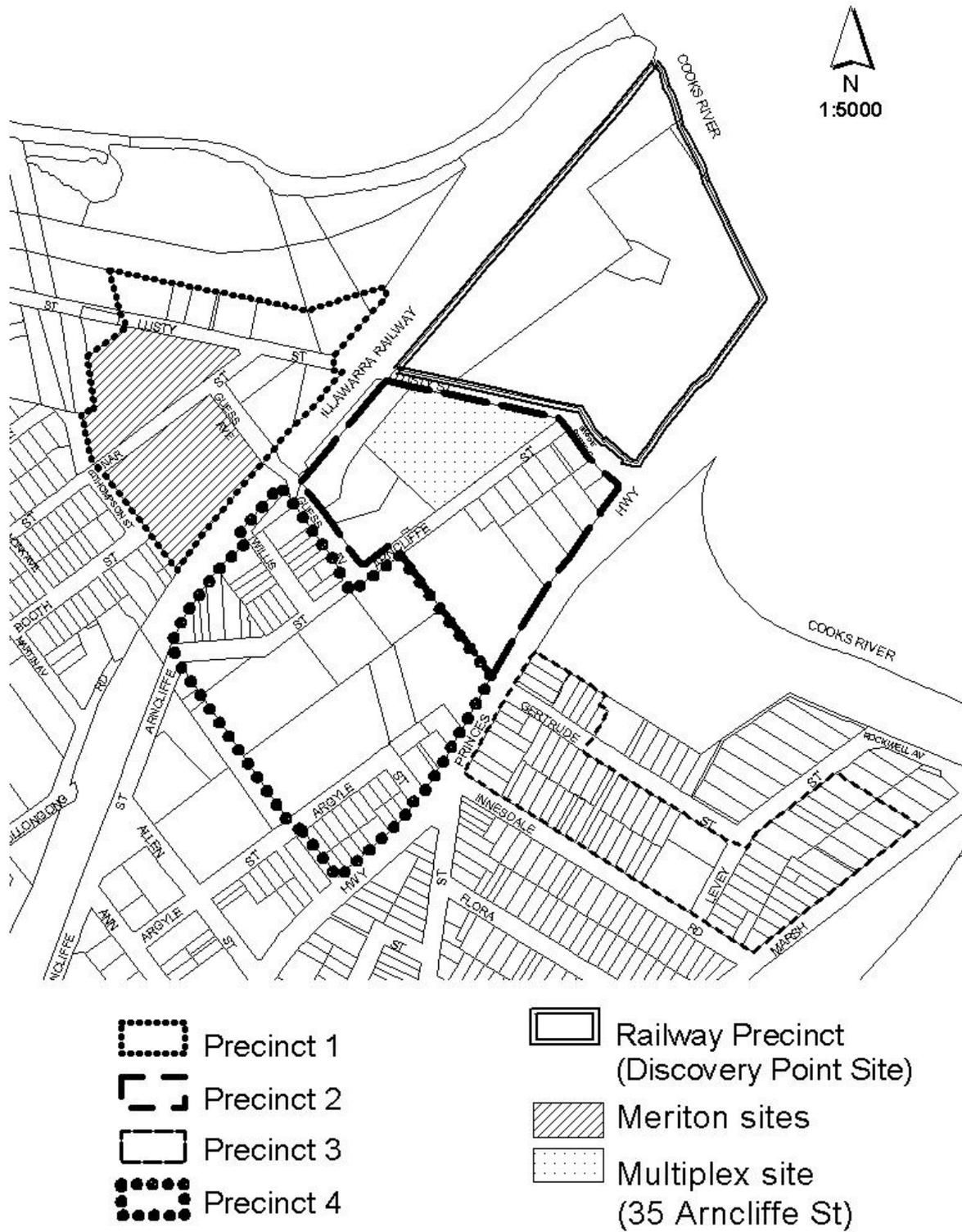
¹² Based on advice obtained from DEM Gillespies during preparation of the *North Arncliffe Master Plan* report (May 2001) that a 70% floor space take up rate could reasonably be expected in "brownfields" redevelopment area such as Wolli Creek. However, considering the very low commercial / retail floor space take up rates in the area to date, the considerable commercial floor space capacity available in other nearby development areas and advice from a number of applicants that there is presently a low demand for additional commercial floor space in the area and that this trend is likely to continue into the future, it is possible that the total amount of commercial and retail floor space ultimately built in Wolli Creek may be less than 70% of the minimum non-residential floor space requirements applying under Council's planning controls. Council is now proposing to initiate an investigation of employment lands within its area and the DoP has also foreshadowed a study into employment zoned land in the CBD / Airport corridor which will provide more precise forecasts on likely commercial take up rates in the area. However, until this information becomes available, the 70% figure has been retained as it is considered a reasonable assumption, noting that any reduction in the commercial floor space forecasts for Wolli Creek will result in higher section 94 contribution rates.

¹³ Based on the current high take up rate of residential floor space within the area and the likelihood that this high residential demand will continue for the foreseeable future, resulting in all available residential floor space in the area being taken up within 10-15 years.

¹⁴ A consultancy report by First Pacific Davies (FPD) prepared in 1998 for Council indicated a likely take up rate for residential development in the Wolli Creek Redevelopment Area of between 180 and 200 apartments per annum, based on current demand at that time. The medium and long term take up rate of 160 to 220 dwellings per year used in this plan is based on this forecast. However, the short term take up rate adopted in the plan of 200 to 275 dwellings per annum has been based on the actual take up rate for residential development in the area to date. In the four and a half years since residential development has been permitted in Wolli Creek (July 1999 to January 2004) full development consents have been granted to 1,123 dwellings, an average rate of 250 dwellings per annum. This higher short term take up rate reflects the current residential property boom and it is not anticipated that such a rate could be sustained throughout the life of the plan.

¹⁵ A consultancy report prepared by National Economics (NIEIR) in 1998 forecast an increase in commercial office space within the whole City of Rockdale, in the decade to 2007, of 58,000m² (an average take up rate of 5,800m² per annum) plus 54,000m² of additional retail floor space in the same period (or 5,400m² per year). The bulk of this growth, especially office space, was expected to occur in the Wolli Creek area. Further consultancy reports by First Pacific Davies (FPD), prepared in 1998 for Council, and by Richard Ellis Professional Services, prepared in 1997 for Rail Estate, both indicated a likely short term take up rate of commercial office space in the Wolli Creek area of between 3,000m² and 4,000m² per annum (excluding any retail floor space which might also be provided). Current take up rates for commercial and retail floor space within Wolli Creek to date have been substantially lower than all of these projections. In the four and a half years since mixed commercial / residential development has been permitted in Wolli Creek, full development consents have been granted for only 3,067m² of commercial and retail floor space, an approval rate of less than 700m² per year. However, master plan consents have been granted for a further 65,364m² of retail and commercial floor space (consisting of 53,144m² of office/commercial floor space and 12,210m² of retail space) and the developers of these sites have indicated that all of this floor space is likely to be provided within the 10 year life of this plan, giving an average commercial / retail take up rate of 6,500m² per annum. On this basis, the forecast growth in commercial and retail floor space throughout the City of 7,500m² per annum is considered reasonable, pending the availability of more detailed information from the employment land studies proposed by Council and the DoP, noting that any further reduction in the commercial floor space forecasts for Wolli Creek will result in higher section 94 contribution rates.

Figure 6.1 – Wolli Creek Redevelopment Area showing development precincts and sites



- The most likely non-residential uses established in the Wolli Creek Redevelopment are expected to be offices and other commercial uses, in particular, "suburban" type office developments and "quasi-industrial developments with relatively high components of office space" (often referred to as "high tech" industry).¹⁶
- Only an estimated 15% of the total non-residential floor space ultimately constructed within the area is expected to be retail floor space, consisting predominantly of local convenience-type retail serving the day to day needs of the area's residents and businesses, and bulky goods retail establishments.¹⁶
- Projected floors space figures do not include floor space that will be lost as a consequence of redevelopment. The floor space figures included in this strategy are gross figures.
- Average gross floor space of 110 m² per dwelling is assumed¹⁷ (except where actual dwelling sizes are known).
- Average dwelling occupancy is assumed to be 2.10 persons / dwelling (ie. about 52 m² / person)¹⁸ (except where actual dwelling sizes are known).
- Average commercial/office worker occupancy is assumed to be 30m² / per person, consisting of the following components:
 - "high tech" industry with high office components – 45m² / person
 - offices and other commercial – 25m² / person¹⁹

¹⁶ The *North Arncliffe Employment Precinct Study* prepared for Council by Leyshon Consulting in 2000 identified the main employment uses likely to be established in the Wolli Creek Redevelopment Area as:

- suburban office development
- bulky goods retail
- quasi-industrial development with relative high components of office space
- convenience-type retail functions to service the Wolli Creek area's future residential and workforce population.

As little non-residential development has taken place in the Wolli Creek Redevelopment area to date, the likely mix of these employment uses is difficult to predict. The estimate that retail floor space will make up only 15% of the area's total non-residential floor space is based on the likelihood that there will only be limited opportunities for retailing in Wolli Creek. There will be no major shopping centre and only one full-line supermarket. All retail floor space will, almost certainly, consist of mainly convenience and bulky goods uses and be confined to the ground floor sections of future commercial or residential buildings.

This proportion is supported by data obtained from the two mixed use development "master plan" approvals granted in the area to date. In the proposed Discovery Point development, retail floor space will make up 22.2% of the total non-residential floor space (12,084m² out of a total 54,337m² of non-residential space). However, the Discovery Point site is atypical, as it will contain the retail core for the entire Wolli Creek area. More typical of future mixed use developments in Wolli Creek is the "master plan" approval for 35 Arncliffe Street that proposes 15.1% of its total non-residential floor space as retail (2,070m² out of a total 13,671m² of non residential space).

The future mix of employment development in Wolli Creek will continue to be monitored as development occurs and the employment forecasts will be adjusted as required. The employment land studies proposed by Council and the DoP may also provide further information on the likely land use mix and employment densities in Wolli Creek, noting that any reduction in the employment forecasts for the area will result in higher section 94 contribution rates.

¹⁷ The average dwelling is assumed to be a two bedroom dwelling. The average gross floor space for such a dwelling is derived by multiplying the existing occupancy rate for two bedroom multi-unit dwellings in the City (2.10 persons – see Table 5.13) by the standard Wolli Creek residential density of about 1 person per 52m² of gross residential floor space (see Footnote 17).

¹⁸ This is the standard Wolli Creek residential density, based on approved residential developments within the Wolli Creek Redevelopment Area. It has been derived by estimating the populations of those developments based on their dwelling mix (1, 2, 3 bedrooms etc) multiplied by the existing occupancy rates for multi-unit dwellings in the City obtained from the 2001 census, as shown in Table 5.13, and dividing that estimated population into the gross residential floor space of the development.

¹⁹ Based on data obtained by Council from Leyshon Consulting Pty Ltd. Following completion of their *North Arncliffe Employment Precinct Study* in 2000, which identified the main employment uses likely to be established in the Wolli Creek area (see Footnote 16), subsequent advice was obtained from Leyshon Consulting in 2004 that indicated the following typical worker occupancy rates for these uses:

Suburban office development - Past surveys have found occupancy rates of between 16.4 and 23.3m² gross leasable area (GLA) per worker in the Sydney Region.

Bulky goods retail - The ABS 1998-99 *Retail Industry Survey* found an average of 43m² (GLA) per employee in the furniture, homewares and appliances merchandise category.

- Average retail worker occupancy is assumed to be 35m² / person, consisting of the following components:
 - supermarkets – 25 m² / person
 - bulky good retailing – 50 m² / person
 - other retailing – 35 m² / person
- Average industrial worker occupancy is assumed to be 80 m² / person. This represents an average for warehouses, car yards and modern industrial uses but does not include “high tech” industrial uses.²⁰
- The assumed average occupancy rates for retail, commercial and industrial uses, as nominated above, have been used for the purposes of estimating the population growth in this plan and will be used for calculating the section 94 contribution for particular development applications (unless the applicant can satisfy Council, by way of an expert study or the like, that another occupancy rate should apply).
- The area of new open space and link roads has been excluded from the potentially developable area.
- While Council has fixed certain minimum residential and commercial floor space requirements (and limits), the market will ultimately determine the mix and the actual amount of floor space provided for each of the uses.

6.2.2 Anticipated development scenario

The form and land use mix of development that will occur within the Wollli Creek area in the short term (3 – 5 years) can now be predicted with some degree of certainty, due to completion of a detailed LEP for the whole of the Wollli Creek area (*Rockdale LEP 2000 (Amendment No. 13)*) and the finalisation of development proposals for the following major development sites:

- Discovery Point site – previous gazettal of a specific LEP, approval of a “master plan” development application for the whole of the site and full development approval of two mixed commercial/residential buildings within the site.

Quasi-industrial development with relative high components of office space - Previous studies have found employment densities of usually between 35 and 40m² (GLA) per person.

Convenience-type retail functions - The 1991-92 ABS retail survey (the most recent available) indicated about 30m² (GLA) per employee for retailing in NSW. Leyshon Consulting estimates this could currently be about 33m² per person. The 1998-99 ABS retail survey found an average of 21.2m² (GLA) for each employee for supermarkets in Australia.

The occupancy rates used in this Plan are based on these figures, noting that where ranges in occupancy rates were indicated, an average figure has been used. As the occupancy rates provided were expressed in gross leasable area (GLA), an adjustment of 10 to 15% was also applied to convert the figures to total gross floor area. This allows for non-leasable space such as wall thicknesses, common areas and access and service space.

Little non-residential development has taken place in the Wollli Creek Redevelopment area to date and therefore the likely mix of employment uses in the area is difficult to predict. As measured employment densities vary greatly between the two most likely office-type uses, “suburban style office development” and “quasi-industrial development”, and as the likely proportions of each use in this area are not yet known, an average of the occupancy rates of both use types has been adopted in this Plan for population forecasting purposes. This produces a figure of about 30m² of gross floor space per employee (including an allowance for non-leasable floor space, as outlined above).

In the case of likely retailing uses, while there is capacity in the area for one full-line supermarket, the remaining retail floor space in the area would most likely be either bulky goods or convenience-type retailing. On the basis of the average occupancy rates outlined above, an estimate of about 35m² of gross floor space per employee for all retail development in Wollli Creek appears reasonable (including an allowance for non-leasable floor space).

The future mix of employment development in Wollli Creek will continue to be monitored as development occurs and the employment forecasts will be adjusted as required. The employment land studies proposed by Council and the DoP may also provide further information on the likely land use mix and employment densities in Wollli Creek, noting that any reduction in the employment forecasts for the area will result in higher section 94 contribution rates.

²⁰ Based on advice provided by Scott Carver Pty Ltd and contained in *Rockdale Section 94 Contributions Plan 1998*.

- 35 Arncliffe Street – previous gazettal of a specific LEP, approval of a “master plan” development application and full development approval of Stage 1 of this development (now completed).
- Meriton sites – approval of development applications (now completed).
- Northern side of Lusty Street (Precinct 1) – approval of a “master plan” DCP and development approval of the first residential buildings within this area.

Estimates of the medium and long term development potential are based on Council's new planning controls for the area, which set specific maximum floor space ratios for buildings and minimum floor space requirements for the non-residential component of mixed developments. These were used to determine the ultimate floor space that is likely to be developed, the likely mix of commercial and residential floor space and the rate at which development will proceed.

A number of development options were considered but, based on current development trends and market advice previously obtained by Council, the scenario most likely to occur would involve a high residential growth rate coupled with a slow rate of commercial growth. (Section 6.2.1 provides details on the bases for this, and the following, assumptions and forecasts).

This scenario assumes that the current strong demand for residential development will continue into the future unabated. Following a short term take up rate of 200 – 275 dwellings per annum within the developments referred to above (up to about 1,000 dwellings in the first 3-5 years), residential demand will continue strongly at 160 – 220 dwellings a year, resulting in an additional 1,000-1,200 dwellings during the life of this plan.

Commercial and retail development is expected to occur at a much slower rate and it is anticipated that even the minimum requirements for commercial floor space under Council's planning controls will not be ultimately achieved.²¹ The developments identified above propose 53,144 m² of commercial / office floor space and 12,210m² of retail space (in addition to 3,067 m² of retail and commercial floor space previously given full development approval) and, on present trends, this would be sufficient to meet all of the employment floor space requirements of the area throughout the life of this plan. In the long term the provision of commercial floor space would continue slowly, eventually generating an additional 130,000 m² or so of commercial and office floor space and about 20,000m² of additional retail floor space, but well beyond the life of this plan.²²

6.2.3 Anticipated development for each precinct

a. *Railway Precinct (Discovery Point)*

Rockdale LEP 2000 (Amendment No 13) specifies development standards for the Discovery Point site that would permit development up to a maximum floor space of 168,000 m² and would require a minimum non residential floor space of 54,300 m².

A “master plan” development application has now been approved for the site in compliance with these standards which involves the construction of about 950 dwellings (estimated resident population 1,920), 12,084 m² of retail floor space and 42,253m² of other commercial floor space and 11,410 m² of “flexible” floor space (ie. floor space that could be used for either residential or commercial purposes, however for the purposes of this plan, it

²¹ Council's planning controls require at least 40% of the total floor space in its 10 (a) Mixed Use zone (except in Precinct 3) to be used for non-residential purposes. However, further provisions allow up to 20% of this non-residential floor space to be used as “flexible” floor space or serviced apartments, resulting in an actual minimum retail and commercial component of 32% in this zone. While this commercial and retail floor space minimum will be complied with in approved DAs and master plans, it is now anticipated that only 70% of this floor space will actually be constructed, due to ongoing low market demand. Similarly, only 70% of the floor space potential of the 3 (d) Employment zone is now expected to be realised. (See Footnote 12 for details).

²² Based on 70% take up of the remaining minimum commercial floor space requirements for the area under Council's planning controls, as outlined previously.

is assumed that it is likely to be used for residential purposes) yielding a further 104 dwellings and 218 residents. The proponents of this application have previously indicated that development of the entire site will be completed within the life of this plan.

Full development consents have now been granted for two buildings within this site containing 215 dwellings and 980 m² of commercial and retail floor space (both approved under the previous contributions plan) and one of these buildings is now under construction.

b. *Precinct 1*

In this precinct, Council has now granted consents to development on the two Meriton sites at 76 – 90 and 95 Bonar Street (549 dwellings and 413 m² commercial and retail floor space – approved under the previous contributions plan) and these two developments are now completed.

In addition, a “master plan” DCP has been approved for land on the northern side of Lusty Street (likely to yield about 220 dwellings) and all or part of that land could be developed within the life of this plan as well. Development consent has now been granted for two developments under this master plan, containing 62 and 95 dwellings respectively and the first of these (approved under the previous contributions plan) is now completed.

c. *Precinct 2*

Council had previously rezoned one key site at 35 Arncliffe Street and a “master plan” development application has now been approved for a mixed commercial / residential development on that site (293 dwellings, 2,070m² of retail floor space and 11,601m² of commercial and office floor space). Stage 1 of this development (approved under the previous contributions plan) is now completed and it is assumed that the whole of this development would be completed during the life of this plan.

d. *Remainder of Wolli Creek Redevelopment Area*

While Council’s new planning controls will now allow redevelopment throughout most of the Wolli Creek area, it is expected that, in the short term at least, development of the area would be concentrated in the locations identified above.

Development of the rest of the Wolli Creek area will be more likely to occur in the medium term (the last 5-7 years of this plan) or in the longer term (beyond the life of this plan). However, if Council does approve other developments in the short term period, the effect would be to supplant or delay one of the projects identified above, rather than increase the total amount of floor space provided within this period. Thus the timing of development within the rest of Wolli Creek is not likely to have any significant effect on the operation of this plan.

6.2.4 Anticipated population growth

Under the strategy outlined in Section 2.12 of this plan for the ongoing provision of facilities and services in the Wolli Creek Redevelopment Area that will be required when the area is fully developed, it is necessary to estimate not only the population growth expected during the life of this plan but also the long term population expected when the area is fully developed.

a. During the life of this plan (to 2014)

Over the 10 year period of this plan, the following development scenario is expected to eventuate:²³

Residential	– 2,124 dwellings (4,445 residents)
Offices	– 53,144m ² (1,772 workers)
Retail	– 12,210m ² (349 workers)
Total people	– 6,566

The development in this 10 year period represents an estimated 53.0% of the total potential growth of Wollli Creek (being the total population at 10 years / the ultimate population – see below).

b. Long term forecast (ultimate development)

Based on the current forecasted rates of development, the intention for a genuine mixed use redevelopment of the area and the comprehensive scope of ultimate redevelopment, it is expected that the area's ultimate population (residents and workers) would be about 14,800 people (12,400 persons, excluding developments that have already been levied for section 94 contributions and existing dwellings).

The following long term development scenario is considered the most likely.²⁴

Residential	- 280,000 m ² (2,550 dwellings or 5,300 residents)
Offices	- 185,000m ² (6,250 workers)
Retail	- 30,000m ² (850 workers)
Total people	- 12,400

The population forecasts for Wollli Creek are summarised in the following table.

Table 6.1 - Population projections for Wollli Creek Redevelopment Area

Development period	Dwellings	Residents	Workers	Total persons
Development before 2004 (under previous contributions plans)	1,118	2,206	92	2,298
Development 2004 to 2014 (under this Plan)	2,124	4,445	2,121	6,566
Development after 2014 (2) (under future contributions plans)	450	950	5,000	5,950
Ultimate development (2)	3,700	7,600	7,200	14,800

²³ These population forecasts are based on the assumptions and forecasts outlined earlier in this chapter. The residential forecasts include the "master plan" developments or development control plans that have already been approved by Council and that are expected to be fully implemented within the first 3 to 5 years of the plan plus additional residential development that is expected to occur over the remaining 5 to 7 years of the plan at a rate of 160 to 220 dwellings per annum (1,110 dwellings and 2,331 residents, derived by averaging 220 dwellings over 5 years and 160 dwellings over 7 years). The commercial forecasts include only the commercial and retail floor space components of the approved "master plans" for the Discovery Point and 35 Arncliffe Street sites. However, these forecasts exclude the developments in the area that have been approved under the previous contributions plans (but not "master plan" development consents for which contributions have yet to be levied). Developments approved in Wollli Creek under the previous contributions plans consist of 112,614m² of residential floor space (1,118 dwellings, estimated population 2,206) and 3,067m² of commercial or retail floor space (estimated workers 92).

²⁴ These long term population forecasts are based on the assumptions and forecasts outlined earlier in this chapter. The residential forecasts assume that close to 100% of the maximum residential floor space potential of the area under the current planning controls will be achieved. The commercial forecasts assume 100% take up of the commercial and retail floor space components of the approved "master plans" for the Discovery Point and 35 Arncliffe Street sites but only a 70% take up of the area's minimum non-residential floor space requirements under the current planning controls. However, these forecasts exclude those developments in the area that have been approved under the previous contributions plans, as outlined in Footnote 23, and have discounted pre-existing residential development in the Wollli Creek area (25 dwellings, estimated population 76). The figures are approximations only and have been rounded.

Notes

- (1) The figures in this table are gross development projections for the Wolli Creek area and no allowance has been made for pre-existing residential development (25 dwellings, estimated population 76). The long-term development projections contained in paragraph (b) above have made the necessary allowances for this existing residential development and are the figures used to calculate contribution rates under this plan.
- (2) All projections beyond 2014 are approximations only and have been rounded. Hence the figures in this table will not add up exactly to the totals shown.

6.3 Bonar Street Precinct

The Bonar Street Precinct is planned for comprehensive redevelopment as a predominantly high density residential area. It is expected that development within this precinct will form a reasonably significant component of population growth within the City of Rockdale over the next 10 years.

However, the precinct is not expected to be fully developed within the 10 year lifespan of this plan but rather is likely to take a period of between 15 and 25 years to reach its ultimate form. To facilitate the orderly and timely provision of the necessary facilities that will be required within the area when it is fully developed, or will be required to allow development to take place, a long term section 94 implementation strategy has been adopted for the Bonar Street Precinct, as outlined in Section 2.13. This strategy requires this plan to estimate not only the development that is expected in the area during the life of the plan but also what is expected when the area is fully developed.

Figure 6.2 shows the Bonar Street Precinct and the development sites referred to in this chapter.

Figure 6.2 – Bonar Street Precinct showing development sites



6.3.1 Development assumptions

It is anticipated that the redevelopment of the precinct will initially occur on those sites that are presently vacant or underutilised or where the owners have expressed an immediate desire to redevelop. Other sites, containing viable industrial uses, including relatively new strata title factory

units, or existing houses or which require consolidation of a number of smaller sites, are unlikely to redevelop until the longer term. Redevelopment is expected to be in the form of predominantly high density residential.

For the purposes of this strategy, the population projections for the Bonar Street Precinct are based on the following assumptions:

- Development of the area will be carried out in accordance with the zoning and other planning controls contained in:
 - ❖ *Rockdale Local Environmental Plan 2000*, as specifically amended by *Rockdale Local Environmental Plan 2000 (Amendment No 29)* and *Rockdale Local Environmental Plan 2000 (Amendment No 48)*, and
 - ❖ *Rockdale Development Control Plan No 80 – Bonar Street Precinct*.
- Development will, in the short and medium term, be concentrated in Development Sites 2, 3 and 5, being the sites where the owners have expressed an immediate desire to redevelop.
- The area will not be fully developed during the life of this plan (10 years) but will require a longer time period (say 15-25 years) for full redevelopment to be completely realised.
- Only a small component of non-residential uses is expected to be established or remain in the precinct in the long term. It is expected that a maximum of 1,000 m² of commercial, retail and restaurant floor space is likely to be achieved.²⁵
- The long term take-up rate for residential development is likely to be close to 100% of the maximum residential floor space permissible under the current planning controls.²⁶
- Average gross floor space of 105 m² per dwelling is assumed²⁷ (except where actual dwelling sizes are known).
- Average dwelling occupancy is assumed to be 2.10 persons / dwelling (ie. about 50 m² / person)²⁸ (except where actual dwelling sizes are known).

6.3.2 Anticipated development scenario

The form and land use mix of development that will occur within the Bonar Street Precinct, both in the short and medium terms (up to 2014) and in the long term, can now be predicted with some degree of certainty, due to completion of detailed LEPs for the whole of the precinct (*Rockdale LEP 2000 (Amendment No. 29)* and *Rockdale LEP 2000 (Amendment No 48)*) and the stated intentions of the various property owners.

Estimates of the short, medium and long term development potential are based on Council's new planning controls for the area, which set specific maximum floor space ratios for buildings and maximum floor space requirements for the non-residential component of mixed developments.

²⁵ While the zoning and planning controls permit a wide range of commercial uses and allow existing industrial uses to remain, extend and rebuild, it is expected that market forces and the high floor space ratios permitted for residential redevelopment, will mean that the precinct will ultimately be almost entirely residential.

²⁶ Based on the current high take up rate of residential floor space within the City and the likelihood that this high residential demand will continue for the foreseeable future.

²⁷ The average dwelling is assumed to be a two bedroom dwelling. The average gross floor space for such a dwelling is derived by multiplying the existing occupancy rate for two bedroom multi-unit dwellings in the City (2.10 persons – see Table 5.13) by the average residential density achieved on similar development proposals throughout the City of about 1 person per 50 m² of gross residential floor space.

²⁸ This is based on the average residential density achieved on similar development proposals throughout the City. It has been derived by estimating the populations of those developments based on their dwelling mix (1, 2, 3 bedrooms etc) multiplied by the existing occupancy rates for multi-unit dwellings in the City obtained from the 2001 census, as shown in Table 5.13, and dividing that estimated population into the gross residential floor space of the development.

These were used to determine the ultimate floor space that is likely to be developed, the likely mix of commercial and residential floor space and the rate at which development will proceed.

This scenario assumes that the current strong demand for residential development will continue into the future unabated.

The total developable area²⁹ of the precinct is about 66,000 m² which, under Council's planning controls, would allow future development to provide up to 129,400 m² of floor space. The sites expected to redevelop during the life of this plan have a total developable area of 34,470 m², yielding up to 68,940 m² of floor space.

6.3.3 Anticipated population growth

Under the strategy outlined in Section 2.13 of this plan for the ongoing provision of facilities, services and infrastructure in the Bonar Street Precinct that will be required when the area is fully developed, it is necessary to estimate not only the population growth expected during the life of this plan but also the long term population expected when the area is fully developed.

Based on the assumptions outlined in Section 6.3.1, the following population growths are expected to eventuate:

- During the life of this plan (to 2014) – 1,367 persons (651 new dwellings)
- Long term forecast (ultimate development) – 2,542 persons (1,223 new dwellings)³⁰

The population growth expected during the life of this plan therefore represents an estimated 53.8% of the total potential growth of the precinct (being the total population at 2014 ÷ the ultimate population).

6.4 Residential population projections

Residential population projections for the City of Rockdale have been prepared using the methodology outlined in Section 6.1, based on Council's own investigations and analysis of available information, including data and forecasts provided by the ABS and the DoP's Metropolitan Development Program.³¹

²⁹ Excludes the area of the proposed community park but includes the portions of development sites that are to be dedicated for new roads, road widenings and the proposed central square.

³⁰ The forecasts assume that a maximum of 1,000 m² of commercial floor space will be provided within the precinct when it is fully developed and a proportion of this commercial floor space will be provided during the life of this plan as part of the development of Development Sites 2, 3 and 5. The long term population forecasts include an adjustment for the population of the 9 existing dwelling houses within the precinct that will be demolished when redevelopment occurs. None of these dwellings are on sites that are expected to redevelop during the life of this plan.

³¹ In determining appropriate population forecasts for the City, Council is aware that the DoP dwelling forecasts and completion figures, as presented in their Metropolitan Development Program (MDP), have consistently exceeded the figures produced by the ABS. For instance, the MDP Land and Housing Monitors previously indicated actual net dwelling completions for the City of Rockdale between 1996 and 2001 of 2,145 dwellings (which would result in a population increase of 4,504 persons, based on standard dwelling occupancy rates), whereas ABS census data for the same interval indicated an additional 1,441 dwellings and a population increase of 3,925 (adjusted figure). These ABS historic growth figures are considered more reliable and have generally been preferred in the preparation of this plan.

Similarly the MDP (2002 Residential Forecasts) now estimates 4,350 net dwelling completions in Rockdale between 2002 and 2007 (estimated population increase of 9,135) while the ABS forecasts for the same period, as provided in the 2001 Community Profile for the City of Rockdale, indicates a population increase of 3,542 (interpolated figure).

It is recognised that the ABS forecasts rely on a "top down" methodology which extrapolates current birth and death rates within the existing population and estimates future net migration rates based on previous average migration rates and that this methodology cannot fully accommodate the effects of future development proposals, rezonings or changes to the property market. On the other hand the MDP forecasts, while based on information provided by councils on likely development and rezoning proposals, tend to overestimate future dwelling numbers because some of these development or rezoning proposals will not proceed or will be delayed (delays can result in double counting) and also do not adequately allow for future changes to the property market.

In preparing its own population forecasts, Council has had regard to both the ABS and MDP forecasts as well as undertaking its own analysis of historic population growth rates, local property market advice and property market projections and the detailed planning controls for the Wollie Creek Redevelopment Area. Council's forecasting has been adjusted to include population change

These population forecasts assume the following:

- Development will be carried out in accordance with the zoning and other planning controls contained in *Rockdale Local Environmental Plan 2000*, as specifically amended by *Rockdale Local Environmental Plan 2000 (Amendment No 13) – Wollli Creek* (See Section 6.2), *Rockdale Local Environmental Plan 2000 (Amendment No 29) – Bonar Street Precinct*, *Rockdale Local Environmental Plan 2000 (Amendment No 48) – Bonar Street Precinct* (see Section 6.3) and on two sites on the Princes Highway, Arncliffe rezoned for mixed commercial / residential development under *Rockdale Local Environmental Plan 2000 (Amendment No 46)*.
- Between the years 1996 and 2002 there was an estimated population increase of 4,044 in the City of Rockdale. (source: ABS, 2001 Community Profile Rockdale Local Government Area and ABS, Regional Population Growth, Australia and New Zealand, 2001-02 – Catalogue No. 3218.0). This accelerated population growth was due to both increased infill development throughout the City and the advent of “mixed” developments within commercial centres, such as the “Rockdale Plaza” development.
- Outside of the redevelopment sites at Wollli Creek, Bonar Street and the Princes Highway, Arncliffe, a reasonably high population growth rate will continue throughout most parts of the City, due to both continued infill development in residential areas and the continued demand for mixed development within commercial centres, particularly the Rockdale Town Centre.
- Over the next 10 years the rapid growth rate that occurred between 1996 and 2002 is unlikely to be sustained. However growth is still expected to be higher than that which occurred from 1986 to 1996. Excluding the Wollli Creek area, Bonar Street Precinct and the Princes Highway, Arncliffe sites, the population is therefore expected to increase throughout the City by a rate similar to the average growth rate over the ten year period from 1991 to 2001, resulting in an estimated additional population of 4,773 by 2014.
- Construction of residential development within the Wollli Creek area is expected to bring an additional 4,445 residents into this area by 2014³² (see Section 6.2.4) while residential development within the Bonar Street Precinct is anticipated to produce a further 1,367 residents by the same date (see Section 6.3.3). The two redevelopment sites on the Princes Highway, Arncliffe rezoned under *Rockdale Local Environmental Plan 2000 (Amendment No 46)* are expected to yield a further 374 residents in this time.
- Between the years 2004 and 2014 the City of Rockdale is therefore projected to have a population increase of 10,959 persons³¹, representing a change from an estimated 94,526 persons in 2004 to 107,164 persons by 2014.³³

Table 6.2 shows the estimated residential population to the year 2014.

resulting from major rezonings occurring since this plan commenced. This methodology has resulted in a reasonable and moderate estimated population increase for the City of Rockdale (up by 10,959 persons by 2014, or 12,638 persons if developments uncompleted at the commencement of this plan and levied under previous contributions plans are included) which is higher than the ABS forecast (up by 7,594 between 2004 and 2014, interpolated figure) but at a lower growth rate than that projected by the MDP. (The MDP forecasts would result in an estimated increase of 1,827 persons per annum between 2002 and 2007, compared with Council's forecasts of 1,096 additional persons per year between 2004 and 2014, or 1,264 per annum, if existing approvals are included.)

³² Excluding the estimated population of developments in the Wollli Creek area that have been approved under previous contributions plans (total 2,206 persons).

³³ Also allowing for estimated population increases of 1,538 between the last available ABS estimate in 2002 and the commencement of this plan in 2004 plus 1,679 for developments in the Wollli Creek area that have been approved under previous contributions plans but not occupied at the commencement of this plan.

Table 6.2 - Planning precinct residential population projections

Planning precinct	Population 2001 (1)	Estimated population 2004 (2)	Projected population 2014	Additional residential population 2004-2014
Arncliffe	12,475	12,457	(3) 14,072	(3) 1,615
Bexley	19,275	19,455	20,650	1,195
Bexley North	9,078	9,173	9,494	321
Brighton Le Sands	13,319	13,496	13,959	463
Kogarah	10,962	11,041	11,344	303
Rockdale	15,882	16,387	18,530	2,143
Sans Souci	11,802	11,914	(4) 12,388	(4) 474
Wolli Creek	76	(5) 603	(6) 6,727	(6) 4,445
Total	92,869	(5) 94,526	(6) 107,164	(6) 10,959

Notes

- (1) The 2001 population figures are based on the 2001 census data for the City of Rockdale, as adjusted by the ABS for temporary absences, visitors and under-enumeration. Such adjusted figures are not available at planning precinct level and the planning precinct populations have therefore been estimated by apportionment based on the unadjusted census data. These figures have been further adjusted to account for changes to census collection district boundaries in the 2001 census that would otherwise skew the planning precinct data.
- (2) The 2004 population estimate is based on an extrapolation of the whole of City population growth rates over the 6 year period from 1996 (ABS adjusted census figure) to 2002 (ABS estimate) and apportioned to each planning precinct in accordance with the growth rates in those precincts between the 1996 and 2001 censuses.
- (3) The population forecast for the Arncliffe precinct includes the estimated population increase from redevelopment within the Bonar Street Precinct to 2014 (1,367 persons), plus the estimated population from the rezoning of the two sites under *Rockdale Local Environmental Plan 2000 (Amendment No 46)* (374 persons) coupled with an estimated population decline of 126 persons that would otherwise have been expected in Arncliffe over this period.
- (4) Includes anticipated population growth within the Ramsgate commercial centre under the *Ramsgate Centre Masterplan* and the associated LEP and DCP during the life of this plan (200 persons).
- (5) The 2004 population estimate includes the estimated population of developments in the Wolli Creek Redevelopment Area for which contributions have been levied under previous contributions plans and which have now been completed and occupied (total 527 persons).
- (6) The projected 2014 population includes the estimated population of developments previously approved in the Wolli Creek Redevelopment Area for which contributions have been levied under previous contributions plans (total 2,206 persons, including the population referred to in Note (5)). However, this population is not included in the 2004-2014 additional resident population figures.

6.5 Employment population projections

Additional demand for public amenities and services may not only be generated by residential population increases. Future retail and commercial additions, alterations and major redevelopments may all increase the number of workers within the City of Rockdale. This is likely to place further pressure on public services, facilities and infrastructure such as car parking, community centres, town centre facilities, traffic facilities, etc. Therefore, where justified, retail and commercial development that results in increases in the employment population should also contribute to the provision of public amenities and services. Accordingly, the employment growth likely to occur in the City of Rockdale to 2014 has been determined below.

The driving forces behind future growth in retail and commercial floor space are the economic functions of the Sydney CBD and economic activities as a whole throughout the metropolitan region. It is anticipated that over the next 10 years, the following influences will generate demand for additional retail and commercial floor space in Rockdale:

- Continued increases in population within the City of Rockdale and adjoining suburbs will increase the resident workforce and stimulate the demand for increased local employment,
- Increasing local population will increase the demand for goods and services, resulting in new and expanded local businesses,
- Ongoing gentrification of Rockdale will create a resident workforce that is more suited to the employment opportunities available in the area, such as those proposed in the Wolli Creek Redevelopment Area,

- The availability of suitable land within the Wolli Creek Redevelopment Area for high density employment-generating development,
- High accessibility of the area, especially Wolli Creek, due to excellent transport infrastructure (M5 Motorway, Airport, East Hills and Illawarra Railways), makes Rockdale a desirable business location,
- Close proximity of the area, particularly Wolli Creek, to the Sydney CBD and international transport gateways (Sydney Airport and Port Botany),
- Expected increases in employment-generating development around Sydney Airport and Port Botany, such as business parks, high tech and export industries and tourist facilities, and
- Employment growth within the inner metropolitan area in response to Sydney's expanded function as a global city.

Previous studies have estimated that the amount of office space within the City of Rockdale will increase from 68,000 m² in 1998 to 126,000 m² by 2011 and that, over the same period, retail floor space would grow from 155,000 m² to 209,000 m². It was anticipated that the bulk of this additional floor space (especially additional office space) would be provided within the Wolli Creek Redevelopment Area.³⁴

It is not now expected that these growth rates will be achieved, at least not during the life of this plan, due to the continuing weak commercial property market and competition for office space locations from other areas such as Green Square and Mascot.

A more reasonable forecast would be about 75,000 m² of new retail and commercial floor space constructed throughout the City over the next 10 years. (Refer to Section 6.2.1 and Footnote 15 for details). This would generate in the order of 2,500 additional jobs.

It is still anticipated that the bulk of the new commercial floor space will be concentrated in Wolli Creek, with some increases in the Rockdale Town Centre and minor growth in other town centres within the City.

Table 6.3 shows the estimated additional commercial and retail workforce to the year 2014.

Table 6.3 – Estimated growth in commercial and retail workforce to the year 2014

Planning precinct (1)	Additional commercial / retail floor space 2004 -2014 (m ²)	Additional commercial / retail workforce 2004 -2014
Wolli Creek	(2) 65,354	(2) 2,121
Remainder of City (1)	10,000	(3) 360
Total	(2) 75,354	(2) 2,481

Notes

- (1) The additional workforce to 2014 has not been separately estimated for individual planning precinct, apart from the Wolli Creek Redevelopment Area. The workforce forecasts for the remainder of the City are based on 5,000 m² of suburban office space at 23 m² of gross floor area per employee and 5,000 m² of mixed convenience retail, bulky goods retail and supermarkets at 35 m² per worker (see Footnote 19 for source and explanation of employment occupancy rate figures).
- (2) The estimated additional commercial / retail floor space and workforce to 2014 excludes developments previously approved in the Wolli Creek Redevelopment Area for which contributions have been levied under previous contributions plans (3,067 m² of floor space, estimated workforce - 92).
- (3) Includes anticipated employment growth within the Ramsgate commercial centre under the *Ramsgate Centre Masterplan* and the associated LEP and DCP during the life of this plan (62 persons).

³⁴ National Economics (NIEIR) 1998, *Proposed Integrated Commercial and Residential Development at North Arncliffe*.

While increased employment numbers may increase the demand for a wide range of facilities and services, the anticipated increases throughout the City (except in the Wolli Creek Redevelopment Area) will be so small that it would be difficult to quantify the additional demand. Any such increased demand could therefore be readily absorbed by existing facilities or by additional facilities funded from other sources. For these reasons, this plan is not proposing to levy section 94 contributions on employment-generating development, other than development within the Wolli Creek Redevelopment Area or development that is deficient in on-site car parking.

The expected increases in employment numbers within the Wolli Creek area will, however, be considerable and will create a quantifiable demand for new or improved amenities and services, especially infrastructure. These additional services could not, and should not, be funded by residential development alone. It is therefore intended to levy contributions on employment-generating development within Wolli Creek for a full range of amenities and services, but only for those facilities that will be provided within the immediate locality and which are likely to be used by, or service the needs of, the area's future workforce.

It is estimated that there will be little future growth in manufacturing employment in the City of Rockdale, given the contraction in this sector of the economy as a whole and the ongoing relocation of many existing manufacturing operations to western Sydney.

6.6 Conclusions

Residential and employment population projections are based on anticipated dwelling commencements plus demand and supply pressures emanating from the location of the City of Rockdale close to Sydney Airport, Port Botany and the Sydney CBD. Much of the future population and employment growth over the next 10 years will be concentrated in Wolli Creek and, to a lesser extent, the Bonar Street Precinct and the planning precinct of Rockdale, which incorporates the Rockdale Town Centre.

Population projections are, to some extent, extrapolations of previous events and may, therefore, not necessarily occur, given fluctuations in the global economy and continuing volatility in the local economy which can produce wide variations in population change.

7 Open space

7.1 Introduction

The City of Rockdale has a finite amount of open space. The provision of additional open space facilities proposed under this plan is intended to meet the additional demand generated from expected population increases to the year 2014. In order to maintain the present level of service provided by the City's open space facilities, Rockdale City Council has adopted a two-fold approach to the provision of additional open space facilities to meet the additional needs of the incoming population:

1. Acquisition of strategic land that contributes to the network of open space currently provided. In the case of the Wollie Creek Redevelopment Area and the Bonar Street Precinct, this will involve the acquisition of land for new parks to serve the new population that will be established in these areas.
2. Continued embellishment of the existing parkland and improvements to the existing public domain (including embellishment of open space land acquisitions).

7.2 Section 94 implementation strategies

7.2.1 Wollie Creek Redevelopment Area

Because the Wollie Creek area is not expected to be fully developed within the 10 year lifespan of this plan, but rather will take a longer period of between 15 and 25 years to reach its ultimate form, a special strategy has been adopted in this plan to ensure the ongoing orderly provision of amenities and services within the area throughout this entire redevelopment period and that all of the facilities required to meet the needs of Wollie Creek when it is fully developed can and will be provided progressively as development takes place. This strategy is outlined in Section 2.12.

Such a strategy requires this plan to identify, cost and prioritise all of the open space facilities required in Wollie Creek when the area is fully developed, including those facilities that are not intended to be funded under this plan, but rather under future contributions plans. Consequently, these facilities have all been described in this chapter and included in the works schedule. Facilities not intended to be provided during the life of the plan have generally been given an estimated provision date beyond 2014.

7.2.2 Bonar Street Precinct

As for Wollie Creek, the Bonar Street Precinct is not expected to be fully developed within the 10 year lifespan of this plan, but rather will take a longer period of between 15 and 25 years to reach its ultimate form. Hence a special strategy has been adopted in this plan to ensure the ongoing orderly provision of amenities and services within the area throughout this entire redevelopment period to ensure that all of the facilities required to meet the needs of the precinct when it is fully developed can and will be provided progressively as development takes place. This strategy is outlined in Section 2.13.

Such a strategy requires this plan to identify, cost and prioritise all of the local open space acquisitions required in the Arncliffe Planning Precinct to meet the needs of the Bonar Street Precinct when it is fully developed, including those lands that are not intended to be acquired under this plan, but rather under future contributions plans. Consequently, these acquisitions have all been described in this chapter and included in the works schedule. Those not intended to be

purchased during the life of the plan have generally been given an estimated provision date beyond 2014.

7.3 Nexus

The increase in population to the year 2014 will place increased demand on existing public open space and on improvements and facilities provided within this open space. To maintain existing open space standards for the existing population while providing acceptable standards of open space for the future population, additional improvements to and acquisition of open space will be required.

7.3.1 Causal nexus - What?

A detailed Open Space Strategy was prepared to identify the demand for and supply of open space facilities throughout the City of Rockdale and the strategies to be put in place to meet the needs of the future population (see separate strategies document).

Demand

To provide an understanding of and assess changes in open space demand, two existing research surveys have been reviewed and a supplementary mail survey questionnaire undertaken. These were:

1. Open Space User Needs Survey and Overview Study – prepared by John Chetham & Associates, 1992
2. 1999 Survey of Residents – prepared by Hunter Valley Research Foundation
3. User Group Mail Survey Questionnaire – prepared by Don Fox Planning Pty Ltd, 2000.

The results of these studies are analysed in the detailed Open Space Strategy prepared by Don Fox Planning Pty Ltd (see separate strategies document).

The surveys undertaken are representative of the demands of the existing population and are used as an indication of the needs of the future population. In summary, it was found that:

- local playgrounds were used by 40% of open space users, and
- the most requested additions and improvements were for children's facilities, maintenance, facilities for sports / activities and trees / landscaping.

Rockdale City Council 1999 Survey of Residents

- Preferred option was for beach restoration / improvements, followed by upgrading of Bexley Swimming Pool.
- Preferred open space development included a park for general community use and the creation of natural bush environments. 77% of respondents considered sporting and recreational activities to be adequately catered for in the City of Rockdale.
- Additional facilities requested included swimming pool / club, tennis courts, gymnastics and basketball facilities.

User Group Survey 2000

- 50% of respondents considered the facilities to be adequate for their needs.
- 50% of respondents indicated a need for new (7%), additional (21%) or upgraded (21%) sports fields.
- 21% of respondents requested the provision or upgrading of amenity buildings at sportsgrounds.
- Other responses included:
 - a request for an indoor swimming facility
 - requests for more shade, trees or shelter
 - a request for more parkland
 - requests for clarification of Council's fees and charges

All respondent groups reported stable or increasing numbers in their organisations in age brackets 5 - 14 and 15 - 24 years.

The current demand patterns identified in the surveys, combined with estimated future changes in the age structure of the population, provide direction on the future provision of open space facilities.

Together these surveys form a package of data which demonstrates that the present supply of open space facilities in the City of Rockdale will only satisfy the demands of the existing population with no spare capacity to meet the additional needs of the population increases expected in Rockdale during the life of this plan and that additional or augmented facilities will be required if the additional needs of this incoming population are to be met without reducing the standard of facilities that existing residents have come to expect.

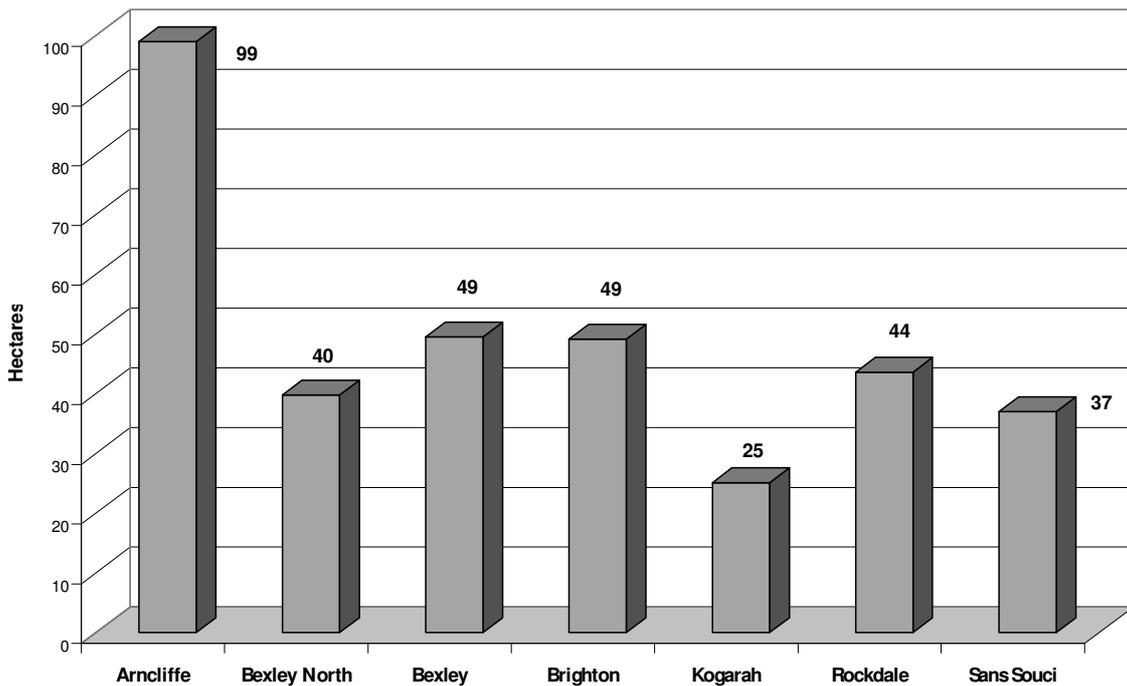
While it is acknowledged that any shortfall in existing facilities or any demands by the existing population for additional facilities cannot be made up for by the incoming population through section 94 contributions, the responses in the surveys indicate that many existing facilities are operating at or near capacity and that the population increases anticipated in the City during the life of this plan are likely to generate further demand for additional facilities which cannot be reasonably met by these existing facilities.

The facilities proposed to be funded under this plan are only intended to augment the supply of existing open space facilities within the City and, while Council will continue to meet any present demand by the existing population for new, additional or upgraded facilities from other funding sources, as well as a considerable component of the cost of additional facilities needed for the incoming population, it is reasonable that a proportion of the costs of these additional facilities be funded by the future population through section 94 contributions.

Open space supply

Open space is not evenly distributed throughout the City of Rockdale in terms of the number of hectares within each planning precinct. There are approximately 343 hectares of open space within the City of Rockdale that is divided among the planning precincts as shown in Figure 7.1 below.

Figure 7.1 - Open space land supply (ha) by planning precinct



Source: Don Fox Planning

The Arncliffe precinct (which for the purpose of this open space analysis includes the Wolli Creek Redevelopment Area) has the greatest area of open space at 99 hectares, equivalent to 29% of total open space supply in the City of Rockdale (although most of this open space area is not well located to serve the local open space needs of existing and future Arncliffe, or Wolli Creek, residents), while the Kogarah precinct has only 25 hectares of open space.

Analysis of future population growth estimates, age structure changes and research into demand and supply of open space has resulted in recommendations for each planning precinct that are set out in the detailed Open Space Strategy document. The works schedules in Tables 7.3 to 7.19 are based on this Open Space Strategy and indicate what works are to be provided under this plan, taking into account estimated population growth to the year 2014.

7.3.2 Physical / spatial nexus - Where?

Spatial nexus requires that any proposed public facility be located so as to serve the needs of those who create a demand for it.

For the purposes of this plan, open space facilities have been classified as "regional", "City-wide" or "local", based on their likely user catchments.

Regional facilities are those that are likely to be used by people from throughout the City but also by people from outside the area. Regional facilities include major sporting areas, such as Scarborough Park, and Cook Park on the Botany Bay foreshore.

City-wide facilities are those that will also be used by residents of the whole City, but are unlikely to attract heavy use from residents of other areas. City-wide facilities include most sports facilities and the larger passive recreation areas.

Local facilities are those that are only likely to be used by residents of the immediate locality. Local open space includes small neighbourhood parks and children's playgrounds.

To ensure that new developments contribute towards the provision of those local open space facilities that are needed by future residents, the City has been divided into 8 planning precincts (including the Wolli Creek Redevelopment Area) that reflect local open space catchments within which residents are likely to travel to and use a variety of local open space facilities. These precincts are described in Section 2.7 and shown in Figures 2.1 to 2.8.

While all new residential developments will be required to contribute towards the provision of regional and City-wide open space facilities throughout the City, these developments will only be required to contribute towards the provision of those local open space facilities that are located in the same planning precinct as the development. Where a proposed local open space facility is situated within 400 metres walking distance of another precinct, developments within both those precincts will be required to contribute towards it.

While this plan recognises that employment generating development within the Wolli Creek Redevelopment Area will also create a demand for additional open space facilities, this demand will only be local, and therefore such developments will only be required to contribute towards the provision of those proposed City-wide and local open space facilities in the redevelopment area or within 400 metres walking distance of it.

The location of the proposed regional, City-wide and local open space facilities that will be provided for under this plan are shown in Tables 7.3 to 7.19.

7.3.3 Temporal nexus - When?

Temporal nexus seeks to ensure that an open space facility will be provided in a timely manner to benefit those who contributed towards it.

The works schedules in Tables 7.3 to 7.19 provide estimated timetables for the carrying out of open space embellishment works and the acquisition of additional open space identified in this plan. These timeframes are indicative only and will be dependent on the actual rate of population growth.

For the Wolli Creek Redevelopment Area, the scope and cost of the open space facilities required to be provided are significant and it would not be possible for them all to be funded or implemented during the lifespan of this plan. Further, the provision of such facilities is to the longer-term benefit of the area and accordingly the cost of these facilities should be apportioned over the population at the maturity of the area (ie. the next 15-25 years), rather than that expected during the 10 year life of this plan, in accordance with the strategy outlined in Section 2.12.

Similarly, the scope and cost of additional local open space lands required for the Bonar Street Precinct are also significant and it would not be possible for them all to be funded during the lifespan of this plan. As the provision of such lands is to the longer-term benefit of the precinct, the cost of their acquisitions should also be apportioned over the precinct's ultimate population, in accordance with the strategy outlined in Section 2.13.

Contributions will be levied under this plan towards the cost of providing local open space within the Ramsgate commercial centre identified in the *Ramsgate Commercial Centre Development Contributions Plan 2006*. That plan indicates that these facilities will be progressively provided over a 20 to 30 year period. However, it is intended that a reasonable proportion of the facilities will be provided within the 10 year lifespan of this plan.

7.4 Other funding sources

Council recognises that it cannot collect or use section 94 contributions for the provision of additional open space facilities that may be required to meet the needs of existing residents or users from outside the area, nor can contributions be used for the maintenance of facilities.

Works for these purposes will continue to be undertaken and funded by Council from other sources such as its capital works and improvements program, user fees or government grants. These works will be in addition to any of the works identified in, and funded under, this plan.

7.4.1 Money collected under previous contributions plan

Council's previous contributions plan (*Section 94 Contributions Plan (Amendment 4)*) provided for the levying of contributions towards the provision of a number of open space facilities within the City, including some facilities which have yet to be provided. These contributions were collected on a whole-of-City basis and were held in the one fund to be expended on any of the identified facilities in any location throughout the City. Consequently, any money collected for those facilities but not spent at the commencement of this plan has been carried over to this plan and Council has determined that these funds be applied in the following manner:

1. In the first instance, funds have been allocated to the following two open space facilities identified in the previous contributions plan, up to the estimated total cost of each of those facilities, as identified in that plan, and indexed to current day values at the commencement date of this plan:
 - Bexley Aquatic and Recreation Centre
 - Indoor Leisure Centre³⁵
2. The balance of the funds has been directed to the rest of the capital works and land acquisition program identified in this plan, and allocated among the various regional, City-wide and local open space funds in proportion to the total estimated costs of the facilities proposed to be funded under the plan, as identified in the works schedules (Tables 7.3 to 7.19), in accordance with the following formula:

$$\text{Allocation to specific fund} = \frac{\text{Carried over funds} \times \text{Cost of facilities in that fund}}{\text{Total cost of facilities in all funds}}$$

where:

- *Carried over funds* is the total of existing open space contribution funds carried over from the previous contributions plan, after the allocation of funds to the two facilities identified in Item 1 above (and as shown in Table 7.1) and the repayment of funds borrowed from the Open Space Internal Policy Reserve (see Section 7.4.2), plus additional open space contributions anticipated from already approved developments in the Wolli Creek Redevelopment Area that were yet to have been paid when this plan commenced.
- *Cost of facilities in that fund* is the total cost of all facilities identified in the particular fund to which the allocation will be applied (as set out in the various works schedules in Table 7.3 to 7.19) that are intended to be funded by section 94 contributions (ie. excluding any other funding sources identified in the schedules).

³⁵ In addition to these two items, the previous contributions plan also levied contributions towards the provision of the following facilities: Brighton-le-Sands beachfront improvements (Stages 1 to 5), 3 playground structures and associated landscaping, Arncliffe Park formal gardens, acquisition of land for parks, and preparation of the Open Space User Needs Survey. Apart from the acquisition of land for parks, all of the other facilities have been fully funded and completed under the previous plan and consequently these items have not been carried over to this plan. Some of open space land acquisitions identified in the previous plan have yet to be purchased and these properties have been carried over to this plan and a proportion of the previously collected funds will be used towards their purchase in accordance with the strategy outlined here.

- *Total cost of facilities in all funds* is the total cost of all facilities identified in all of the works schedules in Table 7.3 to 7.19 that are intended to be funded by section 94 contributions (ie. excluding any other funding sources identified in the schedules).

In the case of the Wolli Creek Redevelopment Area and the Bonar Street Precinct, where development occurring beyond the life of this plan will be required to contribute towards the provision of long-term open space facilities identified in this plan, an equitable proportion of the funds carried over from the previous plan will be allocated for apportionment to a future contributions plan so as to ensure that the costs of providing these facilities will be equitably shared between development occurring during the life of this plan and development occurring in the longer term.

Table 7.1 below shows those open space facilities identified in the previous plan that have been carried over to this plan, their estimated costs, the section 94 funds spent on them at the time when this plan commenced and the unexpended section 94 funds that have been carried over for these facilities in this new plan in accordance with the strategy outlined above.

Table 7.1 - Open space facilities and contributions carried over from previous plan

Open space facility	Estimated cost in previous plan (1)	Indexed cost (1)	Total contributions received under previous plan (2)	Minus expenditure under previous plan	Balance carried forward to this plan
All open space facilities under previous plan	\$15,195,000	\$20,138,500	\$26,555,748	-\$8,723,811	\$17,831,937
Bexley Aquatic and Recreation Centre	\$2,000,000	\$2,650,700	\$2,650,700	-\$1,334,384	\$1,316,316
Indoor Leisure Centre (Stage 1)	\$2,500,000	\$3,313,300	\$3,313,300	-\$505,166	\$2,808,134
Open space facilities completed under previous plan (3)	\$1,425,000	\$1,886,600	\$1,641,147	-\$1,641,147	Nil
Balance of open space facilities not fully provided	\$9,270,000	\$12,285,900	\$18,950,601	-\$5,243,114	\$13,707,487
Less amount borrowed from Open Space Internal Policy Reserve to be repaid (4)					-\$1,727,237
Plus amount anticipated from approved developments in Wolli Creek Redevelopment Area (5)					\$1,128,746
Total section 94 open space funds carried over to this plan					\$13,108,996

Notes

- (1) The estimated costs in the previous contributions plan are based on 1993 values, being the year when that plan was prepared. These costs have been indexed to reflect current day costs at the date when the current plan commenced.
- (2) Including interest received. The amounts in this column are the amounts allocated to the identified facilities in accordance with the strategy outlined in Section 7.4.1.
- (3) Open space facilities completed under the previous plan are identified in Footnote 35.
- (4) See Section 7.4.2 for an explanation of the Open Space Internal Policy Reserve.
- (5) Consists of two approved developments within the "Discovery Point" site for which contributions have already been levied under the previous contributions plans but which had not yet been paid at the time of commencement of this plan.

7.4.2 The Open Space Internal Policy Reserve

Council presently has a policy of reserving \$300,000 each year from general purpose revenues towards open space property acquisition. It is assumed that this funding allocation will continue for the life of this plan. An amount of \$2,700,638 was held in this reserve at the commencement of this plan (including \$1,727,237 to be repaid from section 94 open space funds – see Table 7.1) and will be used, along with the anticipated ongoing allocations, to supplement section 94 funds in the acquisition of land for open space identified in this plan by providing for the additional open space needs of the existing population. Consequently, the Open Space Internal Policy Reserve

will only be used towards the acquisition of those open space lands identified in this plan that are within established residential precincts.

In most parts of the City the anticipated population growth rates will require the provision of substantial additional open space, which would justify section 94 contributions being used to fully fund all of the identified local open space acquisitions within most planning precincts during the life of this plan.

However, in the Kogarah precinct there is only expected to be limited population growth, sufficient to warrant the acquisition, from section 94 contributions, of one additional property. The Open Space Internal Policy Reserve will therefore be used to meet the cost of the acquisition of all but one of the properties in the Kogarah precinct. Section 94 contributions will continue to fund identified local open space embellishments in the Kogarah precinct.

The remaining Open Space Internal Policy Reserve funds have been allocated among the other regional, City-wide and local open space acquisition funds in proportion to the total estimated costs of the acquisitions proposed to be funded under the plan, as identified in the relevant works schedules.

As the Wollie Creek Redevelopment Area and the Bonar Street Precinct will be comprehensively redeveloped and bring in an entirely new population, Open Space Internal Policy Reserve funds will not be used towards acquisition of any additional open space required to serve the needs of these areas, and the full cost of any such facilities can and should be met by this incoming population through section 94 contributions.

7.5 Apportionment

The following apportionments will be applied to the costs of open space facilities identified in this plan:

- a. **Regional open space facilities.** This plan recognises that regional open space facilities will also be used by residents from outside the City and that section 94 contributions cannot be used to meet the needs of those users. As it is estimated that 15% of the demand for these facilities will be from non-residents, only 85% of the costs of the regional open space facilities identified in this plan will be met through section 94. The remaining 15% of these costs will be funded from other sources.
- b. **Wollie Creek Redevelopment Area.** This plan has identified all of the open space facilities that will be required within the Wollie Creek Redevelopment Area when it is fully developed in accordance with the strategy outlined in Section 2.12. Under this strategy, it is recognised that full development of the area is likely to extend beyond the ten year lifespan of the plan. As it is estimated that only 53.0% of Wollie Creek's ultimate development potential will be achieved within the life of this plan (excluding developments approved and levied under the previous contributions plans - see Section 6.2.4), developments occurring within this time should reasonably contribute only 53.0% of the costs of providing the area's complete open space facilities.
- c. **Arncliffe Planning Precinct.** This plan has identified all of the additional land that will have to be acquired to meet the local open space needs of future residents of the Arncliffe area as a result of the proposed redevelopment of the Bonar Street Precinct. Under the section 94 implementation strategy for the Bonar Street Precinct outlined in Section 2.13, it is recognised that full development of this precinct is likely to extend beyond the ten year lifespan of this plan. As it is estimated that only 53.8% of the Bonar Street Precinct's ultimate development potential will be achieved within the life of the plan, developments occurring within this time should reasonably contribute only 53.8% of the costs of providing

that precinct's additional requirements for local open space lands. This 53.8% apportionment factor will therefore be applied to the proposed local open space acquisitions to be funded by development within the Arncliffe precinct (Table 7.6). (This apportionment will also apply to any long term open space embellishments identified in this plan for which development in the Arncliffe precinct may be levied.

- d. **Brighton Le Sands beachfront promenade improvements.** This plan will levy contributions towards the further embellishment of the Brighton beachfront promenade. While the beachfront promenade is recognised as a regional open space facility that will be used by residents from throughout the City and beyond, it will also serve as an important local open space facility for the residents of the Brighton precinct, particularly as this plan recognises there are limited alternative opportunities to provide additional local open space facilities in this precinct to meet the needs of its future residents. It is therefore reasonable that the costs of this embellishment work be apportioned 50% as a regional open space facility and 50% as a local facility.
- e. **Facilities shared between precincts.** Where a proposed local open space facility is located within 400 metres walking distance of another planning precinct and is likely to be used by residents of both precincts, the estimated cost of that facility has been apportioned between the two precincts in proportion to the relative estimated population increases within both precincts during the life of this plan, as set out in the following table.

Table 7.2 - Local open space facilities shared between planning precincts - Apportionment of costs

Precincts sharing cost of facility (estimated population increases in brackets)	Apportionment of cost between the precincts
Arncliffe (1,615) / Bexley (1,195)	Arncliffe – 57.5% / Bexley – 42.5%
Arncliffe (1,615) / Bexley North (321)	Arncliffe – 83.4% / Bexley North – 16.6%
Arncliffe (1,615) / Bexley (1,195) / Bexley North (321)	Arncliffe – 51.6% / Bexley – 38.2% / Bexley North – 10.3%
Arncliffe (1,615) / Rockdale (2,143)	Arncliffe – 43.0% / Rockdale – 57.0%
Arncliffe (1,615) / Wolli Creek (6,566)	Arncliffe – 19.7% / Wolli Creek – 80.3%
Bexley (1,195) / Bexley North (321)	Bexley - 78.8% / Bexley North - 21.2%
Bexley (1,195) / Kogarah (303)	Bexley - 79.8% / Kogarah – 20.2%
Bexley (1,195) / Rockdale (2,143)	Bexley - 35.8% / Rockdale - 64.2%
Brighton Le Sands (463) / Rockdale (2,143)	Brighton Le Sands - 17.8% / Rockdale - 82.2%
Brighton Le Sands (463) / Sans Souci (474)	Brighton Le Sands - 49.4% / Sans Souci - 50.6%
Kogarah (303) / Rockdale (2,143)	Kogarah - 12.4% / Rockdale - 87.6%

7.6 Cost apportionment within the Ramsgate commercial centre

This plan applies to land within the Ramsgate commercial centre to which the *Ramsgate Commercial Centre Development Contributions Plan 2006* also applies. The Ramsgate contributions plan provides for the establishment of a town square within the town centre that will provide a local open space facility for the future residents of the commercial centre itself.

However, the town square will also benefit the future residents of the entire Sans Souci precinct and, on this basis, the square has also been identified, under this plan, as a proposed local open space facility within the Sans Souci precinct (Table 7.17) for which contributions are to be levied from development throughout the whole precinct.

As *Ramsgate Commercial Centre Development Contributions Plan 2006* already provides for future development within the Ramsgate commercial centre to fully fund the cost of the town square, it is appropriate that any contributions by future developments within the Ramsgate centre should be adjusted to deduct the value of:

- any contributions towards this facility expected from developments elsewhere in the Sans Souci precinct, and
- any contributions towards this facility expected to be made under this plan by developments within the Ramsgate centre.

The methodology used for making this adjustment is given in Section 7.8 and the adjusted contribution rate is shown in Table 7.20.

7.7 Works schedules

Tables 7.3 to 7.19 below set out the works schedules for the provision of:

- Regional open space embellishment,
- City-wide open space acquisitions and embellishment, and
- Local open space acquisitions and embellishment within each planning precinct.

Open space facilities shown with an estimated provision date beyond 2014 will not be funded under this plan. However, should any of these facilities be required during the life of the plan they will need to be funded in advance from other sources and the costs recouped from long term development through a subsequent contributions plan.

Table 7.3 - Regional open space embellishment - Works schedule

Property description	Estimated timing	Project	Council funds (1)	Estimated project costs
Cook Park Banks Street	Short term	Playground equipment		\$35,000
Cook Park, Brighton Le Sands	Medium term	Tree planting		\$45,000
Cook Park, Brighton Le Sands	Completed	Brighton beachfront promenade improvements (Stages 6 and 7) (apportioned to this fund at 50%)		(2) \$950,000
Cook Park, all locations	Medium term	Furniture embellishment		\$115,000
Cook Park, Monterey	Medium term	Foreshore planting		\$45,000
Pine Park (Cook Park)	Short term	Car park construction	\$115,000	\$180,000
Cook Park, Ramsgate	Medium term (part completed)	Foreshore planting		\$45,000
Cook Park, all locations	Short term	Signage		\$45,000
Cook Park, all locations	Medium term	Lighting		\$330,000
Cook Park at Carruthers Drive	Medium term	Access road	\$135,000	\$260,000
Brighton Le Sands / Kyeemagh	Completed	Dune embellishment		\$70,000
Kingsgrove Ave Reserve	Short term	Playground equipment		\$35,000
Kyeemagh Boat Ramp Res.	Medium term	Landscape embellishment and access road	\$140,000	\$2,150,000
Rockdale Park	Short term	Landscape strategy		\$20,000
Scarborough Park (North)	Medium term	Landscape embellishment	\$70,000	\$340,000
Scarborough Park (South)	Medium term	Landscape embellishment	\$15,000	\$55,000
Ramsgate / Sans Souci Bike Path Stage 2	Short term (part completed)	Paving and construction		\$525,000
Kyeemagh Bike Path	Short term	Paving and construction		\$170,000
Riverine Park Bike Path	Medium term	Paving and construction		\$970,000
Subtotals			\$475,000	\$6,385,000
Amount apportioned to section 94 contributions		at 85%		\$5,427,250
Less Council funds				-\$475,000
Less proportion of funds carried over from previous contributions plan				-\$1,358,524
Total to be funded under this plan				\$3,593,726

Notes

- (1) Including funds already expended on the project and funds allocated for the project from Council's general reserve.
(2) Total estimated cost of this facility is \$1,900,000, apportioned 50% to the regional open space embellishment fund and 50% to the Brighton Le Sands local open space embellishment fund in accordance with the strategy outlined in Section 7.5 (d).

Table 7.4 - City-wide open space acquisitions - Works schedule

Property description	Area (m ²)	Estimated timing	Estimated acquisition costs
12-16 Gertrude Street, Wollie Creek	1,778	Acquired 2006 (1)	
18 Gertrude Street, Wollie Creek	562.7	Acquired 2006 (1)	
47 Crawford Road, Brighton Le Sands	304.17	Medium term	
Total estimated acquisition costs (2)			\$7,250,000
Subtotal – costs apportioned to this plan (3)			\$4,224,950
Less proportion of funds carried over from previous contributions plan			-\$718,360
Plus proportion of carried over funds apportioned to future contributions plans			\$273,116
Less allocation of funds from open space internal policy reserve			-\$649,842
Total to be funded under this plan			\$3,129,864

Notes

- (1) This property was acquired in anticipation of future demand by development and its acquisition costs will be recouped under this plan.
- (2) Total cost of all acquisitions. Cost estimates for individual properties are not provided. For properties yet to be acquired, costings are based on streetscape (kerbside) valuations only on the basis that the land is suitable, or has been remediated, for use as open space, plus an estimate of any compensation required under the Land Acquisition (Just Terms Compensation) Act 1991 on the basis of the land being acquired by agreement. Costings also include Council's legal and administration costs and the costs of demolishing existing buildings. For properties already acquired, the cost is the total actual costs of acquisition, incorporating all of the above cost components.
- (3) The costs of acquiring 12-16 and 18 Gertrude Street have been partly apportioned to future contributions plans to ensure that they will be equitably funded by all those who will benefit from their ultimate provision. This will include not only the short and long term residents and workers in Wollie Creek and the short and long term residents of the Bonar Street Precinct (in accordance with the apportionment strategies outlined in Sections 7.2.1 and 7.2.2) but also short and long term future residents throughout the rest of the City. The apportionment factor that has been applied is based on the proportion of the ultimate resident and worker population of the Wollie Creek Redevelopment Area combined with the proportion of the ultimate resident population of the Bonar Street Precinct that will occur during the life of this plan (ie. 53.1%). While long term forecasts have not been made for the future population growth likely to occur in the remainder of the City beyond the life of this plan, it has been assumed, for the purposes of funding this facility, that the proportions of population growth occurring within and outside the Wollie Creek Redevelopment Area and the Bonar Street Precinct in the long term will be about the same proportions that are expected during the life of this plan (ie. 53% and 47%, respectively). However, population growth forecasts will continue to be monitored and adjustments will be made to the plan if required.

Table 7.5 - City-wide open space embellishment - Works schedule

Property description	Estimated timing	Project	Council funds (1)	Estimated project costs
Funded by this plan and future contributions plans				
Cahill Park	Long term	Embellishment		\$2,564,500
Subtotal				\$2,564,500
Apportionment to this plan (2)			at 53.1%	\$1,361,750
All Parks	Medium term (ongoing)	Playground equipment	\$55,000	\$285,000
Bardwell Valley Binnamittalong Gardens	Medium term	Landscape embellishment		\$55,000
Coolabah Reserve	Short term	Trees and shrubs		\$10,000
Bardwell Valley	Medium term	Landscape embellishment		\$230,000
Bexley Park	Short term	Landscape embellishment		\$35,000
Flynn's Reserve	Short term	Landscape embellishment		\$45,000
Gardiner Park	Completed	Trees, shrubs, furniture, embellishment		\$50,000
Gilchrist Reserve	Medium term	Infill tree planting		\$10,000
Leo Smith Reserve	Medium term	Landscape embellishment		\$35,000
Rockdale Park / Ador Avenue Reserve	Short term	Embellishment		\$70,000
All Rockdale	Medium term	Tree planting		\$230,000
Bexley Swimming Pool	Short term (part completed)	Upgrade/embellish as aquatic and recreation centre	(3) \$2,650,700	\$2,650,700
Rockdale Women's Sports Field	Short term (part completed)	Upgrade parking and access		\$170,000
Rockdale Nursery	Short term	Upgrade/embellishment		\$25,000
McCarthy Reserve	Medium term	Indoor Leisure Centre Stage 1	(4) \$6,800,000	\$6,800,000
McCarthy Reserve	Medium term	Indoor Leisure Centre Stage 2	(5) \$1,050,000	\$2,100,000
Bicentennial Park	Completed	Skateboard park		\$200,000
Subtotals			\$10,555,700	\$14,362,450
Less Council funds				-\$10,555,700
Less proportion of funds carried over from previous contributions plan				-\$869,085
Plus proportion of carried over funds apportioned to future contributions plans				\$145,807
Total to be funded under this plan				\$3,083,472

Notes

- (1) Including funds already expended on the project, funds carried over from the previous contributions plan and funds allocated for the project from Council's general reserve.
- (2) While the timing for the proposed embellishment of Cahill Park has been identified as long term and may not occur during the life of this plan, it has been included in the plan to ensure that it will be equitably funded by all those who will benefit from its ultimate provision. This will include not only the short and long term residents and workers in Wollli Creek and the short and long term residents of the Bonar Street Precinct (in accordance with the apportionment strategies outlined in Sections 7.2.1 and 7.2.2) but also short and long term future residents throughout the rest of the City. The apportionment factor that has been applied is based on the proportion of the ultimate resident and worker population of the Wollli Creek Redevelopment Area combined with the proportion of the ultimate resident population of the Bonar Street Precinct that will occur during the life of this plan (ie. 53.1%). While long term forecasts have not been made of the future population growth likely to occur in the remainder of the City beyond the life of this plan, it has been assumed, for the purposes of funding this facility, that the proportions of population growth occurring within and outside the Wollli Creek Redevelopment Area and the Bonar Street Precinct in the long term will be about the same proportions that are expected during the life of this plan (ie. 53% and 47%, respectively). However, population growth forecasts will continue to be monitored and adjustments will be made to the plan if required.
- (3) Includes \$1,334,384 already expended on the project from section 94 funds and \$1,316,316 in unexpended section 94 contributions collected under the previous contributions plan (plus interest).
- (4) Includes \$505,166 already expended on the project from section 94 funds, \$2,808,134 in unexpended section 94 contributions collected under the previous contributions plan (plus interest) and \$3,486,700 to be funded by Council from other sources. Council may meet the balance of this amount by contributing a combination of land and cash.
- (5) Council may meet this financial obligation by contributing a combination of land and cash.

Table 7.6 - Arncliffe local open space acquisitions - Works schedule

Property description	Area (m ²)	Estimated timing	Estimated acquisition costs
56 Walker Street, Turrella (1)	3,690	Short term	
Acquire additional land in the vicinity of Walker, Turrella or Bonar Streets for a new local park or enhancement of an existing local park (1) (2)	2,600	Long term (3)	
2 Guess Avenue, Wolli Creek (1)	4,188	Short term	
16 Guess Avenue, Wolli Creek (1)	3,577	Short term	
Part 25 Lusty Street, Wolli Creek (1)	2,580	Long term (3)	
Parts 45, 47 and 49 Bonar Street, Arncliffe (1)	4,224 (4)	Stage 1: Short term Stage 2: Long term (3)	
Acquire additional land in west Arncliffe for a new local park or enhancement of an existing local park (2)	1,750	Medium term	
Acquire additional land to enhance access to Coolabah Reserve from the east (2) (5)	700	Medium term	
Acquire additional land to enhance Gardiner Park (2) (6)	900	Medium term	
Total estimated acquisition costs (7)			\$33,558,000
Subtotal – costs apportioned to this precinct under this plan			\$6,828,143
Less proportion of funds carried over from previous contributions plan			-\$1,484,823
Plus proportion of carried over funds apportioned to future contributions plans			\$307,808
Less allocation of funds from open space internal policy reserve			-\$1,638,288
Total to be funded under this plan			\$4,012,840

Notes

- (1) Funding shared with Wolli Creek Redevelopment Area.
- (2) In approving this plan Council resolved not to identify in the plan specific properties for acquisition for open space in these locations but rather to identify suitable properties for acquisition after consultation with affected owners. Identification of suitable properties will be based on Council's adopted strategy of providing adequate usable local open space within 400 metres walking distance of all residents, including the residents of future developments. The land valuations used are based on the likely acquisition costs of typical properties in the locations indicated.
- (3) While the timing for the proposed acquisitions of these properties has been identified as long term and may not occur during the life of this plan, they have been included in the plan to ensure that they will be equitably funded by all those who will benefit from their ultimate provision, in accordance with the strategies for the Wolli Creek area and the Bonar Street Precinct outlined in Sections 7.2.1 and 7.2.2.
- (4) Includes the strip of adjacent land required for road widening (about 250 m²), which will be acquired at the same time.
- (5) Funding shared with Bexley North Planning Precinct.
- (6) Funding shared with Rockdale Planning Precinct.
- (7) Total cost of all acquisitions. Cost estimates for individual properties are not provided. For properties yet to be acquired, costings are based on streetscape (kerbside) valuations only on the basis that the land is suitable, or has been remediated, for use as open space, plus an estimate of any compensation required under the Land Acquisition (Just Terms Compensation) Act 1991 on the basis of the land being acquired by agreement. Costings also include Council's legal and administration costs and the costs of demolishing existing buildings. For properties already acquired, the cost is the total actual costs of acquisition, incorporating all of the above cost components.

Table 7.7 - Arncliffe local open space embellishment - Works schedule

Property description	Estimated timing	Project	Estimated project costs	Cost apportioned to precinct
Funding shared with Wolli Creek Redevelopment Area (19.7% apportioned to Arncliffe)				
To be funded by this plan and future contributions plans				
Ray Oxford Reserve	Short term	Park development	\$263,000	\$51,811
Argyle Street	Long term (1)	Park development	\$205,000	\$40,385
Lusty Street Reserve	Long term (1) (part completed)	Park development	\$321,000	\$63,237
Wolli Creek Town Park	Short term	Park development	\$2,430,000	\$478,710
Bonar Street community park	Stage 1: Short term Stage 2: Long term (1)	Park development	(2) \$1,210,000	\$238,370
Subtotal				\$872,513
Apportionment to this plan at			53.8%	\$469,412
To be funded solely by Arncliffe Planning Precinct				
Arncliffe Park	Short term (part completed)	Park lighting	\$90,000	\$90,000
Arncliffe Park	Medium term	Tree planting	\$10,000	\$10,000
Wilson Reserve	Short term	Landscaping	\$10,000	\$10,000
Wooroona Reserve	Short term	Landscaping	\$180,000	\$180,000
Funding shared with Bexley Planning Precinct (57.5% apportionment to Arncliffe)				
Jubilee Park	Medium term	Play equipment & furniture	\$50,000	\$28,750
Funding shared with Bexley North Planning Precinct (83.4% apportionment to Arncliffe)				
Ron Gosling Reserve	Short term	Tree planting, embellishment	\$9,000	\$7,506
Funding shared with both Bexley and Bexley North Planning Precincts (51.6% apportionment to Arncliffe)				
Bardwell Valley (Broadford St)	Short term	Playground equipment	\$30,000	\$15,480
Subtotal – cost apportioned to this precinct under this plan				\$811,148
Less proportion of funds carried over from previous contributions plan				-\$163,026
Plus proportion of carried over funds apportioned to future contributions plans				\$43,587
Total to be funded under this plan				\$691,709

Notes

- (1) While the timing for these proposed open space embellishments has been identified as long term and may not occur during the life of this plan, they have been included in the plan to ensure that they will be equitably funded by all those who will benefit from their ultimate provision, in accordance with the strategies for the Wolli Creek area and the Bonar Street Precinct outlined in Sections 7.2.1 and 7.2.2.
- (2) Includes the costs of designing the park and the incidental widening and streetscaping of Bonar Street around the perimeter of the park.

Table 7.8 - Bexley local open space acquisitions - Works schedule

Property description	Area (m ²)	Estimated timing	Estimated acquisition costs
33 Mimosa Street, Bexley	510.99	Medium term	
37 Mimosa Street, Bexley	510.99	Medium term	
25 Downey Street, Bexley	696.77	Medium term	
27 Downey Street, Bexley	696.77	Medium term	
79A Verdun Street, Bexley	456.95	Acquired 2009 (1)	
6 Rawson Avenue, Bexley	860	Acquired 2003 (1)	
10 Rawson Avenue, Bexley	507.84	Acquired 2007 (1)	
49 Washington Street, Bexley (2)	1,228.62	Medium term	
33 Short Street, Carlton (2)	250	Medium term	
Total estimated acquisition costs (3)			\$5,550,000
Subtotal – costs apportioned to this precinct			\$5,322,750
Less proportion of funds carried over from previous contributions plan			-\$1,460,161
Less allocation of funds from open space internal policy reserve			-\$1,119,782
Total to be funded under this plan			\$2,742,807

Notes

- (1) This property was acquired in anticipation of future demand by development and its acquisition costs will be recouped under this plan.
- (2) Funding shared with Kogarah Planning Precinct.
- (3) Total cost of all acquisitions. Cost estimates for individual properties are not provided. For properties yet to be acquired, costings are based on streetscape (kerbside) valuations only on the basis that the land is suitable, or has been remediated, for use as open space.

space, plus an estimate of any compensation required under the Land Acquisition (Just Terms Compensation) Act 1991 on the basis of the land being acquired by agreement. Costings also include Council's legal and administration costs and the costs of demolishing existing buildings. For properties already acquired, the cost is the total actual costs of acquisition, incorporating all of the above cost components.

Table 7.9 - Bexley local open space embellishment - Works schedule

Property description	Estimated year of provision	Project	Project costs	Cost apportioned to precinct
Funding shared with Arncliffe Planning Precinct (42.5% apportioned to Bexley)				
Jubilee Park	Medium term	Play equipment & furniture	\$50,000	\$21,250
Funding shared with Bexley North Planning Precinct (78.8% apportioned to Bexley)				
Oswald Scholes Reserve	Short term	Tree planting, embellishment	\$3,000	\$2,364
Funding shared with both Arncliffe and Bexley North Planning Precincts (38.2% apportioned to Bexley)				
Bardwell Valley (Broadford St)	Short term	Playground equipment	\$30,000	\$11,460
Funding shared with Kogarah Planning Precinct (79.8% apportioned to Bexley)				
Bill Whalley Reserve	Short term	Landscape embellishment	\$10,000	\$7,980
Funding shared with Rockdale Planning Precinct (35.8% apportioned to Bexley)				
Donnans Reserve	Short term	Playground equipment	\$25,000	\$8,950
Seaforth Park	Short term	Landscape embellishment (Stage 1)	\$41,000	\$14,678
Seaforth Park	Short term	Landscape embellishment (Stage 2)	\$45,000	\$16,110
Subtotal				\$82,792
Less proportion of funds carried over from previous contributions plan				-\$22,407
Total to be funded under this plan				\$60,385

Table 7.10 - Bexley North local open space acquisitions - Works schedule

Property description	Area (m ²)	Estimated timing	Estimated acquisition costs
Acquire additional land to enhance access to Coolabah Reserve from the east (1) (2)	700	Medium term	
Total estimated acquisition costs (3)			\$700,000
Subtotal – costs apportioned to this precinct			\$116,200
Less proportion of funds carried over from previous contributions plan			-\$31,877
Less allocation of funds from open space internal policy reserve			-\$24,446
Total to be funded under this plan			\$59,877

Notes

- (1) In approving this plan Council resolved not to identify in the plan specific properties for acquisition for open space in this location but rather to identify suitable properties for acquisition after consultation with affected owners. Identification of suitable properties will be based on Council's adopted strategy of providing adequate usable local open space within 400 metres walking distance of all residents, including the residents of future developments. The land valuations used are based on the likely acquisition costs of typical properties in the location indicated.
- (2) Funding shared with Arncliffe Planning Precinct.
- (3) Total cost of all acquisitions. Cost estimates for individual properties are not provided. For properties yet to be acquired, costings are based on streetscape (kerbside) valuations only on the basis that the land is suitable, or has been remediated, for use as open space, plus an estimate of any compensation required under the Land Acquisition (Just Terms Compensation) Act 1991 on the basis of the land being acquired by agreement. Costings also include Council's legal and administration costs and the costs of demolishing existing buildings. For properties already acquired, the cost is the total actual costs of acquisition, incorporating all of the above cost components.

Table 7.11 - Bexley North local open space embellishment - Works schedule

Property description	Estimated timing	Project	Estimated project costs	Cost apportioned to precinct
To be funded solely by Bexley North Planning Precinct				
Carrisbrook Ave Reserve	Short term	Fencing, landscaping work and play equipment	\$45,000	\$45,000
Kingsgrove Rest Park	Short term	Play equipment	\$30,000	\$30,000
Funding shared with Arncliffe Planning Precinct (16.6% apportioned to Bexley North)				
Ron Gosling Reserve	Short term	Tree planting, embellishment	\$9,000	\$1,494
Funding shared with Bexley Planning Precinct (21.2% apportioned to Bexley North)				
Oswald Scholes Reserve	Short term	Tree planting, embellishment	\$3,000	\$636
Funding shared with both Arncliffe and Bexley Planning Precincts (10.3% apportioned to Bexley North)				
Bardwell Valley (Broadford St)	Short term	Playground equipment	\$30,000	\$3,090
Subtotal – costs apportioned to this precinct				\$80,220
Less proportion of funds carried over from previous contributions plan				-\$22,006
Total to be funded under this plan				\$58,214

Table 7.12 - Brighton Le Sands local open space embellishment - Works schedule

Property description	Estimated timing	Project	Estimated project costs	Cost apportioned to precinct
To be funded solely by Brighton Le Sands Planning Precinct				
Cook Park, Brighton Le Sands	Completed	Brighton beachfront promenade improvements (Stages 6 and 7) (apportioned to this fund at 50%)	\$1,900,000	(1) \$950,000
Funding shared with Rockdale Planning Precinct (17.8% apportioned to Brighton Le Sands)				
Rockdale Park	Completed	Play equipment	\$35,000	\$6,230
Funding shared with Sans Souci Planning Precinct (49.4% apportioned to Brighton Le Sands)				
Scarborough Park (South)	Short term	Play equipment and landscaping	\$45,000	\$22,230
Subtotal – costs apportioned to this precinct				\$978,460
Less proportion of funds carried over from previous contributions plan				-\$268,416
Total to be funded under this plan				\$710,044

Notes

- (1) The full cost of this facility is apportioned 50% to the regional open space embellishment fund and 50% to the Brighton Le Sands local open space embellishment fund in accordance with the strategy outlined in Section 7.5 (d).

Table 7.13 - Kogarah local open space acquisitions - Works schedule

Property description	Area (m ²)	Estimated timing	Estimated acquisition costs
14 Edgehill Street, Carlton	471.49	Medium term	
16 Edgehill Street, Carlton	481.38	Medium term	
18 Edgehill Street, Carlton	480.52	Acquired 2004 (1)	
8 Guinea Street, Kogarah	464.52	Medium term	
49 Washington Street, Bexley (2)	1,228.62	Medium term	
33 Short Street, Carlton (2)	250	Medium term	
10 Cross Street, Kogarah (3)	491	Acquired 2004 (1)	
11 Subway Road, Rockdale (3)	403	Acquired 2002 (1)	
13 Subway Road, Rockdale (3)	512.2	Acquired 2004 (1)	
Total estimated acquisition costs (4)			\$6,064,031
Subtotal – costs apportioned to this precinct			\$3,239,930
Less proportion of funds carried over from previous contributions plan			-\$888,793
Less allocation of funds from open space internal policy reserve			-\$1,701,137
Total to be funded under this plan			\$650,000

Notes

- (1) This property was acquired in anticipation of future demand by development and its acquisition costs will be recouped under this plan.
- (2) Funding shared with Bexley Planning Precinct.
- (3) Funding shared with Rockdale Planning Precinct.
- (4) Total cost of all acquisitions. Cost estimates for individual properties are not provided. For properties yet to be acquired, costings are based on streetscape (kerbside) valuations only on the basis that the land is suitable, or has been remediated, for use as open space, plus an estimate of any compensation required under the Land Acquisition (Just Terms Compensation) Act 1991 on the basis of the land being acquired by agreement. Costings also include Council's legal and administration costs and the costs of demolishing existing buildings. For properties already acquired, the cost is the total actual costs of acquisition, incorporating all of the above cost components.

Table 7.14 - Kogarah local open space embellishment - Works schedule

Property description	Estimated timing	Project	Estimated project costs	Cost apportioned to precinct
To be funded solely by Kogarah Planning Precinct				
Taylor Street Reserve	Short term	Tree planting, embellishment	\$5,000	\$5,000
Funding shared with Bexley Planning Precinct (20.2% apportioned to Kogarah)				
Bill Whalley Reserve	Short term	Landscape embellishment	\$10,000	\$2,020
Subtotal – costs apportioned to this precinct				\$7,020
Less proportion of funds carried over from previous contributions plan				-\$1,926
Total to be funded under this plan				\$5,094

Table 7.15 - Rockdale local open space acquisitions - Works schedule

Property description	Area (m ²)	Estimated timing	Estimated acquisition costs
Acquire additional land to enhance Gardiner Park (1) (2)	900	Medium term	
10 Cross Street, Kogarah (3)	491	Acquired 2004 (4)	
11 Subway Road, Rockdale (3)	403	Acquired 2002 (4)	
13 Subway Road, Rockdale (3)	512.2	Acquired 2004 (4)	
Total estimated acquisition costs (5)			\$3,549,031
Subtotal – costs apportioned to this precinct			\$2,695,851
Less proportion of funds carried over from previous contributions plan			-\$739,538
Less allocation of funds from open space internal policy reserve			-\$567,144
Total to be funded under this plan			\$1,389,169

Notes

- (1) In approving this plan Council resolved not to identify in the plan specific properties for acquisition for open space in this location but rather to identify suitable properties for acquisition after consultation with affected owners. Identification of suitable properties will be based on Council's adopted strategy of providing adequate usable local open space within 400 metres walking distance of all residents, including the residents of future developments. The land valuations used are based on the likely acquisition costs of typical properties in the location indicated.
- (2) Funding shared with Arncliffe Planning Precinct.
- (3) Funding shared with Kogarah Planning Precinct.
- (4) This property was acquired in anticipation of future demand by development and its acquisition costs will be recouped under this plan.
- (5) Total cost of all acquisitions. Cost estimates for individual properties are not provided. For properties yet to be acquired, costings are based on streetscape (kerbside) valuations only on the basis that the land is suitable, or has been remediated, for use as open space, plus an estimate of any compensation required under the Land Acquisition (Just Terms Compensation) Act 1991 on the basis of the land being acquired by agreement. Costings also include Council's legal and administration costs and the costs of demolishing existing buildings. For properties already acquired, the cost is the total actual costs of acquisition, incorporating all of the above cost components.

Table 7.16 - Rockdale local open space embellishment - Works schedule

Property description	Estimated timing	Project	Estimated project costs	Cost apportioned to precinct
Funding shared with Bexley Planning Precinct (64.2% apportioned to Rockdale)				
Donnans Reserve	Short term	Playground equipment	\$25,000	\$16,050
Seaforth Park	Short term	Landscape embellishment (Stage 1)	\$41,000	\$26,322
Seaforth Park	Short term	Landscape embellishment (Stage 2)	\$45,000	\$28,890
Funding shared with Brighton Le Sands Planning Precinct (82.2% apportioned to Rockdale)				
Rockdale Park	Completed	Play equipment	\$35,000	\$28,770
Subtotal – costs apportioned to this precinct				\$100,032
Less proportion of funds carried over from previous contributions plan				-\$27,441
Total to be funded under this plan				\$72,591

Table 7.17 - Sans Souci local open space embellishment - Works schedule

Property description	Estimated timing	Project	Estimated project costs	Cost apportioned to precinct
To be funded solely by Sans Souci Planning Precinct				
Peter Depena Reserve	Medium term	Planting	\$45,000	\$45,000
Peter Depena Reserve	Short term	Playground equipment	\$70,000	\$70,000
Bona Park	Short term	Tree planting, embellishment	\$25,000	\$25,000
Kendall St Reserve	Short term	Tree planting, embellishment	\$6,000	\$6,000
Rotary Park	Short term	Landscape improvements and signage	\$15,000	\$15,000
Dillon Street between Rocky Point Road and Cleland Lane	Staged construction throughout the life of the plan and beyond as contributions accrue (or sooner)	Construct town square including public art (as described in the <i>Ramsgate Commercial Centre Development Contributions Plan 2006</i>)	(1) \$525,861	(2) \$168,276
Funding shared with Brighton Le Sands Planning Precinct (50.6% apportioned to Sans Souci)				
Scarborough Park (South)	Short term	Play equipment and landscaping	\$45,000	\$22,770
Subtotal – costs apportioned to this precinct				\$352,046
Less proportion of funds carried over from previous contributions plan				-\$96,575
Total to be funded under this plan				\$255,471

Notes

- (1) The project costs includes the full cost of constructing the town square, as estimated in the *Ramsgate Commercial Centre Development Contributions Plan 2006* (\$357,621), the cost of commissioning and installing one item of public art (\$115,000) and the cost of undergrounding services within the proposed square (\$75,000). This cost has been CPI adjusted back to the commencement date of this plan (2004).
- (2) As this project is proposed to be progressively undertaken over the 20 to 30 year lifespan of the redevelopment of the Ramsgate commercial centre, the costs of the project apportioned to this plan has been calculated as 32.0%, based on the anticipated proportion of the ultimate population growth in the Ramsgate centre likely to occur during the life of this plan (ie. between 2006 to 2014).

Table 7.18 - Wollie Creek local open space acquisitions - Works schedule

Property description	Area (m ²)	Estimated timing	Estimated acquisition costs
56 Walker Street, Turrella (1)	3,690	Short term	
Acquire additional land in the vicinity of Walker, Turrella or Bonar Streets for a new local park or enhancement of an existing local park (1) (2)	2,600	Long term (3)	
2 Guess Avenue, Wollie Creek (1)	4,188	Medium term	
16 Guess Avenue, Wollie Creek (1)	3,577	Medium term	
Part 25 Lusty Street, Wollie Creek (1)	2,580	Long term (3)	
Parts 45, 47 and 49 Bonar Street, Arncliffe (1)	4,224 (4)	Stage 1: Short term Stage 2: Long term (3)	
Total estimated acquisition costs (5)			
Subtotal – costs apportioned to this precinct under this plan			\$12,302,956
Less proportion of funds carried over from previous contributions plan			-\$1,788,752
Plus proportion of carried over funds apportioned to future contributions plans			\$840,713
Total to be funded under this plan			\$11,354,917

Notes

- (1) Funding shared with Arncliffe Planning Precinct.
- (2) In approving this plan Council resolved not to identify in the plan specific properties for acquisition for open space in these locations but rather to identify suitable properties for acquisition after consultation with affected owners. Identification of suitable properties will be based on Council's adopted strategy of providing adequate usable local open space within 400 metres walking distance of all residents, including the residents of future developments. The land valuations used are based on the likely acquisition costs of typical properties in the locations indicated.
- (3) While the timing for the proposed acquisitions of these properties has been identified as long term and may not occur during the life of this plan, they have been included in the plan to ensure that they will be equitably funded by all those who will benefit from their ultimate provision, in accordance with the strategies for the Wollie Creek area and the Bonar Street Precinct outlined in Sections 7.2.1 and 7.2.2.
- (4) Includes the strip of adjacent land required for road widening (about 250 m²), which will be acquired at the same time.
- (5) Total cost of all acquisitions. Cost estimates for individual properties are not provided. For properties yet to be acquired, costings are based on streetscape (kerbside) valuations only on the basis that the land is suitable, or has been remediated, for use as open space, plus an estimate of any compensation required under the Land Acquisition (Just Terms Compensation) Act 1991 on the basis of the land being acquired by agreement. Costings also include Council's legal and administration costs and the costs of demolishing existing buildings. For properties already acquired, the cost is the total actual costs of acquisition, incorporating all of the above cost components.

Table 7.19 - Wollie Creek local open space embellishment - Works schedule

Property description	Estimated timing	Project	Estimated project costs	Cost apportioned to precinct
Funding shared with Arncliffe Planning Precinct (80.3% apportioned to Wollie Creek)				
To be funded by this plan and future contributions plans				
Ray Oxford Reserve	Short term	Park development	\$263,000	\$211,189
Argyle Street	Long term (1)	Park development	\$205,000	\$164,615
Lusty Street Reserve	Long term (1) (part completed)	Park development	\$321,000	\$257,763
Wollie Creek Town Park	Short term	Park development	\$2,430,000	\$1,951,290
Bonar Street community park	Stage 1: Short term Stage 2: Long term (1)	Park development	(2) \$1,210,000	\$971,630
Subtotal – costs apportioned to this precinct				\$3,556,487
Apportioned to this plan			at 53.0%	\$1,884,938
Less proportion of funds carried over from previous contributions plan				-\$274,055
Plus proportion of carried over funds apportioned to future contributions plans				\$128,806
Total to be funded under this plan				\$1,739,689

Notes

- (1) While the timing for these proposed open space embellishments has been identified as long term and may not occur during the life of this plan, they have been included in the plan to ensure that they will be equitably funded by all those who will benefit from their ultimate provision, in accordance with the strategies for the Wollie Creek area and the Bonar Street Precinct outlined in Sections 7.2.1 and 7.2.2.
- (2) Includes the costs of designing the park and the incidental widening and streetscaping of Bonar Street around the perimeter of the park.

7.8 Calculation of contribution rates

The following formulas and contribution rates have been derived to determine contributions for acquisition and embellishment of public open space.

The base contribution formula for capital works is as follows:

$$\text{Contribution} = \frac{\text{Estimated cost of open space works}}{\text{Estimated population growth to 2014}}$$

The cost of capital works has been estimated by Council on the basis of costs for similar or equivalent works.

The base contribution formula for land acquisition is:

$$\text{Contribution} = \frac{\text{Estimated cost of land to be acquired}}{\text{Estimated population growth to 2014}}$$

The cost of land to be acquired is provided by a registered valuer based on the unaffected value of the land under the zoning likely to apply to land in the immediate vicinity at the time that the land is required.

Based on the principles established by the above formulas, the contribution rates that would apply to residential development in each planning precinct have been calculated as follows:

$$\begin{aligned} \text{Contribution rate} = & \frac{\text{AppCost}_{\text{REGIONAL}}}{\text{EstPopGrowth}_{\text{CITY}}} + \frac{\text{AppCost}_{\text{CITY-WIDE (WOLLI CREEK)}}}{\text{EstPopGrowth}_{\text{CITY}} + \text{EstEmployGrowth}_{\text{WOLLI CREEK}}} \\ & + \frac{\text{AppCost}_{\text{CITY-WIDE (ELSEWHERE)}}}{\text{EstPopGrowth}_{\text{CITY}}} + \frac{\text{AppCost}_{\text{LOCAL}}}{\text{EstPopGrowth}_{\text{PRECINCT}}} \end{aligned}$$

where:

- *AppCost*_{REGIONAL} is the total apportioned cost of all regional open space embellishments, as identified in Table 7.3,
- *AppCost*_{CITY-WIDE (WOLLI CREEK)} is the total apportioned cost of all City-wide open space acquisitions and embellishments within, or in the vicinity of, the Wolli Creek Redevelopment Area, as identified in Tables 7.4 and 7.5,
- *AppCost*_{CITY-WIDE (ELSEWHERE)} is the total apportioned cost of all City-wide open space acquisitions and embellishments (other than those within, or in the vicinity of, the Wolli Creek Redevelopment Area), as identified in Tables 7.4 and 7.5,
- *AppCost*_{LOCAL} is the total apportioned cost of all local open space acquisitions and embellishments to be provided within, or in the vicinity of, the particular planning precinct, as identified in Tables 7.6 to 7.19,
- *EstPopGrowth*_{CITY} is the estimated residential population growth within the City of Rockdale to 2014, as shown in Table 6.2,
- *EstEmployGrowth*_{WOLLI CREEK} is the estimated employment population growth within the Wolli Creek Redevelopment Area to 2014, as shown in Table 6.3, and
- *EstPopGrowth*_{PRECINCT} is the estimated residential population growth within the particular planning precinct to 2014, as shown in Table 6.2 (except for the Wolli Creek Redevelopment

Area where it also includes the estimated employment population growth to 2014, as shown in Table 6.3).

This is the rate that would apply for every additional resident likely to be generated by any development within the relevant planning precinct. For example, applying this formula, the base open space contribution rate for each additional resident in the Bexley planning precinct would be:

$$\begin{aligned} \text{Contribution} &= \frac{\$3,593,726}{10,959 \text{ persons}} + \frac{\$2,707,752 + \$1,103,018}{10,959 + 2,121 \text{ persons}} + \frac{\$422,112 + \$1,980,453}{10,959 \text{ persons}} \\ &\quad + \frac{\$2,742,807 + \$60,080}{1,195 \text{ persons}} \\ &= \$327.92 + \$291.34 + \$219.23 + \$2,345.51 \\ &= \$3,184.00 \text{ per person} \end{aligned}$$

Using the same formula, the base open space contribution rate for each additional resident in each of the planning precincts would be:

Arncliffe	\$3,751.52
Bexley	\$3,184.00
Bexley North	\$1,206.37
Brighton Le Sands	\$2,372.06
Kogarah	\$3,000.52
Rockdale	\$1,520.60
Sans Souci (excluding Ramsgate commercial centre)	\$1,377.45
Wolli Creek	\$2,832.79

For employment-generating development, open space contributions will only be collected within the Wolli Creek Redevelopment Area, based on the following formula:

$$\text{Contribution rate} = \frac{\text{AppCost}_{\text{CITY-WIDE (WOLLI CREEK)}}}{\text{EstPopGrowth}_{\text{CITY}} + \text{EstEmployGrowth}_{\text{WOLLI CREEK}}} + \frac{\text{AppCost}_{\text{WOLLI CREEK}}}{\text{EstPopGrowth}_{\text{WOLLI CREEK}}}$$

where:

- *AppCost*_{CITY-WIDE (WOLLI CREEK)} is the total apportioned cost of all City-wide open space acquisitions and embellishments within, or in the vicinity of, the Wolli Creek Redevelopment Area, as identified in Tables 7.4 and 7.5,
- *AppCost*_{WOLLI CREEK} is the total apportioned cost of all local open space acquisitions and embellishments to be provided within, or in the vicinity of, the Wolli Creek Redevelopment Area, as identified in Tables 7.18 and 7.19,
- *EstPopGrowth*_{CITY} is the estimated residential population growth within the City of Rockdale to 2014, as shown in Table 6.2,
- *EstEmployGrowth*_{WOLLI CREEK} is the estimated employment population growth within the Wolli Creek Redevelopment Area to 2014, as shown in Table 6.3, and
- *EstPopGrowth*_{WOLLI CREEK} is the estimated residential and employment population growth within the Wolli Creek Redevelopment Area to 2014, as shown in Tables 6.2 and 6.3, respectively.

Applying this formula, the base open space contribution rate for each additional worker in the Wolli Creek Redevelopment Area is:

$$\begin{aligned} \text{Contribution} &= \frac{\$2,707,752 + \$1,103,018}{10,959 + 2,121 \text{ persons}} + \frac{\$11,354,917 + \$1,739,689}{6,566 \text{ persons}} \\ &= \$291.34 + \$1,994.30 \\ &= \$2,285.64 \text{ per worker} \end{aligned}$$

For development within the Ramsgate commercial centre the following adjustment, as indicated in Section 7.6, is made against the open space contribution that would be otherwise payable by that development:

$$\begin{aligned} \text{Adjustment} &= \frac{- \text{CostTownSquare} \times \text{EstPopGrowth}_{\text{SANS SOUCI (REMAINDER)}}}{\text{EstPopGrowth}_{\text{ALL SANS SOUCI}} \times \text{EstPopGrowth}_{\text{RAMSGATE (R+W)}}} \\ &+ \frac{- \text{CostTownSquare} \times \text{EstPopGrowth}_{\text{RAMSGATE (RESIDENTS)}}}{\text{EstPopGrowth}_{\text{ALL SANS SOUCI}} \times \text{EstPopGrowth}_{\text{RAMSGATE (R+W)}}} \end{aligned}$$

where:

- *CostTownSquare* is the cost of the town square and associated works apportioned to this plan, as shown in Table 7.17,
- *EstPopGrowth*_{SANS SOUCI (REMAINDER)} is the estimated resident population growth within the Sans Souci precinct, outside of the Ramsgate commercial centre, between the date of commencement of the *Ramsgate Commercial Centre Development Contributions Plan 2006* and 2014, and
- *EstPopGrowth*_{ALL SANS SOUCI} is the estimated resident population growth within the whole Sans Souci precinct, including the Rockdale City Council side of the Ramsgate commercial centre, between the date of commencement of the *Ramsgate Commercial Centre Development Contributions Plan 2006* and 2014, and
- *EstPopGrowth*_{RAMSGATE (R+W)} is the estimated population growth, both workers and residents, within the Rockdale City Council side of the Ramsgate commercial centre, between the date of commencement of the *Ramsgate Commercial Centre Development Contributions Plan 2006* and 2014.
- *EstPopGrowth*_{RAMSGATE (RESIDENTS)} is the estimated resident population growth within the Rockdale City Council side of the Ramsgate commercial centre, between the date of commencement of the *Ramsgate Commercial Centre Development Contributions Plan 2006* and 2014.

Applying this formula,

$$\text{Adjustment} = - \frac{\$168,276 \times 179^{36}}{379^{38} \times 262^{37}} - \frac{\$168,276 \times 200^{37}}{379 \times 262}$$

³⁶ The estimated resident population growth within the Sans Souci precinct, outside of the Ramsgate commercial centre, between the date of commencement of the *Ramsgate Commercial Centre Development Contributions Plan 2006* and 2014 is calculated by deducting the estimated resident population growth within the Rockdale City Council side of the Ramsgate centre during this period (200 persons - see Footnote 37) from the estimated resident population growth within the whole Sans Souci precinct during the same period (379 persons - see Footnote 38)

³⁷ The *Ramsgate Commercial Centre Development Contributions Plan 2006* estimates a total population growth within the Ramsgate commercial centre during the life of that plan (2006 to 2016) of 433 residents and 142 workers. The proportion of this growth within the Rockdale City Council side of the centre, based on the relative floor space potential within each side of the centre, is 250 residents and 78 workers. Adjusting these figures, on a pro rata basis, for the 8 years between the commencement of the *Ramsgate Commercial Centre Development Contributions Plan 2006* and 2014 would produce a population growth of 200 residents and 62 workers within the Rockdale City Council side of the centre between 2006 and 2014, a total growth of 262 persons.

$$= - \$303.34 - \$338.93$$

$$= - \$642.27$$

This means that the per person local open space contribution rate otherwise payable by development within the Ramsgate commercial centre would be reduced by this amount.

Based on these formulas and the standard dwelling occupancy rates in Table 5.14, the open space contribution rates that would apply to development within each of the planning precincts are set out in Table 7.20.

Table 7.20 - Open space contribution rates

Planning precinct	Multi-unit development (1)				Employment development (per person) (4)
	0-1 bedroom dwellings (2)	2 bedroom dwellings	3+ bedroom dwellings	Dwelling houses (per allotment) (3)	
Arncliffe	\$4,952.00	\$7,878.20	\$9,678.90	\$11,329.60	Nil
Bexley	\$4,202.90	\$6,686.40	\$8,214.70	\$9,615.70	Nil
Bexley North	\$1,592.40	\$2,533.40	\$3,112.40	\$3,643.20	Nil
Brighton Le Sands	\$3,131.10	\$4,981.30	\$6,119.90	\$7,163.60	Nil
Kogarah	\$3,960.70	\$6,301.10	\$7,741.30	\$9,061.60	Nil
Rockdale	\$2,007.20	\$3,193.30	\$3,923.10	\$4,592.20	Nil
Sans Souci (excluding Ramsgate commercial centre)	\$1,818.20	\$2,892.60	\$3,553.80	\$4,159.90	Nil
Wolli Creek	\$3,739.30	\$5,948.90	\$7,308.60	\$8,555.00	(5) \$2,285.60
Ramsgate commercial centre	\$970.40	\$1,543.90	\$1,896.80	\$2,220.20	(6) - \$642.30

Notes

- (1) Includes attached and detached dual occupancies, medium density housing (villas and townhouses), residential flat buildings and the residential component of mixed use premises.
- (2) 0-1 bedroom dwellings include bedsitters and studio apartments.
- (3) Dwelling house allotments include existing parcels of land, whether or not these parcels are, or contain, separate allotments. See Footnote 8 for definition of "parcel of land".
- (4) Means the number of persons likely to be employed within a development based on the standard occupancy rates provided in Section 6.2.1 of this plan (unless an applicant can satisfy Council, by way of an expert study or the like, that another occupancy rate should apply).
- (5) Applying these contribution rates and the employment occupancy rates in Section 6.2.1, the open space contribution rates for various employment developments are:

supermarkets	\$91.42 / m ² gross floor area
bulky goods retail	\$45.71 / m ² gross floor area
all other retail	\$65.30 / m ² gross floor area
"high tech" industry with high office components	\$50.79 / m ² gross floor area
offices and other commercial	\$91.42 / m ² gross floor area
industry (including warehouses and car yards but excluding "high tech" industry)	\$28.57 / m ² gross floor area
- (6) This negative contribution means the amount is credited against the contribution otherwise payable by the development under the *Ramsgate Commercial Centre Development Contributions Plan 2006*. Applying these contribution rates and the employment occupancy rates in Section 3.4.3 of that plan, the open space contribution credits for employment developments in the Ramsgate centre under this plan are:

retail	\$18.35 credit / m ² gross floor area
offices and other commercial	\$25.69 credit / m ² gross floor area
- (7) Where land dedications are accepted by Council, contributions are to be discounted as per the formula in the plan.
- (8) Where works in kind are accepted by Council, which accord with the requirements of the contributions plan, contributions are to be discounted by the value of the work.

³⁸ This plan estimates a resident population growth within the whole Sans Souci precinct of 474 people over the 10 year life of the plan. This would translate, on a pro rate basis, as 379 people over the 8 years between the commencement of the *Ramsgate Commercial Centre Development Contributions Plan 2006* and 2014.

8 Car parking

8.1 Introduction

It is Council's policy that, generally, all of the car parking required by a development should be provided on-site. However, in some circumstances it is reasonable for Council to provide public car parking facilities and to levy contributions from developments towards the provision of that car parking.

These circumstances are based on the physical constraints of a site or the public interest.

8.1.1 Physical constraints

It may be physically difficult, if not impossible, to provide the required parking on the site of a proposed development. This situation could arise in two ways:

- i. Where a change of use or minor redevelopment of an existing building is proposed, particularly where the proposed use has a higher parking requirement than the previous use. Usually, in this situation, there is insufficient area on-site for the proponent to physically provide the additional parking conveniently.
- ii. Where the site configuration, size or vehicular access characteristics preclude the economic and practical provision of car parking in conjunction with a proposed development.

8.1.2 The public interest

In some circumstances, it may be in the public interest to require a contribution in lieu of on-site provision of car parking. For example, in some areas it may be preferable to develop a rationalised vehicular system (including parking and traffic arrangements). In such instances, it may be more logical to provide larger amalgamated public parking areas rather than individual on-site parking facilities.

Generally speaking, the provision of consolidated parking areas has the following advantages:

- It reduces the number of driveway crossings, thereby lessening the risk of pedestrian / vehicular conflict and increasing pedestrian safety,
- It is less expensive to provide due to economies of scale and greater design efficiency, and
- It is more easily identified by clients and therefore functionally more useful.

The provision of larger amalgamated parking areas is preferred within the Rockdale Town Centre and some of the larger district town centres. For these centres, Council may require the payment of monetary contributions in lieu of on-site provision of car parking.

However, Council may refuse to accept a monetary contribution in lieu of the provision of car parking on site, if this would be inconsistent with Council's current car parking strategy or Council has already accrued sufficient money from contributions to fully fund the proposed car parking facilities towards which the contribution would otherwise go.

Council will not accept contributions in lieu of car parking for any residential developments, including the residential components of mixed use premises. All residential developments must fully meet their car parking requirements on site.

A detailed Car Parking Strategy has been undertaken to review the car parking facilities proposed to be provided under the previous section 94 contributions plan and to identify the car parking facilities that will now be required for future development and funded under this plan.

Contributions will be calculated on the car parking requirements contained in Council's *Parking and Loading Code* (or other relevant DCP or policy, where applicable), based on the estimated construction and land acquisition costs of providing the car parking.

8.2 Nexus

As further commercial and retail development occurs in the City of Rockdale, pressure will be placed on existing public car parking areas and kerbside parking in district town centres (such as Kingsgrove) and the Rockdale subregional town centre where the new development cannot physically provide car parking on-site or where it is considered inappropriate to do so.

8.2.1 Causal nexus - What?

A detailed Car Parking Strategy was prepared to address the existing provision of car parking facilities in commercial centres throughout the City, review the proposals to provide additional car parking under the previous contributions plan, and identify what parking facilities should now be provided under this plan (see separate strategy document).

This strategy identifies the sites that are to be acquired and developed for the purpose of providing the public car parking facilities needed to serve the various town centres. These facilities are described in Table 8.1. In the case of the Brighton Le Sands Town Centre, a car parking facility has already been provided through the previous contributions plan, in anticipation of future development expected up to 2013, and this plan therefore continues to provide for the recovery of the costs of that facility.

Table 8.1 - Location and description of works - Car parking facilities

Town centre	Location	Description of proposed works
Bexley	13 Albyn Street	Acquire land and construct ground level car parking area as an extension to existing car parking area.
Bexley North	27-29 Shaw Street	Acquire land and construct ground level car parking area.
Brighton Le Sands	1-7 The Boulevard	Recoup costs of acquiring land and constructing existing multi-storey car parking area.
Kingsgrove	1-5 The Avenue	Acquire land and construct ground level car parking area.
Rockdale	30-32 York Street	Acquire land and construct ground level car parking area as an extension to existing car parking area.
	20-24 York Street	Acquire land and construct ground level car parking area as an extension to existing car parking area.
	19 York Street	Acquire land and construct ground level car parking area as an extension to existing car parking area.

These sites are within town centres that are likely to be subject to continued demand for additional car parking from retail / commercial development. In general, where new development takes place and car parking cannot (or should not) be physically provided on-site, a demand for additional public car parking facilities will arise. To ensure that the parking of cars generated by this new development is adequately accommodated and does not overflow into the residential streets adjoining these town centres, provision of additional off-street car parking is required.

8.2.2 Physical / spatial nexus - Where?

The car parking facilities identified in this plan are all located within convenient walking distance (less than 100 metres) of the town centres of Rockdale, Bexley North, Bexley, Kingsgrove and Brighton Le Sands. The exact locations of the facilities are given in Table 8.1.

8.2.3 Temporal nexus - When?

Temporal nexus means that the public facility must be provided in a timely manner to benefit those who contributed towards it. The timing of the provision of the proposed car parking facilities will depend on actual rates of future commercial and retail development occurring within the various town centres and hence the amount of section 94 contributions received from such development.

This car parking strategy plans for the provision of public parking facilities within the selected town centres over a long term period (say 20-25 years). However, based on the anticipated rates of commercial development likely to occur within these centres, it is expected that at least one of the car parking facilities identified in this plan, or a part of one of those facilities, will be provided in each of the nominated town centres within the 10 years lifespan of this plan.

8.3 Money collected under previous contributions plan

Council's previous contributions plan (*Section 94 Contributions Plan (Amendment 4)*) provided for the levying of contributions towards the provision of public car parking facilities within a number of town centres or industrial precincts in the City over a 20 year period from 1993 to 2013. Consequently, any money collected for those facilities but not spent at the commencement of this plan has been carried over to this plan.

In the case of contributions previously collected towards the provision of car parking facilities within the Bexley, Bexley North, Brighton Le Sands, Kingsgrove and Rockdale town centres under the previous contributions plan, these funds will be carried over and used towards the provision of the facilities identified in Table 8.1.

However, the detailed Car Parking Strategy determined that contributions should no longer be levied towards the provision of car parking facilities within industrial precincts and certain town centres. Where contributions have been collected under the previous plan for car parking facilities in these locations these funds:

- will continue to be used for the provision of the car parking facility identified in the previous plan (but no further contributions will be collected towards that facility), or
- have been carried over to this plan and used towards the provision of some other related facility in the immediate vicinity.

Table 8.2 shows how contributions collected under such discontinued car parking funds will now be used under this plan.

Table 8.2 - Use of contributions held in discontinued car parking funds under previous plan

Discontinued car parking fund	Purpose for which money was collected	Amount held	Purpose for which money will now be used
West Arncliffe / Turrella Industrial Area	Construct multi-level car parking area on 16 Lusty Street.	\$7,946	Provision and management of on-street car parking facilities within the Wolli Creek Redevelopment Area as part of the roads, traffic management and on-street parking section 94 strategy for that area (under Chapter 9 of this plan).
East Arncliffe Industrial Area	Acquire 21 Arncliffe Street and construct ground level car parking area.	\$27,888	Provision and management of on-street car parking facilities within the Wolli Creek Redevelopment Area as part of the roads, traffic management and on-street parking section 94 strategy for that area (under Chapter 9 of this plan).
	Acquire 21-23 West Botany Street and construct ground level car parking area.		
	Construct multi-level car parking area on part of Cahill Park adjacent to Gertrude Street.		
Ramsgate Beach Business Area	Acquire 97 Alfred Street and construct ground level car parking area.	\$323,127	Construct ground level car parking area within Alfred Street roadway south of Ramsgate Road.

8.4 Calculation of contribution rates

8.4.1 Cost of facilities

The estimated costs of acquiring land and constructing the proposed car parking facilities within each town centre are shown in Tables 8.3 to 8.6. These estimates are based on current land valuations of the identified properties and the median parking area construction cost identified in *Rawlinsons Australian Construction Handbook* (2004 edition).

Table 8.3 - Estimated cost of works - Bexley Town Centre car parking facility

Property description	Area (m ²)	Estimated no. of car spaces	Estimated timing	Total estimated cost
13 Albyn Street, Bexley	409.46	14	Medium term	
Total estimated acquisition costs				(1)
Total estimated construction costs				(2)
Total costs				\$1,180,450
Cost per car parking space				\$84,318

Notes

- (1) Cost estimates for individual properties are not provided. For properties yet to be acquired, costings are based on streetscape (kerbside) valuations only plus an estimate of any compensation required under the Land Acquisition (Just Terms Compensation) Act 1991 on the basis of the land being acquired by agreement. Costings also include Council's legal and administration costs and the costs of demolishing existing buildings. For properties already acquired, the cost is the total actual costs of acquisition, incorporating all of the above cost components.
- (2) Not shown as it would provide the estimated acquisition cost for 13 Albyn Street.

Table 8.4 - Estimated cost of works - Bexley North Town Centre car parking facility

Property description	Area (m ²)	Estimated no. of car spaces	Estimated timing	Total estimated cost
27-29 Shaw Street, Bexley North	967.5	41	Medium to long term (1)	
Total estimated acquisition costs (2)				\$1,550,000
Total estimated construction costs (3)				\$89,175
Total costs				\$1,639,175
Cost per car parking space				\$39,980

Notes

- (1) While the timing for the proposed acquisitions of these properties has been identified as medium to long term and acquisition of all of the land described may not occur during the life of this plan, it is anticipated that at least a part of this facility will be provided within the lifespan of this plan.
- (2) Total cost of all acquisitions. Cost estimates for individual properties are not provided. For properties yet to be acquired, costings are based on streetscape (kerbside) valuations only plus an estimate of any compensation required under the Land Acquisition (Just Terms Compensation) Act 1991 on the basis of the land being acquired by agreement. Costings also include Council's legal and administration costs and the costs of demolishing existing buildings. For properties already acquired, the cost is the total actual costs of acquisition, incorporating all of the above cost components.
- (3) Based on an estimated total of 41 ground level car parking spaces at an estimated cost of \$2,175 per space.

Table 8.5 - Estimated cost of works - Kingsgrove Town Centre car parking facility

Property description	Area (m ²)	Estimated no. of car spaces	Estimated timing	Total estimated cost
1-5 The Avenue, Kingsgrove	1114.65	44	Medium to long term (1)	
Total estimated acquisition costs (2)				\$2,000,000
Total estimated construction costs (3)				\$95,700
Total costs				\$2,095,700
Cost per car parking space				\$47,630

Notes

- (1) While the timing for the proposed acquisitions of these properties has been identified as medium to long term and acquisition of all of the land described may not occur during the life of this plan, it is anticipated that at least a part of this facility will be provided within the lifespan of this plan.
- (2) Total cost of all acquisitions. Cost estimates for individual properties are not provided. For properties yet to be acquired, costings are based on streetscape (kerbside) valuations only plus an estimate of any compensation required under the Land Acquisition (Just Terms Compensation) Act 1991 on the basis of the land being acquired by agreement. Costings also include Council's legal and administration costs and the costs of demolishing existing buildings. For properties already acquired, the cost is the total actual costs of acquisition, incorporating all of the above cost components.
- (3) Based on an estimated total of 44 ground level car parking spaces at an estimated cost of \$2,175 per space.

Table 8.6 - Estimated cost of works - Rockdale Town Centre car parking facilities

Property description	Area (m ²)	Estimated no. of car spaces	Estimated timing	Total estimated cost
30-32 York Street, Rockdale	689.3	30	Medium to long term (1)	
20-24 York Street, Rockdale	967.5	45	Medium to long term (1)	
19 York Street, Rockdale	720.9	36	Land acquired and parking provided 2006 (2)	
Total estimated acquisition costs (3)				\$5,245,000
Total estimated construction costs (4)				\$241,425
Total costs				\$5,486,425
Cost per car parking space				\$49,427

Notes

- (1) While the timing for the proposed acquisitions of these properties has been identified as medium to long term and acquisition of all of the land described may not occur during the life of this plan, it is anticipated that at least a part of these facilities will be provided within the lifespan of this plan.
- (2) This property was acquired in anticipation of future demand by development and its acquisition costs will be recouped under this plan.
- (3) Total cost of all acquisitions. Cost estimates for individual properties are not provided. For properties yet to be acquired, costings are based on streetscape (kerbside) valuations only plus an estimate of any compensation required under the Land Acquisition (Just Terms Compensation) Act 1991 on the basis of the land being acquired by agreement. Costings also include Council's legal and administration costs and the costs of demolishing existing buildings. For properties already acquired, the cost is the total actual costs of acquisition, incorporating all of the above cost components.
- (4) Based on an estimated total of 111 ground level car parking spaces at an estimated cost of \$2,175 per space.

The costs already expended in acquiring land and constructing the existing car parking facility in Brighton Le-Sands are shown in Table 8.7.

Table 8.7 - Cost of works – Brighton-Le-Sands Town Centre car parking facility

Property description	Area (m ²)	No. of car spaces	Timing	Total cost (1)
1-7 The Boulevarde, Brighton-Le-Sands	2,186	229	Land acquired and parking previously provided (2)	
Total acquisition costs				\$1,970,000
Total construction costs				\$3,707,000
Total costs				\$5,677,000
Cost per car parking space				\$24,790

Notes

(1) Adjusted costs based on actual costs at time of land purchase and construction plus interest at average bank interest rates.

(2) This land was acquired and the car parking area was constructed in anticipation of future demand by development and its acquisition costs will be recouped under this plan.

8.4.2 Apportionment

An apportionment rate of 50% will be applied to contributions towards the provision of proposed car parking facilities identified in this plan (ie. developments will only be charged half the full cost of providing these additional car parking facilities), except for car parking facilities in the Bexley and Brighton Le Sands town centres. This apportionment factor recognises:

- Requiring developments to pay the full cost of providing these additional car parking facilities would, in all likelihood, be prohibitive, thus restricting or preventing future commercial development within existing town centres,
- There is a need to encourage commercial development within existing town centres in order to promote economic activity and vitality within these centres that will benefit the local community,
- There is a need to ensure that there will be a reasonable income stream from contributions if sufficient funds are to be accrued to provide these public parking facilities,
- There may be future opportunities for Council to provide additional car parking on the acquired land through the construction of multi-level car parks, and
- There may be long term opportunities for further economic returns from the acquired land, such as from the sale of the airspace over the car parks for redevelopment.

For the proposed car parking facility within the Bexley Town Centre an apportionment rate of 25% will apply. This lower apportionment rate recognises the increased likelihood of Council recouping a significant proportion of the cost of providing this car parking facility from commercial or residential air space development over the car park.³⁹

No apportionment factor will apply to contributions towards the Brighton Le Sands car parking facility, as these contributions will be used to recoup the actual cost of the existing facility, the contribution rates applying to this facility are reasonable and there would be no opportunity for further economic returns from that site.

³⁹ Council has adopted a comprehensive redevelopment strategy for the Bexley Town Centre, which is set out in Development Control Plan No. 68. As part of this strategy Council has rezoned No. 13 Albyn Street, the property identified in this plan for acquisition for the Bexley car parking facility, to a 3(a) General Business zone. Such a zoning would allow commercial and residential redevelopment over the proposed car park.

8.4.3 Formula for calculation of contributions

The cost of providing public car parking will be met by retail and commercial developments in, or in the immediate vicinity of, the nominated business areas in accordance with the provisions of this section 94 plan.

The contribution will be applied to any development (other than residential development), which is unable to physically provide all or part of its car parking requirement on-site, or where, in the opinion of Council, it would not be in the public interest to do so.

The formula for calculating the contribution rate per space is:

$$\text{Contribution} = \frac{\text{Cost}}{\text{Spaces}} \times \frac{\text{Apportionment}}{100}$$

where:

- *Cost* is the total cost of providing all of the proposed car parking facilities within the relevant town centre (construction plus land acquisition costs), as set out in Tables 8.3 to 8.7.
- *Spaces* is the total number of car spaces proposed within those facilities, as shown in Tables 8.3 to 8.7.
- *Apportionment* is the apportionment factor (in %) applying to the contribution, as outlined in Section 8.4.2.

For example, applying this formula, the contribution payable by a development within or adjacent to the Rockdale Town Centre for each deficient car space would be:

$$\begin{aligned} \text{Contribution} &= \frac{\$5,486,425}{111 \text{ spaces}} \times \frac{50\%}{100} \\ &= \$24,714 \text{ per car space} \end{aligned}$$

8.4.4 Contribution rates

Based on this formula, the car parking contribution rates that would apply for each deficient car space within any development in or adjacent to each of the town centres are set out in Table 8.8.

Table 8.8 - Car parking contribution rates

Town centre	Contribution (per car space)
Bexley	\$21,080.00
Bexley North	\$19,990.00
Brighton- Le-Sands	\$24,790.00
Kingsgrove	\$23,815.00
Rockdale	\$24,714.00

9 Roads, traffic management and on-street parking facilities – Wollli Creek Redevelopment Area

Redevelopment of the Wollli Creek area will require the provision and upgrading of roads, management of traffic within the area and the provision and management of on-street car parking. These facilities and services will be funded through section 94 contributions.

Figure 6.1 shows the Wollli Creek Redevelopment Area and the development precincts and sites referred to in this chapter.

9.1 Key principles

9.1.1 Roads and traffic management

Redevelopment of Wollli Creek and establishment of its new urban function will necessitate:

- changes to the operation of the existing road network,
- the implementation of new traffic and parking management arrangements,
- upgrading existing roads and intersections, and
- the creation of some additional roads,

to access the new development sites and assist traffic circulation within the area.

Recognition of the significance of transport and traffic is contained in the DCP for this area, which includes the following relevant key aims and objectives:⁴⁰

- To encourage and increase the multiple functions performed by streets,
- To minimise the amount of through traffic traversing the area and adjacent residential areas,
- To facilitate safe, accessible and convenient movement to, from, and within the area,
- To facilitate a road system which is interconnected, permeable and facilitates movement of all types, including vehicular, pedestrian, cycle and public transport travel,
- To make Wollli Creek Railway Station the focus for the area by making it legible and accessible,
- To achieve a 50/50 modal split for private car to other transport modes, for work related trips,
- To encourage the use of alternative transport modes to and from the area so as to reduce reliance on the private car,
- To manage the scale of development and the provision of parking to match the capacity of the road network.

Council has identified that the following road and traffic works will be required (although not all of these would be undertaken within the life of this plan):

- Provision of several new roads to serve increased development in the area.
- Widening of some existing roads.
- Provision of improved linkages to the arterial road system (ie. Princes Highway and Marsh Street). This will mean both the creation of additional signalised intersections and the upgrading of some existing signalised intersections.

⁴⁰ Rockdale City Council, *Rockdale Development Control Plan No.62 –Wollli Creek*, effected 18 August 2006.

- Provision of traffic management facilities (such as traffic signals, signs, etc).
- Upgrading of existing roadways including, in one instance, complete reconstruction.
- Provision and management of the supply of on-street parking by appropriate signage and line marking.
- Accommodation of additional alternative transport modes on roadways, such as bicycles, bus priority, the provision of bus stops and bus shelters, etc.
- Provision of traffic facilities outside the Wollongong Road system.⁴¹
- Safety improvements to the two existing road underpasses beneath the Illawarra Railway.

These transport and traffic management works are collectively essential to the acceptability of the overall development of the Wollongong Road Redevelopment Area.

It is Council's view that the cost of new roads, road improvements and other traffic works should be, as far as possible, fully recoverable from the developments that they serve. Some new roads, such as those within the "Discovery Point" development site, and the access roads that will be provided to serve individual developments sites under Council's planning controls for the area, are required to enable the development or servicing of those sites. Whether or not they are ultimately dedicated to Council as public roads, these roads are primarily required by those developments to enable subdivision and development to be carried out and are not essential to the traffic capacity or circulation needs of the whole area. Accordingly, the cost of these new roads would be entirely at the developer's expense and no section 94 contribution would be required (nor any credit given).

While the cost of widening existing roads should be met by future development through section 94 contributions, this plan recognises that the land required for such widenings will be acquired by the transfer of development rights from the area of land to be acquired to the remainder of the development site, rather than by outright purchase (the "realignment method") and, consequently, no section 94 contributions will be levied towards the cost of such acquisitions (nor will any credit be given).⁴²

As the provision of the roads and traffic management facilities identified in this plan are collectively critical to the acceptability of redevelopment of the Wollongong Road area, and as there is no likelihood of alternative funding from the State government or other sources, these works must all be provided for, and fully funded by, future developments within the Wollongong Road area through section 94 contributions, even if there may be some incidental benefit to the wider community from the provision of these facilities.

Under a previous contributions plan, Council levied contributions from development within the Gertrude Street / Innesdale Road area towards the provision of road works and traffic management facilities in that area. This area is now included within the Wollongong Road Redevelopment Area and the proposed road works and traffic management facilities identified in this plan will apply to it. The

⁴¹ The traffic studies undertaken for Council in preparing its planning controls for the Wollongong Road Redevelopment Area identified the need to provide traffic management improvements within the Wollongong Road system, consisting of the area bounded by the Illawarra Railway Line in the east, Forest Road in the south, Bexley Road in the west and Wollongong Road in the north. These studies indicated that development within the Wollongong Road area was likely to contribute to traffic volumes within this area but that traffic in the area would also be generated by many other sources. This plan only intends to levy contributions from Wollongong Road developments for the share of the total cost of any necessary traffic management facilities required in the Wollongong Road system that might reasonably be attributable to that development. The remaining costs of any facilities provided in this area would have to be met from other sources.

⁴² The *Environmental Planning Assessment Act 1979* provides that Council may only require land to be dedicated free of cost by way of a contributions plan and this plan provides for the land required for these road widenings to be so dedicated.

unexpended monies collected under the previous contributions plan for this purpose (currently \$81,688) will therefore be carried over and used in accordance with this plan.

Council's strategy for Wollli Creek recognises that streets should be multi-purpose spaces, not just roads, and should be designed and embellished accordingly. This plan therefore also provides for streetscape improvements to the road network within Wollli Creek (see Chapter 10 – Town Centre and Streetscape Improvements).

9.1.2 Public parking facilities

One of the principles for the redevelopment of the Wollli Creek area is the establishment of a new town centre in the vicinity of the railway station including bus / rail interchange facilities. The planning strategy for the area seeks to encourage higher levels of public transport patronage to take advantage of the considerable public investment in these new transport facilities.

The desire for improvements to the public transport network was one of the major findings of a study undertaken for Council in 1997.⁴³ Council is also seeking to optimise the development potential of the area, especially for employment generating uses, while at the same time minimising the cost of expensive new roadworks necessary to service such development.

To achieve these objectives, a policy of "parking constraint" has been adopted to limit the amount of parking provided within the area and to further encourage the public transport option. The reduction in the availability of parking will also reduce the total traffic generation of the area and the volumes of traffic on local streets. This strategy will require all new development in the area to provide their own on-site parking, but at a constrained or reduced rate. Section 94 contributions will not be accepted for off-street car parking purposes. (While the proposed development on the Discovery Point site will include an underground parking station, this will be a private facility for which contributions cannot be levied).

It is recognised that the reduction in the availability of parking needs to be supported by a commensurate increase in the availability and convenience of public transport. Given that the Wollli Creek area will have a strong public transport focus (new railway station, connections between two major metropolitan rail lines, bus / rail interchange facilities, and the like), it is expected that the constrained parking approach should be effective. Further, such a policy is to be implemented at the outset of the redevelopment process to ensure equity and consistency.

The section 94 plan will provide for appropriate on-street parking facilities, integrated into the streetscape design. Council's policy of parking constraint will also require strict management of this on-street parking and the plan will include the provision of necessary signage and the like.

Under a previous contributions plan, Council levied contributions from development within the northern Arncliffe industrial areas towards the provision of public parking facilities. These industrial areas now form part of the Wollli Creek Redevelopment Area within which no off-street public parking facilities will be provided. The unexpended monies collected under the previous contributions plan towards public parking facilities in this area (currently \$35,834 – see Table 8.2) will therefore be carried over and used for the provision of on-street parking management facilities in accordance with this plan.

⁴³ The Hunter Valley Research Foundation, *Community Attitudes Towards Traffic, Transport and Road Safety in the City of Rockdale*, prepared for Rockdale City Council, February 1997.

9.2 Section 94 implementation strategy for Wolli Creek

Because the Wolli Creek Redevelopment Area is not expected to be fully developed within the 10 year lifespan this plan, but rather will take a longer period of between 15 and 25 years to reach its ultimate form, a special strategy has been adopted in this plan to ensure the ongoing orderly provision of amenities and services within the area throughout this entire redevelopment period and that all of the facilities required to meet the needs of Wolli Creek when it is fully developed can and will be provided progressively as development takes place. This strategy is outlined in Section 2.12.

Such a strategy requires this plan to identify, cost and prioritise all of the roads, traffic management and on-street car parking facilities required in Wolli Creek when the area is fully developed, including those facilities which are not intended to be funded under this plan, but rather under future contributions plans. Consequently, these facilities have all been described in this chapter and included in the Works schedule. Facilities not required during the life of the plan have generally been given Priority 3 status and an estimated provision date beyond 2014.

9.3 Nexus

9.3.1 Causal nexus – What

In addition to the new service and access roads required within specific sites to enable development to occur, the redevelopment of the Wolli Creek area will require the provision of new and significantly improved roads and the implementation of additional traffic management facilities. The provision of these roads and traffic management facilities are critical to the acceptability of the Wolli Creek area for redevelopment as a high density mixed use precinct.

The types and volumes of traffic accessing the area will alter dramatically from when the area was an industrial precinct. The heavy vehicle traffic will be replaced to a significant degree by cars accessing businesses, shops and dwellings within the area, as well as accessing the new railway station. Buses will also use the local street network.

Crucial to the redevelopment of the area is the improvement of access from and to the arterial road system. This is essential to enable vehicles to access the area with greater convenience and safety without impeding the free flow of traffic on these arterial roads and without resorting to alternative access to the area via residential back streets.

Wherever possible, the existing road carriageways will be used to provide the enhanced access. However, in some instances, this will need to be supplemented by road widening or additional turning lanes. In addition, several new links are proposed to complete the road network (in addition to those new roads that are provided by developers as part of the redevelopment of specific sites). Where additional land is required, this will need to be acquired.

Traffic accessing the area will also need to be managed in a more appropriate manner commensurate with the new function of the area. Traffic management includes the management of traffic to and from the area, particularly through residential precincts to the west.

The types of traffic management facilities and supplementary road facilities that may be required to enhance the functioning of the road system could include the following:

- Traffic signals
- Footpath widenings
- Pedestrian / cycle crossings
- Widened kerbside lanes for shared use with bicycles

- Line marking
- Street signs, location signs and directional signs
- Utility services relocation
- Stormwater drainage
- Safety improvements to existing substandard railway underpasses
- Traffic management measures and devices in existing residential precincts.

On-street car parking will be provided where possible to supplement that provided by individual developments. Such parking is not intended for use by commuters but rather short stay visitors to the area. The provision of on-street parking may require the following facilities:

- Signage
- Pavement and line marking

Convenient bus access to and within the area will be facilitated by the general upgrading of the road and pedestrian network and by the provision of facilities such as:

- Bus signage and bus shelters
- Bus priority lanes.

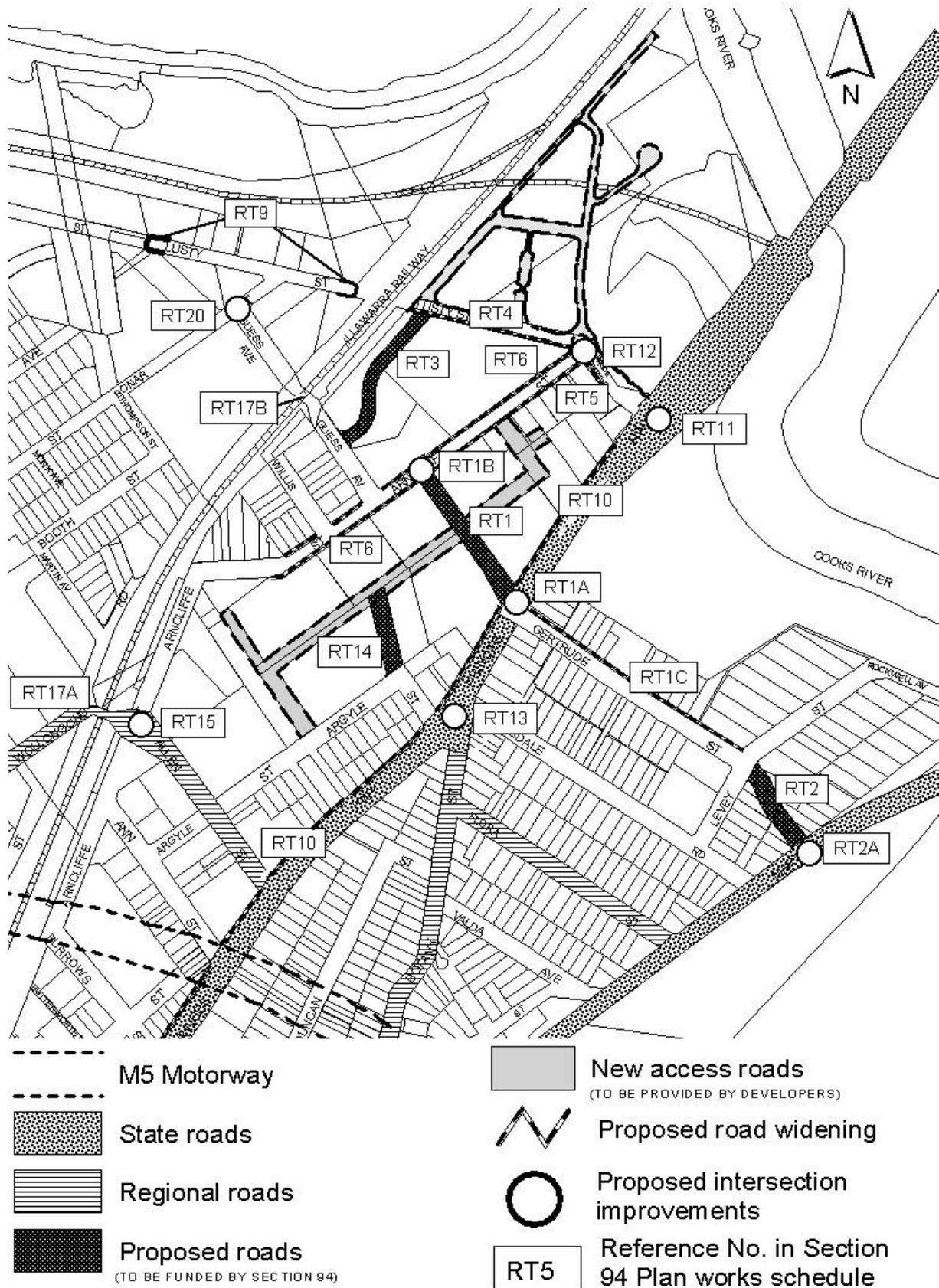
9.3.2 Physical / spatial nexus – Where?

The specific work that are required, and their locations, are described in Table 9.1 and shown in Figure 9.1.

Table 9.1 - Location and description of works - Roads, traffic management and on-street parking facilities

Ref. No.	Location	Description of proposed works
RT1	New link road from Princes Highway (opposite Gertrude Street) to Arncliffe Street	Land acquisition and road construction
RT1A	Intersection improvements at Princes Highway and Gertrude Street	Amplify traffic signals
RT1B	Intersection improvements at Gertrude Street (west extension) and Arncliffe Street	Install traffic signals
RT1C	Widening of Gertrude Street, northern side between Princes Highway and Levey Street	Land acquisition and road construction
RT2	New link road from Levey Street (opposite Gertrude Street) to Marsh Street	Land acquisition and road construction
RT2A	Intersection improvements at Gertrude Street (east extension) and Marsh Street	Install traffic signals
RT3	New link road (Mt. Olympus Boulevard) from Magdalene Terrace to Guess Avenue	Land acquisition and road construction
RT4	Widening and reconstruction of Magdalene Terrace, west of Arncliffe Street	Land acquisition on southern side and road construction
RT5	Widening of Brodie Spark Drive between Magdalene Terrace and Princes Highway	Land acquisition on both sides and road construction
RT6	Widening of Arncliffe Street between Magdalene Terrace and SWSOOS	Land acquisition on both sides and road construction
RT9	Improvements to Lusty Street	Construct turning bays at west and east ends
RT10	Widening of Princes Highway, west side between Burrows Street and Brodie Spark Drive	Land acquisition and road construction
RT11	Intersection improvements at Princes Highway and Brodie Spark Drive	Widening of east side of highway, reconstruct intersection to include turning lanes and installation of traffic signals
RT12	Intersection improvements at Magdalene Terrace, Arncliffe Street and Brodie Spark Drive	Installation of roundabout
RT13	Upgrading of intersection at Princes Highway, West Botany Street and future link road (RT14)	Modify intersection for improved traffic facilities
RT14	Future link road from Princes Highway (opposite West Botany Street) to new mid-block access road	Land acquisition and road construction
RT15	Intersection improvements at Arncliffe Street, Allen Street and Wollongong Road	Modify intersection for improved traffic facilities
RT16	Other traffic management facilities on roads within area	Includes supplementary management devices and signage
RT17A	Safety improvements to Wollongong Road railway underpass	Reduction of road width, construction of new footpath and straighten / realign intersection
RT17B	Safety improvements to Guess Avenue railway underpass	Construct new pavement, kerb and gutter and footpath, provide signage
RT18	Traffic management facilities in Wollongong Road system	Includes management devices and signage
RT19	On street parking management facilities on roads within and adjacent to area	Signage and line marking
RT20	Intersection improvements at Bonar Street and Guess Avenue	Construct median islands and roundabout
PT1	Public transport improvements on roads within area	Bus shelters and signage, bus lanes within carriageways

Figure 9.1 – Roads, traffic management and on-street parking facilities in Wollie Creek



9.3.3 Temporal nexus – When?

The scope of road improvements required by this strategy is significant and, while essential to the acceptability of the area for redevelopment, it would not be possible for them all to be funded or undertaken at the commencement of redevelopment. Further, the provision of such facilities is to the longer-term benefit of the area and accordingly the cost of these facilities should be apportioned over the population at the maturity of the area (ie. the next 15-25 years), rather than that expected during the 10 year life of this plan, in accordance with the strategy outlined in Section 2.12.

The initial priority for works is to enable ease of access into and out of the area. Hence, priority would be given to those works which provide access to the area from the arterial traffic network, such as widening and upgrading of roads that directly access the Highway and the provision of turning lanes and traffic signals at their intersections with the Highway.

Second priority would be for works that enable the safe and efficient movement of vehicles, cycles and pedestrians to and from development sites and throughout the area. This would include such works as the upgrading, widening and reconstruction of existing roads. The exact nature and location of the works will largely be dependent on the developments proposed.

Other works would be undertaken on the basis of development priorities and the availability of funds from contributions. However, Council will continue to monitor traffic volumes within the area and should it consider that any additional roads, traffic management or on-street parking facilities identified in this plan require implementation prior to further development proceeding, it will forward fund these facilities from other sources and recoup the cost through this or subsequent contributions plans.

Works that apply generally to the whole of the Wollie Creek area, such as general traffic management facilities, and on-street parking management facilities would be implemented progressively over the life of the plan and beyond (in accordance with Council's section 94 implementation strategy for the area), as redevelopment of the area proceeds, in conjunction with the other specific road works identified in this plan.

The estimated timing and priorities for the provision of these facilities are set out in the Works schedule (Section 9.5).

9.4 Calculation of contribution rates

The following formula has been used to determine the contribution rates for roads, traffic management and on-street parking facilities in Wollie Creek.

$$\text{Contribution} = \frac{\text{Estimated cost of all road, traffic management and parking facilities}}{\text{Estimated ultimate population (residents and workers)}}$$

9.4.1 Apportionment

The following apportionment factors will be applied to the contributions for roads, traffic management and on-street parking facilities in the Wollie Creek Redevelopment Area:

- a. **Commercial development weightings.** As the road works and traffic management facilities in the Wollie Creek area have been designed to accommodate the peak traffic demands expected to occur within the area, as these peak demands would be during the evening peak period and as employment development would contribute disproportionately to these evening peak demands, a weighting factor has been applied under this plan to

contributions by commercial and retail developments towards the costs of roads, traffic management and car parking facilities in the area.

The formula for calculating these weightings is:

$$\frac{\text{Peak period commercial or retail development vehicle trip generation rate (per worker)}}{\text{Peak period residential development vehicle trip generation rate (per resident)}}$$

Applying the figures provided in the traffic reports on the Wolli Creek Redevelopment Area previously obtained by Council⁴⁴ would produce the following weighting factors:

$$\begin{aligned} \text{Office development weighting factor} &= \frac{0.30 \text{ vehicle trips per worker}}{0.136 \text{ vehicle trips per resident}} \\ &= 2.20 \end{aligned}$$

$$\begin{aligned} \text{Retail development weighting factor} &= \frac{0.525 \text{ vehicle trips per worker}}{0.136 \text{ vehicle trips per resident}} \\ &= 3.85 \end{aligned}$$

This means, for example, that the per person contribution rate paid by retail development in Wolli Creek towards roads, traffic management and on-street parking will be 3.85 times the per person contribution rate paid by residential development.

b. **Development during the life of this plan.**

⁴⁴ Masson Wilson Twiney, *North Arncliffe Development Area Traffic and Car Parking Study* (April 1998) and *Traffic Report: Proposed Modifications to North Arncliffe Masterplan* (April 2001)

The 2001 traffic report adopts the following traffic generation estimates:

- Residential: 0.286 vehicle trips / dwelling / peak hour
- Office: 1.0 vehicle trips / 100m² gross floor area (GFA)
- Retail: 1.5 vehicle trips / 100m² GFA

The adoption of these figures was based on the following assumptions:

- A peak hour modal split target for employment development of 0.5, achieved through a policy of car parking constraint in the area under Council's Wolli Creek planning controls.
- Average estimated office employment densities in Wolli Creek of 30m² GFA per worker, as indicated in Section 6.2.1 of this plan.
- Retail uses being primarily local shops and service orientated retail, in keeping with Council's requirements for retail development in the area.

Applying these figures and assumptions, the per person peak period vehicle generation rates were derived as follows:

Residential development. (0.136 vehicle trips per resident) Derived by dividing 0.286 vehicle trips per dwelling at peak hour by the occupancy rate of the adopted standard Wolli Creek dwelling (ie. a two bedroom dwelling at the existing occupancy rate for two bedroom multi-unit dwellings in the City, namely 2.10 persons). This closely matches a generation rate of 0.138 vehicle trips per resident that would be derived by using the RTA's *Guide to Traffic Generating Developments* figure of 0.29 vehicle trips per dwelling at peak hour for high density residential flat buildings in metropolitan sub-regional centres.

Office development. (0.30 vehicle trips per worker) Derived by dividing 1.0 vehicle trips per 100m² GFA by average estimated number of employees per 100m² GFA (3.33 persons at 30m² GFA per worker). This closely matches a generation rate of 0.34 vehicle trips per worker that would be derived by using the RTA's *Guide to Traffic Generating Developments* figure of 2.0 evening peak vehicle trips per 100m² GFA for commercial premises, after adjusting this figure to take account of the RTA's higher assumed employee occupancy rates (21m² GFA per worker) and modal split (0.62).

Retail development. (0.525 vehicle trips per worker) Derived by dividing 1.5 vehicle trips per 100m² GFA by average estimated number of employees per 100m² GFA (2.86 persons at 35m² GFA per worker, as indicated in Section 6.2.1 of this plan). While vehicle generation rates for retail development have been expressed in vehicle trips per worker, it is acknowledged that customers' vehicles will contribute substantially to the vehicle trip generation rates of retail developments. Nevertheless, the retail weighting factor derived in this section represents a valid and reasonable methodology for ensuring that retail development contributes its fair share towards the provision of roads and traffic management facilities in Wolli Creek, based on its relative demands for those facilities, noting that any reduction in the retail weighting factor will result in corresponding increases in section 94 contributions paid by residential and office space developments.

As indicated previously, the provision of all of the roads, traffic management and on-street parking facilities identified in this plan are critical to the comprehensive redevelopment of the Wollli Creek area and will benefit all development in the area and all development should therefore contribute to the cost of these facilities. However, commensurate with the lengthy timespan for full development of the area, the full funding and provision of these facilities will occur beyond the lifespan of this plan.

Therefore, in order to ensure that contribution rates will be applied equitably over the development life of Wollli Creek between those developments that take place during the 10 year lifespan of this plan and those which occur in the longer term, and that facilities are fairly provided as and when they are needed, an apportionment will be applied in accordance with the strategy outlined in Section 2.12.

These apportionment factors will determine which facilities can be funded under this plan and which facilities will need to be provided for under future contributions plans and is calculated as follows:

$$\frac{(\text{Office workers (2014)} \times \text{OWF} + \text{Retail workers (2014)} \times \text{RWF} + \text{Residents (2014)}) \times 100}{\text{Office workers (ultimate)} \times \text{OWF} + \text{Retail workers (ultimate)} \times \text{RWF} + \text{Residents (ultimate)}}$$

where:

- *Office workers (2014)* is the number of additional office workers that are expected to be generated by development in Wollli Creek during the life of this plan, as set out in Section 6.2.4 (a).
- *OWF* is the office development weighting factor, as derived in paragraph (a) above.
- *Retail workers (2014)* is the number of additional retail workers that are expected to be generated by development in Wollli Creek during the life of this plan, as set out in Section 6.2.4 (a).
- *RWF* is the retail development weighting factor, as derived in paragraph (a) above.
- *Residents (2014)* is the additional residents that are expected to be generated by development in Wollli Creek during the life of this plan, as set out in Section 6.2.4 (a).
- *Office workers (ultimate)* is the estimated number of additional office workers that are expected in Wollli Creek when the area is fully developed, as set out in Section 6.2.4 (b).
- *Retail workers (ultimate)* is the estimated number of additional retail workers that are expected in Wollli Creek when the area is fully developed, as set out in Section 6.2.4 (b).
- *Residents (ultimate)* is the estimated number of additional residents that are expected in Wollli Creek when the area is fully developed, as set out in Section 6.2.4 (b).

Note: All population projections in this formula exclude developments approved and levied under the previous contributions plans – see Section 6.2.4.

Applying this formula, the proportion of all road works, traffic management and on-street parking facilities that would be apportioned to this plan would be:

$$\begin{aligned}\text{Apportionment} &= \frac{(1,772 \times 2.20 + 349 \times 3.85 + 4,445) \times 100}{6,250 \times 2.20 + 850 \times 3.85 + 5,300} \\ &= 43.4\%\end{aligned}$$

9.4.2 Estimated costs

The cost of capital works has been estimated by Council on the basis of costs for similar or equivalent works and is shown in Table 9.2. The cost of land to be acquired is based on the amount of land estimated as being required and indicative valuations of land in the area, provided by a registered valuer, based on the likely zoning applying at the time when the land is required. For some land, entire properties may need to be acquired whereas, in other instances, just the strip of land required for the road widening alone would be acquired.

In the latter case such land will be acquired by the transfer of development rights from the area of land to be acquired to the remainder of the development site, rather than by outright purchase (the "realignment method"). No section 94 contributions will be levied for road widening acquisitions that will be obtained by realignment (nor will any credit be given).

Table 9.2 - Estimated cost of works - Roads, traffic management and on-street parking facilities

Ref. no.	Description	Estimated capital cost	Estimated land acquisition cost (1)
RT1	Gertrude Street west extension - new link road from Princes Highway to Arncliffe Street	\$900,000	(3)
RT1A	Intersection improvements at Princes Highway and Gertrude Street	\$260,000	Nil
RT1B	Intersection improvements at Gertrude Street (west extension) and Arncliffe Street	\$200,000	Nil
RT1C	Gertrude Street road widening	\$290,000	Nil
RT2	Gertrude Street east extension to Marsh Street	(2) \$800,000	(2) (3)
RT2A	Intersection improvements at Gertrude Street (east extension) and Marsh Street	\$280,000	Nil
RT3	New link road (Mt. Olympus Boulevard) from Magdalene Terrace to Guess Avenue	\$960,000	(3)
RT4	Widening and reconstruction of Magdalene Terrace, west of Arncliffe Street	\$900,000	Nil
RT5	Widening of Brodie Spark Drive between Magdalene Terrace and Princes Highway	\$1,300,000	(3)
RT6	Widening of Arncliffe Street between Magdalene Terrace and SWSOOS	\$980,000	Nil
RT9	Improvements to Lusty Street	\$150,000	Nil
RT10	Widening of Princes Highway, west side between Burrows Street and Brodie Spark Drive	\$3,700,000	Nil
RT11	Intersection improvements at Princes Highway and Brodie Spark Drive	\$1,230,000	Nil
RT12	Intersection improvements at Magdalene Terrace, Arncliffe Street and Brodie Spark Drive	\$300,000	Nil
RT13	Upgrading of intersection at Princes Highway, West Botany Street and future link road (RT14)	\$330,000	Nil
RT14	Future link road from Princes Highway opposite West Botany Street to new mid-block access road	\$640,000	(3)
RT15	Intersection improvements at Arncliffe Street, Allen Street and Wollongong Road	\$55,000	Nil
RT16	Other traffic management facilities on roads within the area	\$40,000	Nil
RT17A	Safety improvements to Wollongong Road railway underpass	\$80,000	Nil
RT17B	Safety improvements to Guess Avenue railway underpass	\$60,000	Nil
RT18	Traffic management facilities in Wollongong Road system (apportioned cost only)	\$100,000	Nil
RT19	On street parking management facilities on roads within and adjacent to area	\$50,000	Nil
RT20	Intersection improvements at Bonar Street and Guess Avenue	\$20,000	Nil
PT1	Public transport improvements on roads within area	\$60,000	Nil
Total costs		\$13,685,000	(4) \$18,500,000
Total capital and land acquisition costs			\$32,185,000
Less amount collected under previous contributions plan			(5) -\$3,755,608
Total to be funded under this and future contributions plans			\$28,429,392
Apportionment to this contributions plan		at 43.4%	\$12,338,356

Notes

- (1) For road widenings, it is assumed that land will be acquired at no cost at the redevelopment stage in exchange for transfer of development rights. There will, however, be some administrative costs involved in the acquisition process. The *Environmental Planning Assessment Act 1979* provides that Council may only require land to be dedicated free of cost by way of a contributions plan and this plan provides for the land required for these widenings to be so dedicated.
- (2) Based on the acquisition of the land and construction of the road at the time of, and in conjunction with, the future redevelopment of the Mercure Hotel site, located immediately to the north of the proposed road. This would allow the dedication to Council, at no cost, of land owned by the hotel and required for the road in exchange for transfer of redevelopment rights and the replacement of the existing hotel substation, which is presently in the proposed road alignment, as part of the redevelopment of the hotel site.
- (3) Cost estimates for individual properties are not provided. For properties yet to be acquired, costings are based on streetscape (kerbside) valuations only on the basis that the land is suitable, or has been remediated, for use as open space, plus an estimate of any compensation required under the Land Acquisition (Just Terms Compensation) Act 1991 on the basis of the land being acquired by agreement. Costings also include Council's legal and administration costs and the costs of demolishing existing buildings. For properties already acquired, the cost is the total actual costs of acquisition, incorporating all of the above cost components.

- (4) Total cost of all acquisitions.
 (5) Consists of \$2,919,951 already received (including interest and works in kind), \$718,135 from approved developments that has not yet been paid, \$81,688 transferred from Gertrude Street / Innesdale Road traffic facilities fund and \$35,834 transferred from the local parking funds identified in Table 8.2.

9.4.3 Base contribution rates

The base contribution rate for roads, traffic management and on-street parking facilities in Wollie Creek, incorporating weighting factors for employment development, is calculated as follows:

$$\text{Contribution} = \frac{\text{Apportioned total capital and land costs} \times \text{Applicable weighting factor}}{\text{Office workers (2014)} \times \text{OWF} + \text{Retail workers (2014)} \times \text{RWF} + \text{Residents (2014)}}$$

where:

- *Apportioned total capital and land costs* is the estimated total cost of the proposed roads, traffic management and on-street parking facilities that are apportioned to this contributions plan, as set out in Table 9.2.
- *Applicable weighting factor* is the weighting factor for the worker type for which the contribution is to be calculated (ie. for office workers, the OWF or, for retail workers, the RWF), as derived in Section 9.4.1 (a). For residents, the weighting factor is 1.
- *Office workers (2014)* is the number of additional office workers that are expected to be generated by development in Wollie Creek during the life of this plan, as set out in Section 6.2.4 (a).
- *OWF* is the office development weighting factor, as derived in Section 9.4.1 (a).
- *Retail workers (2014)* is the number of additional retail workers that are expected to be generated by development in Wollie Creek during the life of this plan, as set out in Section 6.2.4 (a).
- *RWF* is the retail development weighting factor, as derived in Section 9.4.1 (a).
- *Residents (2014)* is the additional residents that are expected to be generated by development in Wollie Creek during the life of this plan, as set out in Section 6.2.4 (a).

For example, applying this formula, the roads, traffic management and on-street car parking contribution rate for each worker anticipated within an office development in Wollie Creek would be:

$$\begin{aligned} \text{Contribution} &= \frac{\$12,338,356 \times 2.20}{1,772 \times 2.20 + 349 \times 3.85 + 4,445} \\ &= \$2,802.13 \text{ per office worker} \end{aligned}$$

The contribution rates for retail workers and residents would be:

\$4,903.73 per retail worker

\$1,273.70 per resident

Using these figures and the standard dwelling occupancy rates in Table 5.14, the contribution rates for the provision of roads, traffic management and on-street parking facilities in the Wollie Creek Redevelopment Area have been derived and are shown in Table 9.3.

Table 9.3 - Roads, traffic management and on-street parking contribution rates

Public facility	Multi-unit development (1)			Dwelling houses (per allotment) (3)	Employment development (per person) (4)
	0-1 bedroom dwellings (2)	2 bedroom dwellings	3+ bedroom dwellings		
Roads, traffic management and on-street parking	\$1,681.30	\$2,674.80	\$3,286.10	\$3,846.60	retail \$4,903.70 other employment \$2,802.10 (5)

Notes

- (1) Includes attached and detached dual occupancies, medium density housing (villas and townhouses), residential flat buildings and the residential component of mixed use premises.
- (2) 0-1 bedroom dwellings include bedsitters and studio apartments.
- (3) Dwelling house allotments include existing parcels of land, whether or not these parcels are, or contain, separate allotments. See Footnote 8 for definition of "parcel of land".
- (4) Means the number of persons likely to be employed within a development based on the standard occupancy rates provided in Section 6.2.1 of this plan (unless an applicant can satisfy Council, by way of an expert study or the like, that another occupancy rate should apply).
- (5) Applying these contribution rates and the employment occupancy rates in Section 6.2.1, the contribution rates for various employment developments are:
- | | |
|--|--|
| supermarkets | \$196.15 / m ² gross floor area |
| bulky goods retail | \$98.07 / m ² gross floor area |
| all other retail | \$140.11 / m ² gross floor area |
| "high tech" industry with high office components | \$62.27 / m ² gross floor area |
| offices and other commercial | \$112.08 / m ² gross floor area |
| industry (including warehouses and car yards but excluding "high tech" industry) | \$35.03 / m ² gross floor area |

9.5 Works schedule

The priorities for the proposed works and estimated timing for their provision are identified in Table 9.4. These are based on the following estimated time frames and reflect the anticipated timing and location of development and the likely accrual rate of contribution funds:

- Priority 1 – To be undertaken between years 1 – 5
- Priority 2 – To be undertaken between years 6 – 10
- Priority 3 – To be undertaken after year 10 (i.e. not within the life of this plan).

These time frames are estimates only and will be influenced by market forces and the rate of development in the area. However, they provide an outline of works and priorities.

Priority 1 and 2 items can be fully funded from contributions expected during the life of this plan. However, should further monitoring of traffic volumes show that any Priority 3 works are required during the life of the plan, they will need to be funded in advance from other sources and the costs recouped from long term development through a subsequent contributions plan.

Table 9.4 - Works schedule – Roads, traffic management and on-street parking facilities

Ref. no.	Public amenity or service	Location	Estimated priority	Estimated timing
RT1	New link road	Princes Highway (opposite Gertrude Street) to Arncliffe Street	2	Medium term
RT1A	Intersection improvements	Princes Highway and Gertrude Street	2	Medium term
RT1B	Intersection improvements	Gertrude Street (west extension) and Arncliffe Street	2	Medium term
RT1C	Road widening	Gertrude Street (north side) between Princes Highway and Levey Street	2	Medium term
RT2	New link road	Levey Street (opposite Gertrude Street) to Marsh Street	3	Long term (1)
RT2A	Intersection improvements	Gertrude Street (east extension) and Marsh Street	3	Long term (1)
RT3	New link road (Mt. Olympus Boulevard)	Magdalene Terrace to Guess Avenue	1	Completed 2008
RT4	Road widening and reconstruction	Magdalene Terrace, west of Arncliffe Street	1	Completed 2008
RT5	Road widening	Brodie Spark Drive between Magdalene Terrace and Princes Highway	1	Completed 2003
RT6	Road widening	Arncliffe Street between Magdalene Terrace and SWSOOS	Stage 1 - 1 Stage 2 - 2	Short term Medium term
RT9	Road improvements	Lusty Street	1	Short term
RT10	Road widening	Princes Highway (west side) between Burrows Street and Brodie Spark Drive	3	Long term (1)
RT11	Intersection improvements	Princes Highway and Brodie Spark Drive	1	Completed 2003
RT12	Intersection improvements	Magdalene Terrace, Arncliffe Street and Brodie Spark Drive	1	Completed 2003
RT13	Intersection improvements	Princes Highway, West Botany Street and future link road (RT14)	3	Long term (1)
RT14	New link road	Princes Highway (opposite West Botany Street) to new mid-block access road	3	Long term (1)
RT15	Intersection improvements	Arncliffe Street, Allen Street and Wollongong Road	2	Medium term
RT16	Other traffic management facilities	On roads within the development area	Ongoing	Commensurate with roadworks
RT17A	Safety improvements to railway underpass	Wollongong Road at Illawarra Railway Line	2	Medium term
RT17B	Safety improvements to railway underpass	Guess Avenue at Illawarra Railway Line	1	Short term
RT18	Traffic management facilities	Wollongong Road system	2	Medium term
RT19	On-street parking	On roads within and adjacent to development area	Ongoing	Commensurate with roadworks
RT20	Intersection improvements	Bonar Street and Guess Avenue	1	Short term
PT1	Public transport improvements	Various locations within development area	Ongoing	Commensurate with roadworks

Notes

- (1) While the timing for the proposed provision of these facilities has been identified as long term and may not occur during the life of this plan, they have been included in the plan to ensure that they will be equitably funded by all those who will benefit from their ultimate provision, in accordance with the strategy for the Wolli Creek area outlined in Section 7.2.1.

10 Town centre and streetscape improvements

10.1 Introduction

Changing shopping patterns and heightened community expectations now require a much higher level of civic amenity within existing commercial centres than was once the case. In response to these needs, Rockdale City Council has now embarked on a program of streetscaping and other improvements within its existing town centres.

It is appropriate that any future population, which will contribute to these needs and benefit from any improvements made, should also contribute towards their cost. To this end, new development will be levied a contribution under section 94 towards the embellishment of the City's existing town centres and for streetscape improvements within the new Wolli Creek Redevelopment Area.

10.1.1 Existing town centres

The urban development of the City of Rockdale has resulted in the evolution of a hierarchy of commercial centres. Typically, these have been traditional strip centres located along the major road system, usually close to railway stations or other public transport facilities (such as former tramways).

However, in more recent years, widespread car ownership has resulted in changing shopping patterns leading to the establishment of larger integrated shopping centres such as Rockdale Plaza and the Westfield shopping centre at Hurstville.

As a consequence, many local commercial centres have suffered a decline in patronage and economic viability, resulting in high vacancy rates, poor levels of maintenance and a general decline in amenity. As many of Rockdale's commercial centres are located on major roads, their amenity has been further eroded by high volumes of through traffic. In response to this, a number of these existing centres have now evolved alternative roles, such as low rent business locations or restaurant precincts.

Despite these changes, the existing commercial centres within the City continue to serve an important role in the community, providing convenience shopping and personal services for nearby residents, accommodating services that cannot afford to locate in the major centres, generating local employment and supporting the local economy.

If these existing centres are to remain viable and attractive, meet heightened community expectations and adapt to their changing roles, it is necessary to improve their amenity. This can be done through civic improvements, such as landscaping and streetscaping, provision of high quality street furniture, creation of usable public spaces and pedestrian and outdoor dining precincts and appropriate management of traffic and car parking.

Council has recognised this need and has commenced a program of town centre improvements within its existing business centres. These improvement works have been, and will continue to be, largely funded from existing Council resources, such as general funds or town centre improvement rates, or from external sources such as government grants.

However, the predicted growth in population within the City of Rockdale will create additional demand for improvements within these existing centres over and above those required by the existing population. This incoming population will also benefit from any improvements that have already been provided by Council and funded by the existing community. It is therefore reasonable

that these future residents contribute towards the costs of embellishing and improving the existing town centres through section 94 contributions.

To this end, a Town Centre Improvement Strategy was prepared, which identified the principal centres within the City and the civic improvements that are required within each of these centres in order to maintain and enhance their amenity and promote their long term viability and which might be funded, at least in part, by the incoming population through section 94 contributions. This strategy also addressed the other means available for providing these improvements. (See separate Town Centre Improvement Strategy document.)

The Town Centre Improvement Strategy classifies commercial centres within the City of Rockdale into four categories - neighbourhood centres, district town centres, sub-regional town centres and highway business precincts.

a. Neighbourhood centres

Neighbourhood centres typically provide only a limited range of convenience goods to the immediate locality, generally only those residents within walking distance of the centre. Neighbourhood centres may also provide some personal services.

Neighbourhood centres in the City of Rockdale are:

- West Arncliffe (Wollongong Road at Kelsey, Mitchell and Walter Streets)
- Bardwell Park
- Kogarah Station (Station Street)
- Moorefield (President Avenue at Oakdale Avenue)
- West Kogarah (Warialda and Queen Victoria Streets)
- Kogarah South (Rocky Point Road at Barton Street)
- Carlton (Carlton Parade)
- Banksia (Railway Street)
- Dolls Point (Russell and Clareville Avenues)

b. District town centres

District town centres provide a wider range of goods and services than can usually be found in a neighbourhood centre. The principal trade catchment of a district town centre is still fairly localised but may cover one or more suburbs. Typically, district centres provide a broad range of convenience goods and a range of local services, and may include a post office, bank, supermarket, newsagency, estate agency, solicitors and a hotel or bottle shop.

District town centres within the City of Rockdale are:

- Arncliffe (Firth and Belmore Streets and Forest Road)
- Bexley
- Bexley North
- Kingsgrove
- Brighton Le Sands
- Ramsgate Beach
- Ramsgate (Rocky Point Road)
- Sans Souci (Rocky Point Road)

c. Sub-regional town centres

A sub-regional town centre provides shopping and services for the whole, or a substantial part of, the City and often for users from outside the area as well.

In addition to having all of the facilities and services usually available in a district town centre, a sub-regional centre may include a full line supermarket, a discount department store, some comparison shopping, a number of banks and other financial institutions, a medical centre, some commercial office space, community facilities and services and government offices.

Rockdale Town Centre (including the Rockdale Plaza shopping centre) is the only sub-regional town centre within the City.

d. Highway business precincts

A number of highway business precincts have grown up along the Princes Highway, evolving from passing trade, direct destination trade, and the availability of larger allotments with lower market rentals than in nearby town centres. Predominant uses in these precincts include motor showrooms, automotive businesses and services, bulky goods showrooms and light industries.

There are three highway business precincts in the City of Rockdale:

- Arncliffe (Princes Highway between West Botany Street and Forest Road)
- Banksia (Princes Highway north from Bestic Street to Forest Road)
- Rockdale (Princes Highway south from Bay Street to Harrow Road)

10.1.2 Wolli Creek Redevelopment Area

The redevelopment of Wolli Creek will transform this area from a degraded industrial precinct to an intensively developed, mixed residential and commercial locality containing buildings of the highest quality and design. Such a transformation will require not only upgrading the traffic capacity of the local road network but improvements to the visual character of the streets so that they will complement the new development and provide an appropriate environment for the people who will be living and working in the area.

This is recognised in the DCP for the area, which includes the following relevant objectives:⁴⁵

- Change the character of the area from a degraded industrial environment to a high quality residential and commercial precinct,
- Emphasise the importance of streets as usable public spaces and as open space resources, not just traffic arteries, and to design, upgrade and manage them accordingly,
- Ensure streetscape elements, such as lighting, landscaping, paving, street furniture, signage and pedestrian / cycle links, are of a high design standard and consistent with Council's Streetscape Masterplan and provide for a safe environment for residents, workers and visitors,
- Provide for the undergrounding of all utility services.

To ensure that streetscaping of the Wolli Creek area will be carried out in a uniform and consistent manner in conjunction with the comprehensive redevelopment of the area, a Streetscape Masterplan has been prepared which identifies appropriate streetscape treatments for all of the roadways within the area.

⁴⁵ Rockdale City Council, *Rockdale Development Control Plan No. 62 - Wolli Creek*, effected 18 August 2006.

It is appropriate that the full cost of these streetscaping works be met by the incoming residents and workers who will require them and who will benefit directly from their provision. These works are considered to be essential to the environmental acceptability of the redevelopment of the area, and should be provided in a comprehensive and coordinated manner, as opposed to being provided by individual developments.

10.2 Section 94 implementation strategy for Wolli Creek

Because the Wolli Creek Redevelopment Area is not expected to be fully developed within the 10 year lifespan this plan, but rather will take a longer period of between 15 and 25 years to reach its ultimate form, a special strategy has been adopted in this plan to ensure the ongoing orderly provision of amenities and services within the area throughout this entire redevelopment period and that all of the facilities required to meet the needs of Wolli Creek when it is fully developed can and will be provided progressively as development takes place. This strategy is outlined in Section 2.12.

Such a strategy requires this plan to identify, cost and prioritise all of the streetscaping works required in Wolli Creek when the area is fully developed, including those facilities which are not intended to be funded under this plan, but rather under future contributions plans. Consequently, these facilities have all been described in this chapter and included in the works schedule.

10.3 Nexus

In order to levy a contribution on the incoming population for town centre and streetscape improvements, it is necessary to establish a nexus between the facilities proposed under this plan and any increase in demand for those facilities generated by the incoming population.

10.3.1 Causal nexus - What?

a. *Existing town centres*

As indicated elsewhere in this plan, there is likely to be a significant increase in population within the City over the next 10 years. This growth is expected to occur throughout all areas of the City and is anticipated to result in increased patronage of all existing commercial centres.

There is already an established need to improve the amenity of existing commercial centres, through the provision of civic improvements, in order for these centres remain viable and attractive, meet heightened community expectations and adapt to their changing roles. However, increased patronage arising from the expected population growth will increase the demand for such improvements, thus requiring further upgrading or augmentation of the facilities, or requiring the provision of improvements to be expedited. Furthermore, these new residents will benefit from any improvements already provided within these centres and funded by the existing community.

A Town Centre Improvement Strategy was prepared to identify likely future demand for improvements within the existing town centres that may be required by the incoming population over the next 10 year and which might be funded, at least in part, by this incoming population through section 94 contributions (see separate Town Centre Improvements Strategy document).

This strategy draws on a number of other studies and plans previously undertaken by Council, including:

- An audit of all the town centres prepared for Council by consultants,

- Detailed town centre streetscape designs previously prepared for certain town centres, such as Arncliffe and Banksia,
- Detailed town centre development control plans (DCPs) prepared for a number of centres including Arncliffe, Banksia, Bexley and Rockdale and which outline proposed streetscape and other town centre improvements, and
- Ongoing town centre improvement programs for several of the centres, such as Rockdale, Arncliffe and Banksia.

The types of town centre and streetscape improvements that might be provided within the existing centres are identified in the Town Centre Improvement Strategy and are described in the works schedules (Tables 10.1 to 10.10). These include:

- paving and footpath embellishment,
- planting of trees and shrubs,
- street furniture, such as seats, lighting, bins, bollards, planter boxes, tree guards, ornamental fencing etc,
- banner poles and other decorative elements,
- community information or directional signage,
- public amenities, such as toilets,
- civic spaces, town parks or town squares,
- pedestrian precincts and outdoor dining areas,
- local traffic management and calming devices,
- on-street parking management facilities (such as parking bays, line marking or signage), and
- in the case of the Rockdale Town Centre, a town centre access road providing convenient vehicular access and circulation around the perimeter of the centre.

b. *Wolli Creek Redevelopment Area*

As Wolli Creek redevelops, it is essential that improvements to the public domain, including streetscapes, be systematically provided to a high standard. Development of this area will bring an entirely new resident and worker population who will require a quality living and working environment, with high quality streetscaping to match the quality and design of the new developments, replacing the existing downgraded character of the area. It is entirely appropriate that the full cost of these new streetscapes be met by the incoming population who will benefit from them.

Council has identified that the following streetscape improvements will be required throughout the area as it is progressively redeveloped:

- landscaping and embellishment of road verges, including the provision of footpaths, paving, street trees, turfing and other planting,
- new kerb and gutter,
- undergrounding of existing services, including Energy Australia and State Rail power lines and Optus cables,
- landscape embellishment of traffic islands and roundabouts, and
- provision of street furniture, such as decorative street lighting, seating, bollards, bins etc.

To ensure that streetscaping of the Wolli Creek area will be carried out in a uniform and consistent manner, a Streetscape Masterplan has been prepared for Council which identifies appropriate streetscape treatments for various types of development, the style and design of

paving to be used, suitable planting species, the type and spacing of street trees and the type, design and spacing of street furniture.

All streetscaping works and facilities within the Wolli Creek Redevelopment Area (except for the undergrounding of Energy Australia and Optus cabling) will now be funded by way of section 94 contributions.⁴⁶ These works are identified in the Streetscape Masterplan and include:

- Landscaping and embellishment of all street frontages (footpaths, paving, street trees, turfing and other planting),
- Provision of street furniture, including decorative street lighting,
- Undergrounding of existing 33 kV State Rail power lines along Bonar and Lusty Streets (now completed),
- Landscape embellishment of traffic islands and roundabouts, and
- Preparation of the streetscape concept design.

Council may agree to a developer carrying out such streetscaping works adjacent to their site in conjunction with their development as works in kind.

Undergrounding of Energy Australia cabling adjacent to a site will still be required to be undertaken as part of the development as a condition of consent under section 80A of the Act and therefore will not be subject to section 94 contributions (nor will any section 94 credits be given for it). Undergrounding of Optus cabling will be undertaken by Optus once Energy Australia cabling is placed underground, as required by Commonwealth legislation and Council's agreement with Optus.

10.3.2 Physical / spatial nexus - Where?

While much of the City's future population growth over the next 10 years will occur within the Wolli Creek Redevelopment Area, substantial population growth is still expected within the established areas of Rockdale. This anticipated growth is predicted to occur throughout all parts of the City and is likely to result in increased levels of usage within all of the commercial centres identified in this plan.

Furthermore, much of this future population growth is expected within the existing town centres themselves, in the form of mixed-use developments, or in the immediate vicinity of these centres. This is likely to further amplify patronage of the town centres.

The town centre and streetscape improvements to be funded under this plan will be carried out within the centres identified in Sections 10.1.1 and 10.1.2.

For the purposes of this plan, the proposed streetscape and town centre improvements have been classified as "City-wide" or "local", based on the likely user catchments of the centres in which they will be located and the future population that will benefit.

a. *City-wide facilities* are town centre and streetscape improvements that are proposed to be provided in centres that are presently used, and are likely to continue being used, by residents of the whole City and to which the incoming population throughout the entire City should contribute. City-wide facilities include town centre and streetscape improvements within the following centres:

- the Rockdale sub-regional town centre, and

⁴⁶ The previous contributions plan did not levy contributions towards streetscaping within the area. All previous developments within the area were therefore required to undertake streetscape improvements adjacent to their sites as a condition of consent under section 80A of the Act.

- the highway business precincts.

b. Local facilities are town centre and streetscape improvements that are to be provided within those centres that are only likely to be used by residents of the immediate locality and to which only the incoming population in the immediate vicinity should contribute. Local town centre and streetscape facilities include those within the following centres:

- district town centres,
- neighbourhood centres, and
- the Wollli Creek Redevelopment Area.

To ensure that town centre improvement contributions are only paid by the incoming population that creates the demand for proposed works, the City has been divided into 8 planning precincts (including the Wollli Creek Redevelopment Area), each containing the local town centres that residents of those precincts are likely to use. These precincts are described in Section 2.7 and shown in Figures 2.1 to 2.8.

While all new residential developments will be required to contribute towards the provision of the City-wide town centre improvements, they will only be required to contribute towards the provision of the local town centre or streetscape improvements that are within the same planning precinct as the development.

This plan also recognises that workers in commercial, retail and other employment developments within the Wollli Creek Redevelopment Area will require, and benefit from, the streetscape improvements provided within this area and that such developments should therefore contribute towards their provision. However, as workers in these developments are unlikely to use other town centres in the City, they will not be required to contribute towards the City-wide town centre improvements.

10.3.3 Temporal nexus - When?

The improvements to the existing town centres identified in this plan will be carried out over the life of the plan as and when funding becomes available, either from section 94 contributions or from other sources, and in accordance with priorities determined by Council having regard to community needs and the location of new developments.

The implementation of streetscape improvements within the Wollli Creek Redevelopment Area are largely contingent upon the construction of new roads, road widenings and other road improvements required in the area and will be carried out throughout the life of this plan (and beyond, in accordance with the strategy outlined in Section 2.12), commensurate with the staged development of the area and in conjunction with the associated roadworks, in accordance with the timetable provided in Chapter 9 (Table 9.4).

Contributions will be levied under this plan towards the cost of providing local town centre and streetscape improvements within the Ramsgate commercial centre identified in the *Ramsgate Commercial Centre Development Contributions Plan 2006*. That plan indicates that these facilities will be progressively provided over a 20 to 30 year period. However, it is intended that a reasonable proportion of the facilities will be provided within the 10 year lifespan of this plan.

10.4 Apportionment

The following apportionments will be applied to contributions towards the provision of town centre and streetscape improvement works identified in this plan:

a. **For existing town centres.** As the proposed town centre improvements will also benefit the existing population, it is appropriate that only a share of the costs of providing these improvements be met by the incoming population through section 94 contributions and that the remainder of the costs should be met by the existing community through other funding sources such as general revenue, government grants or a town centre improvement rate. For this reason, the application of an apportionment rate is appropriate. This apportionment rate will vary among the town centres, and might reasonably be based on the following considerations:

- alternative funding sources that are, or are likely to become, available for the town centre improvements identified in this plan,
- the anticipated size of the incoming population that will benefit from the proposed town centre improvements, relative to the size of the existing population, and
- what would be a reasonable contribution towards the cost of the proposed town centre improvements for the incoming population to pay.

However, until more detailed investigations are undertaken which would justify the application of a higher apportionment rate, it is proposed initially to apply apportionments based solely on the anticipated size of the incoming population relative to the size of the existing population, as shown in Table 6.2. This would produce the following apportionment rates:

City-wide town centre improvements	11.6%
Local town centre improvements in:	
Arncliffe Planning Precinct	13.0%
Bexley Planning Precinct	6.1%
Bexley North Planning Precinct	3.5%
Brighton Le Sands Planning Precinct	3.4%
Kogarah Planning Precinct	2.7%
Rockdale Planning Precinct	13.1%
Sans Souci Planning Precinct	4.0%

b. **For the Wolli Creek Redevelopment Area.** This plan has identified all of the streetscaping works that will be required within the Wolli Creek Redevelopment Area when it is fully developed in accordance with the strategy outlined in Section 2.12 (excluding streetscaping works required to be carried out by previously approved developments in Wolli Creek as a condition of development consent – see Footnote 30). Under this strategy, it is recognised that full development of the area is likely to extend beyond the ten year lifespan of the plan. As it is estimated that only 53.0% of Wolli Creek's ultimate development potential will be achieved within the life of this plan (excluding development approved under the previous contribution plans - see Section 6.2.4), developments occurring within this time frame should reasonably contribute only 53.0% of the costs of providing the area's complete streetscaping works.

10.5 Cost apportionment within the Ramsgate commercial centre

10.5.1 Ramsgate Commercial Centre Development Contributions Plan 2006

This plan applies to land within the Ramsgate commercial centre to which the *Ramsgate Commercial Centre Development Contributions Plan 2006* also applies. This Ramsgate contributions plan provides for civic improvements and additional or improved infrastructure within the town centre that will benefit the future residents of the commercial centre itself but will also be of benefit to the future residents of the whole Sans Souci precinct.

On this basis, these works have also been identified as proposed local town centre improvements within the Sans Souci precinct (Table 10.10) for which contributions are to be levied from development throughout the whole precinct.

However, as *Ramsgate Commercial Centre Development Contributions Plan 2006* already provides for future development within the Ramsgate commercial centre to fully fund the cost of these town centre improvements, it is appropriate that any contributions by future developments within the Ramsgate centre should be adjusted to deduct the value of:

- any contributions towards these improvements expected from developments elsewhere in the Sans Souci precinct, and
- any contributions towards these improvements expected to be made under this plan by developments within the Ramsgate centre.

The methodology used for making this adjustment is given in Section 10.7 and the adjusted contribution rate is shown in Table 10.12.

10.5.2 Ramsgate Local Area Special Rate Fund

Council has previously established this fund to underwrite civic improvements within the Ramsgate commercial centre. This fund is financed by a special rate on properties within the Rockdale City Council side of the centre.

As money from this fund can and will be used towards the same town centre improvements within this centre that are identified in the *Ramsgate Commercial Centre Development Contributions Plan 2006* (as shown in Table 10.10) and as the Ramsgate contributions plan already provides for future development within the Ramsgate commercial centre to fully fund the cost of these improvements, it is appropriate that any contributions by future developments within the Ramsgate centre should be adjusted to reflect the availability of this additional funding and the financial contributions already made by those properties through this special rate.

The methodology used for making this adjustment is given in Section 10.7 and the adjusted contribution rate is shown in Table 10.12.

The current balance in the Ramsgate Local Area Special Rate Fund (at the commencement date of the *Ramsgate Commercial Centre Development Contributions Plan 2006*) is \$265,000⁴⁷ and the fund's anticipated annual income is \$7,630 at current day values.

10.6 Work schedules

Tables 10.1 to 10.11 below set out the works schedules for the provision of:

- City-wide town centre improvements,
- Local town centre improvements, and
- Local streetscape improvements within the Wolli Creek Redevelopment Area.

In accordance with the strategy outlined in Section 2.12, only 53.0% of the local streetscape improvements in the Wolli Creek area shown in Table 10.11 are to be funded under this plan. However, should a greater proportion of these facilities be required during the life of the plan, they

⁴⁷ Excludes \$80,000 loaned from the fund to finance town centre improvement works relating to developments in the centre approved prior to the commencement of the Ramsgate contributions plan and which therefore cannot be recovered from future development contributions.

will need to be funded in advance from other sources and the costs recouped from long term development through a subsequent contributions plan.

**Table 10.1 - City-wide town centre improvements –
Rockdale Town Centre streetscape improvements - Works schedule**

Works	Amount
Princes Highway	
Furniture	\$23,000
Lighting	\$160,000
Street trees (at gateways)	\$35,000
Banner poles (at gateways)	\$6,000
Subtotal	\$224,000
Bryant Street Town Park	
Pavement	\$420,000
Grass	\$25,000
Beds	\$10,000
Trees	\$20,000
Seat walls/raised planters	\$30,000
Furniture	\$25,000
Subtotal	\$530,000
King Lane	
Pavement	\$295,000
Trees	\$25,000
Lighting	\$80,000
Subtotal	\$400,000
Pitt Lane	
Pavement	\$130,000
Trees	\$7,000
Lighting	\$10,000
Subtotal	\$147,000
Brays Lane	
Trees	\$1,000
Pavement	\$35,000
Lighting	\$10,000
Subtotal	\$46,000
Geeves Avenue	
Pavement	\$265,000
Trees	\$10,000
Lighting	\$20,000
Subtotal	\$295,000
Frederick Street	
Trees	\$27,000
Furniture	\$13,000
Subtotal	\$40,000
Railway Street	
Trees	\$8,000
Paving	\$360,000
Lighting	\$25,000
Furniture	\$14,000
Subtotal	\$407,000
Walz Street	
Trees	\$11,000
Pavement	\$16,000
Subtotal	\$27,000
Vicinity of Guild Theatre, Walz and Railway Streets	
Guild Theatre landscaping plan	\$176,500
Subtotal	\$176,500
King Street Mall	
Townscape improvements	\$1,150,000
Subtotal	\$1,150,000

Works	Amount
Bay Street	
Trees	\$30,000
Furniture	\$59,000
Lighting	\$65,000
Subtotal	\$154,000
Seven Ways	
Seven Ways landscaping plan	\$187,000
Subtotal	\$187,000
Market Street	
Trees	\$30,000
Furniture	\$57,000
Lighting	\$25,000
Subtotal	\$112,000
Total	\$3,895,500
Apportionment to City-wide town centre improvements fund (1)	\$385,181
Apportionment to Rockdale local town centre improvements fund (2)	\$75,321

Notes

- (1) Calculated by applying the relevant component of the formula for calculating the residential contribution rate set out in Section 10.6
(2) Calculated by applying the relevant component of the formula for calculating the residential contribution rate for the Rockdale Planning Precinct set out in Footnote 31.

**Table 10.2 - City-wide town centre improvements –
Rockdale Town Centre roadworks – Works schedule**

Works	Amount
Town centre access road	
Acquire 31 Bryant Street, Rockdale	(1)
George Street road widening	(2) (3)
Total	\$2,155,000
Apportionment	at 11.6%
	\$249,980

Notes

- (1) Cost estimates for individual properties are not provided. For properties yet to be acquired, costings are based on streetscape (kerbside) valuations only plus an estimate of any compensation required under the Land Acquisition (Just Terms Compensation) Act 1991 on the basis of the land being acquired by agreement. Costings also include Council's legal and administration costs and the costs of demolishing existing buildings. For properties already acquired, the cost is the total actual costs of acquisition, incorporating all of the above cost components.
(2) For the widening of George Street, it is assumed that the land will be acquired at no cost at the redevelopment stage in exchange for transfer of development rights. There will, however, be some administrative costs involved in the acquisition process. The *Environmental Planning Assessment Act 1979* provides that Council may only require land to be dedicated free of cost by way of a contributions plan and this plan provides for the land required for this widening to be so dedicated.
(3) Not shown as it would provide the estimated acquisition cost for 31 Bryant Street.

**Table 10.3 - City-wide town centre improvements –
Highway business precincts - Works schedule**

Works	Amount
Arncliffe Highway Business Precinct	
Tree planting	\$55,000
Footpath embellishment	\$60,000
Street furniture	\$30,000
Subtotal	\$145,000
Banksia Highway Business Precinct	
Banner poles	\$10,000
Street lights	\$35,000
Street furniture	\$25,000
Street trees	\$35,000
Footpath embellishment	\$210,000
Subtotal	\$315,000
Rockdale Highway Business Precinct	
Banner poles	\$15,000
Street lights	\$35,000
Street furniture	\$20,000
Street trees	\$25,000
Signage	\$20,000
Footpath embellishment	\$270,000
Subtotal	\$385,000
Total	\$845,000
Apportionment	at 11.6% \$98,020

Table 10.4 - Arncliffe local town centre improvements - Works schedule

Works	Amount
Arncliffe Town Centre - Stage 1	
Asphalt paving over existing surface with clay paver banding at 6m intervals	\$87,640
Speed ramps	\$85,000
Kerb realignment	\$25,875
Supply and install ornamental safety railings	\$10,400
Prepare, supply and plant super advanced stock street trees with tree guards	\$11,920
Paving for café sitting area	\$11,600
Landscape furniture	\$11,800
Street frontage planter	\$10,000
Shrub planting	\$1,000
Subtotal	\$255,235
Arncliffe Town Centre - Stage 2	
Belmore Street Reserve – paving	\$13,500
Planter and shrub planting	\$6,000
Asphalt paving over existing surface with clay paver banding at 6m intervals	\$19,780
Subtotal	\$39,280
Arncliffe Town Centre - Stage 3	
Asphalt paving over existing surface with clay paver banding at 6m intervals	\$33,770
Community pavement area	\$13,800
Street frontage planter and planting	\$8,900
Kerb realignment	\$14,900
Safety railing	\$8,300
Speed ramp	\$21,000
Street tree planting	\$4,480
Street furniture	\$10,600
Subtotal	\$115,750
Arncliffe Town Centre - Stage 4	
Upgrade public toilets and pitched roofs	\$14,200
Car parking	\$20,000
Street tree planting with guards	\$4,480
Speed ramp	\$21,000
Shrub planting	\$2,050
Subtotal	\$61,730
West Arncliffe neighbourhood centres (Wollongong Road at Kelsey, Mitchell and Walter Streets)	
Tree planting	\$25,000
Footpath embellishment	\$55,000
Street furniture	\$30,000
Subtotal	\$110,000
Total	\$581,995
Apportionment	at 13.0%
	\$75,659

Table 10.5 - Bexley local town centre improvements - Works schedule

Works	Amount
Bexley Town Centre	
Tree planting	\$25,000
Footpath embellishment	\$270,000
Street furniture	\$25,000
Signage	\$10,000
Total	\$330,000
Apportionment	at 6.1%
	\$20,130

Table 10.6 - Bexley North local town centre improvements - Works schedule

Works	Amount
Bexley North Town Centre	
Tree planting	\$25,000
Footpath embellishment	\$270,000
Street furniture	\$20,000
Signage	\$10,000
Subtotal	\$325,000
Bardwell Park Neighbourhood Centre	
Tree planting	\$10,000
Footpath embellishment	\$65,000
Street furniture	\$20,000
Signage	\$10,000
Subtotal	\$105,000
Kingsgrove Town Centre	
Tree planting	\$10,000
Footpath embellishment	\$95,000
Street furniture	\$50,000
Signage	\$20,000
Lighting	\$110,000
Subtotal	\$285,000
Total	\$715,000
Apportionment	at 3.5% \$25,025

Table 10.7 - Brighton Le Sands local town centre improvements - Works schedule

Works	Amount
Brighton Le Sands Town Centre	
Tree planting	\$35,000
Footpath embellishment	\$85,000
Street furniture	\$55,000
Signage	\$5,000
Lighting	\$55,000
Total	\$235,000
Apportionment	at 3.4% \$7,990

Table 10.8 - Kogarah local town centre improvements - Works schedule

Works	Amount
Kogarah Station Neighbourhood Centre (Station Street)	
Tree planting	\$35,000
Footpath embellishment	\$85,000
Street furniture	\$55,000
Signage	\$5,000
Lighting	\$55,000
Subtotal	\$235,000
Moorefield Neighbourhood Centre (President Avenue at Oakdale Avenue)	
Tree planting	\$1,000
Footpath embellishment	\$32,000
Street furniture	\$5,000
Subtotal	\$38,000
West Kogarah Neighbourhood Centre (Warialda and Queen Victoria Streets)	
Tree planting	\$1,000
Footpath embellishment	\$22,000
Street furniture	\$5,000
Subtotal	\$28,000
Kogarah South Neighbourhood Centre (Rocky Point Road at Barton Street)	
Tree planting	\$1,300
Footpath embellishment	\$27,000
Street furniture	\$5,000
Subtotal	\$33,300
Carlton Neighbourhood Centre (Carlton Parade)	
Tree planting	\$1,500
Footpath embellishment	\$22,000
Street furniture	\$5,000
Subtotal	\$28,500
Total	\$362,800
Apportionment	at 2.7%
	\$9,796

Table 10.9 - Rockdale local town centre improvements - Works schedule

Works	Amount
Banksia Neighbourhood Centre - Stage 1	
Asphalt paving over existing surface with clay paver banding at 6m intervals	\$48,100
Speed ramps	\$43,000
Kerb realignment	\$17,000
Supply and install ornamental safety railings	\$6,800
Prepare, supply and plant super advanced stock street trees with tree guards	\$3,030
Prepare, supply and plant shrubs	\$3,510
Subtotal	\$121,440
Banksia Neighbourhood Centre - Stage 2	
Kerb realignment	\$8,000
Soiling and turfing	\$1,200
Paving to roundabout	\$1,200
Street tree planting	\$1,490
Shrub planting	\$600
Subtotal	\$12,490
Total	\$133,930
Apportionment	at 13.1%
	\$17,545

Table 10.10 - Sans Souci local town centre improvements - Works schedule

Works	Amount
Ramsgate Beach Town Centre	
Street foliage	\$55,000
Footpath embellishment	\$135,000
Street furniture	\$25,000
Signage	\$8,000
Lighting	\$20,000
Subtotal	\$243,000
Dolls Point Neighbourhood Centre (Russell and Clareville Avenues)	
Tree planting	\$15,000
Footpath embellishment	\$100,000
Street furniture	\$15,000
Landscape traffic island	\$20,000
Lighting	\$20,000
Signage	\$8,000
Subtotal	\$178,000
Ramsgate commercial centre	
Town centre and streetscape improvements, including streetscaping footpaths, through block walkways, public art, public toilets, undergrounding services, new and widened service lanes, traffic management facilities and stormwater drainage (as described in the <i>Ramsgate Commercial Centre Development Contributions Plan 2006</i>)	(1) \$1,658,464
Subtotal	\$1,658,464
Sans Souci Town Centre (Rocky Point Road)	
Tree planting	\$10,000
Street furniture	\$10,000
Signage	\$5,000
Footpath embellishment	\$75,000
Subtotal	\$100,000
Total	\$2,179,464
Apportionment	at 4.0%
	\$87,179

Notes

- (1) This amount is based on the full cost of constructing the town centre and streetscape improvements within the Rockdale City Council side of the Ramsgate commercial centre, as estimated in the *Ramsgate Commercial Centre Development Contributions Plan 2006*, including a proportion of the cost of streetscaping of existing footpaths (estimated at \$1,153,278), the cost of constructing through block pedestrian walkways (\$57,828), the cost of commissioning and installing one item of public art (\$28,750), the cost of providing new public toilets (\$201,250), a proportion of the cost of undergrounding existing services (estimated at \$3,144,650), a proportion of the cost of constructing new service lanes and widening existing lanes (\$488,848), a proportion of the cost of providing additional traffic management facilities (\$49,220) and a proportion of the cost of providing new drainage facilities (\$273,331). These costs have been CPI adjusted back to the commencement date of this plan (2004). As this work is proposed to be progressively undertaken over the 20 to 30 year lifespan of the redevelopment of the Ramsgate commercial centre, the costs of the work apportioned to this plan has been calculated as 32.0%, based on the anticipated proportion of the ultimate population growth in the Ramsgate centre likely to occur during the life of this plan (ie. between 2006 to 2014).

Table 10.11 - Wollli Creek local streetscape improvements - Works schedule

Works	Amount
Wollli Creek Redevelopment Area	
Streetscape design	\$140,000
Arncliffe Street embellishment	\$800,000
Gertrude Street embellishment	\$668,000
Guess Avenue embellishment	\$190,000
Gertrude Street extensions embellishment	\$260,000
Princes Highway embellishment	\$600,000
Argyle Street embellishment	\$237,000
Innesdale Road embellishment	\$250,000
Marsh Street embellishment	\$140,000
Willis Street embellishment	\$130,000
Magdalene Terrace embellishment	\$135,000
Levey Street embellishment	\$145,000
Undergrounding of 33kV State Rail power lines along Bonar and Lusty Streets (apportioned cost only) (1)	\$519,560
Bonar Street embellishment	\$20,000
Lusty Street embellishment	\$80,000
Robert Lane embellishment	\$60,000
Marinea Lane embellishment	\$60,000
Bonnie Doon Channel landscaping	\$155,000
Total	\$4,589,560
Apportionment to this contributions plan	at 53.0%
	\$2,432,467

Notes

(1) The full cost of undergrounding the 33kV power lines is estimated at \$620,000. The work is presently being undertaken by a developer as works in kind. While this facility will benefit all developments in the Wollli Creek area, the previous contributions plan did not levy contributions towards it. Therefore, it is unreasonable for the full cost of the facility to be now recouped only from future developments under this and future contributions plans. For this reason the cost of the facility included in this plan has been apportioned at 83.8%, being the anticipated future population of Wollli Creek when fully developed, excluding the population of developments already approved under previous contributions plans (12,400), divided by the total anticipated Wollli Creek population (14,800) (see population forecasts in Section 6.2.4).

10.7 Calculation of contribution rates

The following general formula has been used to determine the contribution rates for town centre and streetscape improvements:

$$\text{Contribution} = \frac{\text{Apportioned cost of town centre and streetscape improvements}}{\text{Estimated population growth to 2014}}$$

Based on the principles established by this formula, the contribution rates that would apply to residential development in each planning precinct have been calculated as follows:

Contribution rate

$$= \frac{\text{AppCost}_{\text{CITY-WIDE}}}{\text{EstPopGrowth}_{\text{CITY}}} + \frac{\text{TotalCost}_{\text{ROCKDALE TC STREETScape}}}{\text{EstPopGrowth}_{\text{CITY}}/\text{App}_{\text{CITY}} + \text{EstPopGrowth}_{\text{ROCKDALE}}/\text{App}_{\text{ROCKDALE}}} + \frac{\text{AppCost}_{\text{LOCAL}}}{\text{EstPopGrowth}_{\text{PRECINCT}}}$$

where:

- $\text{AppCost}_{\text{CITY-WIDE}}$ is the total apportioned cost of all City-wide town centre improvements (except Rockdale Town Centre streetscape improvements - see below), as identified in Tables 10.2 and 10.3,

- $TotalCost_{ROCKDALE\ TC\ STREETScape}^{48}$ is the total cost of all streetscape improvements within the Rockdale Town Centre, as identified in Table 10.1,
- $AppCost_{LOCAL}$ is the total apportioned cost of all local town centre or streetscape improvements to be provide within the particular planning precinct, as identified in Tables 10.4 to 10.11,
- $EstPopGrowth_{CITY}$ is the estimated residential population growth within the City of Rockdale to 2014, as shown in Table 6.2,
- App_{CITY} is the apportionment rate for City-wide town centre improvements, as provided in Section 10.4(a),
- $EstPopGrowth_{ROCKDALE}^{48}$ is the estimated residential population growth within the Rockdale Planning Precinct to 2014, as shown in Table 6.2, and
- $App_{ROCKDALE}$ is the apportionment rate for local town centre improvements in the Rockdale Planning Precinct, as provided in Section 10.4(a),
- $EstPopGrowth_{PRECINCT}$ is the estimated residential population growth within the particular planning precinct to 2014, as shown in Table 6.2 (except for the Wolli Creek Redevelopment Area where it also includes the estimated employment population growth in that area to 2014, as shown in Table 6.3).

This is the rate that would apply for every additional resident likely to be generated by any development within the relevant planning precinct. For example, applying this formula, the base town centre and streetscape contribution rate for each additional resident in the Bexley Planning Precinct would be:

$$\begin{aligned} \text{Contribution} &= \frac{\$348,000}{10,959 \text{ persons}} + \frac{\$3,895,500}{10,959/11.6\% + 2,143/13.1\% \text{ persons}} + \frac{\$20,130}{1,195 \text{ persons}} \\ &= \$31.75 + \$35.15 + \$16.85 \\ &= \$83.75 \text{ per person} \end{aligned}$$

Using the same formula, the base town centre and streetscape improvements contribution rate for each additional resident in each of the planning precincts would be:

Arncliffe	\$113.75
Bexley	\$83.75
Bexley North	\$144.86
Brighton Le Sands	\$84.16
Kogarah	\$99.23
Rockdale	\$110.24
Sans Souci (excluding Ramsgate commercial centre)	\$250.83
Wolli Creek	\$437.36

For employment generating development, contributions will only be collected for streetscape improvement within the Wolli Creek Redevelopment Area, based on the following formula:

⁴⁸ These inclusions recognise that the Rockdale Town Centre also serves as a local centre for residents of the Rockdale Planning Precinct and that those residents should separately contribute towards local streetscape improvements within that centre. Consequently, the formula for town centre and streetscape improvements payable by developments in the Rockdale precinct becomes:

$$\frac{AppCost_{CITY-WIDE}}{EstPopGrowth_{CITY}} + \frac{2 \times TotalCost_{ROCKDALE\ TC\ STREETScape}}{EstPopGrowth_{CITY}/App_{CITY} + EstPopGrowth_{ROCKDALE}/App_{ROCKDALE}} + \frac{AppCost_{LOCAL}}{EstPopGrowth_{PRECINCT}}$$

$$\text{Contribution rate} = \frac{\text{Apportioned Cost}_{\text{WOLLI CREEK}}}{\text{Est. Pop. Growth}_{\text{WOLLI CREEK}}}$$

where:

- *Apportioned Cost*_{WOLLI CREEK} is the total apportioned cost of all streetscape improvements to be provide within the Wollli Creek Redevelopment Area, as identified in Table 10.11, and
- *Est. Pop. Growth*_{WOLLI CREEK} is the estimated residential and employment population growth within the Wollli Creek Redevelopment Area to 2014, as shown in Tables 6.2 and 6.3, respectively.

Applying this formula, the base streetscape contribution rate for each additional worker in the Wollli Creek Redevelopment Area is:

$$\begin{aligned} \text{Contribution} &= \frac{\$2,432,467}{6,566 \text{ persons}} \\ &= \$370.46 \text{ per worker} \end{aligned}$$

For development within the Ramsgate commercial centre the following adjustment, as indicated in Section 10.5, is made against the town centre improvement contribution that would be otherwise payable by that development:

$$\begin{aligned} \text{Adjustment} &= \frac{- \text{CostTownCentre} \times \text{EstPopGrowth}_{\text{SANS SOUCI (REMAINDER)}}}{\text{EstPopGrowth}_{\text{ALL SANS SOUCI}} \times \text{EstPopGrowth}_{\text{RAMSGATE (R+W)}}} \\ &\quad - \frac{\text{CostTownCentre} \times \text{EstPopGrowth}_{\text{RAMSGATE (RESIDENTS)}}}{\text{EstPopGrowth}_{\text{ALL SANS SOUCI}} \times \text{EstPopGrowth}_{\text{RAMSGATE (R+W)}}} \\ &\quad - \frac{\text{SpecialRateFunds}}{\text{EstPopGrowth}_{\text{RAMSGATE (R+W)}}} \end{aligned}$$

where:

- *CostTownCentre* is the cost of the town centre and streetscape improvement works identified in Table 10.10 and apportioned to this plan,
- *EstPopGrowth*_{SANS SOUCI (REMAINDER)} is the estimated resident population growth within the Sans Souci precinct, outside of the Ramsgate commercial centre, between the date of commencement of the *Ramsgate Commercial Centre Development Contributions Plan 2006* and 2014, and
- *EstPopGrowth*_{ALL SANS SOUCI} is the estimated resident population growth within the whole Sans Souci precinct, including the Rockdale City Council side of the Ramsgate commercial centre, between the date of commencement of the *Ramsgate Commercial Centre Development Contributions Plan 2006* and 2014, and
- *EstPopGrowth*_{RAMSGATE (R+W)} is the estimated population growth, both workers and residents, within the Rockdale City Council side of the Ramsgate commercial centre, between the date of commencement of the *Ramsgate Commercial Centre Development Contributions Plan 2006* and 2014.
- *EstPopGrowth*_{RAMSGATE (RESIDENTS)} is the estimated resident population growth within the Rockdale City Council side of the Ramsgate commercial centre, between the date of commencement of the *Ramsgate Commercial Centre Development Contributions Plan 2006* and 2014.

- *SpecialRateFunds* is the existing and anticipated funds available in the Ramsgate Local Area Special Rate Fund between the date of commencement of the *Ramsgate Commercial Centre Development Contributions Plan 2006* and 2014.

Applying this formula,

$$\begin{aligned} \text{Adjustment} &= - \frac{\$66,339^{49} \times 179^{50}}{379 \times 262} - \frac{\$66,339 \times 200}{379 \times 262} - \frac{\$136,699^{51}}{262} \\ &= - \$119.59 - \$133.62 - \$521.75 \\ &= - \$774.96 \end{aligned}$$

This means that the per person local town centre improvement contribution rate otherwise payable by development within the Ramsgate commercial centre would be reduced by this amount.

Based on these formulas and the standard dwelling occupancy rates in Table 5.14, the town centre and streetscape improvements contribution rates that would apply to development within each of the planning precincts are set out in Table 10.12.

Table 10.12 - Town centre and streetscape improvement contribution rates

Planning precinct	Multi-unit development (1)			Dwelling houses (per allotment) (3)	Employment development (per person) (4)
	0-1 bedroom dwellings (2)	2 bedroom dwellings	3+ bedroom dwellings		
Arncliffe	\$150.20	\$238.90	\$293.50	\$343.50	Nil
Bexley	\$110.60	\$175.90	\$216.10	\$252.90	Nil
Bexley North	\$191.20	\$304.20	\$373.70	\$437.50	Nil
Brighton Le Sands	\$111.10	\$176.70	\$217.10	\$254.20	Nil
Kogarah	\$131.00	\$208.40	\$256.00	\$299.70	Nil
Rockdale	\$143.50	\$231.50	\$284.40	\$332.90	Nil
Sans Souci (excluding Ramsgate commercial centre)	\$331.10	\$526.70	\$647.10	\$757.50	Nil
Wolli Creek	\$577.30	\$918.50	\$1,128.40	\$1,320.80	(5) \$370.50
Ramsgate commercial centre	(6) -\$691.90	(6) -\$1,100.70	(6) -\$1,352.30	(6) -\$1,582.90	(6) (7) -\$775.00

Notes

- (1) Includes attached and detached dual occupancies, medium density housing (villas and townhouses), residential flat buildings and the residential component of mixed use premises.
- (2) 0-1 bedroom dwellings include bedsitters and studio apartments.
- (3) Dwelling house allotments include existing parcels of land, whether or not these parcels are, or contain, separate allotments. See Footnote 8 for definition of "parcel of land".
- (4) Means the number of persons likely to be employed within a development based on the standard occupancy rates provided in Section 6.2.1 of this plan (unless an applicant can satisfy Council, by way of an expert study or the like, that another occupancy rate should apply).
- (5) Applying these contribution rates and the employment occupancy rates in Section 6.2.1, the town centre and streetscape contribution rates for various employment developments are:

supermarkets	\$14.82 / m ² gross floor area
bulky goods retail	\$7.41 / m ² gross floor area
all other retail	\$10.59 / m ² gross floor area
"high tech" industry with high office components	\$8.23 / m ² gross floor area

⁴⁹ This figure was derived by applying the apportionment factor for local town centre improvements within the Sans Souci Planning Precinct (4.0%) to the cost of the town centre and streetscape improvements within the Ramsgate centre, as shown in Table 10.10 (\$1,658,464).

⁵⁰ Footnotes 36, 37 and 38 show how all population forecasts used in this calculation were derived.

⁵¹ This figure was derived by assuming the current funds available in the Ramsgate Local Area Special Rate Fund (\$265,000, CPI adjusted to commencement date of this plan) will be expended over the anticipated 20 to 30 year lifespan of the redevelopment of the Ramsgate commercial centre. On this basis, the proportion of this amount expected to be expended during the life of this plan has been calculated as 32.0%, based on the anticipated proportion of the ultimate population growth in the Ramsgate centre likely to occur during the life of this plan (ie. between 2006 and 2014). The fund's anticipated annual income during this same period has been based on the anticipated annual income at the time of commencement of the *Ramsgate Commercial Centre Development Contributions Plan 2006* (\$7,630, CPI adjusted to commencement date of this plan).

offices and other commercial \$14.82 / m² gross floor area
industry (including warehouses and car
yards but excluding "high tech" industry) \$4.63 / m² gross floor area

(6) Negative contributions means the amounts are credited against the contributions otherwise payable by the development under the *Ramsgate Commercial Centre Development Contributions Plan 2006*.

(7) Applying these contribution rates and the employment occupancy rates in Section 3.4.3 of the *Ramsgate Commercial Centre Development Contributions Plan 2006*, the town centre and streetscape contribution credits for employment developments in the Ramsgate centre under this plan are:

retail \$22.14 credit / m² gross floor area
offices and other commercial \$31.00 credit / m² gross floor area

11 Flood mitigation and stormwater management – Wolli Creek Redevelopment Area

The comprehensive redevelopment of the Wolli Creek area for high intensity uses will require the complete replacement of the existing substandard stormwater drainage systems and, as most of this area is also flood-prone, the implementation of a comprehensive flood mitigation strategy.

This flood mitigation and stormwater management strategy applies to, and will require contributions from, development within the Wolli Creek Redevelopment Area.

Figure 6.1 shows the Wolli Creek Redevelopment Area and the development precincts and sites referred to in this chapter.

As the stormwater management strategy includes special provisions for water quality improvements within the Wolli Creek Redevelopment Area, the separate pollution control strategy in Chapter 13 will not apply to this area.

11.1 Key principles

Recognition of the significance of proper environmental management is contained in the DCP for the Wolli Creek Redevelopment Area, which includes the following relevant key aims and objectives:⁵²

- Acknowledge that the area is susceptible to flooding and incorporate the appropriate strategies to ensure safety and minimise damage to property as a result of this,
- Provide adequate flood protection to the area which is appropriate to the scale, value and intensity of the development that is likely to occur,
- Provide for the enhancement of the area's stormwater drainage system to meet the needs of future development,
- Exercise appropriate water management strategies to minimise the effect of stormwater pollution on nearby waterways, encourage water conservation and reduce stormwater run off to minimise flooding.

11.1.1 Flood mitigation

The Wolli Creek Redevelopment Area is situated adjacent to Wolli Creek and the Cooks River and much of it is low lying with ground levels predominantly between RL 2.0 and 5.0 AHD (Australian Height Datum). The *Wolli Creek, Bardwell Creek and Bonnie Doon Channel Flood Study* has been completed for the catchments that encompass the Wolli Creek area.⁵³ This flood study indicates that flooding is known to occur in substantial parts of the area that would be inundated in a 1% annual exceedence probability (AEP) flood (ie. a 1 in 100 year flood).

The sources of flooding are:

⁵² Rockdale City Council, *Rockdale Development Control Plan No. 62 – Wolli Creek*, effected 18 August 2006.

⁵³ Webb, McKeown & Associates Pty Ltd, *Wolli Creek, Bardwell Creek and Bonnie Doon Channel Flood Study* (November 1996)

- From Wolli Creek:
 - by overtopping the East Hills Railway embankment west of the development area, entering Precinct 1 through the arches of the SWSOOS aqueduct,
 - directly into Precinct 1 from the north through existing openings in, and pipelines under, the East Hills Railway embankment, and
 - through Precinct 1 into Precincts 2 and 4 via the Guess Avenue railway underpass.
- From the Cooks River:
 - south directly into the Railway Precinct,
 - west into Precincts 2 and 4 across Cahill Park and the Princes Highway, and
 - south across Cahill Park into Precinct 3.
- From the Bonnie Doon catchment in the south-west into Precincts 2 and 4 through overtopping of the existing Bonnie Doon Trunk Drain due to its inadequate capacity.

A floodplain management plan has been prepared and adopted by Council for the Wolli Creek, Cooks River and Bonnie Doon catchments that identifies a program of works for protecting land within the catchments from flooding⁵⁴. Those works relevant to the Wolli Creek area have been incorporated into this contributions plan.

Council's flood policy normally requires buildings to be constructed with habitable floor levels at a minimum of 500mm above the 1% AEP (1 in 100 year) flood level. Council's floodplain management plan provides for a program of works that would protect the area to the 1% AEP level. However, the scale, intensity and land use of development likely to occur in the Wolli Creek area warrants a higher standard of protection. In this area, it is proposed to provide flood protection up to the 0.5% AEP (1 in 200 year) flood level, plus a 500mm freeboard.

Works for which contributions would be paid would include flood levees and bunds, supplementary stormwater drainage to areas within the levees, closing of existing openings in, and flap-gating of pipelines under the East Hills Railway embankment, amplification of the Bonnie Doon Channel and the acquisition of any associated easements and reserves. Other flood protection works have been undertaken separately as part of the Airport Railway construction project to adequately safeguard train passengers and railway infrastructure.

Flood mitigation work is essential if the Wolli Creek area is to be redeveloped for residential, commercial or other purposes permissible under the area's mixed use development strategy. The rezoning of the area to permit such redevelopment depended on adequate provision being made for the flood protection of the area in order to satisfy the requirements of former Section 117 Direction G25.⁵⁵

⁵⁴ Webb McKeown & Associates Pty Ltd, *Wolli Creek, Bardwell Creek, Bonnie Doon Channel and Eve St/Cahill Park Catchment Floodplain Management Plan* (March 1998)

⁵⁵ Section 117 Directions are issued by the Minister for Infrastructure, Planning and Natural Resources and are required to be satisfied when Council prepares a new LEP. In this instance, former Direction G25 was relevant at the time when the LEPs for Wolli Creek were prepared. This direction applies to flood liable land and prevents Council from preparing a draft LEP that rezones flood liable land and which will permit an increase in the development of the land until Council satisfies the Director-General of Planning that it is reasonable to vary or exclude these prohibitions. Similar requirements apply under the current section 117 Direction No. 15, which replaced Direction G25.

While the floodwater that affects this area is collected throughout the whole catchments, it is the Wollli Creek Redevelopment Area in particular that bears the impact of flooding in peak times. This situation has existed for a considerable time.

As the flood mitigation works are a pre-requisite to make the sites “developable” for these new purposes, it is proposed that Council recover the full cost of these flood mitigation works from within the Wollli Creek area. The “demand” (or need) for such works has arisen from the desire (and opportunity) to redevelop this area. This is despite the flood waters coming from other areas.

External funding to assist in implementing flood management within redevelopment areas such as Wollli Creek is not available under present State government funding policies.

Some sites in Wollli Creek are sufficiently large and may be capable of achieving flood protection through on-site works. This applies to the “Discovery Point” site within the Railway Precinct where specific provisions have been included in the LEP to require flood protection works before any development can be permitted. This strategy recognises the ability of such sites to accommodate flood mitigation works in kind. Nevertheless, such sites will still benefit from the other flood management works within the area through gaining flood-free access.

In other parts of the Wollli Creek area integrated flood management schemes will need to be implemented by Council for the benefit of the whole area.

In addition to contributing towards the flood mitigation works identified in this plan, all developments in the area will also be required to incorporate on-site flood protection measures, such as adhering to minimum floor levels and flood proofing essential services. These additional measures will not only allow development to proceed in the area before all of the flood protection measures identified in this plan can be fully funded and implemented, but will afford a greater level of flood protection to people and property in the event of a flood more severe than the 0.5% AEP event. However, these on-site measures are only intended to supplement, not supplant, the essential flood mitigation measures identified in this plan, which are necessary to ensure flood-free access to and within the area.

As the provision of the flood mitigation works identified in this plan are collectively critical to the acceptability of redevelopment of the area, and as there is no likelihood of alternative funding from either the State government or from contributions by developments elsewhere in the catchments, these works must all be provided for, and fully funded by, future developments within the Wollli Creek area through section 94 contributions, even though some of the floodwater which would otherwise affect the area may originate from outside of the area.

11.1.2 Stormwater management

In addition to flood mitigation, stormwater management is also necessary. Stormwater management deals with the drainage of rainwater falling within the area itself. The Wollli Creek area is presently served by a substandard stormwater drainage system that results in frequent overland flows and ponding of stormwater.

Redevelopment of the Wollli Creek area is unlikely to result in any substantial increase in the volume of stormwater runoff generated. However, the intensity and value of development which is likely to occur in the area will require a higher standard of stormwater servicing to be implemented than presently exists, necessitating the implementation of an appropriate, reasonable and equitable funding mechanism through section 94.

While Council’s DCP encourages the recycling of stormwater within development sites (eg. for watering), there will still be a need to substantially upgrade the area’s existing stormwater drainage facilities to provide a level of service suitable for the development that is likely to occur. Hence, the

demand for new and augmented stormwater management facilities in the area is created solely by the desire to carry out redevelopment.

The works for which contributions would be paid would include drainage infrastructure, acquisition of land for drainage easements and the provision of pollution control devices.

Stormwater management is not eligible for State government funding, and must be fully financed by Council. These costs should be fully recoverable through development contributions.

Council has undertaken a drainage study for the area⁵⁶ that has identified the various drainage works that will be necessary.

Council has a longstanding policy of funding the provision of pollution control facilities under its previous contributions plan. This strategy should continue, particularly as this area is adjacent to Cooks River and sensitive wetlands. It would not be acceptable, in the present day, to provide new stormwater drainage systems, as required in this area, without providing the associated water quality treatment as an integral part of the drainage works.

While Council's DCP for the area requires developments to carry out on-site water quality management, there will still be a need to provide further pollution control at the downstream ends of the drainage system. The intensification of development in the area will increase the demand for off-site water quality treatment, such as gross pollutant traps, due to the increased levels of silt and litter from increased pedestrian and vehicular activity on the streets. New development in the Wolli Creek area will now be required to meet current day water quality standards and community expectations, regardless of whether previous development in the area did so.

As the provision of these stormwater management and pollution control facilities are collectively essential to the redevelopment of the area, and as there is no likelihood of alternative funding from the State government, these works must all be provided for, and fully funded by, future developments within the Wolli Creek area through section 94 contributions.

11.2 Section 94 implementation strategy for Wolli Creek

Because the Wolli Creek Redevelopment Area is not expected to be fully developed within the 10 year lifespan this plan, but rather will take a longer period of between 15 and 25 years to reach its ultimate form, a special strategy has been adopted in this plan to ensure the ongoing orderly provision of amenities and services within the area throughout this entire redevelopment period and that all of the facilities required to meet the needs of Wolli Creek when it is fully developed can and will be provided progressively as development takes place. This strategy is outlined in Section 2.12.

Such a strategy requires this plan to identify, cost and prioritise all the flood mitigation and stormwater management facilities required in Wolli Creek when the area is fully developed, including those facilities which are not intended to be funded under this plan, but rather under future contributions plans. Consequently, these facilities have all been described in this chapter and included in the works schedule. Facilities not required during the life of the plan have generally been given Priority 3 status and an estimated provision date beyond 2014.

⁵⁶ Willing and Partners, Draft *North Arncliffe Drainage Study* (May 2000)

11.3 Nexus

11.3.1 Causal nexus – What?

Redevelopment of the Wolli Creek area will change the area from a predominantly low intensity industrial / service precinct to a high intensity, high-value redevelopment area of mixed uses. This will require a higher standard of flood protection to be imposed in order to adequately protect the safety of persons and property within the area in the future and in order to satisfy the requirements of the section 117 directions relating to flood prone land, the NSW Floodplain Management Manual⁵⁷ and the *Wolli Creek, Bardwell Creek, Bonnie Doon Channel and Eve Street / Cahill Park Catchment Floodplain Management Plan*.

Critical to the acceptability of development in the Wolli Creek area is the completion of flood protection and mitigation measures that will provide for all development sites to be above the 1 in 200 year flood level.

The Wolli Creek Redevelopment Area is inadequately served by the existing stormwater system, resulting in frequent overland flows and ponding of stormwater. The intensification and redevelopment of the area will require the provision of an adequate system to efficiently dispose of stormwater in accordance with current standards. Minimal opportunities exist for developers to separately dispose of their own stormwater or to retain it on site.

Integral to the provision of a new stormwater drainage system is the requirement for water quality treatment, especially as stormwater will drain directly to Wolli Creek, its wetlands and the Cooks River. Intensification of on-street activity in the area will increase silt and litter within the stormwater system. While developers will be required to undertake on-site water quality treatment, it will not eliminate the need for the provision of treatment facilities at the downstream ends of the drainage system.

11.3.2 Physical / spatial nexus – Where?

The works that are likely to be required, and their locations, are described in Table 11.1 and shown on Figure 11.1.

⁵⁷ NSW Government, *Floodplain Management Manual: The Management of Flood Liable Land* (January 2001)

**Table 11.1 - Location and description of proposed works –
Flood mitigation and stormwater management facilities**

Ref. no.	Location	Description of proposed works
FS1	East Hills Railway embankment in Henderson Street / Turrella Street area	Construct levee on embankment to prevent overflow from Wolli Creek
FS3	Walker Street / Thompson Street area to Wolli Creek	Provide drainage system including new pipeline with flap-gates through East Hills Railway embankment and acquisition of easements, reserves
FS4	Precinct 1 to Wolli Creek	Provide drainage system including boring under East Hills Railway embankment with pipelines and flap-gates and acquisition of easements, reserves
FS5	Eastern side of SWSOOS, within proposed Lusty Street Reserve	Construct levee
FS6	Railway Precinct (Discovery Point site)	Construct levee along Cooks River frontage
FS7	Perimeter of Cahill Park and Marsh Street	Construct levee around perimeter of park
FS8	SWSOOS to Cahill Park, between Arncliffe Street and Princes Highway	Amplify Bonnie Doon Channel including acquisition of easements, reserves
FS9	Magdalene Terrace to Bonnie Doon Channel	Provide drainage for Magdalene Terrace including acquisition of easements, reserves
FS10	Precinct 2 to Bonnie Doon Channel	Provide enhanced stormwater drainage including acquisition of easements, reserves
FS11	Precinct 4 to Bonnie Doon Channel	Provide enhanced stormwater drainage including acquisition of easements, reserves
FS13	At selected locations	Provide water quality improvements including the provision of gross pollutant traps on all drainage systems.
FS14	Precinct 3 to Cooks River	Provide enhanced stormwater drainage, including acquisition of easements, reserves

Figure 11.1 - Location of flood mitigation and stormwater management facilities



11.3.3 Temporal nexus – When?

The requirements for flood mitigation and stormwater management facilities in the Wolli Creek area are extensive and, while essential to the acceptability of the area for redevelopment, it would not be possible for all of these works to be funded or undertaken at the commencement of redevelopment.⁵⁸ Further, the provision of such facilities is for the longer-term benefit of the area and accordingly the cost of these facilities should be apportioned over the population at the maturity of the area (ie. the next 15-25 years), rather than that expected during the 10 year life of this plan, in accordance with the strategy outlined in Section 2.12.

The priorities for flood mitigation and stormwater management facilities have been based on the anticipated timing and pattern of development within the area and the relative exposure of individual development sites to risk from flooding. Hence, the highest priorities have been given to those facilities that will directly benefit development within Precincts 1 and 2 and the Railway Precinct.

Lower priorities have been assigned to those facilities that primarily serve Precinct 3 and those in Precinct 4, where significant redevelopment is not expected to occur during the life of this plan. However, the exact location and timing of the works will largely be dependent on the developments proposed.

Should Council at any time consider any of the future works identified in this strategy, such as essential flood mitigation works, requires implementation prior to further development proceeding, it will forward fund these facilities from other sources and recoup the cost through this or subsequent contributions plans.

Water quality improvement works will be undertaken in association with the provision of the respective stormwater management facilities and will be implemented progressively throughout the life of this plan and beyond, in accordance with Council's section 94 implementation strategy for Wolli Creek.

The estimated timing and priorities for the provision of these facilities are set out in the works schedule (Section 11.5).

11.4 Calculation of contribution rates

The following formula has been used to determine the contribution rates for flood mitigation and stormwater management facilities in Wolli Creek.

$$\text{Contribution} = \frac{\text{Estimated cost of all flood mitigation and stormwater management}}{\text{Estimated ultimate population}}$$

This formula does not provide any allowance for grants or subsidies from other sources. The reasons for this are that there is no external funding available for stormwater drainage management, or for flood management works in redevelopment areas such as Wolli Creek, and there is no confidence that any funding would be provided in the future. However, should funding become available for works nominated in this plan, the contributions would be adjusted accordingly.

⁵⁸ While full implementation of all of the flood mitigation measures identified in this plan are essential to the complete flood protection of the Wolli Creek area, it is recognised that it would not be feasible to fully fund and implement these measures prior to any development taking place in the area. For this reason, Council has allowed development to commence, but has required this development to incorporate on-site flood protection measures that will provide adequate flood protection for the people and property within those developments, as outlined in Section 11.1.1. However, these measures will not ensure flood-free access to these developments, which can only be achieved through the implementation of all of the flood mitigation measures identified in this plan.

11.4.1 Apportionment

As indicated previously, the provision of the flood mitigation and stormwater management facilities identified in this plan are critical to the comprehensive redevelopment of the Wolli Creek area and will benefit all development in the area and all development should therefore contribute to the cost of these facilities. However, commensurate with the lengthy timespan for full development of the area, the full funding and provision of these facilities will occur beyond the lifespan of this plan.

Therefore, in order to ensure that contribution rates will be applied equitably over the development life of Wolli Creek between those developments that take place during the 10 year lifespan of this plan and those which occur in the longer term, and that facilities are fairly provided as and when they are needed, an apportionment will be applied in accordance with the strategy outlined in Section 2.12.

This apportionment will determine which facilities can be funded under this plan and which facilities will need to be provided for under future contributions plans and is calculated as follows:

$$\text{Apportionment} = \frac{\text{Estimated population (residents and workers) at 2014} \times 100}{\text{Estimated ultimate population (residents and workers)}}$$

Note: These population estimates exclude developments approved and levied under the previous contributions plans – see Section 6.2.4.

Applying this formula and the population forecasts in Section 6.2.4, the proportion of all flood mitigation and stormwater management costs apportioned to this plan would be:

$$\begin{aligned} \text{Apportionment} &= \frac{6,566 \text{ persons} \times 100}{12,400 \text{ persons}} \\ &= 53.0\% \end{aligned}$$

11.4.2 Estimated costs

The estimated costs of proposed flood mitigation and stormwater management facilities are set out in Table 11.2.

**Table 11.2 - Estimated cost of works –
Flood mitigation and stormwater management facilities**

Ref. no.	Description	Estimated capital cost (1)
FS1	Construct levee on East Hills Railway embankment at Henderson St to prevent overflow from Wolli Creek	\$370,000
FS3	Provide drainage system to Walker St / Thompson St area including new pipeline with flap-gates through East Hills Railway embankment and acquisition of easement, reserves	\$500,000
FS4	Provides drainage system for Precinct 1 including boring under East Hill Railway embankment with pipelines and flap-gates and acquisition of easements, reserves	\$1,100,000
FS5	Construct levee on east side of SWSOOS at Lusty St Reserve	\$150,000
FS6	Construct levee along Cooks River frontage of Railway Precinct	\$200,000
FS7	Construct levee around perimeter of Cahill Park	\$600,000
FS8	Amplify Bonnie Doon Channel including acquisition of easements, reserves	\$4,000,000
FS9	Provide drainage for Magdalene Terrace including acquisition of easements, reserves	\$300,000
FS10	Provide enhanced stormwater drainage for Precinct 2 including acquisition of easements, reserves	\$400,000
FS11	Provide enhanced stormwater drainage for Precinct 4 including acquisition of easements, reserves	\$400,000
FS13	Provide water quality improvements including the provision of gross pollutant traps on all drainage systems	\$800,000
FS14	Provide enhanced stormwater drainage for Precinct 3 including acquisition of easements, reserves	\$1,400,000
Total costs		\$10,220,000
Less amount collected under previous contributions plans		(2) -\$2,087,062
Total to be funded under this and future contributions plans		\$8,132,938
Apportionment to this contributions plan		at 53.0% \$4,310,457

Notes

- (1) Acquisition costs for easements have not been separately costed but have generally been provided as part of the "capital cost" component.
(2) Consists of \$1,734,475 already received (including interest) and \$352,587 from approved developments that has yet to be paid.

11.4.3 Base contribution rates

The base contribution rate for flood mitigation and stormwater management facilities in Wolli Creek is calculated as follows:

$$\text{Contribution} = \frac{\text{Apportioned total capital and land costs}}{\text{Estimated population (residents and workers) at 2014}}$$

Applying this formula, the contribution rate per person is:

$$\begin{aligned} \text{Contribution} &= \frac{\$4,310,457}{6,566 \text{ persons}} \\ &= \$656.48 \text{ per person} \end{aligned}$$

Using this figure and the standard dwelling occupancy rates in Table 5.14, the contribution rates for the provision of flood mitigation and stormwater management facilities in the Wolli Creek Redevelopment Area have been derived and are shown in Table 11.3.

Table 11.3 - Flood mitigation and stormwater management facilities contribution rates

Public facility	Multi-unit development (1)			Dwelling houses (per allotment) (3)	Employment development (per person) (4)
	0-1 bedroom dwellings (2)	2 bedroom dwellings	3+ bedroom dwellings		
Flood mitigation and stormwater management	\$866.60	\$1,378.60	\$1,693.70	\$1,982.60	(5) \$656.50

Notes

- (1) Includes attached and detached dual occupancies, medium density housing (villas and townhouses), residential flat buildings and the residential component of mixed use premises.
- (2) 0-1 bedroom dwellings include bedsitters and studio apartments.
- (3) Dwelling house allotments include existing parcels of land, whether or not these parcels are, or contain, separate allotments. See Footnote 8 for definition of "parcel of land".
- (4) Means the number of persons likely to be employed within a development based on the standard occupancy rates provided in Section 6.2.1 of this plan (unless an applicant can satisfy Council, by way of an expert study or the like, that another occupancy rate should apply).
- (5) Applying these contribution rates and the employment occupancy rates in Section 6.2.1, the contribution rates for various employment developments are:
- | | |
|--|---|
| supermarkets | \$26.26 / m ² gross floor area |
| bulky goods retail | \$13.13 / m ² gross floor area |
| all other retail | \$18.76 / m ² gross floor area |
| "high tech" industry with high office components | \$14.59 / m ² gross floor area |
| offices and other commercial | \$26.26 / m ² gross floor area |
| industry (including warehouses and car yards but excluding "high tech" industry) | \$8.21 / m ² gross floor area |

11.5 Works schedule

The priority for the proposed works and estimated timing for provision are identified in Table 11.4. This is based on the following estimated time frame and reflects the anticipated timing and location of development and the likely accrual rate of contribution funds:

- Priority 1 – To be undertaken between years 1 – 5
- Priority 2 – To be undertaken between years 6 – 10
- Priority 3 – To be undertaken after year 10 (i.e. beyond the life of this plan).

These time frames are estimates only and will be influenced by market forces and the rate of development in the area. However, they provide an outline of works and priorities.

Priority 1 and 2 items can be fully funded from contributions expected during the life of this plan. However, should any Priority 3 works also be required during the life of the plan, such as flood mitigation works considered essential to the further development of the area, they will need to be funded in advance from other sources and the costs recouped from long term development through a subsequent contributions plan.

Table 11.4 - Works schedule - Flood mitigation and stormwater management facilities

Ref. no.	Description of proposed works	Estimated priority	Estimated timing
FS1	Construct levee on East Hills Railway embankment at Henderson St to prevent overflow from Wollli Creek	3	Long term (1)
FS3	Provide drainage system to Walker St / Thompson St area including new pipeline with flap-gates through East Hills Railway embankment and acquisition of easement, reserves	2	Medium term
FS4	Provides drainage system for Precinct 1 including boring under East Hill Railway embankment with pipelines and flap-gates and acquisition of easements, reserves	1	Short term
FS5	Construct levee on east side of SWSOOS at Lusty St Reserve	1	Short term
FS6	Construct levee along Cooks River frontage of Railway Precinct	1	Short term
FS7	Construct levee around perimeter of Cahill Park	3	Long term (1)
FS8	Amplify Bonnie Doon Channel including acquisition of easements, reserves	3	Long term (1)
FS9	Provide drainage for Magdalene Terrace including acquisition of easements, reserves	1	Short term
FS10	Provide enhanced stormwater drainage for Precinct 2 including acquisition of easements, reserves	2	Medium term
FS11	Provide enhanced stormwater drainage for Precinct 4 including acquisition of easements, reserves	3	Long term (1)
FS13	Provide water quality improvements including the provision of gross pollutant traps on all drainage systems	Ongoing	Commensurate with drainage works
FS14	Provide enhanced stormwater drainage for Precinct 3 including acquisition of easements, reserves	2	Medium term

Notes

- (1) While the timing for the proposed provision of these facilities has been identified as long term and may not occur during the life of this plan, they have been included in the plan to ensure that they will be equitably funded by all those who will benefit from their ultimate provision, in accordance with the strategy for the Wollli Creek area outlined in Section 7.2.1.

12 Community services and facilities

One of the greatest pressures that will be placed upon the City of Rockdale by future population growth within the City will be for the provision of community facilities, including occasional child care, library facilities and services and community centres.

This plan identifies little remaining capacity within the existing community facilities currently provided by Council to cater for the increased demand likely to arise from expected population growth within the City over the next 10 years. As a consequence, it will be necessary to provide additional or augmented facilities to maintain the same level of service for the incoming population.

The community services and facilities strategy is a facility-specific strategy and applies across the whole City.

The provisions of this strategy are detailed below. These provisions use the population profile in Chapter 5 and the future development forecasts in Chapter 6 to establish the future demand for community services and facilities within the City. Based on this, the strategy identifies what additional community facilities and services should be provided under this plan and appropriate contribution rates to fund these facilities.

12.1 Objectives

The specific purposes of this community services and facilities strategy are to:

- a. continue Council's role in resourcing and supporting local community based groups commensurate with population growth,
- b. provide community facilities and deliver community services in response to community needs arising from growth in the resident and worker population, and
- c. provide community facilities in locations of high demand and/or good accessibility.

12.2 Existing community services and facilities

This section identifies the existing provision of community services and facilities, their distribution throughout the City, the manner in which they are used by the existing population and other issues associated with their provision.

Council currently provides and supports a host of community services and facilities throughout the City, which cater for the needs of the existing population. Some of these facilities (such as the occasional child care centre) also cater for some of the needs of the anticipated future population. The existing facilities include:

- Arncliffe Community Centre
- Bexley Community Centre
- Kingsgrove / Bexley North Community Centre
- Brighton Le Sands Community Centre
- Syd Frost Memorial Hall
- Rockdale Community Services building
- District halls (Coronation Hall, Rockdale Town Hall)
- Senior citizens centres (Arncliffe/Turrella, Brighton Le Sands, Kogarah, Ramsgate, Rockdale)
- Child care centre (Turrella)

- Occasional child care centre (Rockdale Plaza)
- Pre schools (Arncliffe West, Jack and Jill Kindergarten, Sans Souci)
- Early childhood centres (Arncliffe, Brighton Le Sands, Ramsgate, Rockdale)
- Cultural centres (Lydham Hall, Old St Davids Church, Rockdale Town Hall, Rockdale Community Centre)
- State Emergency Services
- Rockdale Meals on Wheels
- Volunteer Coastal Patrol
- Central Library
- Branch libraries (Brighton Le Sands, Bexley, Bexley North, Arncliffe, Sans Souci)

In addition to the facilities and services provided by Council, there are a range of agencies, organisations and groups that provide other community support services. These include licensed clubs, sporting groups, scouts and guides, schools, church groups, as well as services provided by State government agencies. Although Council has no direct control over the types of services and facilities that these agencies provide, in general these facilities supplement the services provided by Council. In terms of this plan, it is recognised that these non-Council agencies and groups also contribute to the range and types of community services available throughout the City.

As indicated in the previous contributions plans, there has been and remains little capacity in existing facilities which can cater for any increased demand through increased population growth. The capacity and limitations of existing facilities has been documented in a previous contributions plan.⁵⁹ Further, the existing demand for facilities is evidenced by the requests for provision of additional services and facilities from community groups that cannot to be accommodated in existing facilities.

Council has previously sought contributions towards the cost of providing child-care (long day care) facilities. Under changes introduced by the Federal government, operational funding for such centres has been removed and access to child-care assistance (fee relief) has been restricted to new centres opening in local government areas considered deficient in child care. Accordingly, while Council will maintain its current child-care centres, there is no intention to seek to fund the provision of further child care places through developer contributions. The exception to this is the provision of occasional child care and the recoupment of the cost of the facility that Council has already provided.

It is apparent that there is no capacity in the existing community facilities to cater for the demand likely to arise from expected population growth over the next 10 years. As a consequence, it will be necessary to provide additional or augmented facilities to maintain the same level of service to the incoming population.

12.3 Factors affecting demand

This section identifies the factors which affect the likely demand for community services and facilities based on the profile of the incoming population described in the preceding chapters.

1. Accelerating **population growth** within the City resulting from increased development activity. This is expected to accelerate further as the Wollie Creek area begins to develop. Already there has been an estimated population increase of 5,600 since 1996 and the number of residents is expected to grow by a further 10,950 by 2014. This increased growth will place further demands on existing facilities and is likely to require the enhancement of these facilities or the provision of new facilities.

⁵⁹ Rockdale Municipal Council, Supplementary Report: Section 94 Levy for Community Facilities, 1992.

2. It is likely that **ageing** of the population will continue to be a priority for service provision. In particular, demand for services will be generated in areas such as Bexley North, Sans Souci and Brighton Le Sands, which have, and will continue to accommodate large aged populations. Coupled with increased demand for services from other age groups, there will be continued demand for community centres (offices and meeting space) and information services (libraries).
3. There has been an increase in **single parent and single person households** in the City. A large percentage of the latter comprises elderly persons residing in Sans Souci and Brighton Le Sands.
4. Almost 80% of aged persons in the City of Rockdale earned less than \$15,600 per annum in 1996. Concentration of households earning **low incomes** is highest in Sans Souci, followed by Brighton Le Sands and Arncliffe.
5. Loss of public housing, coupled with increases in private rental accommodation, suggest that there may be some **lower income households** who are now renting in the private market. These households could be living in financial stress, and may require services to assist them. Those areas with the highest concentration of private rental housing are Kogarah, Rockdale and Brighton Le Sands. An increase in multi-unit dwellings in areas such as Sans Souci and Brighton Le Sands reflects a demand for accommodation from smaller households, eg. the aged.
6. Restricted access to **car ownership**, particularly by singles infers an element of isolation in the population. In the case of aged persons, this may limit their mobility and access to some services. Approximately 25% of single parent households had no car, while almost 40% of people living alone were without a car. Of the latter, half were over 65 years of age.
7. While there has been little change in the overall age structure in Rockdale between 1991 and 1996, the City has a smaller **number of children** (aged under 15 years) (17%) than the Sydney average (21%). The highest concentrations of children under 5 years are at Bexley, Arncliffe and Kogarah. Coupled with the increase in single parent households, it is likely that there could be a demand for childcare in some form. It could be expected that the demand for childcare services will increase in the medium term with the redevelopment at Wollie Creek and in the Bonar Street Precinct.
8. The provision of some community services is not as dependent on **accessibility** as some other public facilities, such as open space. Many of the community services that Council accommodates operate independently of the community that they serve. These include services such as telephone counselling and home visit / home care services. As a consequence, there is no requirement for such services to be located within the local community or even to have good access by residents. Other community services, such as library services that rely on people coming to the facility, are dependent on good accessibility by private and public transport.

12.4 Nexus

This section establishes the relationship (nexus) between the expected types of development in the area and the demand for additional public facilities required to meet that development. This section should be read in conjunction with the following section (Section 12.5), which discusses and quantifies the demand for particular community facilities by the incoming population.

The nexus between anticipated development in Rockdale and the nominated community services and facilities has been established having regard to:

- a. the availability and capacity of existing facilities in the area,
- b. the type and extent of anticipated development, both residential and commercial,
- c. the expected increase in population as a consequence of that development,
- d. the characteristics of the residential population and the requirements for new, additional or augmented facilities,
- e. the extent to which the proposed new or augmented facilities will meet the future needs of the residential population and (where applicable) workers in new retail and commercial development, and
- f. the generally good level of accessibility throughout Rockdale, which enables public facilities, and some particular community facilities, to be located in areas of high accessibility.

12.4.1 Causal nexus – What?

Availability and level of service provided by existing facilities

Rockdale City Council already provides some of the community services and facilities likely to be required by the expected types of development. However, in most cases, these facilities generally satisfy the needs of the existing population with limited, if any, capacity available to serve the additional demand created by the incoming population. The anticipated incoming population is expected to have similar characteristics to the existing population and create a demand for similar facilities at a similar rate to the existing population. In order to cater for the likely increase in demand it will be necessary to provide additional facilities or expand the capacity of existing services and facilities to cater for such demand.

There was previously no *occasional child care facility* provided in Rockdale. Council subsequently obtained partial funding for a 28 place centre and negotiated with a developer to dedicate land for this purpose as part of a mixed use development. The centre has now been provided and caters in part for existing demand as well as for anticipated future demand for the City as a whole.

Community services operate from existing community centres and provide office space for service provision as well as facilities for residents to use. These provide for the needs of the existing population and Council has recently provided new and augmented facilities to supplement existing provision and to cater for the additional demand created by recent population increases. Council presently has five community centres and community services premises that cater to a range of community needs throughout the entire City (in addition to other community facilities that supplement these centres by providing a variety of other community services - see Section 12.2). However, these centres are operating at or near capacity and additional facilities are now required to cater for the additional needs generated by population growth that has recently occurred in the City and that is anticipated to continue in the future (as well as meeting some of the presently unsatisfied needs of the existing population).

To meet these additional needs, two new multi-purpose community facilities are proposed. Additional community space is proposed to be provided at a location in the Rockdale Town Centre as a flexible space that could accommodate meetings, information and office space for local community groups. This facility has now been fully funded by previous population growth through section 94 contributions.

A *multi-purpose community facility* is proposed in the Wollie Creek Redevelopment Area, which will provide specifically for the future residential and employment population of this new mixed-use development precinct when it is fully developed, as well as catering for additional needs generated by the incoming population throughout the whole City over the next 10 years plus some of the presently unsatisfied needs of the existing population.

The existing *Central Library* provides services to the entire City and, compared with relevant library standards, is deficient for the size of the population it serves. The proposal to rebuild and expand this facility will enable Council to accommodate additional space, facilities and resources that will satisfy the demands of the incoming population at a City-wide level.

The increased usage of community services and facilities anticipated as a consequence of new development will exceed the capacity of existing facilities in the area. It will therefore be necessary for new and augmented public facilities to be provided to cater for the anticipated demand of likely development.

Age structure of the community

All sectors of the community share the need for some type of cultural facility or community service at some time. Some types of community services are age specific (such as child care, youth centres or senior citizens centres) while others are generic and used by people of all ages (such as exhibition space and libraries).

Council seeks to provide community services that are able to provide for the demand of the whole population of all ages. Accordingly, the provision of multi-use facilities that are able to be adapted for use for a broad range of purposes will best address these demands.

The future population will include people of all ages with no specific age group being predominant. The provision of flexible community facilities which are multi-purpose and not just used by a narrow age group will therefore satisfy the broader community needs of the incoming population without denying continued access by the existing population. In addition, the provision of multi-purpose facilities is also best able to deliver these services in the most efficient and cost effective manner.

The provision of *occasional child-care* is a service for parents of children aged 0 - 5 years. This facility has been purpose built to provide the required services and functions. The provision of facilities from which *community services* can be provided will serve the needs of all sectors of the population throughout the entire City. The *Central Library* is also a purpose built facility but is able to provide public services for all age groups across the entire City.

Socio-economic structure of the community

Factors which will influence the likely demand for community facilities include income levels, car ownership (mobility), type of housing, housing tenure, employment status, family structure (sole parents, etc) and ethnicity.

In many respects, the demand for community facilities is limitless. This places an obligation on Council to provide facilities of a type and capacity that are reasonable for the community having regard to the initial capital cost and the ongoing recurrent costs. In this regard, the services provided by other agencies also need to be recognised to ensure that Council allocates its resources most effectively.

In terms of establishing the needs of the incoming population, the socio-economic profile of the existing population has been examined as well as the location, type and scope of expected redevelopment. On the basis of this review, it would appear that there would not be any discernible change to the socio economic profile of the incoming population that would warrant any shift in the type of community facilities provided.

The anticipated increase in population will:

- a. place greater demands on existing community services and facilities, and

- b. require the provision of certain new facilities which are not currently available in Rockdale, and
- c. require the augmentation of certain existing facilities that may be available but of insufficient capacity to cater for the anticipated increased demand.

This plan includes a schedule of community services and facilities that are required as a consequence of anticipated development and population demand. The cost providing these facilities will in part be met and/or recouped from new development in Rockdale.

12.4.2 Physical / spatial nexus – Where?

This plan places emphasis on the provision of capital infrastructure required to facilitate the delivery of the community *service* rather than merely the construction of physical / capital works. The provision of such service needs to occur in appropriately located and constructed buildings including, where relevant, the fit-out of such spaces and provision of appropriate physical resources.

Existing community facilities are spread throughout the City (refer to list in Section 12.2). Some community facilities, such as *community centres*, are located in residential areas where they are close to the local community itself. Other facilities, such as the *Central Library* and the *occasional child care centre*, are located in commercial centres that have good access by road and by public transport. The use of these latter facilities can therefore be coupled with other trips such as shopping.

Future population growth is likely to be in the form of infill housing throughout the City, high density “airspace” development within existing commercial centres and the redevelopment at Wollie Creek (with improved road and new rail services) and within the Bonar Street Precinct. Future employment growth is also expected to be concentrated in the Wollie Creek area and hence the provision of the proposed multi-purpose community centre in this location is appropriate. The existing dispersed spread of *community centres* is considered appropriate, as it will enable reasonable access to these centres by the community. The need for accessibility to community centres is also determined by the scope of services provided at each centre. Many community centres accommodate community organisations that provide services where access by the community is not essential (eg. telephone counselling, home visits, etc.).

The “one off” City-wide facilities such as the *occasional care centre* and the *Central Library* are, or will be, appropriately located in major commercial centres which have a high degree of accessibility by private and public transport. The existing Central Library (which is proposed to be rebuilt) is currently located in the Rockdale Town Centre where the new facility will also be provided. These locations enjoy good road and public transport access and are therefore able to provide services to the entire City-wide population including those sections of the community that have poor mobility.

a. Occasional child care centre

This is located as part of Rockdale Plaza development. The location has good public transport and road access and is within a major retail and high density residential development. It is therefore easily accessible to the population at large.

b. Community centres

The following community centres are proposed to satisfy future demand from the incoming residential population (and, in Wollie Creek, the incoming employment population as well):

- General purpose community space within a yet to be determined location in the Rockdale Town Centre (This facility has now been fully funded by, and will satisfy

some of the needs of, the incoming population which has occurred in the City over the last 10 years), and

- A multi-purpose community facility at Wolli Creek.

The community space to be provided in the Rockdale Town Centre will provide multi-purpose space for meetings, information and office space for local community groups. A high degree of accessibility to this centre is essential. This space is intended to satisfy demand at a City-wide level and in a location that has a high degree of accessibility.

As the comprehensive redevelopment of Wolli Creek will bring in an entirely new resident and worker population (contributing a major proportion of the City's total population growth over the next 10 years), it is desirable that a new multi-purpose community facility be provided in this locality to meet the needs of this incoming population. This facility will also supplement existing community centres and assist in meeting the increased needs generated by population growth throughout the City as a whole. The Wolli Creek area is well placed to serve this function, being located at a major public transport node and with good road access.

c. **Library services**

The proposed Central Library is to be located within the Rockdale Town Centre. The area has a high degree of accessibility by public transport and private vehicle and is a facility and location that can form part of other trips, such as shopping or personal services. Its location is considered appropriate as it provides the best opportunity to cater for the demands of the population as a whole.

12.4.3 Temporal nexus – When?

Only those public facilities that are required as a consequence of anticipated development between 2004 and 2014 are included in the works schedule (see Table 12.3). Timing for the provision of these works is based on the projected population growth expected to occur during this time.

The works schedule (Section 12.7) identifies:

- a. works that have been, or will be, undertaken in order to satisfy future demand, and
- b. the estimated timing for the completion of these works.

Section 94 implementation strategy for Wolli Creek

Because the Wolli Creek Redevelopment Area is not expected to be fully developed within the 10 year lifespan this plan, but rather will take a longer period of between 15 and 25 years to reach its ultimate form, a special strategy has been adopted in this plan to ensure the ongoing orderly provision of amenities and services within the area throughout this entire redevelopment period and that all of the facilities required to meet the needs of Wolli Creek when it is fully developed can and will be provided progressively as development takes place. This strategy is outlined in Section 2.12.

Such a strategy requires this plan to identify and cost all of the community facilities required in Wolli Creek when the area is fully developed. This plan has identified that a multi-purpose community facility will be provided in the Wolli Creek area to meet the needs of the area's population when fully developed. Hence, part of its cost will be met by development occurring beyond the timespan of the plan. As this facility is intended to be provided during the life of this

plan, a share of the cost will need to be funded by Council from other funding sources and then recouped from future development under subsequent contributions plans.

12.5 Required community services and facilities

This section identifies and describes the particular community services and facilities that are required by the new population.

The anticipated increase in population will generate a demand for the provision of new, additional or augmented community facilities if Council is to provide the same level of service to the incoming population. It is therefore reasonable that the incoming population contribute towards the provision of the community facilities that will satisfy their needs.

For some types of community services, new facilities, some of which do not currently exist, will be required. In other instances, it is possible to rationalise, modify and augment existing facilities to cater for increased, additional or alternative demands.

The types of community facilities and services to be funded under this plan have been established in most cases on the basis of an understanding of the specific needs and characteristics of the population as well as having regard to accepted "standards", where these are relevant. While it is expected that the population will continue to age, the incoming residents of new developments throughout the City, in particular the redevelopment of Wollli Creek and the relatively large population increase expected from this area, will maintain a reasonably balanced demographic profile. The community facilities and services covered by this strategy include the provision of:

- places for the care of young children,
- places where the community, including young people, adults, the aged and the elderly, can meet and interact,
- places from which community services can be managed, coordinated and directed, and
- places providing information, cultural, educational and entertainment opportunities.

Rather than duplicating community services provided by other groups, agencies or organisations, Council proposes to fund those services that would otherwise not be available. Council is committed to providing a range of services for both the existing and the new population. Those community facilities which are intended to satisfy the needs of the incoming population and which are reasonably funded through development contributions include:

a. ***Occasional child care centre***

There will be an ongoing need for occasional child care services for families with children under 5 years arising from new development.

Council previously agreed to be the capital sponsor for a 28 place occasional child care centre in Rockdale, which has attracted Federal government operational assistance. Council secured the provision of land in a location and of a configuration suitable for the provision of an occasional care centre adjacent to the Rockdale Plaza development and this facility has now been completed. However, Council was required to meet the costs of fit-out of the facility to make the centre operational. Such costs may be reasonably recouped, at least in part, through development contributions.

b. Community centres

Community centres cater for a host of services and activities and it is essential that they be capable of adapting to multiple uses. While all parts of the City have access to community centres, users generally will travel to other locations, outside of their own locality, to access a particular venue, activity or service. As such, it is not necessary for a community facility to be provided in every locality nor for it to provide every service. Rather, it is appropriate for residents to have reasonable access to a range of possible venues catering for a wide range of user groups and offering a range of community services.

Council's facilities often accommodate organisations, funded by other levels of government, and which provide community services on a City-wide basis. For example, the Rockdale Community Services building houses two such services while the Bexley Community Centre contains four services. Similarly, the Moate Avenue Community Space at Brighton Le Sands accommodates community-based groups catering to the whole of the Rockdale City area. Such services do not rely on easy access by residents to such locations with services provided by telephone, such as counselling, or by home visits.

Multiple purpose community centres are capable of providing for the needs of people of all age groups and with a broad range of interests and service needs. Current levels of service are in some areas deficient while in other areas upgraded facilities will be required to maintain the current level of service. It is proposed that the demand for community centres and services generated by population growth in the City be provided through the following:

- the provision of new general purpose community space to be constructed in a location to be determined within the Rockdale Town Centre that will provide space for meetings, information and office space for local community groups. The location in the Rockdale Town Centre with its high degree of accessibility will provide benefit to all areas of the City, and
- a new multi-purpose community facility in Wolli Creek consisting of floor space within a new commercial / residential building constructed as part of the redevelopment of this area.

The location of these public facilities and the range of services and amenities that they can provide should satisfy the anticipated demands of the expected population increase. It is proposed that the community spaces be capable of providing services for and catering to the needs of all age and socio economic groups, diverse ethnic groups and people without access to a private vehicle.

c. Library services

A review of existing library facilities and resources revealed that the present Central Library is currently operating at full capacity with little or no opportunity to accommodate the increased demand associated with future population growth. The library is centrally located in the City with good accessibility by road and public transport. The library provides educational, entertainment, cultural and leisure services as well as being a resource for schools and community groups. Changing technology has shifted the types of facilities and services that the Central Library offers. However, this has not diminished the importance of the library to all age, ethnic and socio economic groups.

The existing library located in Rockdale is inadequate to meet the needs of the existing or anticipated future population and will be replaced with a new facility. As part of the provision of the new library, additional capacity and services will be incorporated to cater for

the increased demand associated with the new population. The total cost of the library will be apportioned to acknowledge the proportional share that is attributable to the new population and to supplement other funding arrangements. The contribution rate will also take into account the cost of materials required by the new population.

12.6 Contribution rates

The base contribution rate formula for community facilities and services is:

$$\text{Contribution rate} = \frac{\text{Cost of additional facilities and land acquisition}}{\text{Additional population at 2014}}$$

12.6.1 Cost of facilities

Based on cost estimates obtained by Council and comparison with similar projects, the estimated costs of the proposed community facilities are provided in Table 12.1. This table also identifies other funding sources, such as government grants, and the amount of section 94 contributions that have been collected to date for these facilities.

Table 12.1 - Location and estimated cost of community facilities

Public facility	Location	Estimated capital cost	Estimated land cost*	Supplementary funding
Child care services				
Occasional child care centre	Rockdale Plaza (provided)	\$1,246,210 ^a	Nil	\$240,000 (G) \$419,610 (IK) \$57,510 (C)
Community services				
General purpose community space	Rockdale Town Centre	\$650,000 ^b	Nil	\$1,983,799(C)
Multi-purpose community facility	Wolli Creek	\$550,000 ^b	\$1,200,000 ^b	Nil
Library services				
Central Library	Rockdale	\$9,000,000 ^b	Nil	\$906,594 (C)
Library resources	Rockdale	\$20.83/item ^c	Nil	\$224,561(C)

Notes

* Most of the community facilities covered by this plan, except the multi-purpose facility at Wolli Creek, do not include a land component cost. These facilities are either provided as part of a redevelopment project or are on land that Council already owns.

^a The total estimated cost is made up of several components including:

- In kind dedication of building "shell" 426 m² @ \$985/m² (based on Rawlinsons Construction Handbook) – \$419,610
- Capital funding (Federal Government) - \$ 240,000
- Fit out costs - \$586,600 (remaining costs to be met and reasonably funded through section 94)

These costs do not include a land component cost nor the operational costs for which grant funding is provided.

^b Estimated cost, as provided by Council.

^c This is a standard average cost per item for the materials to be acquired by the library to maintain the same level of service.

(G) Government grant

(C) Contributions collected under previous contributions plans (including a total of \$190,220 from approved developments in the Wolli Creek Redevelopment Area that is yet to be paid.)

(IK) In kind works

12.6.2 Apportionment of costs

The apportionment of the cost of community facilities recognises that the total cost of such facilities should not be attributed solely to the new population as these facilities service the needs of existing residents as well. Accordingly, it is necessary to revise the total cost by a factor that represents the proportional use by the incoming population.

The proposed apportionments (amounts to be sought through development contributions) of the total estimated costs of the various community facilities proposed to be funded under this plan are derived below.

This plan has identified that a multi-purpose community facility will be required in the Wolli Creek Redevelopment Area to meet the community services needs of this area when it is fully developed and the cost of this facility should therefore be met by the area's ultimate population, in accordance with the strategy outlined in Section 2.12. Under this strategy, it is recognised that full development of the area is likely to extend beyond the 10 year lifespan of the plan. As it is estimated that only 53.0% of Wolli Creek's ultimate development potential will be achieved within the life of this plan (excluding developments approved and levied under previous contributions plans - see Section 6.2.4), developments occurring within this time should reasonably contribute only 53.0% of the total costs of this facility attributable to Wolli Creek development. To facilitate this, the contribution rates for this facility have been calculated by dividing the cost of the facility by the ultimate population of Wolli Creek (rather than by the population increase anticipated during the life of this plan).

a. Occasional child care centre

Rockdale occasional child care centre - This facility is available on a City-wide basis and is well located to satisfy this function. The total cost of this facility (including in kind contributions, grants and the remaining capital costs) was \$1,246,210, fully established. Operational funding assistance is provided by the Federal government. There is no other such service provided in Rockdale and this facility provides services to the entire population, including the incoming population over the next 10 years. The total cost of this facility should therefore be apportioned over the total City wide population (including anticipated population growth over the next 10 years).

$$\begin{aligned} \text{Apportioned cost} &= \frac{\text{Total cost (excluding operational grant)}}{\text{City-wide population at 2014}} \\ &= \frac{\$1,246,210}{107,164} \\ &= \$11.63 \text{ per person} \end{aligned}$$

This contribution represents a rate per head of the entire population at 2014. The amount that can reasonably be recovered through section 94 contributions will be from the estimated 10,959 additional residents expected by 2014 and will produce an income of about \$127,000 (at 2004 values) towards the costs already expended on this facility. This represents the "share" of this facility attributable to new development. The balance of the cost has been recovered from other funding sources. The above approach has been adopted as it is not possible to apportion the remaining cost of this facility (\$586,600) entirely to the incoming population. The share of the costs that is attributable to the existing population has been met in part through in kind works and grant funding as well as from Council.

Child care summary

- Occasional child care **\$11.63 / person**

b. Community centres

General purpose community space – As this facility has been fully funded from contributions levied under the previous plan, section 94 contributions will no longer be collected for this facility. Any contributions collected for the facility over and above its estimated cost will be carried over and used towards the cost of the Wolli Creek multi-purpose community facility which will complement the facilities provided in the general

purpose community space and will provide a range of community services for the whole City.

Wolli Creek multi-purpose community facility - This facility is to be provided for the incoming residential and employment population expected in the Wolli Creek Redevelopment Area when it is fully developed, in accordance with the mixed-use development strategy for the area, as well as catering for the community facility needs of existing and incoming residential population throughout the whole City during the life of this plan. On this basis, the apportioned cost per person is as follows:

$$\text{Apportioned cost} = \frac{\text{Total cost} - \text{surplus community centres funds}^{60}}{\text{Increase}_{WC} + \text{Increase}_{CITY}/40\%}$$

where:

- Increase_{WC} is the total population increase (residents + workers) in Wolli Creek at ultimate development, as identified in Section 6.2.4(b) (excluding development approved and levied under the previous contributions plans), and
- Increase_{CITY} is the total population increase (residents only) within remainder of City to 2014, as identified in Table 6.2.

$$\begin{aligned} \text{Apportioned cost} &= \frac{\$1,750,000 - \$1,333,799^{61}}{12,400 + 6,514 / 40\%} \\ &= \$14.51 \text{ per person} \end{aligned}$$

This facility will serve the new resident and employment population within the Wolli Creek Redevelopment Area as well as the existing and incoming resident population within the rest of the City. For the rest of the City it has been assumed that 40% of the facility will be required by the additional population coming into the City over the next 10 years and the proportion of the cost of the facility not attributed to Wolli Creek development has been apportioned accordingly. No apportionment has been applied to the cost component attributable to the Wolli Creek population, as this will be a new area with an entirely new population. However, as this facility is intended to meet the needs of the entire Wolli Creek population, as ultimately developed beyond the lifespan of this plan, only 53.0% of the share of cost attribute to Wolli Creek development is expected to be collected under this plan.

Community services summary

Residential development

- Wolli Creek multi-purpose community facility **\$14.51 / person**

Employment development (Wolli Creek only)

- Wolli Creek multi-purpose community facility **\$14.51 / person**

⁶⁰ Surplus community centres funds are funds collected, or expected to be collected, towards the provision of community centres under the previous contributions plan that are excess to the anticipated costs of providing the proposed general purpose community space in the Rockdale Town Centre.

⁶¹ Calculated by deducting the estimated cost of the proposed general purpose community space in the Rockdale Town Centre, as shown in Table 12.1 (\$650,000), from the total amount collected to date for community services under the previous contributions plan (\$1,835,542, including interest) and adding community services contributions from approved developments which has yet to be paid (\$148,257).

c. **Library services**

Central Library - This facility is to be available on a City-wide basis and will be located within the Rockdale Town Centre to enable it to be accessible to and used by as many people as possible.

The State Library of NSW, Public Library Branch has issued standards for the *Planning and Design of Public Libraries* (1995). This is the generally accepted standard for library facilities and has been adopted by Council for the purposes of planning the new Rockdale Central Library and for the purposes of this plan. Under these guidelines, the relevant standard is 31 m² of library floor space per 1,000 people. The new Central Library will have a total floor space of 2,200 m² and is estimated by Council to cost \$9,000,000, representing a unit cost of \$4090.90 per m² (2003 values). Hence, the apportioned cost per person for the incoming population expected over the 10 years of this plan is as follows:

$$\begin{aligned} \text{Apportioned cost} &= \frac{\text{Floor space standard (m}^2\text{ / 1000 persons)} \times \text{Construction cost (per m}^2\text{)}}{1000 \text{ persons}} \\ &= \frac{31 \text{ m}^2 \times \$4,090.90}{1,000 \text{ persons}} \\ &= \$126.82 \text{ per person} \end{aligned}$$

This facility will serve, and be available to, the existing and incoming population within the entire City. The cost component of the project intended to meet the needs of the incoming population will be fully funded by contributions under this plan. The remaining cost of the facility (ie. the cost component intended to serve the needs of the existing population) will be met through some other funding sources.

Library resources - The resources to be available through Council's libraries need to be increased in order to maintain the existing level of service available to the City. The current rate of provision of library materials in Rockdale is 1.98 items per person at an average cost of \$20.83/item.⁶² The apportioned cost per person for library resources is therefore:

$$\begin{aligned} \text{Apportioned cost} &= \text{Materials per person} \times \text{Cost per item} \\ &= 1.98 \times \$20.83 \\ &= \$41.24 \text{ per person} \end{aligned}$$

Library summary	\$168.06 / person
• Central Library	\$126.82 / person
• Library resources	\$41.24 / person

12.6.3 Calculation of contribution rates

Based on the apportioned costs above and the standard dwelling occupancy rates in Table 5.14, the following community services and facilities contribution rates will apply:

⁶² The current rate of provision of library materials is based on the current number of items in the library stock (total 187,355 items at April 2004) divided by the City's current population (94,526, 2004 estimate). The average cost per item is calculated by dividing the current value of the library stock (\$3,901,736 at April 2004) by the current number of items in the stock.

Table 12.2 - Community services and facilities contributions rates

Public facility	Multi-unit development (1)			Dwelling houses (per allotment) (3)	Employment development (per person) (4) (Wolli Creek Redevelopment Area only)
	0-1 bedroom dwelling (2)	2 bedroom dwelling	3+ bedroom dwelling		
Child Care Services	\$15.40	\$24.40	\$30.00	\$35.10	Nil
Community Services	\$19.20	\$30.50	\$37.40	\$43.80	(5) \$14.50
Library Services	\$221.80	\$352.90	\$433.60	\$507.50	Nil
Total Community Facilities Contribution	\$256.40	\$407.80	\$501.00	\$586.40	(5) \$14.50

Notes

- (1) Includes attached and detached dual occupancies, medium density housing (villas and townhouses), residential flat buildings and the residential component of mixed use premises.
- (2) 0-1 bedroom dwellings include bedsitters and studio apartments.
- (3) Dwelling house allotments include existing parcels of land, whether or not these parcels are, or contain, separate allotments. See Footnote 8 for definition of "parcel of land".
- (4) Means the number of persons likely to be employed within a development based on the standard occupancy rates provided in Section 6.2.1 of this plan (unless an applicant can satisfy Council, by way of an expert study or the like, that another occupancy rate should apply).
- (5) Applying these contribution rates and the employment occupancy rates in Section 6.2.1, the contribution rates for various employment developments are:
- | | |
|--|--|
| supermarkets | \$0.58 / m ² gross floor area |
| bulky goods retail | \$0.29 / m ² gross floor area |
| all other retail | \$0.41 / m ² gross floor area |
| "high tech" industry with high office components | \$0.32 / m ² gross floor area |
| offices and other commercial | \$0.58 / m ² gross floor area |
| industry (including warehouses and car yards but excluding "high tech" industry) | \$0.18 / m ² gross floor area |

12.7 Works schedule

This section identifies the specific community services and facilities to be funded, or partially funded, through section 94 contributions under this plan, the location of these facilities, and their likely timing for provision.

It is essential to establish priorities for the delivery of community facilities throughout the life of this plan. The estimated timing is indicative only and assumes that development will take place in the manner and locations expected and that development contributions will be paid in a reasonable timeframe.

The location and estimated timing for provision of the identified public facilities are included in the following works schedule.

Table 12.3 - Works schedule – Community services and facilities

Public facility	Location	Estimated timing
Child care services		
Occasional child care centre	Rockdale Plaza	Completed 2000
Community services		
General purpose community space	Rockdale	Medium term
Multi-purpose community facility	Wolli Creek	Medium term
Library services		
Central Library	Rockdale	Medium term
Library resources	Rockdale	Ongoing

12.8 Material public benefits

Council will consider offers for the provision of the following material public benefit from development within any part of the Rockdale City Council area:

- Multi-purpose community facility (fully fitted out).

13 Pollution control

Each year the City of Rockdale collects an average of 11,950 kilograms of pollutants from existing gross pollutant traps within its stormwater drainage system. Council has estimated that, on average, each Rockdale resident generates 30 kilograms of pollutants per year in the form of increased dirt and litter deposited in the City's streets, parkland and other public areas and washed into the stormwater system.

To address this problem, Council has implemented a program of providing pollution control facilities within its stormwater drainage system. However, continued growth in the city's population will increase pollution volumes within the system and, in order to maintain current water quality targets, additional pollution control facilities will be required. Section 94 contributions should therefore be levied on future development within the City of Rockdale to provide these additional facilities as part of Council's environmental management strategy.

Council's previous contributions plan (*Section 94 Contributions Plan (Amendment 4)*) provided for the levying of contributions for pollution control facilities and any unexpended funds collected under that plan will be carried over and used towards the provision of pollution control facilities in accordance with this plan.

This pollution control strategy will not apply to development within the Wolli Creek Redevelopment Area where contributions towards the provision of pollution control facilities are separately levied as part of the comprehensive stormwater management strategy for that area (see Chapter 11).

13.1 Nexus

13.1.1 Causal nexus – What?

Each resident within the City of Rockdale generates an average of 30 kilograms of pollutants per year that escapes Council's waste collection services and facilities and which would, if not intercepted, find its way through the stormwater system into local waterways and rivers and eventually into Botany Bay. The increase in population over the next 10 years will increase the total amount of waste that will be generated in this way and which has the potential to enter Council's stormwater system.

Council has previously initiated a program of systematically providing pollution control facilities within its stormwater drainage system to intercept pollutants currently generated by the existing population and this program will continue to be implemented. The works in this program have been, and will continue to be, funded primarily from other sources, but have also been supplemented by section 94 funds collected under the previous contributions plan for population growth occurring since the program was initiated.

However, to prevent a further reduction in water quality resulting from future population growth, additional pollution control facilities, or the upgrading of existing facilities, will also be required. As provision of these new and upgraded facilities will be over and above Council's current pollution control works program and are intended to specifically service the demand generated by the incoming population, it is appropriate that they be funded through section 94 contributions.

13.1.2 Physical / spatial nexus – Where?

Gross pollutant traps and other pollution control facilities funded under this plan will be provided within Council's existing stormwater drainage system in selected locations throughout the City which best serve the incoming population. To this effect, the contributions collected under this strategy will apply to the additional population generated throughout the whole City of Rockdale (except Wolli Creek).

13.1.3 Temporal nexus – When?

Gross pollutant traps will be provided on an ongoing basis over the 10 year life of this plan as the population increases as a result of new development and as contribution funds accrue.

13.2 Calculation of contribution rates

13.2.1 Estimated costs

The average cost of providing gross pollution traps within the City of Rockdale has been estimated by Council to be \$8,979 per hectare. This translates to a total cost over the entire City of \$26,757,420. These figures are based on an estimated pollutant generation rate of 30 kilograms per person and current population levels and densities.

13.2.2 Base contribution rates

It is appropriate to use the current cost per person of providing pollution control facilities within the City as the cost of providing any additional pollution control facilities required to serve the incoming population.

As the costs of providing pollution control facilities is directly proportional to the volumes of pollutants they are designed to intercept and as the incoming population is expected to generate additional pollutants at comparable levels to the existing population, any increase in population will not result in any change to the cost per person of providing those additional facilities.

The base contribution rate for pollution control facilities within the City is therefore calculated as follows:

$$\text{Contribution} = \frac{\text{Estimated cost of pollution control facilities to serve existing population}}{\text{Existing population (Excluding Wolli Creek)}}$$

This formula does not provide any allowance for grants or subsidies from other sources as there is presently no external funding available for pollution management and there is no confidence at this time that any funding would be provided. Should funding become available, it will be used to address deficiencies in the existing stormwater treatment system that serves the current population.

Applying this formula, the base contribution rate per person is:

$$\begin{aligned} \text{Contribution} &= \frac{\$26,757,420}{93,923 \text{ persons}} \\ &= \$284.89 \text{ per person} \end{aligned}$$

Using this figure and the standard dwelling occupancy rates in Table 5.14, the contribution rates for the provision of pollution control facilities are shown in Table 13.1.

Table 13.1 - Pollution control contribution rates

Public facility	Multi-unit development (1)			Dwelling houses (per allotment) (3)
	0-1 bedroom dwellings (2)	2 bedroom dwellings	3+ bedroom dwellings	
Pollution control management	\$376.10	\$598.30	\$735.00	\$860.40

Notes

- (1) Includes attached and detached dual occupancies, medium density housing (villas and townhouses), residential flat buildings and the residential component of mixed use premises.
- (2) 0-1 bedroom dwellings include bedsitters and studio apartments.
- (3) Dwelling house allotments include existing parcels of land, whether or not these parcels are, or contain, separate allotments. See Footnote 8 for definition of "parcel of land".

14 Pedestrian and cyclist facilities – Wolli Creek Redevelopment Area

Council's strategic planning policy for the redevelopment of the Wolli Creek area is to encourage the use of a range of transport modes, such as public transport and pedestrian and cycle access. This strategy will be implemented both through design objectives and through a policy of parking constraint. Developments will be required to contribute towards the provision of appropriate public facilities for pedestrians and cyclists as well as being encouraged to provide facilities within the developments themselves. Such facilities may include cycle racks, lockers, showers, change rooms and the like. Provision for cycle parking and security will be essential in and around the railway station and is to be provided by the NSW Ministry of Transport and by developers of this precinct.

The area is already traversed by, or located adjacent to, a number of regional cycle routes including the Kurnell to Homebush Bay cycleway, and opportunities exist to provide further links to and through nearby recreation corridors. Development within the Wolli Creek area is therefore likely to stimulate both work-based and recreational pedestrian and bicycle activity.

It is intended that cycle routes should be accommodated within the existing and proposed road carriageways, where possible by the provision of wider kerbside lanes, rather than by separate routes. However, in some instances separate shared pedestrian and cycle routes will need to be provided, such as those along the proposed foreshore open space corridor or as dedicated links between areas.

The construction of pedestrian / cycle underpasses beneath the Illawarra Railway (at Cooks River), the SWSOOS aqueduct (at Lusty Street) and the Princes Highway (at Cooks River), the proposed construction of bridges over the Princes Highway (at Gertrude Street) and Wolli Creek and the potential to establish more direct pedestrian and cycle routes along the service corridors through the area will further augment the circulation network.

In many instances, the provision of pedestrian and cycle facilities would be undertaken as part of the upgrading of roadways, provision of traffic signals and other traffic management, implementation of streetscaping or provision of public open space (refer to other strategies in this contribution plan). However, for the purposes of this plan, the required works and contribution for off-road pedestrian and cyclist facilities in the Wolli Creek area have been identified separately.

As part of the provision of facilities for pedestrians and cyclists, a full range of facilities for people with a disability and for prams would be accommodated.

The cyclist facilities proposed in the Wolli Creek area will integrate with the on-street and off-street cycle network being developed throughout the City. This plan also proposes a number of additions to the off-road recreational cyclist network elsewhere in the City which will be separately funded under the section 94 open space strategy (See Chapter 7).

Figure 6.1 shows the Wolli Creek Redevelopment Area and the development precincts referred to in this chapter.

14.1 Section 94 implementation strategy for Wolli Creek

Because the Wolli Creek Redevelopment Area is not expected to be fully developed within the 10 year lifespan this plan, but rather will take a longer period of between 15 and 25 years to reach its ultimate form, a special strategy has been adopted in this plan to ensure the ongoing orderly provision of amenities and services within the area throughout this entire redevelopment period

and that all of the facilities required to meet the needs of Wollli Creek when it is fully developed can and will be provided progressively as development takes place. This strategy is outlined in Section 2.12.

Such a strategy requires this plan to identify, cost and prioritise all the pedestrian and cyclist facilities required in Wollli Creek when the area is fully developed, including those facilities which are not intended to be funded under this plan, but rather under future contributions plans. Consequently, these facilities have all been described in this chapter and included in the works schedule. Facilities not required during the life of the plan have generally been given Priority 3 status and an estimated provision date beyond 2014.

14.2 Nexus

14.2.1 Causal nexus – What?

The redevelopment of the Wollli Creek area will establish a completely new population, including a residential population for the first time. The creation of a completely new railway station and town centre will establish a new focus for activity and business to which residents, workers, visitors, shoppers, clients, commuters and other will be attracted. The highly urban nature of this locality and the traffic planning strategy (of limiting parking and private car usage) is part of a suite of strategies aimed at encouraging a higher level of public transport patronage and the use of other transport modes.

Part of this strategy is the provision of viable alternative means of access to and within the area, as well as the opportunity of linkages to other areas outside of Wollli Creek, and to provide convenient access to adjoining open space as part of Council's open space strategy. Bus lanes and footpaths that are appropriate to the function of the street and the volumes of pedestrian and motor traffic expected will be provided within the road corridors. In addition to this, bicycle lanes or routes will also be provided within the road carriageways, and shared pedestrian and cycle paths will be constructed through parks and along the Cooks River foreshore.

The purpose of the proposed pedestrian and cycle links and the associated facilities will be for commuter access (whether just to the town centre and railway station or beyond) as well as for recreational purposes. Accordingly, it is reasonable for all of the incoming population to contribute towards the cost of these facilities. All off-road routes will be available to pedestrians and cyclists on a shared basis.

While the proposed pedestrian and cycle facilities may provide incidental benefits to the wider community, they are being provided specifically to meet the needs of future residents and workers within the Wollli Creek Redevelopment area as an integral part of the total transport strategy for the area.

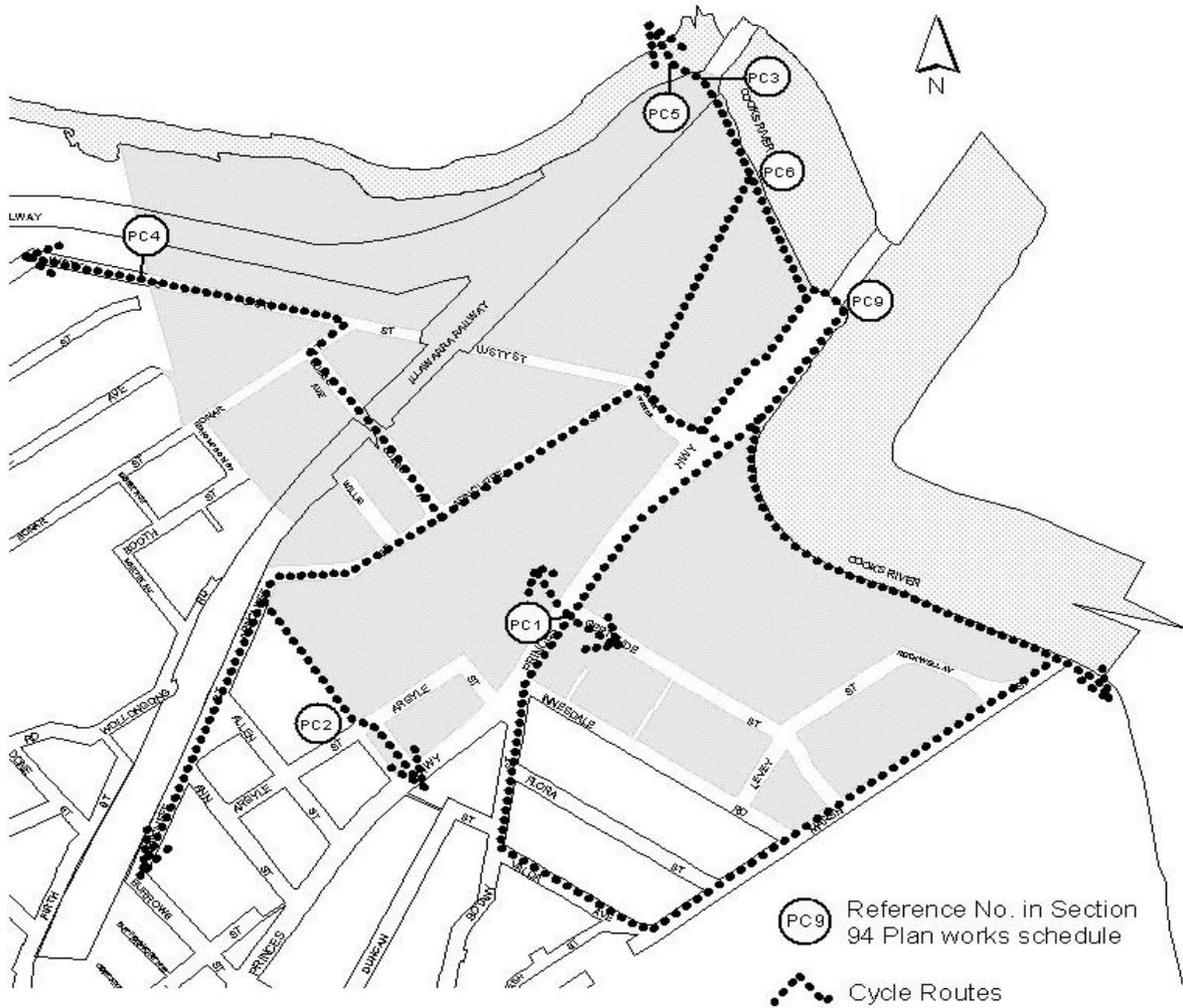
14.2.2 Physical nexus – Where?

The works which are required and their locations are described in Table 14.1 and are shown on Figure 14.1.

**Table 14.1 - Location and description of works
– Pedestrian and cyclist facilities**

Ref. no.	Location	Description of proposed works
	Road network within the Wolli Creek area	Provide footpaths along roads and bicycle lanes by widening road carriageways, line marking and signage
	Selected location on the pedestrian and bicycle network within the Wolli Creek area	Provide signage, bicycle storage racks, special kerb crossings, etc
PC1	Princes Highway at Gertrude Street intersection	Construct bridge over highway and connecting paths
PC2	SWSOOS aqueduct between Arncliffe Street and Princes Highway	Acquire right of way and construct path on top of aqueduct
PC3	Illawarra Railway Line at Cooks River	Acquire right of way and construct underpass beneath railway bridge over Cooks River
PC4	SWSOOS aqueduct between Thompson Street and Lusty Street	Construct underpass beneath SWSOOS and connecting path
PC5	Wolli Creek between Illawarra Railway underpass (PC3) and Waterworth Park	Construct bridge across creek and connecting path
PC6	Cooks River foreshore within Railway Precinct	Construct path along foreshore and link path to Arncliffe Street
PC9	Princes Highway at Cooks River	Construct underpass beneath road bridge over Cooks River and connecting paths

Figure 14.1 – Location of pedestrian and cyclist facilities



14.2.3 Temporal nexus – When?

It is proposed that footpaths and bicycle lanes be provided as part of the upgrading, reconstruction and streetscaping of existing and new roads within the Wolli Creek area. Accordingly, the provision of these works, as well as the associated signage, crossings and the like, will be dictated by the road works program (see Chapter 9).

The initial priority for these works is for the provision of road access to the area and it could be expected that pedestrian and cycle facilities would be provided first in these locations. The second road priority is for access roads within the area that will also accommodate footpaths and bicycle lanes. This should establish some of the key connections of the network within the area. The third priority will be for the provision of new off-road pedestrian and cycle linkages to destinations within and outside of the area.

The pedestrian and cycle paths, underpasses and bridges are proposed to be constructed in the following order:

1. Underpass beneath SWSOOS aqueduct between Thompson Street and Lusty Street (PC4)
2. Pathway along Cooks River foreshore and link to Arncliffe Street (PC6)
3. Bridge over Princes Highway at Gertrude Street (PC1)
4. Underpass beneath Illawarra Railway at Cooks River (PC3)
5. Bridge across Wolli Creek to Waterworth Park (PC5)
6. Pathway on top of SWSOOS aqueduct between Arncliffe Street and Princes Highway (PC2)
7. Underpass beneath Princes Highway at Cooks River (PC9)

However, should circumstances dictate and opportunities arise for the provision of these linkages ahead of schedule, such opportunities should be taken without the need to amend this plan.

Provision of pedestrian and bicycle facilities such as signage, bicycle storage racks, special kerb crossings, etc will be undertaken as part of the streetscaping of the roadways (the timing of which will be dictated by the road works program) and provision of the off-street pedestrian and cycle links.

The cost of the provision of these pedestrian and cycle paths, underpasses and bridges is significant and it would not be possible for these to be undertaken at the commencement of redevelopment of the area. Further, the provision of such facilities is to the longer term benefit of the area. Accordingly, the cost of these facilities should be apportioned over the population at the maturity of the area (ie. the next 15-25 years), rather than that expected during the 10 year life of this plan, in accordance with the strategy outlined in Section 2.12.

14.3 Calculation of contribution rates

The following formula has been used to determine the contribution rates for pedestrian and cyclist facilities in Wolli Creek:

$$\text{Contribution} = \frac{\text{Estimated cost of all pedestrian and cyclist facilities}}{\text{Estimated ultimate population (residents and workers)}}$$

14.3.1 Apportionment

The pedestrian and cyclist facilities proposed in the Wolli Creek Redevelopment Area are being provided specifically to meet the needs of its future residents and workers, as an integral part of the total transport strategy for the area, and no apportionment factor should be applied for any incidental benefits that may accrue to the wider community. If not for the redevelopment of Wolli

Creek these facilities would not be required or provided and their cost should therefore be fully funded by future development in this area. Council does not have the capacity to finance these facilities except through section 94 and there is no certainty that alternative funding will be available from the State government or other external sources.

However, the following apportionment factors will be applied to contributions for the provision of pedestrian and cyclist facilities:

- a. **Proposed bridge across Wollli Creek.** (PC5) The proposed pedestrian and cycle bridge across Wollli Creek to Waterworth Park cannot be fully funded from section 94 contributions, as the centre of Wollli Creek is the City boundary and section 94 does not permit the use of contributions for facilities provided outside of the local government area in which they are collected. For this reason a 50% apportionment will apply to this proposed facility, representing the cost of constructing that part of the bridge within the Rockdale council area.
- b. **Development during the life of this plan.** The full provision of the pedestrian and cyclist facilities identified in this plan will occur beyond the lifespan of the plan, commensurate with the anticipated lengthy timespan for full redevelopment of the Wollli Creek area.

Therefore, in order to ensure that contribution rates will be applied equitably over the development life of Wollli Creek between those developments that take place during the 10 year lifespan of this plan and those which occur in the longer term, and that facilities are fairly provided as and when they are needed, an apportionment will be applied in accordance with the strategy outlined in Section 2.12.

This second apportionment factor will determine which facilities can be funded under this plan and which facilities will need to be provided for under future contributions plans and is calculated as follows:

$$\text{Apportionment} = \frac{\text{Estimated population (residents and workers) at 2014} \times 100}{\text{Estimated ultimate population (residents and workers)}}$$

Note: These population estimates exclude developments approved and levied under the previous contributions plans – see Section 6.2.4.

Applying this formula and the population forecasts in Section 6.2.4, the apportionment to this plan would be:

$$\begin{aligned} \text{Apportionment} &= \frac{6,566 \text{ persons} \times 100}{12,400 \text{ persons}} \\ &= 53.0\% \end{aligned}$$

14.3.2 Estimated costs

The estimated costs of proposed pedestrian and cyclist facilities are set out in Table 14.2.

Table 14.2 - Estimated cost of works – Pedestrian and cyclist facilities

Ref. no.	Description	Estimated capital cost
	Footpaths and bicycle lanes within the road network	(1)
	Pedestrian and bicycle facilities within the pedestrian and bicycle network	(1)
PC1	Bridge over Princes Highway at Gertrude Street	\$1,875,000
PC2	Pathway on top of SWSOOS aqueduct between Arncliffe Street and Princes Highway	\$310,000
PC3	Underpass beneath Illawarra Railway at Cooks River	(2) \$107,000
PC4	Underpass beneath SWSOOS aqueduct between Thompson and Lusty Streets	\$75,000
PC5	Bridge across Wollie Creek to Waterworth Park (apportioned cost at 50%)	\$625,000
PC6	Pedestrian and cycle path along Cooks River foreshore and link path to Arncliffe Street	\$210,000
PC9	Underpass beneath Princes Highway at Cooks River	\$105,000
Total costs		\$3,307,000
Less amount collected under previous contributions plans		(3) -\$228,701
Less amount apportioned to other funding sources under previous contributions plans		(4) -\$354,055
Total to be funded under this and future contributions plans		\$2,724,244
Apportionment to this contributions plan		at 53.0% \$1,443,849

Notes

- (1) Capital cost of these items cannot be separately itemised but are incorporated in all up costs of specific road, traffic, cycle path and streetscaping works that are funded under Chapters 9 and 10 of this plan.
- (2) Includes legal costs etc in acquiring the necessary easement.
- (3) Consists of \$190,155 already received (including interest) and \$38,546 from approved developments that has yet to be paid.
- (4) The previous contributions plan levied contributions for pedestrian and cyclist facilities in Wollie Creek on the basis that only 35% of the cost of these facilities should be apportioned to future development through section 94 contributions and the remaining amount should be funded from other sources. While this plan establishes that it is reasonable to levy contributions on future development in this area for the full cost of these facilities, such contributions cannot be used to recoup the non-contribution share of these costs attributable to previous developments (discounting the proportion of this non-contributions share that would have gone towards the half-share cost of the bridge over Wollie Creek which cannot be funded through section 94 contributions and that has not been costed in this plan).

14.3.3 Base contribution rates

The base contribution rate for pedestrian and cyclist facilities in Wollie Creek is calculated as follows:

$$\text{Contribution} = \frac{\text{Apportioned total capital and land costs}}{\text{Estimated population (residents and workers) at 2014}}$$

Applying this formula, the base contribution rate per person is:

$$\begin{aligned} \text{Contribution} &= \frac{\$1,443,849}{6,566 \text{ persons}} \\ &= \$219.90 \text{ per person} \end{aligned}$$

Using this figure and the standard dwelling occupancy rates in Table 5.14, the contribution rates for the provision of pedestrian and cyclist facilities in the Wollie Creek Redevelopment Area have been derived and are shown in Table 14.3.

Table 14.3 – Pedestrian and cyclist facilities contribution rates

Public facility	Multi-unit development (1)			Dwelling houses (per allotment) (3)	Employment development (per person) (4)
	0-1 bedroom dwellings (2)	2 bedroom dwellings	3+ bedroom dwellings		
Pedestrian and cyclist facilities	\$290.30	\$461.80	\$567.30	\$664.10	(5) \$219.90

Notes

- (1) Includes attached and detached dual occupancies, medium density housing (villas and townhouses), residential flat buildings and the residential component of mixed use premises.
- (2) 0-1 bedroom dwellings include bedsitters and studio apartments.
- (3) Dwelling house allotments include existing parcels of land, whether or not these parcels are, or contain, separate allotments. See Footnote 8 for definition of "parcel of land".
- (4) Means the number of persons likely to be employed within a development based on the standard occupancy rates provided in Section 6.2.1 of this plan (unless an applicant can satisfy Council, by way of an expert study or the like, that another occupancy rate should apply).
- (5) Applying these contribution rates and the employment occupancy rates in Section 6.2.1, the contribution rates for various employment developments are:
- | | |
|--|--|
| supermarkets | \$8.80 / m ² gross floor area |
| bulky goods retail | \$4.40 / m ² gross floor area |
| all other retail | \$6.28 / m ² gross floor area |
| "high tech" industry with high office components | \$4.89 / m ² gross floor area |
| offices and other commercial | \$8.80 / m ² gross floor area |
| industry (including warehouses and car yards but excluding "high tech" industry) | \$2.75 / m ² gross floor area |

14.4 Works schedule

The priorities for the proposed works and estimated timing for their provision are identified in Table 14.4. These are based on the following estimated time frames and reflect the anticipated timing and location of development and the likely accrual rate of contribution funds:

- Priority 1 – To be undertaken between years 1 – 5
- Priority 2 – To be undertaken between years 6 – 10
- Priority 3 – To be undertaken after year 10 (i.e. beyond the life of this plan).

These time frames are estimates only and will be influenced by market forces and the rate of development in the area. However, they provide an outline of works and priorities.

Priority 1 and 2 items can be fully funded from contributions expected during the life of this plan. Should any Priority 3 works also be required during the life of this plan, they will need to be funded in advance from other sources and the cost recouped from long term development through a subsequent contributions plan. Additional funding will need to be sought for the half share of the cost of the proposed bridge across Wolli Creek (PC5) that is not eligible for funding through section 94 contributions.

Table 14.4 - Works schedule – Pedestrian and cyclist facilities

Ref. No.	Description of proposed works	Estimated priority	Estimated timing
	Footpaths and bicycle lanes within the road network	Ongoing	Commensurate with roadworks and streetscaping
	Pedestrian and bicycle facilities within the pedestrian and bicycle network	Ongoing	Commensurate with roadworks, streetscaping and provision of pedestrian and bicycle network
PC1	Bridge over Princes Highway at Gertrude Street	2	Medium term
PC2	Pathway on top of SWSOOS aqueduct between Arncliffe Street and Princes Highway	3	Long term (1)
PC3	Underpass beneath Illawarra Railway at Cooks River	3	Long term (1)
PC4	Underpass beneath SWSOOS aqueduct between Thompson and Lusty Streets	1	Short term
PC5	Bridge across Wollie Creek to Waterworth Park	3	Long term (1)
PC6	Pedestrian and cycle path along Cooks River foreshore and link path to Arncliffe Street	1	Short term
PC9	Underpass beneath Princes Highway at Cooks River	3	Long term (1)

Notes

- (1) While the timing for the proposed provision of these facilities has been identified as long term and may not occur during the life of this plan, they have been included in the plan to ensure that they will be equitably funded by all those who will benefit from their ultimate provision, in accordance with the strategy for the Wollie Creek area outlined in Section 7.2.1.

15 Local infrastructure and facilities – Bonar Street Precinct

The Bonar Street Precinct is planned for comprehensive redevelopment as a predominantly high density residential area. It is expected that development within this precinct will form a reasonably significant component of population growth within the City of Rockdale over the next 10 years.

However, the precinct is not expected to be fully developed within the 10 year lifespan of this plan but rather is likely to take a period of between 15 and 25 years to reach its ultimate form. To facilitate the orderly and timely provision of the necessary facilities that will be required within the area when it is fully developed, or will be required to allow development to take place, a long term section 94 implementation strategy has been adopted for the Bonar Street Precinct, as outlined in Section 2.13.

Figure 6.2 shows the Bonar Street Precinct and the development sites referred to in this chapter.

15.1 Section 94 implementation strategy for the Bonar Street Precinct

This strategy identifies a wide range of local infrastructure, facilities and services that will be required within, and in the immediate vicinity of, the Bonar Street precinct. This strategy is to facilitate the orderly development of the precinct as a high quality residential locality and to meet the additional needs of the future occupants, in addition to those public facilities and services normally required to be met by all residential developments, and which are the subject of other strategies under this plan.

Many of these local infrastructure works would normally be required to be provided by individual developments as a condition of development consent, over and above their normal section 94 obligations. However, in the case of Bonar Street precinct:

- the precinct will be progressively developed as a number of separate development sites over a lengthy time period, anticipated to be in the order of 15 to 25 years, and hence beyond the 10 year lifespan of this plan, and
- some of the required infrastructure will be expensive and localised and will need to be provided by individual developers at the outset to make the precinct suitable for redevelopment (such as amplification of the trunk drainage system through the area), but these facilities will ultimately benefit all developments within the precinct.

For this reason this plan adopts a special strategy for the provision of the local infrastructure and facilities required by development in this precinct. This strategy, which is outlined in Section 2.13, will ensure the ongoing orderly provision of amenities and services within the area throughout its entire redevelopment period, guarantee that all of the facilities required to meet the needs of the precinct when it is fully developed can and will be provided progressively as development takes place and provide for these facilities to be equitably funded among the various development sites within the precinct over the time it takes the precinct to be fully redeveloped.

Because the type of local infrastructure identified in this plan is normally provided by individual developers as a condition of development consent under section 80A, Council will, when granting development consent:

- require all of the local infrastructure that is essential to the development of the particular site, as set out in the works schedule (Table 15.4), to be provided by that development as a condition of development consent under section 80A, and in addition
- apply a full section 94 contribution on the development for all of the local infrastructure facilities identified for funding under this plan.

However, Council's consent will allow any of those infrastructure facilities that are required to be provided by that development under section 80A but which are also identified for funding under this plan to be offset as works in kind against the section 94 contributions payable towards the Bonar Street Precinct local infrastructure and facilities. Subject to compliance with Section 3.4 of this plan, Council's acceptance of such works in kind will not be unreasonably denied. Any such offset will be to the value of the works, as identified in this plan (and subject to cost adjustments in accordance with Section 3.2).

Because this type of infrastructure is normally provided by individual developers as a requirement of development consent, this strategy specifies that:

- no credits will be given for the provision of any such facilities against any of the other section 94 contributions that might be payable by a development (eg. open space, town centre improvements, community facilities), except for construction of the proposed community park and the required water quality management facilities on the trunk drainage system, and
- Council will not advance funding for the provision of such facilities, which must be fully funded by the development that requires it. However Council will recover contributions under this strategy from any future developments that may occur in the precinct and will reimburse an equitable share of the initial developer's cost, if and when those future contribution funds become available. (See Section 3.7 for Council's procedures for reimbursing applicants for in-kind works.)

As the precinct is not expected to be fully developed during the lifespan of this plan, such a strategy also requires the plan to identify, cost and facilitate the staged provision of all of local infrastructure and facilities required to serve the precinct, when it is fully developed. Consequently, these facilities have all been described in this chapter and included in the works schedule. Because it is uncertain in which order sites will ultimately be developed, the plan provides a staging strategy that allows for flexibility in the provision of the facilities to best meet the needs of developments as they occur.

15.2 Key principles

15.2.1 Roads and traffic management

The redevelopment of the Bonar Street Precinct for high density residential use will necessitate improving and supplementing the existing road network within and around the precinct to facilitate appropriate access to new development sites and assist traffic circulation within the area.

Council has identified that the following road and traffic works will be required (although not all of these would be undertaken within the life of this plan):

- Provision of several new roads to serve increased development in the area
- Widening of some existing roads
- Provision of traffic management facilities, such as roundabouts and traffic signals
- Provision and management of the supply of on-street parking by appropriate signage and line marking

- Accommodation of additional alternative transport modes on roadways, such as bicycles, the provision of bus stops and bus shelters, etc.
- Provision of traffic facilities outside the Bonar Street area which are likely to be required as a direct result of redevelopment of the area, such as traffic calming in the Wollongong Road system

These transport and traffic management works are collectively essential to the acceptability of the overall development of the Bonar Street Precinct.

It is Council's view that the cost of new roads, road improvements and other traffic management works should be, as far as possible, fully funded by the developments that they serve.

The proposed new access roads that will be provided to serve individual developments sites under Council's planning controls for the area, are required to enable the development or servicing of those sites. These roads are primarily required by those developments to enable subdivision and development to be carried out. Under normal circumstances the costs of these new roads would be entirely at the developer's expense and no section 94 contribution would be required. However, because of the multiplicity of ownerships and the extended period over which development is likely to occur, it is appropriate that they be included in this contributions plan in order to allow for these new facilities to be provided and funded equitably among the various developers.

The proposed widening of a number of existing roads within the precinct are needed to facilitate appropriate traffic circulation, provide adequate on-street parking facilities and allow a level of streetscaping commensurate with the high quality residential environment intended. The provision of such works would primarily benefit the adjoining development and will therefore be required as a condition of consent under section 80A. As these road widenings are reasonably evenly distributed throughout the Bonar Street precinct and can be implemented in workable stages as each site is redeveloped, there is no reason to employ section 94 contributions to equitably share their costs among the various developers. Consequently, these road widenings have not been costed into this plan nor will section 94 credits will be allowed for them (except for the widening of Bonar Street around the perimeter of the proposed community park incidental to the construction of the park).⁶³

While the cost of constructing the new internal access roads and the widening of existing roads should be met by future development through section 94 contributions and section 80A condition, respectively, this plan recognises that the land required for such new roads and road widenings will be acquired through dedication at no cost by the transfer of development rights from the area of land to be acquired to the remainder of the development site, rather than by outright purchase and, consequently, no section 94 contributions will be levied towards the cost of such acquisitions (nor will any credit be given).

As the provision of the roads and traffic management facilities identified in this plan are collectively critical to the acceptability of redevelopment of the Bonar Street Precinct, and as there is no likelihood of alternative funding from the State government or other sources, these works must all be provided for, and fully funded by, future developments within the precinct, either as a requirement under section 80A or through section 94 contributions, even if there may be some incidental benefit to the wider community from the provision of these facilities.

Council's strategy for the Bonar Street precinct recognises that streets should be multi-purpose spaces, not just roads, and should be designed and embellished accordingly. This plan therefore also provides for streetscape improvements to the road network within Bonar Street Precinct.

⁶³ The *Environmental Planning Assessment Act 1979* provides that Council may only require land to be dedicated free of cost by way of a contributions plan and this plan provides for the land required for these road widenings to be so dedicated.

15.2.2 Car parking facilities

The comprehensive redevelopment of the Bonar Street Precinct and the scale of the development likely to occur will mean that all new developments will be able, and will be required, to provide on-site all of the parking requirements for their future residents, businesses and visitors. For this reason Council does not intend to provide any public parking facilities in this locality nor will it accept contributions in lieu of the provision of on-site parking.

Despite the requirements for new development to be fully self-sufficient in on-site parking, it is likely that new development will create additional demands on on-street car parking in the vicinity and it is appropriate that developments contribute towards the cost of upgraded on-street parking facilities.

Council's plans for the precinct propose the construction of a number of new access roads and the widening of existing roads. These new and widened roads will accommodate car parking on both sides, integrated into the streetscape design. The provision of this new or enhanced on-street car parking will require appropriate parking management facilities, such as signs and linemarking.

Similarly, the provisions in this plan requiring streetscape improvements on existing streets and on the opposite sides of streets facing the proposed developments will also require the provision of new or enhanced parking and associated traffic management facilities in these locations.

Generally, these on-street car parking facilities are to be provided by each developer as a condition of consent under section 80A, in association with any required road widening and streetscaping around the perimeter of their site. The only on-street parking facilities that are to be funded under section 94 are:

- On-street parking within the proposed new site access roads,
- On-street parking around the perimeter of the proposed community park, incidental to the construction of the park, and
- On-street parking on the opposite side of the street to proposed development sites.

15.2.3 Pedestrian and cyclist facilities

The plans for the redevelopment of this precinct propose to establish satisfactory pedestrian / cycle pathways which improve physical connections and visual links through the precinct to the surrounding areas. This will be achieved through the provision of pedestrian refuges, pedestrian phasing at the proposed signalised intersection of Wollongong Road and Firth Street, provision and upgrading of footways and a pedestrian fence on the southern side of the existing underpass.

In addition, the plans for the precinct aim to facilitate pedestrian and cycle access to the Arncliffe, Turrella and Wolli Creek railway stations, adjoining areas and local shopping centres and, to this end, will be required to contribute towards pedestrian and cycle facilities along these routes, such as linemarking, signage, kerb crossings etc. These contributions could also be used to partly fund a new pedestrian and cycle underpass beneath the Illawarra Railway Line (if the bulk of the funding for this facility becomes available for other sources).

15.2.4 Public transport facilities

The proposal for the redevelopment of this precinct encourages the use of public transport. This will be achieved through the upgrading of existing bus stops on Loftus Street, Hirst Street and Wollongong Road, including provision of shelters, seating and lighting and the dedication at no cost of any additional land required for these facilities. The locality is also well serviced by rail transport with three stations located in close proximity and contributions towards the improvement

of pedestrian and cycle access to these stations, as identified above, will also assist in achieving this objective.

15.2.5 Stormwater management and flood mitigation

Managing stormwater and protecting against flooding are essential elements in the redevelopment of this precinct. This is necessary in order to maximise public safety, protect property, enhance flood-free road access, reduce pollutant loads in stormwater discharge and conserve water. This will require trunk stormwater and floodwater improvements from Bonar Street to the Wolli Creek Redevelopment Area and the provision of a pollution control device within this upgraded trunk drainage system.

15.2.6 Open space and recreation facilities

The redevelopment of the precinct as a high quality, high density area demands a high level of open space and recreation facilities. Each development site will be required to provide ample quality recreation space for their residents. Developments may also provide additional indoor recreation facilities. These facilities are expected as a matter of course as an equivalent to private backyards and are in addition to the public open space facilities that are also required by these developments. On this basis, the provision of such private open space is not considered to be in lieu of the provision of the public open space required by the development and therefore no section 94 credits will be given for it.

The redevelopment of this precinct includes the provision of a community park and central square that will serve as the community and recreation focus for the precinct, while also being available to the local community. The plan provides for the acquisition of the land for the community park and its construction to be fully funded through section 94 contributions. However, it is intended that the central square will be constructed by the developers of the adjacent sites and dedicated to Council at no cost as public space.

As the community park will be of benefit to the wider community and will become part of the local open space network within the Arncliffe precinct, section 94 credits will be given for the construction of the community park against the local open space contributions payable, in the event that it is constructed by a developer within the precinct.

However, no credits will be given for the construction of the central square against any section 94 contributions required for external public facilities, as the square is a local facility provided primarily as a community focus for the residents of the Bonar Street precinct. Credits for the provision of the square will, however, be given against any local section 94 infrastructure contributions payable under this strategy.

While the cost of acquiring the land for the community park and of constructing the park and central square should be met by future development through section 94 contributions, this plan recognises that the land required for the square will be acquired through dedication at no cost by the transfer of development rights from the area of land to be acquired to the remainder of the development site, rather than by outright purchase and, consequently, no section 94 contributions will be levied towards the cost of its acquisition (nor will any credit be given).

15.2.7 Streetscaping

As the Bonar Street Precinct develops it is essential that improvements to the public domain, including streetscapes, be systematically provided to a high standard. Development of this area will bring in an entirely new resident population who will require a quality living environment, with high quality streetscaping to match the quality and design of the new developments, replacing the existing downgraded character of the area. It is entirely appropriate that the full cost of these new streetscapes be met by the incoming population who will benefit from them.

This plan and the development control plan for the Bonar Street Precinct (DCP No 80) both recognise that streets are not just traffic thoroughfares but are important public spaces that contribute to the quality and amenity of the precinct. These plans will provide for high quality new streetscapes and the embellishment of existing streetscapes, including widening of footpaths, quality paving and street furniture, tree planting in scale with the proposed development, (including between parking bays) and the undergrounding of services.

These plans also provides for the streetscaping on the opposite sides of the street to provided a quality outlook and setting for new development and to ameliorate the impacts of the developments on the low density residential properties facing them.

Specifically, Council has identified that the following streetscape improvements will be required throughout the area as it is progressively redeveloped:

- landscaping and embellishment of road verges, including the provision of footpaths, paving, street trees, turfing and other planting,
- new kerb and gutter,
- undergrounding of existing services, including Energy Australia and State Rail power lines and Optus cables,
- landscape embellishment of traffic islands and roundabouts, and
- provision of street furniture, such as decorative street lighting, seating, bollards, bins etc.

To ensure that the streetscaping of the Bonar Street Precinct will be carried out in a uniform and consistent manner, DCP No 80 specifies the streetscaping requirements for each existing and proposed road within the precinct. The DCP also adopts the streetscape master plan for the Wollli Creek Redevelopment Area, which provides further detail of the appropriate streetscape treatments for various types of development, the style and design of paving to be used, suitable planting species, the type and spacing of street trees and the type, design and spacing of street furniture.

All streetscaping works and facilities within the Bonar Street Precinct will be fully funded by development within the precinct, either as a condition of development consent under section 80A or by way of section 94 contributions. These works are identified in the DCP and the Wollli Creek streetscape master plan.

The streetscaping works that are to be funded under section 94 include:

- Landscaping and embellishment of street frontages of the proposed new site access roads (including footpaths, paving, street trees, turfing and other planting, street furniture and decorative street lighting),
- Landscaping and embellishment of the street frontages around the perimeter of the proposed community park, incidental to the construction of the park (including footpaths, paving, street trees, turfing and other planting, street furniture, decorative street lighting and undergrounding of existing Energy Australia cabling),
- Streetscaping on the opposite side of the street to proposed development sites (including paving, street trees, turfing, decorative street lighting and undergrounding of existing Energy Australia cabling),
- Undergrounding of the existing 33 kV State Rail power lines through the precinct along Bonar and Hirst Streets,
- Landscape embellishment of the proposed median island in Bonar Street north of Hirst Street,
- Landscape embellishment of proposed traffic roundabouts, where possible.

The streetscaping works that will be required to be provided as a condition of consent under section 80A and for which section 94 credits will not be given include:

- Landscaping and embellishment of the frontages of each development site to existing roads, including where these roads have been widened (including footpaths, paving, street trees, turfing and other planting, street furniture and decorative street lighting),
- Undergrounding of existing Energy Australia cabling adjacent to each development site.

Undergrounding of Optus cabling will be undertaken by Optus once Energy Australia cabling is placed underground, as required by Commonwealth legislation and Council's agreement with Optus.

15.3 Nexus

15.3.1 Causal nexus – What?

The redevelopment of the Bonar Street Precinct will require the provision of new and significantly improved roads and the implementation of additional traffic management facilities. The provision of these roads and traffic management facilities are critical to the acceptability of this precinct for redevelopment as a high density residential area.

The types and volumes of traffic accessing the area will alter from when the area was an industrial precinct. The heavy vehicle traffic will be replaced to a significant degree by cars accessing dwellings within the area. Buses will also use the local street network and be used by residents of the proposed development.

Crucial to the redevelopment of the area is the facilitation of access from and to the surrounding road system. This is essential to enable vehicles to access the area with greater convenience and safety without impeding the free flow of traffic on these roads and without resorting to alternative access to the area via residential back streets.

Wherever possible, the existing roadways will be used to provide the enhanced access. However, in some instances, this will need to be supplemented by new internal access roads and road widening.

Traffic accessing the area will also need to be managed in a more appropriate manner commensurate with the new function of the area. This will include the management of traffic travelling through surrounding streets to and from the precinct.

The types of traffic management facilities and supplementary road facilities that may be required to enhance the functioning of the road system could include the following:

- Traffic signals
- Roundabouts
- Footpath widenings
- Pedestrian / cycle crossings
- Line marking
- Street signs, location signs and directional signs
- Utility services relocation
- Stormwater drainage
- Traffic management measures and devices in existing residential precincts.

On-street car parking will be provided where possible to supplement that provided by individual developments. The provision of on-street parking may require the following facilities:

- Signage
- Pavement and line marking

Convenient bus access to and within the area will be facilitated by the general upgrading of the road and pedestrian network and by the provision of facilities such as bus shelters, seating and enhanced lighting and signage.

The Bonar Street Precinct is currently susceptible to flooding. However, upon its redevelopment as a high density residential area, there will be an expectation that residents and property will be adequately protected from flooding. This will require a higher standard of stormwater management to be imposed in order to adequately protect the safety of people and property within the area and to enhance flood free access to the area. Integral to the provision of a new stormwater drainage system is the requirement for water quality treatment, especially as stormwater will drain directly into Cooks River. Achieving these objectives will require the substantial upgrading of the existing trunk stormwater drain and the installation of a water quality management device (gross pollutant trap).

The redevelopment of the Bonar Street precinct will establish a completely new population. In order to reduce dependence on the motor vehicle, the development strategy for the precinct encourages a higher level of public transport patronage and the use of other transport modes. The pedestrian and cycle links and associated facilities proposed within the precinct will enhance commuter access as well as being for recreational purposes. Accordingly, it is reasonable for all of the incoming population to contribute towards the cost of these facilities. While the proposed pedestrian and cycle facilities may provide incidental benefits to the wider community, they are being provided specifically to meet the needs of future residents as part of the total transport strategy for the area.

The increase in population as a result of the redevelopment of this precinct will increase demand on existing public open space. As a consequence, development within the precinct will be required to contribute towards the full range of open space facilities required within the local area and throughout the City, as outlined in Chapter 7. To supplement this provision of local open space within the Arncliffe precinct, a community park is to be created on Bonar Street near the intersection of Knoll Avenue. The park will provide recreation facilities for the future residents of the precinct, as well as the residents of the surrounding area, and will include a children's playground, seating, landscaping and informal recreation. Adjacent to this community park a central square will be established to provide a civic meeting place and focus for the new residential precinct.

The public domain is also to be upgraded, commensurate with the expectations of a new high density residential population. Streetscapes will be improved to provide amenity for new residents, ameliorate the impact of the proposed development on adjoining low density residential areas, improve the legibility of the urban environment and ensure a safe, permeable and accessible public domain.

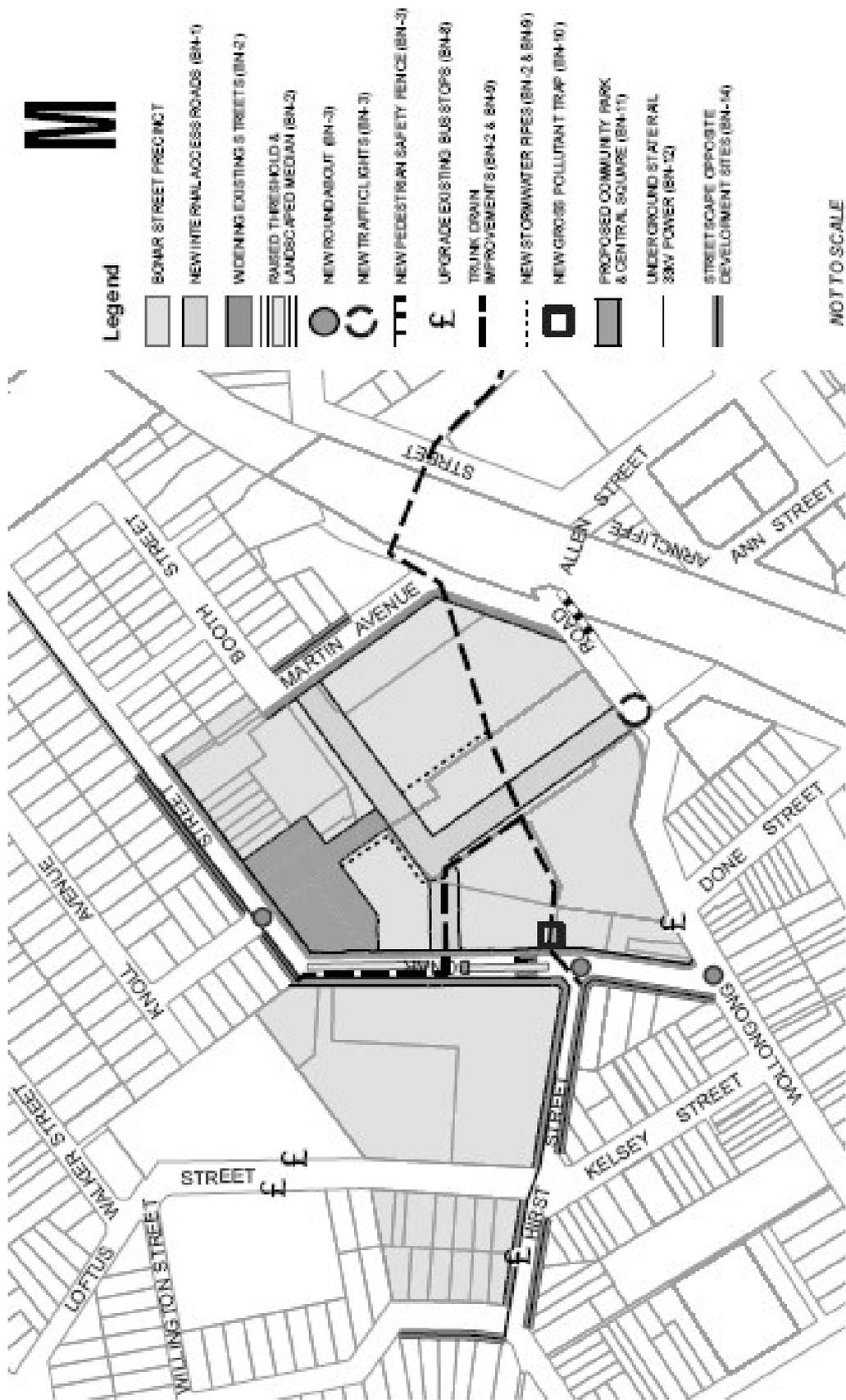
15.3.2 Physical / spatial nexus – Where?

The specific work that are required, and their locations, are described in Table 15.1 and shown in Figure 15.1.

Table 15.1 - Location and description of works – Local infrastructure and facilities – Bonar Street Precinct

Ref. No.	Location	Description of proposed works
BN-1	Block bounded by Bonar Street, Wollongong Road, Martin Avenue and Booth Street	Construct and landscape internal access roads off Bonar Street and Wollongong Road (including road design and pedestrian / cycle links) and dedicate land free of cost.
BN-2	Bonar Street, Hirst Street, Martin Avenue and Wollongong Road (between Allen Street and Martin Avenue)	Widen existing streets / carriageways, including raised threshold, stormwater pipes and landscaped medians in Bonar Street, and dedicate land free of cost.
BN-3	Wollongong Road and Bonar Street	Install roundabouts, traffic lights, intersection improvements and pedestrian islands, pedestrian crossings and safety fence.
BN-4	Wollongong Road street network	Provide traffic management facilities, such as traffic management devices and signage.
BN-5	New and existing roads within the precinct	Provide on-street parking management facilities.
BN-6	Streets within and near the precinct	Provide / upgrade pedestrian / cycle facilities linking precinct to Arncliffe and Turrella stations and to adjoining areas.
BN-8	Loftus Street, Hirst Street and Wollongong Road	Upgrade existing bus stops or provide new bus stops (lighting, seating, shelters) and dedicate land free of cost.
BN-9	Bonar Street to SWSOOS	Construct trunk stormwater / floodwater drain improvements, with provision of pipes linking Bonar Street and new internal access roads to trunk drain, including flood / drainage studies and dedication of easements free of cost.
BN-10	On trunk stormwater drain near Bonar Street	Construct water quality management device (gross pollutant trap).
BN-11	Bonar Street opposite Knoll Avenue.	Acquire land for proposed community park, demolish buildings and remediate. Design, construct and landscape community park and central square and dedicate land for central square free of cost as public space. Incidental widening and streetscaping of Bonar Street around perimeter of park.
BN-12	Bonar Street and Hirst Street	Underground existing State Rail 33kV power lines.
BN-13	Existing street within the precinct	Provide streetscaping, including undergrounding services, paving, landscaping, tree planting, lighting, street furniture, parking bays.
BN-14	Existing streets on the perimeter of the precinct opposite development sites	Provide streetscaping, including design, undergrounding services, replacing pathways, tree planting, turfing, lighting, parking bays.

Figure 15.1 – Location of local infrastructure and facilities in Bonar Street Precinct



15.3.3 Temporal nexus – When?

Redevelopment of the entire Bonar Street precinct will occur over an extended period of time as individual properties become available. The development strategy for the precinct will allow underutilised properties to be redeveloped while existing viable businesses within the precinct can continue to operate in the short and medium term. For this reason the order in which sites will be developed, and the timing of such development, cannot be predicted with complete certainty.

To mitigate any potential impacts between new and existing land uses and to meet the expectations of the new residential population, it is essential that infrastructure improvement works and other facilities are provided in a planned and co-ordinated manner, while allowing some flexibility in timing to accommodate the various staging permutations that could occur.

Critical to this is the requirement that, as each site redevelops, all necessary infrastructure improvements and amenities should be provided to support the redevelopment on that site. This may require substantial expenditure during the early stages of redevelopment of the precinct, particularly the amplification of the trunk stormwater drain. However, this plan seeks to allow the staged provision of infrastructure, wherever possible, in order to reduce the initial costs to developments, provided the necessary standards can be maintained.

To ensure that future occupants also have the necessary amenity and recreational facilities in place when they arrive, and do not have to wait until the whole precinct is developed before these amenities are provided, at least part of the community park is to be provided in the early stages of redevelopment.

It is important to note that Council cannot pre-fund or provide any infrastructure or facilities that may be required before a particular development can proceed. All such facilities must be provided by developers at their own expense. However, any money expended by a developer on any local infrastructure facilities identified and costed in this plan, over and above their calculated share of its cost, may be recovered by Council from future developments through section 94 contributions and refunded to the initial developer. (See Section 3.7 for Council's procedures for reimbursing developers.)

In addition, the provision of facilities within the precinct cannot be credited against the development's external section 94 obligations, such as town centre and streetscape improvements, pedestrian and cyclist facilities and community facilities, with the exception of credits for:

- provision of the proposed community park against the contribution towards local open space facilities within the Arncliffe precinct, and
- provision of the required water quality management facilities on the trunk drainage system against the contribution towards City-wide pollution control facilities.

The work schedule in Section 15.5 indicates the required timing for the provision of local infrastructure facilities in relation to the timing and staging of development within the precinct.

15.4 Calculation of contribution rates

The following formula has been used to determine the contribution rates for local infrastructure and facilities within the Bonar Street Precinct.

$$\text{Contribution} = \frac{\text{Estimated cost of all local infrastructure and facilities}}{\text{Estimated ultimate population}}$$

This formula does not include any allowance for alternative funding of proposed facilities, such as grants or subsidies (other than for the pedestrian / cycle underpass beneath the Illawarra Railway), as no such funding is anticipated and as the facilities required generally provide a direct benefit to private development that could reasonably be funded by that development.

15.4.1 Apportionment

As indicated previously, the provision of infrastructure and local facilities identified in this plan are critical to the comprehensive redevelopment of the Bonar Street Precinct and will benefit all development in the area and all development should therefore contribute to the cost of these facilities. However, commensurate with the lengthy timespan for full development of the area, the full funding and provision of these facilities will occur beyond the lifespan of this plan.

Therefore, in order to ensure that contribution rates will be applied equitably over the development life of the precinct between those developments that take place during the 10 year lifespan of this plan and those that occur in the longer term, and that facilities are fairly provided as and when they are needed, an apportionment will be applied in accordance with the strategy outlined in Section 2.13.

This apportionment will determine which facilities can be funded under this plan and which facilities will need to be provided for under future contributions plans and is calculated as follows:

$$\text{Apportionment} = \frac{\text{Estimated resident population at 2014} \times 100}{\text{Estimated ultimate resident population}}$$

Applying this formula and the population forecasts in Section 6.3.3, the proportion of local infrastructure and facility costs apportioned to this plan would be:

$$\begin{aligned} \text{Apportionment} &= \frac{1,367 \text{ persons} \times 100}{2,542 \text{ persons}} \\ &= 53.8\% \end{aligned}$$

15.4.2 Estimated costs

The cost of capital works has been estimated by Council on the basis of costs for similar or equivalent works and is shown in Table 15.2.

The plan includes the cost of acquiring land for the proposed community park (see Tables 7.6 and 7.18). However, the plan does not include the cost of the other land to be acquired in the precinct for the proposed central square and the proposed new roads and road widenings, (nor for the acquisition of drainage easements) as such land will be acquired through dedication free of cost by the transfer of development rights from the area of land to be acquired to the remainder of the development site, rather than by outright purchase. No section 94 contributions will therefore be levied for these acquisitions (nor will any credit be given).

Similarly, the plan does not include the costs of those works that will be required to be provided as a condition of development consent under section 80A and for which a section 94 credit will not be given (see Section 15.1). Table 15.2 identifies which facilities are to be provided solely through section 80A and which facilities are to be funded by, or may be credited against, section 94 contributions.

Table 15.2 - Estimated cost of works – Local infrastructure and facilities – Bonar Street Precinct

Ref. No.	Description	Method of provision (s.94 or s.80A) (1)	Estimated Capital Cost (s.94 costs only) (2) (3)
BN-1	Construct and landscape internal access roads (including pedestrian / cycle links through precinct to Bonar St, Wollongong Rd, Martin Av, community park)	s.94 (4)	(5) \$1,715,000
BN-2	Widen existing streets / carriageways within and around precinct (Bonar Street, Hirst Street, Martin Avenue, Wollongong Road), including raised threshold, stormwater pipes and median in Bonar Street	s.80A (4) (s.94 for pipes & median in Bonar St)	(6) \$338,000
BN-3	Traffic / pedestrian management facilities on existing roads within and around precinct (roundabouts, traffic lights, intersection improvements and pedestrian islands, crossings, safety fence)	s.94	\$760,000
BN-4	Provide additional traffic management facilities within Wollongong Road system	s.94	\$20,000
BN-5	On-street parking management facilities within the precinct	s.94 or s.80A	(7) n.a
BN-6	Provide / upgrade pedestrian / cycle links to Arncliffe and Turrella stations and to adjoining areas	s.94	(8) \$170,000
BN-8	Upgrade existing bus stops within precinct (lighting, seating, shelters)	s.94	\$40,000
BN-9	Trunk stormwater / floodwater improvements from Bonar St to the SWSOOS	s.94	(9) \$5,998,000
BN-10	Water quality management (GPT) within the proposed trunk stormwater improvement works	s.94	(10) n.a
BN-11	Community park and central square – acquire land, prepare site and construct. Widen and streetscape Bonar St around park.	s.94	(11) \$160,000
BN-12	Underground State Rail 33 kV power lines through precinct	s.94	\$1,717,000
BN-13	Streetscape existing streets within and around precinct	s.80A	(12) n.a
BN-14	Streetscaping and on-street car parking management facilities on the opposite sides of streets to development sites	s.94	\$1,556,000
Total capital cost to be funded under this and future contributions plans			\$12,474,000
Apportionment to this contributions plan			at 53.8% \$6,711,012

Notes

- (1) Section 80A items are those items that are required to be provided solely through section 80A and for which there will be no credit offered against section 94 contributions (see Section 15.1).
- (2) With the exception of the land required for the proposed community park, all land acquisitions within the precinct, including all easements, new roads and road widenings and the dedication of the central square, are required to be dedicated to Council at no cost at redevelopment stage in exchange for transfer of development rights.
- (3) Includes costs of design.
- (4) The *Environmental Planning Assessment Act 1979* provides that Council may only require land to be dedicated free of cost by way of a contributions plan and this plan provides for the land required for these new roads and road widenings to be so dedicated.
- (5) For the proposed new roads, it is assumed that land will be acquired at no cost at the redevelopment stage in exchange for transfer of development rights. There will, however, be some administrative costs involved in the acquisition process.
- (6) This is the cost of only those components of these works for which section 94 contributions will be levied (ie. the stormwater pipes and median in Bonar Street). For road widenings, it is assumed that land will be acquired at no cost at the redevelopment stage in exchange for transfer of development rights. There will, however, be some administrative costs involved in the acquisition process.
- (7) On-street traffic management facilities will be provided as part of the construction, widening and streetscaping of streets within the precinct (Items BN1, BN2, BN13 and BN14). Where these other items are to be funded through section 94 contributions, the costs of the associated traffic management facilities has been included in the costing of those items.
- (8) This could include a proportion of the cost of providing a pedestrian / cycle underpass beneath the Illawarra Railway Line. The full cost of this facility has been estimated at \$1,500,000.
- (9) Includes costs of the detailed flood / drainage studies required to design this facility (estimated at \$100,000).
- (10) Costs of the water quality management facilities within the precinct (\$233,000) have not been included here as these works will be credited against the contribution towards City-wide pollution control facilities payable under Chapter 13.
- (11) Includes the cost of constructing the central square only. The cost of acquiring and constructing the community park and the incidental road widening and streetscaping around the perimeter of the park (\$4,308,000) will be shared by all developments within the Arncliffe Planning precinct under the Open Space strategy (see Tables 7.6, 7.7, 7.18 and 7.19)
- (12) Streetscaping the existing streets adjacent to each development site will be required to be undertaken when each site is developed as a condition of development consent under section 80A.

15.4.3 Base contribution rates

The base contribution rate for local infrastructure and facilities in the Bonar Street Precinct is calculated as follows:

$$\text{Contribution} = \frac{\text{Apportioned total capital costs}}{\text{Estimated population at 2014}}$$

Applying this formula, the contribution rate per person is:

$$\begin{aligned} \text{Contribution} &= \frac{\$6,711,012}{1,367 \text{ persons}} \\ &= \$4,909.30 \text{ per person} \end{aligned}$$

Using this figure and the standard dwelling occupancy rates in Table 5.14, the contribution rates for the provision of local infrastructure and facilities within the Bonar Street Precinct have been derived and are shown in Table 15.3.

Table 15.3 – Bonar Street Precinct – Local infrastructure and facilities contribution rates

Public facility	Multi-unit development (1)			Dwelling houses (per allotment) (3)
	0-1 bedroom dwellings (2)	2 bedroom dwellings	3+ bedroom dwellings	
Local infrastructure and facilities	\$6,480.30	\$10,309.50	\$12,666.00	\$14,826.10

Notes

- (1) Includes attached and detached dual occupancies, medium density housing (villas and townhouses), residential flat buildings and the residential component of mixed use premises.
 (2) 0-1 bedroom dwellings include bedsitters and studio apartments.
 (3) Dwelling house allotments include existing parcels of land, whether or not these parcels are, or contain, separate allotments. See Footnote 8 for definition of "parcel of land".

15.5 Works schedule

The provision of infrastructure and local facilities within the Bonar Street Precinct will depend on the order in which the various sites are developed. The provision of some facilities will be essential to development and use of some sites (eg. upgraded stormwater management facilities on sites that are flood prone) and must be carried out when those sites are developed. However, wherever feasible, infrastructure may be constructed in stages as each site is developed, provided this will not compromise the required standards.

Some other facilities that are within or adjacent to development sites are best carried out in conjunction with the development of those sites while a number of other facilities that are outside the precinct may be carried out incrementally as and when section 94 funding becomes available.

Because the exact order or timing for the redevelopment of the various sites in the precinct is uncertain, this plan does not set specific priorities or timing for the provision of the various infrastructure facilities, but rather indicates which of the facilities will need to be in place at the time when each of the sites is developed. This is set out in Table 15.4 below. The table also indicates which of the facilities can and will be provided incrementally as the area develops.

This plan recognises that the circumstances surrounding the redevelopment of the precinct may change and alternative solutions may exist for the provision or staging of the required infrastructure. To this end, nothing in the works schedule prevents Council from agreeing to such alternatives, provided it is satisfied that the facilities will be provided in an appropriate and timely manner and to the required standards.

This plan also recognises that the redevelopment of the precinct will extend beyond the life of this plan. While some facilities will be required initially or will be provided incrementally throughout the life of this plan, other facilities will not be required or cannot be funded prior to 2014 and will need to be funded instead through a subsequent contributions plan.

Under this section 94 local infrastructure strategy for the Bonar Street Precinct, Council will not provide any facilities unless adequate contributions have been received to fund them. Therefore should any of the facilities need to be provided in advance of available funding, they will have to be funded by the developer, with Council reimbursing them if and when any funds are subsequently received under this or a future contributions plan.

Table 15.4 – Works schedule – Local infrastructure and facilities – Bonar Street Precinct

Ref No	Facility or Service	Timing for the provision of facilities and services in relation to the development of specific development sites						
		Site 1 1-11 Edward St, 2-12 Loftus St	Site 2 5 Loftus St, 12-40 Bonar St	Site 3 45 Bonar St	Site 4 13-43 Wollongong Rd, 43 Bonar St	Site 5 9-11 Wollongong Rd	Site 6 7 Wollongong Rd	Site 7 47-69 Bonar St, 10 Martin Ave, 27 Booth St
BN-1.1	Construct and landscape internal access road (West) (including road design and pedestrian and cycle routes) and dedicate land free of cost. (1)	Not required	Not required	Required	Required	Not required initially. (Temporary access will be allowed off Martin Ave via access road (East) until access road (West) or (South) can be completed.)	Not required initially. (Temporary access will be allowed off Martin Ave via Site 5 until access road (West) or (South) can be completed.)	Not required initially. (Temporary access will be allowed off Martin Ave via access road (East) until access road (West) or (South) can be completed.)
BN-1.2	Construct and landscape internal access road (East) (including road design and pedestrian and cycle routes) and dedicate land free of cost. Close at Martin Avenue when alternative access becomes available. (1)	Not required	Not required	Not required	Not required	Required. Temporary access permitted off Martin Ave until completion of either access road (West) or access road (South).	Not required initially. (Temporary access will be allowed off Martin Ave via Site 5 until access road (East), (West) or (South) can be completed.)	Required. Temporary access permitted off Martin Ave until completion of either access road (West) or access road (South).

Ref No	Facility or Service	Timing for the provision of facilities and services in relation to the development of specific development sites						
		Site 1 1-11 Edward St, 2-12 Loftus St	Site 2 5 Loftus St, 12-40 Bonar St	Site 3 45 Bonar St	Site 4 13-43 Wollongong Rd, 43 Bonar St	Site 5 9-11 Wollongong Rd	Site 6 7 Wollongong Rd	Site 7 47-69 Bonar St, 10 Martin Ave, 27 Booth St
BN-1.3	Construct and landscape internal access road (South) (including road design and pedestrian and cycle routes) and dedicate land free of cost. (1)	Not required	Not required	Not required	Required	Not required initially. (Temporary access will be allowed off Martin Ave via access road (East) until access road (West) or (South) can be completed.)	Not required initially. (Temporary access will be allowed off Martin Ave via Site 5 until access road (West) or (South) can be completed.)	Not required initially. (Temporary access will be allowed off Martin Ave via access road (East) until access road (West) or (South) can be completed.)
BN-2.1	Widen Bonar Street within precinct and dedicate land free of cost. (1)	Not required	Required. Widen west side adjacent to site when site is developed as a condition of consent under section 80A.	Required. Widen east side adjacent to site when site is developed as a condition of consent under section 80A.	Required. Widen east side adjacent to site when site is developed as a condition of consent under section 80A.	Not required	Not required	Required. Widen south side adjacent to site when site is developed as a condition of consent under section 80A.

Ref No	Facility or Service	Timing for the provision of facilities and services in relation to the development of specific development sites						
		Site 1 1-11 Edward St, 2-12 Loftus St	Site 2 5 Loftus St, 12-40 Bonar St	Site 3 45 Bonar St	Site 4 13-43 Wollongong Rd, 43 Bonar St	Site 5 9-11 Wollongong Rd	Site 6 7 Wollongong Rd	Site 7 47-69 Bonar St, 10 Martin Ave, 27 Booth St
BN-2.2	Raised street level / threshold and landscaped median within widened Bonar Street, including road design and stormwater pipes to drain street, existing pipes and Site 2 to trunk drain.	Not required	Required. Provide the western half of the threshold only in conjunction with widening of west side of street. Provide the landscaped median in conjunction with widening of east or west side of street, whichever occurs last. (Subject to completion of trunk drainage requirements for this site – see BN-9.1 and 9.2).	Required. Provide the entire threshold in conjunction with widening of east side of street. Provide the landscaped median in conjunction with widening of east or west side of street, whichever occurs last. (Subject to completion of trunk drainage requirements for this site – see BN-9.1 and 9.2).	Not required	Not required (except for raised street level / threshold prior to construction of Building G – see BN-9.2 – or alternative agreed mitigation measures are provided to collect overland flow at Building G).	Not required	Not required
BN-2.3	Widen other existing streets / carriageways within and around precinct (Hirst Street, Martin Avenue, Wollongong Road) and dedicate land free of cost. (1)	Widen Hirst St adjacent to site when site is developed as a condition of consent under section 80A.	Widen Hirst St adjacent to site when site is developed as a condition of consent under section 80A.	Not required	Not required	Widen Wollongong Rd and Martin Ave adjacent to site when site is developed as a condition of consent under section 80A.	Widen Wollongong Rd and Martin Ave adjacent to site when site is developed as a condition of consent under section 80A.	Widen Martin Ave adjacent to site when site is developed as a condition of consent under section 80A.
BN-3.1	The provision of a new roundabout at the Bonar Street / Wollongong Road intersection incorporating pedestrian refuge	Not required	Not required	Not required	Required	Not required	Not required	Not required

Ref No	Facility or Service	Timing for the provision of facilities and services in relation to the development of specific development sites						
		Site 1 1-11 Edward St, 2-12 Loftus St	Site 2 5 Loftus St, 12-40 Bonar St	Site 3 45 Bonar St	Site 4 13-43 Wollongong Rd, 43 Bonar St	Site 5 9-11 Wollongong Rd	Site 6 7 Wollongong Rd	Site 7 47-69 Bonar St, 10 Martin Ave, 27 Booth St
BN-3.2	The provision of a new roundabout at the Bonar Street / Hirst Street intersection	Not required	Required, after installation of trunk drainage under Bonar St (BN-9.1)	Not required	Required, after installation of trunk drainage under Bonar St (BN-9.1)	Not required	Not required	Not required
BN-3.3	The provision of a new roundabout at the Bonar Street / Knoll Avenue intersection	Not required	Not required	Not required	Not required	Not required	Not required	Required
BN-3.4	Provision of traffic signals at intersection of Wollongong Road / Firth Street / new access road (South) incorporating pedestrian phases	Not required	Not required	Not required	Required. Provide in conjunction with access road (South).	Not required	Not required	Not required
BN-3.5	Provision of a fence on the southern side of the Allen Street underpass up to the pedestrian refuge in Wollongong Road	Not required	Not required	Not required	Required	Required	Not required	Not required
BN-4	Provide additional traffic management facilities within Wollongong Road system	Staged provision as section 94 contributions accrue and additional funds become available from other sources						
BN-5	On-street parking management facilities within precinct	Provide on-street parking facilities adjacent to each site when site is developed as a condition of consent under section 80A.						
BN-6	Provide / upgrade pedestrian / cycle links to Arncliffe and Turrella stations and to adjoining areas	Staged provision as section 94 contributions accrue						
BN-8	Upgrade existing bus stops within precinct (bus shelters, seating, lighting, dedication of land free of cost)	Upgrade adjacent bus stops in Loftus and Hirst Sts when site is developed.	Upgrade adjacent bus stop in Loftus St when site is developed.	Not required	Upgrade adjacent bus stop in Wollongong Rd when site is developed.	Not required	Not required	Not required
BN-9.1	Trunk stormwater / floodwater improvements under Bonar Street, including prerequisite flood / drainage study for Bonar St / Hirst St intersection.	Not required	Required	Required	Not required	Not required	Not required	Not required

Ref No	Facility or Service	Timing for the provision of facilities and services in relation to the development of specific development sites						
		Site 1 1-11 Edward St, 2-12 Loftus St	Site 2 5 Loftus St, 12-40 Bonar St	Site 3 45 Bonar St	Site 4 13-43 Wollongong Rd, 43 Bonar St	Site 5 9-11 Wollongong Rd	Site 6 7 Wollongong Rd	Site 7 47-69 Bonar St, 10 Martin Ave, 27 Booth St
BN-9.2	Trunk stormwater / floodwater improvements downstream from Bonar Street to Wollongong Road (including prerequisite flood / drainage study and provision of stormwater pipe linking Bonar Street to trunk drain, provision of stormwater pipe to drain access road (East) and Site 7, temporary junction pit in Wollongong Road and dedication of easements free of cost).	Not required	In conjunction with implementing BN-9.1, construct upgraded culvert within Site 3 to a point immediately downstream of the outflow pipe of the pollution control device referred to in BN-10.1 and then provide a 1 in 100 year open channel to the existing pipe in Site 3. (Note: These facilities are only required at this time if access to Site 3 is provided free of charge and without delay to allow the works described above to be carried out.)	1. Complete component of works within the site. 2. Complete works through Site 4. 3. Make temporary arrangements to divert overland flows around Site 4. (unless all downstream BN-9.2 works have been completed or agreement is reached to construct a surcharge pit in Site 5.)	Complete component of works within the site.	1. Complete component of trunk drain within the site through to new temporary junction pit in Wollongong Rd. 2. Provide stormwater pipe to drain access road (East) and Site 7 and dedicate easement. 3. Before constructing Building G complete works through Site 4, at least temporary channel through Site 3 and raise street level in Bonar Street (see BN-2.2) or alternative agreed mitigation measures are provided to collect overland flow at Building G.	Complete component of works within the site through to new temporary junction pit in Wollongong Rd.	Not required

Ref No	Facility or Service	Timing for the provision of facilities and services in relation to the development of specific development sites						
		Site 1 1-11 Edward St, 2-12 Loftus St	Site 2 5 Loftus St, 12-40 Bonar St	Site 3 45 Bonar St	Site 4 13-43 Wollongong Rd, 43 Bonar St	Site 5 9-11 Wollongong Rd	Site 6 7 Wollongong Rd	Site 7 47-69 Bonar St, 10 Martin Ave, 27 Booth St
BN-9.3	Permanent junction pit in Wollongong Road and pipelines under Illawarra Railway Line to Wolli Creek Redevelopment Area (including easement over 12 Arncliffe Street).	When sufficient section 94 contributions accrue and Bonnie Doon Channel is amplified.						
BN-10.1	Pollution control device in Bonar Street at intersection of Hirst Street (including dedication of easement free of cost).	Not required	Required. Complete in conjunction with channel on Site 3 referred to in BN-9.2. (Note: This facility is only required at this time if access to Site 3 is provided free of charge and without delay to allow the works described above to be carried out.)	Required. Complete, in conjunction with trunk drainage improvements on the site.	Not required	Not required	Not required	Not required
BN-11.1	Community park – Acquire land, demolish existing buildings and remediate, provide detailed design of community park and central square and construct park (including pedestrian and cycle routes). Provide stormwater pipe to drain park to pipe linking Bonar Street to trunk drain (BN-9.2) and dedicate easement free of cost. Widen and streetscape Bonar Street around the perimeter of the park.	When sufficient section 94 contributions accrue and the land can be acquired. However, satisfactory arrangements to be in place to provide park prior to consent.	When sufficient section 94 contributions accrue and the land can be acquired. However, satisfactory arrangements to be in place to provide park prior to consent.	When sufficient section 94 contributions accrue and the land can be acquired. However, satisfactory arrangements to be in place to provide park prior to consent. Dedicate easement for stormwater pipe to drain park.	When sufficient section 94 contributions accrue and the land can be acquired. However, satisfactory arrangements to be in place to provide park prior to consent.	When sufficient section 94 contributions accrue and the land can be acquired. However, satisfactory arrangements to be in place to provide park prior to consent.	When sufficient section 94 contributions accrue and the land can be acquired. However, satisfactory arrangements to be in place to provide park prior to consent.	When sufficient section 94 contributions accrue and the land can be acquired. However, satisfactory arrangements to be in place to provide park prior to consent.

Ref No	Facility or Service	Timing for the provision of facilities and services in relation to the development of specific development sites						
		Site 1 1-11 Edward St, 2-12 Loftus St	Site 2 5 Loftus St, 12-40 Bonar St	Site 3 45 Bonar St	Site 4 13-43 Wollongong Rd, 43 Bonar St	Site 5 9-11 Wollongong Rd	Site 6 7 Wollongong Rd	Site 7 47-69 Bonar St, 10 Martin Ave, 27 Booth St
BN-11.2	Central square - Dedicate land free of cost and construct square (including pedestrian and cycle routes).	Not required	Not required	Not required	Not required	Dedicate land within Site 5. Construct square when land in Sites 5 and 7 has been provided.	Not required	Dedicate land within Site 7. Construct square when land in Sites 5 and 7 has been provided.
BN-12	Underground State Rail 33 kV power lines	Not required. Conduit to be provided in footway / road for later undergrounding (if undergrounding not already completed).	Required	Not required.	Not required	Not required	Not required	Not required. Conduit to be provided in footway for later undergrounding, as part of BN-14 works (if undergrounding not already completed).
BN-13	Streetscape existing streets within and around precinct including undergrounding services, paving, landscaping, tree planting, lighting and street furniture, parking bays.	Provide respective portion of streetscaping adjacent to each site when site is developed as a condition of consent under section 80A.						
BN-14	Streetscaping and on-street parking management facilities on the opposite sides of streets to development sites including design, undergrounding services, replacing pathways, tree planting, turfing, lighting, parking bays.	Streetscape west side of Edward St opposite site and south side of Hirst St between Edward and Kelsey Sts.	Streetscape south side of Hirst St between Kelsey and Bonar Sts.	Not required	Streetscape west side of Bonar St between Wollongong Rd and Hirst St.	Not required	Streetscape east side of Martin Ave.	Streetscape north side of Bonar St opposite site from right hand bend.

Notes

(1) This plan requires the dedication of this land at no cost to Council pursuant to section 94(1)(a) of the *Environmental Planning and Assessment Act*.

16 Plan administration and management

Council considers that the costs involved in administering section 94 are an integral component of the efficient provision of services and amenities generated by future development, and contributions are required to meet these costs to avoid putting undue pressure on those Council resources required to service the needs of the existing community. To manage this process, Council employs one full-time staff member whose principal responsibility is to plan and coordinate the implementation of the section 94 plan within the Wollli Creek Redevelopment Area and other staff members, on a part-time basis, to administer the plan throughout the rest of the City.

16.1 Objectives

The purposes of this strategy are:

- a. To ensure that the provisions of this plan are implemented in the most efficient, sustainable and cost effective manner having regard to the best information available at the time, the provisions of this plan and legal requirements.
- b. To facilitate the day to day management of this contributions plan including:
 - i. the application of appropriate development consent conditions,
 - ii the collection of contributions,
 - iii the expenditure of contributions in the manner envisaged,
 - iv the periodic review of this plan and the contribution rates, and
 - v ensuring effective project management of works being carried out by developers to ensure that the community obtains value for money.
- c. To provide for the continued maintenance of the plan from the detailed monitoring of development and income rates by locality, prioritisation of work taking into account geographic proximity to contributing developments as well as Council's financial position, expenditure and project management, constraint monitoring and timely updating for inflation and changing land values, reacting to legal precedent and the process of formal review.

16.2 Areas to which this strategy applies

The plan administration and management strategy applies separately to the following areas:

1. The Wollli Creek Redevelopment Area,
2. The Bonar Street Precinct, and
3. The remainder of the Rockdale City area (outside of the Wollli Creek Redevelopment Area and the Bonar Street Precinct).

16.3 Development and population analysis

Details of the anticipated types of development, timing of development, the environmental factors affecting demand, existing population, projected population growth and rates of growth and expected demographic characteristics are contained in Chapter 6 of this plan.

16.4 Key principles

It has been accepted practice to fund, at least in part, the costs associated with planning studies, associated research and personnel required to establish the approach to, and the ongoing administration of, a contributions plan.

The costs associated with the preparation of this section 94 contributions plan and the likely costs to Council associated with the administration of the plan, are required in order to identify:

- A comprehensive, sustainable and integrated approach to the levying of developer contributions,
- The types of public facilities required as a consequence of new development,
- The extent of the benefiting population,
- The costs of the required facilities,
- The proportion which may be “reasonably” levied as a section 94 contribution, and
- The actual contribution rates and the preparation of the implementation schedules.

The initial preparation and ongoing administration of the contributions plan requires the provision of additional resources to ensure that the plan is effective and achieves its intended purpose. These tasks and the costs incurred are outside the work normally undertaken by Council and the resources available to it. It is reasonable to seek the recoupment of these costs through this plan to ensure that Council delivers all of the required public facilities demanded by new development and to ensure that contributions are used effectively and in a timely manner.

This chapter establishes the need for further administrative procedures, the nexus with anticipated development and the calculation of the contribution rates.

16.5 Nexus

16.5.1 Causal nexus – What?

a. *Plan preparation*

Council has used its resources to commission the drafting of this contributions plan (including the various strategies prepared under the previous plan which have been incorporated in this plan) in order to ensure its effective administration and operation. The research that has been undertaken to formulate this plan relates specifically to the future demands of future growth in the City of Rockdale. Further, the section 94 contributions plan enables the levying of developer contributions needed to provide the public facilities required as a consequence of that development.

To facilitate the efficient delivery of such infrastructure, it is reasonable for the costs associated with drafting of the plan be recouped through contributions.

The costs that Council has incurred in this regard relate to the following:

- Preparation of this plan, including the review and amendment of the provisions of the previous plan which have been incorporated in this plan, and
- Initial preparation of the components of the previous contributions plan (*Rockdale Section 94 Contributions Plan 1998*) which have been incorporated in this plan and for which the costs have not been fully recovered, namely:

- ❖ The "core" plan and Strategy No. 1 - Community Services and Facilities (now Chapters 2-6 and 12 in this plan),
- ❖ Strategy 2 - Wolli Creek Redevelopment Area (Chapters 9, 11 and 14 in this plan),
- ❖ Part E - Administration and Management Strategy (Chapter 16 in this plan), and
- ❖ The commissioning of external technical advice, costings and land valuations used to prepare these strategies.

b. Administration

Council is required to manage, monitor and maintain the adopted contributions plan. The effective coordination and administration of the plan will necessitate additional work by Council that is outside of work that has previously been undertaken and beyond the resources currently available. The administrative role that Council will have to undertake includes:

- Administer the plan generally and ensure that the contributions are used to provide the public facilities for which they were intended and in a manner and time dictated by new development,
- Monitor the receipt and authorise the expenditure of contributions in respective accounts and the recoupment of the costs of facilities already provided,
- Assess the merit of land proposed to be dedicated,
- Monitor the dedication and development of land contributions,
- Recommend to Council the appropriate management and expenditure of funds in accordance with the adopted works schedules,
- Recommend to Council the appropriate interim use of dedicated land, the acquisition of appropriate land for the identified public purpose or the re-use of existing Council facilities (including land) for an alternative public purpose under the terms of the contributions plan,
- Monitor and program works identified in the works schedules,
- Regularly review the works schedules in accordance with levels of contributions received and expended and seek Council's adoption of these,
- Regularly review the contribution rates in accordance with construction costs, land cost, levels of demand, population and demographic changes and recommend to Council amendments where necessary,
- Determine the appropriate time for provision of public facilities having regard to the works schedule, the availability of funds, demand generated by development, the time funds have been held, expected additional funds, alternative and supplementary funding sources and maintenance implications,
- Monitor the implications arising from development including the demands created for additional facilities for which contributions are not currently sought, the needs of specific "one-off" developments, the costs of development and land acquisition, the extent and type of development and the effect of this on the works schedules,

- Advise Council of appropriate management, expenditure and policy implications regarding development contributions including those arising from legal decisions and State government policy making,
- Determine the extent and implications of recurrent costs and assess the implications to Council in providing for these,
- Assess whether a credit or reassessment of the contribution may be appropriate and how that may be determined,
- Review and determine the suitability of proposed works in kind and material public benefits in accordance with the objectives, key principles and works schedules of this plan,
- Prepare and make available the necessary information required by the Regulation including the contributions register (referred to in clause 34 of the Regulation), input to Council's annual financial report (referred to in clause 35 of the Regulation) and the annual statement for the contributions plans in force in the area (referred to in clause 36 of the Regulation), and
- Provide advice to applicants and the general public regarding the operation of the plan.

At present there are no spare resources at Council that are available to undertake the additional tasks outlined above or to provide for the effective administration of the plan. Further, having regard to projected work programs and activity associated with the expected development and strategic planning programs, particularly related to Wolli Creek, and, to a lesser extent, the Bonar Street Precinct, it is unlikely that such resources could become available to take on this additional role in the future. Accordingly, the administration of the plan will require the engagement of suitable persons. It is reasonable for the costs associated with administration of the plan to be progressively recouped through contributions.

It is proposed that these persons be required to have a good knowledge of development control, the property development process and project management as well as the operation of section 94 provisions. For the Wolli Creek Redevelopment Area, the position would involve a project manager 4 days per week for the next 5 years and a town planner on a full time basis for years 6 to 10.

For the Bonar Street Precinct the additional work of administering and implementing the provision of local infrastructure and facilities would involve a project manager 1 day a week for the first 5 years of the redevelopment process (years 5-9 of this plan) and a town planner on a part time basis, half a day a week for year 10.

For the remainder of the City, the position would be part time estimated at one day per week over the life of the plan.

In addition, plan administration costs identified in, and incurred under, *Rockdale Section 94 Contributions Plan 1998* and not fully recovered from contributions under that plan have been carried over to this plan.

16.5.2 Physical nexus – Where?

Physical nexus is not a relevant consideration in relation to this strategy.

16.5.3 Temporal nexus – When?

The preparation of the contributions plan and the various component strategies has been undertaken to date. The cost of these has been funded by Council through its own resources and it is reasonable for these costs to be recouped.

The engagement of additional personnel to administer the plan will be an ongoing cost for the life of this plan. Contributions towards this should be sought on a progressive basis throughout the life of the plan. The works schedules in Tables 16.1, 16.2 and 16.3 show the estimated timing for the provision of plan administration and management.

16.6 Works schedules

**Table 16.1 - Plan administration and management
- Wolli Creek Redevelopment Area - Works schedule**

Public amenity or service	Timing	Estimated capital cost
Plan preparation and administration already undertaken	Completed	\$319,020
Project manager for Wolli Creek Redevelopment Area (4 days per week for years 1-5 of plan @ \$100,000 / year)	Short term	\$400,000
Town planner to administer section 94 plan within Wolli Creek Redevelopment Area (Full time for years 6-10 of plan @ \$45,000 / year)	Medium term	\$225,000
Total		\$944,020
Less contributions carried over from previous plan		(1) -\$139,102
Total to be funded under this plan		\$804,918

Notes:

(1) Includes \$16,801 from approved developments that is yet to be paid.

**Table 16.2 - Plan administration and management
- Bonar Street Precinct - Works schedule**

Public amenity or service	Timing	Estimated capital cost
Project Manager for Bonar Street Precinct (1 day per week for years 5-9 of plan @ \$100,000 / year)	Medium term	\$100,000
Town Planner to administer section 94 plan within the Bonar Street Precinct (0.5 days per week for year 10 of Plan @ \$45,000 / year)	Medium term	\$4,500
Total to be funded under this plan		\$104,500

**Table 16.3 - Plan administration and management
- Remainder of City - Works schedule**

Public amenity or service	Timing	Estimated capital cost
Plan preparation and administration already undertaken	Completed	\$180,000
Town planner to administer section 94 plan within remainder of City (1 day per week for life of plan @ \$45,000 / year)	2004/14	\$90,000
Total		\$270,000
Less contributions carried over from previous plan		- \$131,745
Total to be funded under this plan		\$138,255

16.7 Calculation of contribution rates

The general formula for calculating contribution rates for plan administration and management is:

$$\text{Contribution rate} = \frac{\text{Cost of plan preparation} + \text{Cost of plan administration}}{\text{Cost of facilities and services to be funded under the plan}}$$

This formula recognises that levying contributions for plan administration as a proportion of the total contributions otherwise payable by a development is the most reasonable and equitable methodology, as the relative costs of preparing and administering the plan are generally proportional to the size of the contribution levied and the resultant contribution rate would reflect the developer's relative ability to pay.

a. **Contribution rate for Wollie Creek Redevelopment Area**

Based on the principles established by the formula above, the contribution rate for plan administration and management by development in the Wollie Creek Redevelopment Area is:

$$\frac{\text{Costs of plan preparation and administration apportioned to Wollie Creek}}{\text{Cost of facilities and services to be funded by development in Wollie Creek}}$$

$$= \frac{\$804,918}{\$39,156,182}$$

$$= \mathbf{2.0557 \text{ cents for each dollar}}$$
 of other section 94 contributions levied

b. **Contribution rate for Bonar Street Precinct local infrastructure**

Based on the principles established by the formula above, the contribution rate for plan administration and management by development in the Bonar Street Precinct is:

$$\frac{\text{Costs of plan preparation and administration apportioned to precinct}}{\text{Cost of local infrastructure and facilities to be funded by development in precinct}}$$

$$= \frac{\$104,500}{\$6,711,012}$$

$$= \mathbf{1.5571 \text{ cents for each dollar}}$$
 of local infrastructure and facilities contributions levied

This contribution will apply in addition to the contribution for plan administration and management payable for other facilities by development in this precinct. This rate is identified in (c) below.

c. **Contribution rate for remainder of City**

The contribution rate for plan administration and management by development in the remainder of the City is:

$$\frac{\text{Costs of plan preparation and administration apportioned to remainder of City}}{\text{Cost of facilities and services to be funded by development in remainder of City}}$$

$$= \frac{\$138,255}{\$24,950,887}$$

$$= \mathbf{0.5541 \text{ cents for each dollar}}$$
 of other section 94 contributions levied.

Schedule 1 – Standard section 94 development consent condition

In accordance with section 94EC(1) of the *Environmental Planning and Assessment Act* and Section 3.8 of this plan, accredited certifiers must impose the following condition on complying development certificates where the development involves the creation of one or more additional dwelling:⁶⁴

A Section 94 contribution of \$###⁽¹⁾ shall be paid to Council. Such contributions are only used towards the provision or improvement of the amenities and services identified below. The amount to be paid is adjusted at the time of payment, in accordance with the contribution rates contained in Council's current Adopted Fees and Charges. The contribution is to be paid prior to the issue of a construction certificate for any works above the floor level of the ground floor. (Payment of the contribution is not required prior to any separate construction certificates issued only for site preparation works and the construction of basement levels.) The contribution is calculated from Council's adopted Section 94 contributions plan in the following manner:

Open Space	(2) \$###
Community Services & Facilities	(2) \$###
Town Centre & Streetscape Improvements	(2) \$###
Pollution Control	(2) \$###
Plan Administration & Management	(2) \$###

Copies of Council's Section 94 Contribution Plans may be inspected at Council's Customer Service Centre, Administration Building, 2 Bryant Street, Rockdale.

Notes

- (1) Insert the total amount of all contributions itemised below.
- (2) Insert the amount of the relevant contribution using the calculation methodology identified in Section 3.3 of this plan and based on the current contribution rates set out in Council's *Adopted Fees and Charges*. For applications lodged on and from 16 July 2009 the applicable contribution rates are those applying under Rockdale Section 94 Contributions Plan 2004 (Amendment 4).

An accredited certifier must not impose this condition until Council, as the consent authority, has certified that the contribution has been calculated correctly in accordance with this plan.

⁶⁴ Except where development to which the certificate relates is exempted from payment of the contribution by a direction of the Minister under section 94E of the Act or a development contribution has already been paid in relation to the allotment on which development will be erected.

Supporting material

The following list identifies reports, documents and studies that have been used for researching and preparing *Rockdale Section 94 Contributions Plan 2004*:

Australian Bureau of Statistics, *Community Profile – Rockdale Local Government Area*, prepared for Rockdale City Council (March 1994)

Australian Bureau of Statistics, *2001 Community Profile – Rockdale Local Government Area*, prepared for Rockdale City Council (May 2003)

Australian Bureau of Statistics, *Consumer Price Index, Australia* (March 2004)

Australian Bureau of Statistics, *Preliminary Local Government Area (LGA) Populations and Revised Median Ages* (30 June 2002)

Australian Bureau of Statistics, *Retail Industry Survey* (1998-99)

Australian Bureau of Statistics, *Rockdale Local Government Area, 1996 Community Profile*, prepared for Rockdale City Council (1999)

Clouston Pty Limited, *Rockdale Open Space Study*, prepared for Rockdale City Council (1998)

Clouston Pty Limited, *Wolli Creek Streetscape Masterplan: Landscape Design Manual*, prepared for Rockdale City Council (April 2002)

Colston Budd Hunt & Twiney Pty Ltd (1992), *Rockdale Municipality Commercial Centres Study*, prepared for Rockdale Municipal Council (1992)

DEM Gillespies, *North Arncliffe Master Plan*, report to Rockdale City Council (May 2001)

Department of Planning, *Employment Monitoring of Commercial Centres and Industrial Areas* (December 1991)

Department of Planning, *Outdoor Recreation and Open Space – Planning Guidelines for Local Government*, prepared for Department of Planning by Manidis Roberts (1992)

Department of Urban Affairs and Planning, *Urban Development Program*, NSW Government (1999)

Department of Urban Affairs and Planning, *Section 94 Contributions Plans Manual*, Second Edition (June 1997)

Department of Urban Affairs and Planning, *Population Projections, Metropolitan Regions* (1995)

Devine Erby Mazlin, *North Arncliffe Local Environmental Study*, prepared for Rockdale Council (July 1994)

DJA Maunsell, *North Arncliffe Interchange Study*, Final Report, prepared for City Rail Planning and Development and the Department of Transport (May 1997)

Don Fox Planning, *Rockdale Section 94 Contributions Plan: Car Parking Strategy*, prepared for Rockdale City Council (November 2001)

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