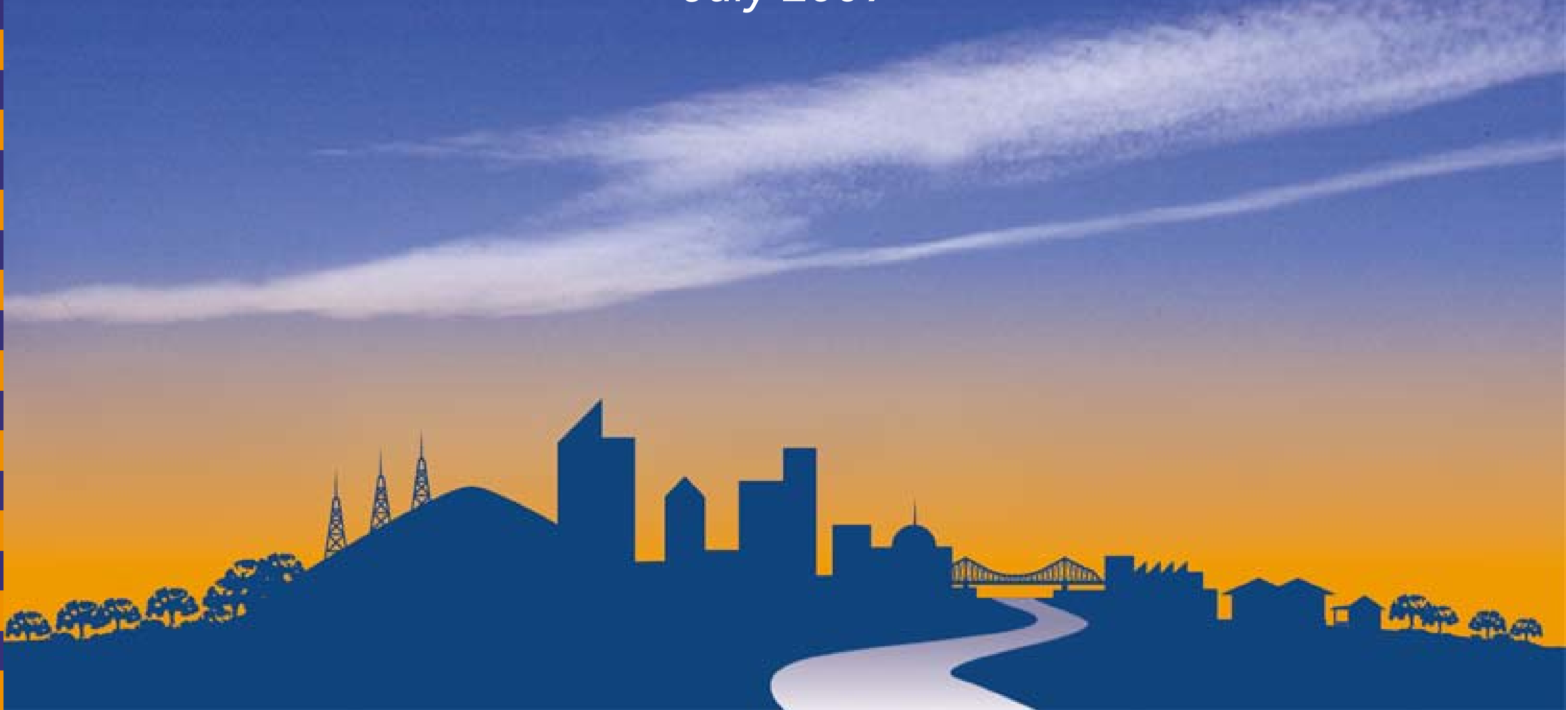
BRISBANE CITY PLAN 2000

INFILL WATERWAYS INFRASTRUCTURE CONTRIBUTIONS PLANNING SCHEME POLICY

July 2009



BRISBANE CITY

Dedicated to a better Brisbane

TABLE OF CONTENTS

1. INTRODUCTION ... 3
1.1 PURPOSE ... 3
1.2 AUTHORISING LEGISLATION ... 3
1.3 DEFINITION OF TRUNK INFRASTRUCTURE ... 4
1.4 OVERVIEW OF WATERWAYS INFRASTRUCTURE IN BRISBANE ... 5
1.5 FORECASTS OF DEVELOPMENT & COST IMPACT ASSESSMENT ... 6
1.6 DESIRED STANDARDS OF SERVICE ... 7
1.7 INFRASTRUCTURE CONTRIBUTION TRIGGERS ... 7
1.8 OVERVIEW OF CALCULATING INFRASTRUCTURE CONTRIBUTIONS ... 7
1.9 CONDITIONING OF INFRASTRUCTURE CONTRIBUTIONS ... 8
1.10 PAYMENT OF INFRASTRUCTURE CONTRIBUTIONS ... 8
1.11 FINANCIAL IMPACT OF INFRASTRUCTURE CONTRIBUTIONS ... 9

2 SUMMARY OF INFRASTRUCTURE CONTRIBUTIONS ... 10
2.1 THE VALUE OF AN ICU ... 10
2.2 APPLICATION OF PLANNED MINIMUM DENSITY ... 10
2.3 CALCULATION OF CONTRIBUTIONS ... 11
2.4 INFRASTRUCTURE CREDITS AND OFFSETS ... 14
2.5 CALCULATION TABLES ... 15

3 METHODOLOGY FOR DEVELOPING THIS PSP ... 18

4 DEVELOPMENT FORECASTS AND PLANNING ASSUMPTIONS ... 19
4.1 INTRODUCTION ... 19
4.2 EQUIVALENT PERSON FORECASTS ... 20
4.3 POPULATION PROJECTIONS ... 21
4.4 NON-RESIDENTIAL FORECASTS ... 22
4.5 SUMMARY OF TABLES OF FORECASTS ... 25

5 DESIRED STANDARDS OF SERVICE ... 29

6 EXISTING AND FUTURE INFRASTRUCTURE ... 33
6.1 EXISTING INFRASTRUCTURE ... 33
6.2 THE BASIS OF FUTURE PLANNING ... 33
6.3 SCHEDULES OF WORKS ... 34
6.4 DEVELOPMENT AND WATERWAYS EXTERNAL TO THE INFILL PSP ... 35

7 COST APPORTIONMENT ... 36
7.1 ESTABLISHMENT COSTS AND VALUATION OF INFRASTRUCTURE ... 36
7.2 OTHER ITEMS INCLUDED IN TRUNK INFRASTRUCTURE ... 36
7.3 ACCOUNTING FOR THE TIME VALUE OF MONEY ... 36
7.4 NON PAYING USERS ... 36
7.5 GRANTS AND SUBSIDIES ... 37
7.6 MEASURE OF DEVELOPMENT AND DEMAND FOR WATERWAYS INFRASTRUCTURE ... 37
7.7 WATERWAYS INFRASTRUCTURE COST APPORTIONMENT ... 37
7.8 HOW CONTRIBUTIONS ARE EXPRESSED ... 38

BIBLIOGRAPHY ... 39

MAP 1: INFRASTRUCTURE CONTRIBUTION AREAS 41
APPENDIX A CONTRIBUTION METHODOLOGY 42
APPENDIX B PLANNED TRUNK INFRASTRUCTURE 43

LIST OF TABLES

Table 1.1 Compliance to Section 6.1.20 of the Integrated Planning Act 1997 4
Table 1.2 Waterways Trunk Infrastructure Included in this PSP 4
Table 2.1: Planned Minimum Density Application Matrix 10
Table 2.2 Waterways Infrastructure Contributions and Credits 15
Table 2.3: Waterways Planned Minimum Density, Assessable Impervious Area and Creditable Impervious Area 16
Table 4.1 Summaries by SLA of Residential and Non-Residential EP Forecasts 26
Table 4.2 Summaries by SLA of Non-Residential GFA and Associated Employment Forecasts 27
Table 7.1 Cost and Valuation of Waterways Infrastructure 36
Table 7.2 Percentage Impervious for Development Classifications 37

ACRONYMS

PSP	Planning Scheme Policy
ICUs	Infrastructure Contribution Units
LSMP	Local Stormwater Management Plan
PFTI	Plan for Trunk Infrastructure
SMP	Stormwater Management Plan
SQIDS	Stormwater Quality Improvement Devices
QUBM	Queensland Urban Drainage Manual

1. INTRODUCTION

The Waterways Infrastructure Contributions Planning Scheme Policy (PSP) outlines the general approach to infrastructure planning and contributions for the waterways network for Brisbane.

This PSP is to be read in conjunction with:
(a) IPA Section 6.1.20 (Planning Scheme Policies for Infrastructure).
(b) IPA Section 6.1.31 (Conditions about Infrastructure for Applications).
(c) Brisbane City Plan 2000.
(d) All adopted Infill and High Growth PSPs.

This PSP does not apply –
a. Where an infrastructure contributions planning scheme policy which deals with infrastructure contributions in respect of trunk waterways infrastructure has been adopted.
b. Where a legally binding agreement exists between Brisbane City Council and the applicant that deals with trunk waterways infrastructure in respect of the land to which the waterways applies.

1.1 PURPOSE

The *Integrated Planning Act 1997* requires integration of land use and infrastructure planning that allows infrastructure to be supplied in a coordinated, efficient and orderly manner. Infrastructure coordination encourages development in areas where infrastructure already exists or can be efficiently provided and has a major influence on achieving sustainable development.

Infrastructure contributions in general urban areas of the City will usually be addressed by way of the low growth PSPs which are also referred to as Infill PSPs. Development in these areas is, by its nature, fragmented. In consequence, the definition of the networks, and forecasting of variations in network capacity and usage will necessarily be less accurate than would be the case in more consolidated growth locations.

1.2 AUTHORISING LEGISLATION

This PSP is made pursuant to IPA Section 6.1.20.

IPA allows for the imposition of conditions on development approvals requiring contribution of land, works or money towards the cost of supplying infrastructure in accordance with planning scheme policies, until 30 June 2009 or if the Minister, by gazette notice, nominates a later day for the planning scheme—the later day. Infill and High Growth Infrastructure Contributions Planning Scheme Policy 1 to 14 identify the infrastructure contribution mechanisms for transport, community purposes, water supply, sewerage and waterways for High Growth and Infill Areas throughout the City.

Pursuant to Section 6.1.20 (2) this policy states each of the following –

Table 1.1 Compliance to Section 6.1.20 of the Integrated Planning Act 1997

Requirement	Reference
A contribution for each development infrastructure network identified in the policy	Section 2
The estimated proportion of the establishment cost of each network to be funded by the contribution	Section 7
When it is estimated the infrastructure forming part of the network will be provided	Appendix B
The estimated establishment cost of the infrastructure	Appendices A & B
Each area in which the contribution applies	Map 1
Each type of use or lot for which the contribution applies	Table 2.2
How the contribution must be calculated for each area in which the contribution applies and each type of use or lot for which the contribution applies	Section 2

1.3 DEFINITION OF TRUNK INFRASTRUCTURE

IPA differentiates between trunk and non trunk infrastructure. Trunk infrastructure is the infrastructure for which Council will levy infrastructure contributions under this PSP.

1.3.1 The Definition of Non Trunk Infrastructure

Non trunk infrastructure is development infrastructure that is not trunk infrastructure.

1.3.2 The Definition of Trunk Infrastructure

Trunk infrastructure is higher order development infrastructure supplied by the local government or State infrastructure provider and primarily intended to provide network distribution and collection functions or provide services shared by a number of developments.

The Waterways PSP addresses trunk stormwater/waterways infrastructure. The Waterways network contains two integrated systems of:

- Water quantity infrastructure, and
- Water quality infrastructure.

The infrastructure generally included is land and the construction works for trunk stormwater quantity and quality infrastructure. Table 1-2 identifies the typical range of infrastructure items generally covered by the PSP.

Table 1.2 Waterways Trunk Infrastructure Included in this PSP

Waterways Network	Trunk Infrastructure Items Included
Water Quantity Infrastructure System	Land for natural and engineered waterways corridors required to be in public ownership. Relief drainage pipes over 900mm diameter and associated manholes. Regional water detention structures and outlets. Overland flow paths. Bridges and culvert crossings. Non return valves.
Water Quality Infrastructure System	Land and works for Regional wetlands. Works associated with bank stabilisation and vegetation. Stormwater Quality Improvement Devices (SQIDS).

1.4 OVERVIEW OF WATERWAYS INFRASTRUCTURE IN BRISBANE

1.4.1 Catchments and Contribution Areas

Analysis of waterways infrastructure has been undertaken at the major creek catchment level. There are 23 major creek catchments across the Infill Area of the City of Brisbane and these are identified in Map 1. The Waterways PSP therefore addresses contributions and requirements for waterways infrastructure for these areas, whether they are within or outside the urban footprint.

The area covered by the Lake Manchester Local Area Plan, including the residential communities of Karana Downs and Mt Crosby are excluded form the Waterways PSP area as low levels of growth are planned.

For the purposes of this PSP, the following areas are treated as Infrastructure Agreement areas in which Waterways PSP contributions under this policy do not apply:

- Oxley Wedge,
- Forest Lake IA master planned community area.

1.4.2 Plans for Trunk Infrastructure

Plans for trunk infrastructure are defined for each of the 23 major creek catchments. This PSP may include the infrastructure identified in a High Growth PSP where this infrastructure is used by development outside the High Growth Area.

1.4.3 Relationship with High Growth PSPs

The Infill PSP is fully compatible with the infrastructure requirements and contributions defined in Council's individual High Growth PSPs to the extent that infrastructure and development in these areas have been fully taken into account in preparing the Infill PSP contributions.

High Growth PSPs themselves contain additional sub-catchments and contribution areas which apply in place of the Infill PSP contributions. High Growth PSP contributions apply in High Growth Areas and are removed from the Infill PSP and appear as gaps in the Infill PSP. To determine the appropriate charge refer to the relevant PSP:

- Inner North Eastern Suburbs PSP,
- Bulimba PSP,
- Fig Tree Pocket PSP,
- ATC South PSP,
- Doolandella PSP,
- Richlands PSP,
- Calamvale PSP,
- Wakerley PSP,
- Wynnum West PSP,
- Rochedale PSP,
- West End Riverside PSP,
- Albion PSP.

1.4.4 Relationship with Stormwater Management Plans (SMPs) and Local Stormwater Management Plans (LSMPs)

SMPs, LSMPs and other highly localised flood studies that respond to known flooding problems also provide a set of analysis areas in which future infrastructure has been identified. These areas and their respective development and infrastructure have also been taken into account in developing the infill contributions.

Sub-catchments used in LSMPs create a further set small area analyses that create additional contributions areas which are identified within the structure of the major creek catchments and are also shown in Map 1.

The adopted structure of contributions areas is therefore a composite of major creek catchments, the adopted sub-catchments in a High Growth PSP and LSMP boundaries and are summarised in Map 1.

1.4.5 Items Excluded from Infrastructure Contributions Planning Scheme Policy

In addition to paying an infrastructure contribution, developers must also demonstrate that all infrastructure requirements have been satisfied.

Non-trunk infrastructure will be conditioned as part of this development approval process in addition to conditions arising from this policy, for the purposes of:

- Waterways infrastructure internal to the premises.
- Connecting the premises to the external waterways network.
- Protecting or maintaining the safety or operational efficiency of which the non trunk infrastructure is a component.

In certain circumstances, a development may need special types of infrastructure, which were not considered in the PSP. For example, industrial development may require grease traps to prevent pollutants from escaping into local waterways.

In addition, a development that increases run-off from the natural run-off condition or from the existing approved levels or concentrates the form of run-off from overland flow conditions will be conditioned to identify a lawful point of discharge.

A development may also require temporary work if the regional infrastructure has not yet been constructed. This is most likely to occur when the proposed development is outside the assumed sequence of development. Many of these items can be removed once the regional infrastructure has been provided. For example, a local detention pond may be required where a regional corridor has not yet been acquired. The site of the local detention basin could be developed for other purposes once the corridor has been acquired and associated work undertaken.

This work is attributable to the development and is over and above the infrastructure contribution defined through a PSP. The cost of these types of infrastructure will not be offset against the contributions set in the PSP.

1.5 FORECASTS OF DEVELOPMENT & COST IMPACT ASSESSMENT

The time horizon for the PSPs extends to 2016. Infrastructure required beyond this horizon may also be included in the plans for infrastructure, particularly for major infrastructure items if development occurring now will use, or benefit, from such infrastructure, in the future. The forecasts of development are detailed in Section 4.

Assumptions have been made about the likely sequence of development and the staging of infrastructure. Contributions are based upon these assumptions. Development that is inconsistent with the type, scale, location and timing of development as set out in the City Plan is considered to be inconsistent with the planning assumptions underlying the infrastructure contributions and will be subject to cost impact assessments. If development does not achieve the planned densities as set out in the City Plan, the infrastructure contributions will still be assessed in accordance with planned densities.

1.6 DESIRED STANDARDS OF SERVICE

The desired standard of service (DSS) is detailed within Section 5. The DSS sets a benchmark for the standard of performance or service to be provided. The DSS are characterised by two types of criteria:

- Planning criteria which define the form or shape of the network; and
- Design criteria which define the nature, scale or size of items in the network.

Planning criteria determine the preferred form and function of the network in question. Design criteria are used to define the detailed specification of individual items in a network. They are usually drawn from State or Commonwealth legislation, technical guidelines/standards and Council policy.

Important considerations to note in the development of DSS for each individual infrastructure network include:

- A network designed to the DSS may not necessarily be the lowest cost solution;
- The DSS might not be attained throughout the development period. In most cases they represent the long-term, rather than minimum, design requirement; and
- Current standards are greater than when many existing urban areas were established. In these circumstances, it should not be implied that Council will seek to achieve the DSS for each network.

The DSS for the Infill Area of Brisbane additionally provides the minimum standards for the high growth areas of the City. In some high growth areas the DSS is further detailed in the PSP as these areas have been subjected to more detailed planning and would normally have infrastructure items planned that contribute to the DSS. Some high growth areas located in historically older suburbs are unable to achieve the DSS due to factors such as the constraints of topography or a lack of space. In this case an alternative standard will be developed.

1.7 INFRASTRUCTURE CONTRIBUTION TRIGGERS

Infrastructure contributions for trunk infrastructure arising from:

- Reconfiguring a Lot,
- A Material Change of Use,
- A combined reconfiguring and material change of use,
- A building application,
- Any other assessable development that increases the demand for trunk infrastructure.
- Preliminary approval to which IPA Section 3.1.6 (Preliminary Approval may Override Local Planning Instrument) applies; where the development which is the subject of the preliminary approval is stated to be self assessable development.

1.8 OVERVIEW OF CALCULATING INFRASTRUCTURE CONTRIBUTIONS

The infrastructure contributions for waterways infrastructure network are expressed in infrastructure contribution units (ICUs). The summary contribution table and the calculation formulae are included in Section 2.

1.8.1 Measures of Development and Demand for Network Capacity

Land use is defined in terms of development units. In established areas, these units are dwellings in the case of residential development and gross floor area in the case of non-residential development. In greenfield areas development units are developable hectares for both residential and non-residential development. Development units are converted into units of demand for specific infrastructure networks by using a land use and network specific conversion rate.

By expressing demand in relative terms across land uses, a range of different uses can have their demand defined through a single index, the Unit of Demand. In established areas, this relative unit of demand is the Equivalent Tenement or ET, and is the consumption of capacity of a network by one low-density dwelling. In greenfield areas Equivalent Hectare or EH, and is the consumption of the capacity of a network by one developable hectare of low-density residential development. The relationship is expressed in the following equation:

Units of Demand (ETs or EHs) = (conversion rate) x No. of Development Units.

The demand measure relevant for this PSP is stipulated in relevant parts of the document.

1.8.2 Infrastructure Credits

An infrastructure credit represents the value of infrastructure contributions or payments imputed to have previously been made over the site by:

- Any existing lawful use(s) that exists or existed on the land which is the subject of an infrastructure contribution assessment, at the time the assessment (or the application being lodged with Council) is made, where a contribution has been made which accords with the requirement for the relevant network.
- A self assessable residential use on that land permitted at the time of the assessment.

Existing lawful development will be credited at infrastructure credits specified and expressed as ICUs.

1.8.3 Infrastructure Offsets

An offset may be allowed where a developer will undertake trunk infrastructure works that are part of the PSP. The amount of this offset is to be determined by Council, deducted from the calculated infrastructure contributions and expressed as ICUs.

A development may be conditioned or agreement reached (via an Infrastructure Agreement) to supply certain items of trunk infrastructure as part of a development. In such instances, the value of that infrastructure identified in the relevant PSP will be offset against the contribution for the relevant network. For example, where Council has approved the construction of works or dedication of land in fee simple, the value of these works or land will be offset against the assessed infrastructure contribution where an agreement is reached with Council to do this.

1.9 CONDITIONING OF INFRASTRUCTURE CONTRIBUTIONS

IPA allows for the imposition of conditions on development approvals requiring contribution of land, works or money towards the cost of supplying infrastructure in accordance with IPA Section 6.1.31(c).

1.10 PAYMENT OF INFRASTRUCTURE CONTRIBUTIONS

1.10.1 Timing of Payment

The infrastructure contributions must be paid as follows:

a. Reconfiguration of a lot – before Council approves the plan of subdivision.
b. Building application – before the certification of classification for the building work is issued.
c. Material change of use – before the change happens.

If a), b) and c) do not apply – as stated in the development approval.

1.10.2 Methods of Payment

Monetary payment can by paid by cash, credit card, EFTPOS or cheque at Council Customer Service Centres.

1.10.3 Infrastructure Agreements

Infrastructure Agreements (IAs) is an agreement about payment for, or supply of, infrastructure. Council may consider entering into an IA in certain situations, for example to:

a) Vary the amount, the timing or the form of payment of an infrastructure contribution (e.g. to allow the applicant to supply works or land in lieu of part or all of the contribution).
b) Provide the terms on which a refund would be provided.

IAs may be used in High Growth or Infill Areas when future growth is associated with a single or limited number of developers and the planning for infrastructure, costing and cost apportionment can be clearly associated with the development in question.

1.11 FINANCIAL IMPACT OF INFRASTRUCTURE CONTRIBUTIONS

Council is currently largely supplying the type of infrastructure identified in the PSPs across the city. At the present time developer contributions may not reflect the true cost of this infrastructure and in some cases contributions are limited only to water, sewer and parkland. The introduction of a city wide charging scheme will apply contributions for the five infrastructure networks to all development across the city ensuring that appropriate contributions are made toward trunk infrastructure provision. Adoption of infrastructure contributions for infill areas will help to alleviate Council's financial burden of providing service infrastructure.

2 SUMMARY OF INFRASTRUCTURE CONTRIBUTIONS

Calculation of waterways infrastructure contributions with applicable credits and offsets are to be calculated in accordance with Section 2.1 – Section 2.4 inclusive.

2.1 THE VALUE OF AN ICU

The value of an ICU will be indexed on an annual basis applying increases for the prior calendar year to the Australian Bureau of Statistics 6427.0 Producer Price Indexes, Australia, Index Number 4121, Road & Bridge Construction Queensland. The value of an ICU for the 2009/2010 financial year is $1.84.

2.2 APPLICATION OF PLANNED MINIMUM DENSITY

Planned minimum density will be used to calculate the minimum charges payable in certain circumstances. The charge is based on the proposed development density or planned minimum density, which ever is the greater. The relevant circumstances are outlined in Table 2.1 below.

Table 2.1: Planned Minimum Density Application Matrix

	RoL	MCU
Residential Development	Yes	Yes
Non-Residential Development	Yes	Yes
Non-Residential Development - Extension to an Existing Building	N/A	No

2.3 CALCULATION OF CONTRIBUTIONS

An infrastructure contribution for waterways is calculated in accordance with the following formula for all assessable development that generates a demand for trunk stormwater infrastructure. Contribution areas are defined in Map 1.

Waterways Infrastructure Contribution ($)	=	***Assessable Impervious Area (Impervious Ha)***	***X***	***Catchment Contribution Rate (ICUs per Impervious Ha)***	***X***	***Value of an ICU ($)***

1. Identify the assessable impervious area (Impervious Ha) of the proposed development using Step 1 & Step 1.1 below.
2. Identify the catchment contribution rate (ICUs per Impervious Ha) by identifying which catchment the development is proposed using Step 2 below.
3. Multiply by the value of an ICU.
4. An infrastructure credit for waterways is calculated in accordance with the following formula if a credit is available (Section 2.4 below).

Waterways Infrastructure Credit ($)	=	***CR Creditable Impervious Area (Impervious Ha)***	***X***	***Catchment Credit Rate (ICUs per Impervious Ha)***	***X***	***Value of an ICU ($)***

5. The infrastructure credit is deducted from the infrastructure charge.

Total Waterways Infrastructure Contribution	=	***Waterways Infrastructure Contribution***	–	***Waterways Infrastructure Credit)***

Step 1 Determine Assessable Impervious Area

The **assessable impervious area** expressed in impervious hectares is determined as follows:

Material Change of Use

Where full details of development are provided in the application including redevelopment/extension to existing lawful uses. Where full details of development are not provided in the application, planned minimum impervious area of the site will be used to calculate waterways infrastructure charges.

Actual Impervious Area

The proposed impervious area of the development, measured in hectares (Ha), calculated according to Step 1.1 (below)

OR

Planned Minimum Impervious Area

Impervious Area = developable site area x impervious percentage of site (from Table 2.3, Column 5)

Planned minimum densities as outlined in Table 2.3 must be used to calculate a minimum charge. Where a larger impervious area is proposed, the larger impervious area will be used for the purposes of calculation.

Reconfiguration of a Lot

Residential

Where reconfiguring a lot in the EC, LDR or LMR, MR and HR Areas classification, or any other application

Where proposed lot is 2500m^2 or less

Impervious Area = developable site area **x** impervious percentage of site (from Table 2.3, Column 5),

Where proposed lot is greater than 2500m^2 (management lot)

Impervious Area = number of proposed lots **x** 0.041 Impervious Ha

Non-Residential

Where reconfiguring a lot other than EC, LDR or LMR, MR and HR Areas, or creating a management lot.

Where proposed lot is 1000m^2 or greater

Impervious Area = number of proposed lots **x** 0.09 Impervious Ha (from Table 2.3, Column 4),

Where proposed lot is less than 1000m^2

Impervious Area = developable site area **x** impervious percentage of site (from Table 2.3, Column 5)

Where extending or redeveloping an existing lawful use and no previous contributions have been made a contribution is required for the total extension:

- Where the proposed extension of impervious area replaces an existing lawful impervious area, resulting in no net increase of impervious area, then no waterways contribution is required.

- Where the proposed extension of impervious area exceeds an existing lawful impervious area then the contribution is calculated over the area exceeding the existing lawful impervious area.

Step 1.1 Calculating the Proposed and Existing Impervious Areas

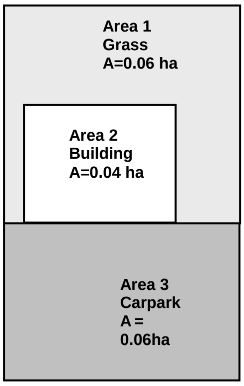
The impervious area is the total area of **impervious** surfaces that contribute to stormwater runoff from a site.

There are two methods of calculating the Impervious Area of a site in hectares (Ha):

Method 1: Take the total site area and subtract the area of any gardens, grass or green area.

Method 2: Add up all areas within the site that represent Impervious Area, such as buildings, sheds, patios, driveways, etc.

Example: Calculating Assessable Impervious Area



<u>Method 1</u>

A = Total site area - Area 1

= 0.16ha - 0.06 ha

= 0.1ha

<u>Method 2</u>

A = Area 2 + Area 3

= 0.04ha + 0.06ha

= 0.1ha

Step 2 Identify the Catchment Contribution Rate

Determine the catchment within which the site is located (see Map 1).

Identify the corresponding catchment contribution rate from Table 2.2.

2.4 INFRASTRUCTURE CREDITS AND OFFSETS

2.4.1 Infrastructure Credits

Infrastructure credits and offsets will be expressed in infrastructure charge units (ICUs).

Infrastructure credits apply where:

- there is an existing lawful use;
- a previous payment was made under the planning scheme policy; and/or
- an applicant can prove previous contributions have been paid.

For a vacant lot in EC, LDR or LMR, MR and HR area classifications or a management lot which never paid infrastructure contributions under the previous charge scheme:

Credit **=** Creditable impervious area per lot (Table 2.3) X corresponding catchment credit rate (Table 2.2)

OR

For a vacant lot in non-residential City Plan area classification which is 1000m^2 or greater in other area classifications which never paid infrastructure contributions under the previous charge scheme:

Credit **=** Creditable Impervious area per lot (Table 2.3) X corresponding catchment credit rate (Table 2.2)

OR

For a vacant lot which is less than 1000m^2 in other area classifications which never paid infrastructure charges under the previous charge scheme:

Credit **=** Creditable impervious area (20% of site area) x corresponding catchment credit rate (Table 2.2)

OR

Where extending or redeveloping an existing lawful use and no previous contributions have been made the credit is irrelevant, as contribution will be based on the extension or the area exceeding the existing lawful impervious area.

The amount of the credit will not exceed the amount of the contributions payable. Infrastructure credits are contained Table 2.2. No refunds are available in respect of credit.

2.4.2 Infrastructure Offsets

An offset may be allowed where a developer will undertake trunk infrastructure works that are part of the PSP. The amount of this offset is to be determined by Council, deducted from the calculated infrastructure contributions and expressed as ICUs.

2.5 CALCULATION TABLES

The waterways infrastructure contributions and credits are identified in Table 2.2.

Table 2.2 Waterways Infrastructure Contributions and Credits

	PSP Catchment	Infrastructure Contributions (ICUs/Impervious Developable Ha)	Infrastructure Credits (ICUs/ Impervious Developable Ha)
1	Cabbage Tree	83,928	83,928
2	Nundah Downfall	82,022	82,022
3	Kedron	123,936	123,936
3a	Kedron LSMP	141,360	141,360
4	Pullen Pullen	103,725	103,725
5	Bulimba	55,472	55,472
6	Wynnum	49,046	49,046
7	Tingalpa	28,711	28,711
8	Scrubby	41,886	41,886
9	Lota	18,904	18,904
10	Norman Creek	123,036	123,036
10a	Norman Creek LSMP	36,003	36,003
11	Cubberla	54,815	54,815
12	Farm	42,812	42,812
13	Wolston	21,301	21,301
14	Oxley	52,958	52,958
15	Toowong	50,542	50,542
15a	Toowong LSMP	79,042	79,042
16	BBnePrec3	69,533	69,533
16a	BBnePrec3 LSMP	97,240	97,240
17	ATCN	33,376	33,376
17a	ATCN LSMP	88,053	88,053
18	Moggill	55,520	55,520
19	Breakfast Creek	90,230	90,230
19a	Breakfast Creek LSMP	124,253	124,253
20	Perrin	71,587	71,587
20a	Perrin LSMP	217,692	217,692
21	Witton	45,642	45,642
21a	Witton LSMP	156,354	156,354
22	Sandgate	25,491	25,491
23	Bbne Prec1	86,909	86,909

Table 2.3: Waterways Planned Minimum Density, Assessable Impervious Area and Creditable Impervious Area

Col 1		Col 2	Col 3	Col 4	Col 5	Col 6
			Planned Minimum Density			Credit for Existing Lawful Use if Actual Impervious Area is Unknown
			Material Change of Use		Reconfiguration of a Lot	
City Plan Area Classification	City Plan Code	Unit of Development	Density (per Developable Ha)	Impervious Percentage of Site	Impervious Area (per Lot)	Impervious Area (per Lot)
Vacant Lot		Lot or site area (Ha)	Not applicable	Not applicable	0.041 Ha	0.041 Ha
Conservation Area	CN	Lot or site area (Ha)	Not applicable	20%	0.06 Ha	0.06 Ha
Parkland Area	PK	Lot or site area (Ha)	Not applicable	20%	0.06 Ha	0.06 Ha
Sport and Recreation Area	SR	Lot or site area (Ha)	Not applicable	20%	0.06 Ha	0.06 Ha
Environmental Protection Area	EP	Lot or site area (Ha)	Not applicable	20%	0.06 Ha	0.06 Ha
Rural Area	RU	Lot or site area (Ha)	5 dwellings	25%	0.05 Ha	0.05 Ha
Emerging Community Area	EC	Lot or site area (Ha)	12 dwellings	50%	0.041 Ha	0.041 Ha
Low Density Residential Area	LR	Lot or site area (Ha)	12 dwellings	50%	0.041 Ha	0.041 Ha
Character Residential Area	CR	Lot or site area (Ha)	18 dwellings	65%	0.036 Ha	0.036 Ha
Low-medium Density Residential Area	LMR	Lot or site area (Ha)	18 dwellings	65%	0.036 Ha	0.036 Ha
Medium Density Residential Area	MR	Lot or site area (Ha)	All densities	85%	0.068 Ha	0.068 Ha
High Density Residential Area	HR	Lot or site area (Ha)	All densities	85%	0.068 Ha	0.068 Ha
Light Industry Area	LI	Lot or site area (Ha)	Not applicable	90%	0.09 Ha	0.09 Ha
General Industry Area	GI	Lot or site area (Ha)	Not applicable	90%	0.09 Ha	0.09 Ha
Heavy Industry Area	HI	Lot or site area (Ha)	Not applicable	90%	0.09 Ha	0.09 Ha
Extractive Industry Area	EI	Lot or site area (Ha)	Not applicable	90%	0.09 Ha	0.09 Ha
Future Industry Area	FI	Lot or site area (Ha)	Not applicable	90%	0.09 Ha	0.09 Ha
Multi-purpose Centre (City Centre)	MP1	Lot or site area (Ha)	Not applicable	90%	0.07 Ha	0.07 Ha
Multi-purpose Centre (Major Centre)	MP2	Lot or site area (Ha)	Not applicable	90%	0.07 Ha	0.07 Ha
Multi-purpose Centre (Suburban Centre)	MP3	Lot or site area (Ha)	Not applicable	90%	0.07 Ha	0.07 Ha
Multi-purpose Centre (Convenience Centre)	MP4	Lot or site area (Ha)	Not applicable	90%	0.07 Ha	0.07 Ha
Special Purpose Centre (Major hospitals and medical facility)	SP1	Lot or site area (Ha)	Not applicable	80%	0.08 Ha	0.08 Ha
Special Purpose Centre (Major educational and research facility)	SP2	Lot or site area (Ha)	Not applicable	65%	0.065 Ha	0.065 Ha
Special Purpose Centre (Major defence and communications facility)	SP3	Lot or site area (Ha)	Not applicable	90%	0.09 Ha	0.09 Ha
Special Purpose Centre (Major sporting studium)	SP4	Lot or site area (Ha)	Not applicable	65%	0.065 Ha	0.065 Ha
Special Purpose Centre (Entertainment centre)	SP5	Lot or site area (Ha)	Not applicable	90%	0.09 Ha	0.09 Ha
Special Purpose Centre (Airport)	SP6	Lot or site area (Ha)	Not applicable	90%	0.09 Ha	0.09 Ha
Special Purpose Centre (Port)	SP7	Lot or site area (Ha)	Not applicable	90%	0.09 Ha	0.09 Ha
Special Purpose Centre (Major residential institution)	SP8	Lot or site area (Ha)	Not applicable	90%	0.09 Ha	0.09 Ha
Special Purpose Centre (Correctional centre)	SP9	Lot or site area (Ha)	Not applicable	90%	0.09 Ha	0.09 Ha

Special Purpose Centre (The Brisbane Market)	SP10	Lot or site area (Ha)	Not applicable	90%	0.09 Ha	0.09 Ha
Special Purpose Centre (Vehicle sales and service)	SP11	Lot or site area (Ha)	Not applicable	90%	0.09 Ha	0.09 Ha
Special Purpose Centre (Mixed industry and business)	SP12	Lot or site area (Ha)	Not applicable	90%	0.09 Ha	0.09 Ha
Special Purpose Centre (Office park)	SP13	Lot or site area (Ha)	Not applicable	80%	0.08 Ha	0.08 Ha
Special Purpose Centre (Cottage industry and retail)	SP14	Lot or site area (Ha)	Not applicable	90%	0.09 Ha	0.09 Ha
Special Purpose Centre (Marina)	SP15	Lot or site area (Ha)	Not applicable	65%	0.065 Ha	0.065 Ha
Special Purpose Centre (South Bank)	SP16	Lot or site area (Ha)	Not applicable	80%	0.08 Ha	0.08 Ha
Community Use Area (Cemetery)	CU1	Lot or site area (Ha)	Not applicable	20%	0.06 Ha	0.06 Ha
Community Use Area (Community facilities)	CU2	Lot or site area (Ha)	Not applicable	20%	0.06 Ha	0.06 Ha
Community Use Area (Crematorium)	CU3	Lot or site area (Ha)	Not applicable	20%	0.06 Ha	0.06 Ha
Community Use Area (Education purposes)	CU4	Lot or site area (Ha)	Not applicable	20%	0.06 Ha	0.06 Ha
Community Use Area (Emergency services)	CU5	Lot or site area (Ha)	Not applicable	20%	0.06 Ha	0.06 Ha
Community Use Area (Health care purposes)	CU6	Lot or site area (Ha)	Not applicable	20%	0.06 Ha	0.06 Ha
Community Use Area (Railway activities)	CU7	Lot or site area (Ha)	Not applicable	20%	0.06 Ha	0.06 Ha
Community Use Area (Utility installation)	CU8	Lot or site area (Ha)	Not applicable	20%	0.06 Ha	0.06 Ha

3 METHODOLOGY FOR DEVELOPING THIS PSP

The essence of this planning scheme policy is to address the water quantity and quality infrastructure as two mutually exclusive components of the waterways network; and for each to:

- Define and value the 'replacement' cost of existing publicly owned waterways infrastructure within the adopted structure of catchments, excluding any land acquired before 1 January 1990 or acquired crown land.
- Apportion the replacement cost of existing infrastructure over the potential Planning Scheme provisions of the catchment to define a contribution for 'existing' infrastructure.
- Identify the future infrastructure in those parts of the adopted creek catchments in which master planning for future infrastructure has been undertaken.
- Apportion this marginal extra cost to the total future Planning Scheme development potential in the area of the catchment that has been master planned, to define a contribution for 'future' infrastructure.

In addition to the above developments will be conditioned to define a lawful point of discharge having regard to ensuring no adverse impact or disbenefit to all owners (private and public) of waterways infrastructure as far as the receiving waters.

In locations where the lawful point of discharge is not the receiving waters, development may also be conditioned to:

- Detain flows on site so that the peak or existing approved peak flows (in the case of privately owned infrastructure) in the outfall system to the receiving waters are not exceeded, and
- Nominate a release strategy that does not exceed peak network capacity or existing approved peak flows in privately owned infrastructure and can be demonstrated not to cause an adverse impact on any existing users, or
- Demonstrate approval from all downstream owners to the receiving waters to the resulting new flow regime.

4 DEVELOPMENT FORECASTS AND PLANNING ASSUMPTIONS

4.1 INTRODUCTION

4.1.1 Context

Relationship to SEQ Regional Plan and Local Growth Management Strategy

The projections put forward in this document do not accord with the SEQ Regional Plan (SEQRP) which has set higher growth targets than previously envisaged by Brisbane City Council.

The projections in this document were prepared prior to the SEQRP being completed and were subsequently used to undertake detailed infrastructure planning which was largely completed prior to the SEQRP being finalised. Because of the detailed technical analysis and processes required to develop infrastructure plans the timeframes for the completion of projections through to finalisation of infrastructure contributions has taken a number of years.

In response to the SEQRP Council has been required to prepare a Local Growth Management Strategy which addresses the requirements of the regional plan including accommodation of additional growth. Because the LGMS will require the accommodation of additional growth, both population and employment, the demands on infrastructure will be increased.

Following the approval of the LGMS by Council and State Government a revised set of development projections will be able to be prepared and revised infrastructure planning undertaken. At that time this policy will be revised to reflect the revised figures.

4.1.2 Purpose

This section explains the forecasts of future population and non-residential floor space used in the preparation of the Infill PSPs. The forecasts have supported the planning and design of infrastructure networks and the calculation of infrastructure contributions. Council does not support use of the forecasts for any other purpose.

4.1.3 Area Covered

The forecasts have been completed for the whole of Brisbane City Local Government Area (LGA), except for the Statistical Local Area (SLA) of Karana Downs-Lake Manchester (see Figure 4.3).

4.1.4 Overview of Forecasts

Providing the foundation for all forecasts were the equivalent person (EP) estimates and forecasts. These are explained in Section 4.2. Created initially by Brisbane Water for the purpose of water supply and sewerage master planning, the EP forecasts provided a consistent basis for planning all infrastructure networks. The base spatial unit used for the EP forecasts was City Plan polygons, which are generally a single City block, i.e. an area of developed or developable land bounded by streets. This base unit enabled aggregation of the forecasts as required to suit the various catchments of the different infrastructure networks.

The EP forecasts were calibrated against population projections by SLA prepared by the Department of Local Government and Planning (DLGP). Those projections are explained in Section 4.3.

The EP forecasts also provided the starting point for estimates of non-residential gross floor area (GFA) and associated employment, which are calibrated against other GFA and employment estimates. The methods used to generate the estimates of GFA and associated employment are explained in Section 4.4.

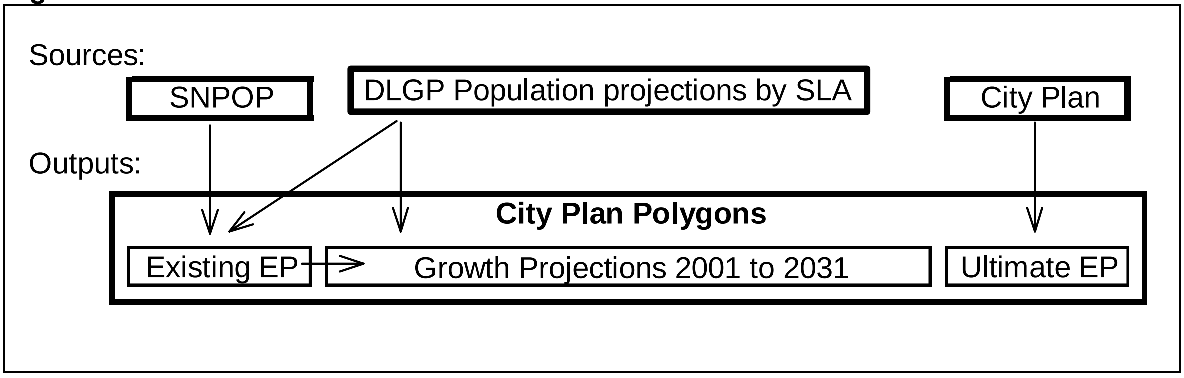
Section 4.5 includes a summary of the forecasts and projections by SLA. Individual Infill PSPs related to each infrastructure network explain how the forecasts have subsequently been used in that context.

4.2 EQUIVALENT PERSON FORECASTS

4.2.1 Overview of Method

Figure 4.1 provides a graphical overview of the derivation of the equivalent person (EP) forecasts.

Figure 4.1 - Structure of EP Forecasts



The following broad steps were taken in deriving the EP forecasts, which relate to the City Plan polygons as they existed in 2001:

- Brisbane Water's SNPOP (Sewerage Catchment Areas Estimation Program or Sewerage Network Population Program) was used to estimate the existing (2001) EP, split into residential and non-residential.
- The assumed ultimate EPs by polygon were estimated having regard to the relevant provisions of the City Plan as at 2001 and emerging policy changes at that time.
- The existing and ultimate residential EPs by polygon were calibrated against the DLGP population estimates and projections by SLA (see Section 4.5) and adjustments made to bring the EPs and DLGP estimates/projections into alignment.
- The growth pattern from the existing EPs to 2031 was determined, based primarily on the DLGP projections.

These broad steps are explained in more detail in the following respective Sections. A summary by SLA of the resulting EP forecasts is included in Table 4.1.

4.2.2 Estimates of Existing EPs using SNPOP

SNPOP extracted data from various BCC databases and manipulated it to calculate EPs for each property in Brisbane at the time the program was run. This data was aggregated to the City Plan polygon level and classified into residential and non-residential according to land use and City Plan area classification.

The residential EPs were derived using average occupancy rates in the relevant Collection District (CD) as at the 1996 Census. Separate rates were used for detached and attached dwellings.

The non-residential EPs were calculated as a fraction of average water usage, depending on land use, with the domestic or pedestal allowance assigned separately to the trade waste EPs.

4.2.3 Estimates of Ultimate EPs based on City Plan

The estimates of ultimate EPs had regard to the theoretical development potential under the City Plan, [including area classifications and Local Plans (LPs)], and policy changes emerging in 2001. However, the ultimate EPs did not generally assume the maximum theoretical potential density. They took account of the prospects of reaching that density across all properties given the density of existing uses and historical patterns of development. This was supported by an analysis of achieved densities by City Plan area classification. For some polygons the existing EPs were assumed to be carried forward as the ultimate EPs, because they exceeded expected future densities based on this analysis.

4.2.4 Calibration of Estimates using DLGP Projections

The existing residential EPs, aggregated to the SLA level, were calibrated against the DLGP estimates, by SLA, of the existing (2001) population. The existing residential EPs at the polygon level were adjusted to match the DLGP population estimates in the following ways:

- Where the total EP by SLA was less than the DLGP estimate, the difference was assumed to be existing rural residential uses, i.e. areas without sewerage. The difference was therefore apportioned by land area to all City Plan polygons, within the SLA, with the following area classifications: Rural, Emerging Communities or Environmental Protection
- Where the total EP by SLA was greater than the DLGP estimate, for all polygons in the SLA the EPs were reduced proportionally to match the DLGP totals by SLA.

Where the ultimate residential EPs, aggregated to the SLA level, were lower than the DLGP projections to 2031, the ultimate EPs and DLGP projections were generally brought into alignment. However, in most SLAs the ultimate EPs exceeded the projections.

4.2.5 Determination of Growth Pattern 2001-2031

The growth pattern over time of the residential EPs, by polygon, was derived from the DLGP projections for the relevant SLA. The EP growth from 2001 to 2031 was allocated evenly until the ultimate EP of each polygon was reached.

For the non-residential EPs, a growth pattern similar to nearby residential was assumed. Overall there is projected to be a declining growth rate over time.

4.3 POPULATION PROJECTIONS

In July 2001 DLGP prepared population estimates for 2001 and projections to 2031, at five-yearly intervals, by SLA in Brisbane City.

The projections to 2021 were undertaken using the Queensland Small Area Projection Model (QSAM). This is the standard method used in Queensland for the preparation of projections for components of LGAs. In broad terms, QSAM allocates LGA-wide projections to SLAs based on past trends, land availability and identified major redevelopment projects. QSAM projects the number of dwellings, split into detached and attached, and converts those to population using assumed occupancy rates.

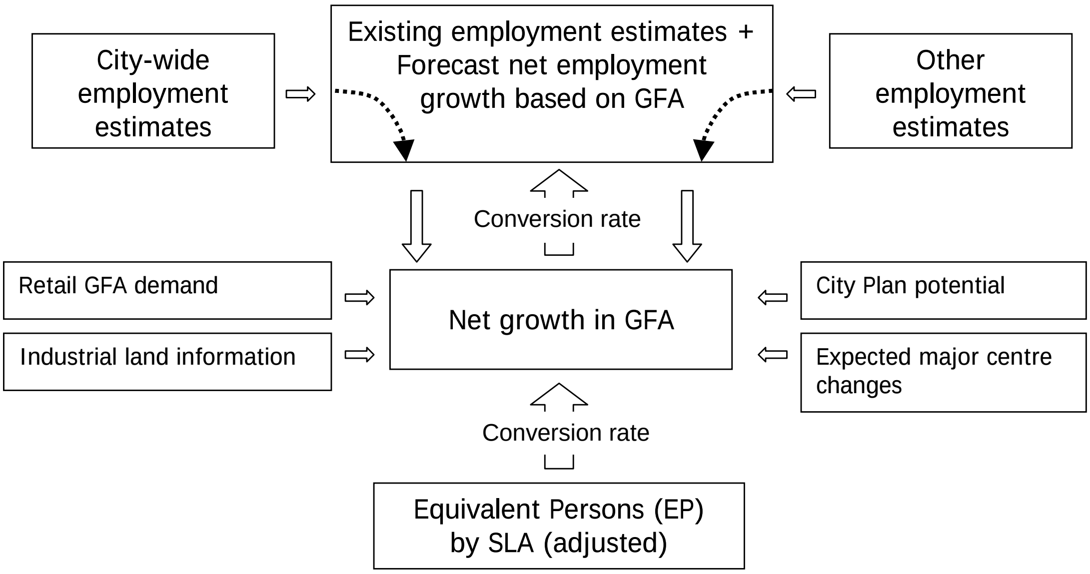
The projections for 2026 and 2031 were largely trend projections based on the rate of growth up to 2021.

4.4 NON-RESIDENTIAL FORECASTS

4.4.1 Overview of Method

Figure 4.2 illustrates the method used to derive and calibrate the projections of GFA and associated employment that were prepared to support infrastructure planning and contributions associated with the Infill PSPs.

Figure 4.2 - Summary of Determination of Non-Residential GFA and Employment



The following broad steps were taken in deriving the GFA and employment estimates and forecasts, from the EP forecasts, and calibrating them against other available estimates and projections:

- The non-residential EP forecasts were adjusted by removing large trade waste components and to reflect actual development patterns rather than estimates based on high sewerage generating activities.
- The non-residential EP forecasts were allocated to different development categories, i.e. industrial, retail, commercial and miscellaneous, and converted to GFA based on determined conversion rates.
- The GFA estimates derived from the EP forecasts were compared to other estimates of potential future GFA and some adjustments made.
- An estimate was made of existing (2001) employment by SLA based on a combination of sources, including conversion of existing GFA estimates to employment, the Workplace Health and Safety Register, the 1996 and 2001 Censuses and BCC's transport model (1999).
- Net employment growth was calculated from the GFA estimates, using the determined conversion rates, and then added to the estimate of existing (2001) employment to generate forecasts for employment by SLA to 2021.
- The employment forecasts by SLA were compared to an alternative estimate of potential employment City-wide to 2021, and other available projections by SLA, and also considered in the context of broader employment projections and trends and investment targets, resulting in some adjustments to the forecasts by SLA.

These steps are explained in more detail in the following respective Sections. A summary by SLA of the resulting GFA and employment forecasts is included in Table 4.2. Limitations of the forecasts include:

- They assume constant rates over time for GFA per employee and vacancy.

- They do not recognise the effect of any home business growth.

4.4.2 Adjustment of Non-Residential EP Forecasts

The non-residential EP forecasts were reduced by removing large trade waste components not reflected in existing GFA. Otherwise the GFA estimates (see Section 4.4.3) would have been distorted.

The EP forecasts for industrial areas were also reduced to better reflect actual development patterns rather than service standards that assumed high sewerage generating activities. This adjustment was informed by the rate used for conversion of EPs to GFA (see Section 4.4.3) versus the EP generation rate assumed by Brisbane Water.

4.4.3 Conversion of EP forecasts to GFA by SLA

To enable conversion of the EP forecasts to GFA the non-residential EPs were first allocated to different development categories, i.e. industrial, retail, commercial and miscellaneous. This allocation was based on City Plan area classifications.

The conversion rates from EPs to GFA were determined based on analyses of the infrastructure demand generated from different land uses, having regard to the EP forecasts, SNPOP and other sources (including Queensland Department of Business, Industry and Regional Development, 1992; Property Council of Australia, 2000a; Street Ryan, 1999). Each City Plan polygon was allocated a conversion category, but the conversions to GFA used a single conversion category for each development category in each SLA, based on the categories of all component polygons. The conversion category for each polygon was based on the City Plan area classification, the proportion of industrial land identified as available, whether located in the Australia Trade Coast and the existing (2001) EP density.

The conversion rates from EPs to GFA were only finalised after completion of the employment estimates explained in Sections 4.4.5 and 4.4.6 and adjustments to the GFA and employment estimates arising from the calibrations explained in Sections 4.4.4 and 4.4.7.

4.4.4 Calibration of GFA Estimates

The GFA estimates based on conversion of EPs were compared to other estimates of GFA, for particular development categories, and some adjustments made. Those other estimates of GFA included the following:

- Potential industrial GFA growth based on an assessment of the potential under City Plan given assumptions about the existing scale of development derived primarily from BCC’s industrial land survey database (BCC, 2001).
- Retail GFA growth estimated based on the expected growth in household expenditure, as informed by various consultants’ reports (Winter Consulting, 2001; Core Economics, 2001; John Larcombe and Associates, 2000). This was calculated using the DLGP dwelling projections by SLA (see Section 4.3) and identified retail expenditure per household. That expenditure was converted into an increase in GFA that was assumed required to service the increased expenditure. The estimated GFA increases were allocated to relevant centres at each level in the hierarchy.
- Future growth of commercial and retail GFA within the City Centre and major centres determined based on the advice of local planning officers with specific knowledge of individual centres and additional site specific information sourced from various reports (including CB Richard Ellis, 2002a, 2002b; PRD Nationwide Research 2002a, 2002b; Property Council of Australia, 2000b, 2001; Jones Lang LeSalle, 2002).

Revisions of the GFA estimates for the miscellaneous development category were informed by the employment forecasts and adjustments made to those forecasts (see Section 4.4.7).

4.4.5 Estimate of Existing Employment by SLA

Two initial estimates were made of existing (2001) employment by SLA, as follows:

- Estimates of existing (2001) GFA, as derived from the EP forecasts, were converted to employees based on assumed conversion rates of GFA per employee, those rates being different for different floor space types.
- Existing employment was derived through adjustment of the Department of Employment, Workplace Relations and Small Business' Workplace Health and Safety Register (March 2001). Adjustments were made based on the Working Population data from the 1996 Census and employment inputs to BCC's transport model (1999).

The final estimates of existing employment by SLA were determined from the above two estimates, and preliminary working population estimates from the 2001 Census, in the following way:

- If the two estimates yielded similar figures the higher figure was used.
- Where the two methods yielded significantly different figures the 2001 Census figures were used to select the most appropriate figure.
- Where the two estimates could not be reconciled with the 2001 Census estimate the Census estimate itself was used.

4.4.6 Calculation of Employment by SLA

Net employment growth by SLA was calculated by converting the GFA estimates (see Section 4.4.3) using assumed conversion rates of GFA per employee, as for the existing employment (see Section 4.4.5). This net employment growth was then added to the existing employment to create employment forecasts by SLA to 2021 (at five-yearly intervals).

4.4.7 Calibration of Employment Forecasts

The employment forecasts by SLA were calibrated and reviewed in the following ways:

- An estimate was made of City-wide employment to 2021 (at five-yearly intervals) based on the DLGP population forecasts and ABS labour market statistics and unemployment rates. The working age population (15-65) was determined at each forecast date and that population multiplied by a participation rate to determine the number of people in the workforce. From this workforce the assumed unemployed population was removed, leaving the number of persons employed. Constant rates were assumed over the projection period for the rate of import/export of workers to and from Brisbane City and the Brisbane Statistical Division. The resulting estimates consistently exceeded, by about 5% or less, the City-wide totals reported in Table 4.2.

- The forecasts were compared to the following alternative projections by SLA:
  ~ Projections completed as part of the Brisbane 2011 plan (BCC, 1996).
  ~ Inputs to the Brisbane transport model (1999).
  Comparisons were made in terms of the projected employment as well as the employment growth and proportion of growth. These projections were used as a guide to highlight possible errors. They were particularly useful to check the employment growth related to the miscellaneous development category (see Section 4.4.3).

- Forecasts of employment growth across the south-east Queensland region have been prepared by DLGP as part of regional planning work. At the time of preparation of the employment forecasts those regional forecasts were not available by SLA, but by industrial classification across the region. BCC worked closely with DLGP to align the employment forecasts with those regional forecasts. As a result, the estimated employment growth relating to industrial areas in the outer sector was reduced.

- A review was made of recent employment trends using Census information, to ensure general economic changes were reflected in the employment forecasts.

- The forecasts were guided by and reviewed against the Investment Targets of the Economic Development Strategy (BCC, 1999).

4.5 SUMMARY OF TABLES OF FORECASTS

Tables 4.1 and 4.2, respectively, include:

- Summaries by SLA of the residential and non-residential EP forecasts - 2001, 2006, 2011, 2016, 2021, 2026, 2031 and ultimate EPs
- Summaries by SLA of non-residential GFA and associated employment forecasts - 2001, 2006, 2011, 2016 and 2021.

Table 4.1 Summary of EP forecasts by SLA, 2001-2031 and Ultimate																		
			Residential EPs								Non-residential EPs							
SLA Name	SLA Code	2000 ERP	2001	2006	2011	2016	2021	2026	2031	Ultimate	2001	2006	2011	2016	2021	2026	2031	Ultimate
Acacia Ridge	1001	6674	6,832	7,091	7,352	7,585	7,584	7,632	7,659	7,704	4,573	6,782	8,563	9,721	10,416	10,833	11,093	11,811
Albion	1004	2337	2,378	2,382	2,394	2,393	2,412	2,491	2,537	2,619	1,479	1,566	1,626	1,660	1,682	1,697	1,709	1,756
Alderley	1007	4921	4,949	5,024	5,112	5,190	5,275	5,275	5,275	5,287	319	402	451	477	492	500	505	518
Algester	1012	7412	7,486	8,143	8,487	8,991	10,125	10,125	10,125	11,135	265	284	302	312	321	330	340	407
Annerley	1015	8859	8,906	9,008	9,102	9,175	9,259	9,831	10,173	10,252	659	710	742	763	776	784	791	816
Anstead	1018	1080	1,093	1,171	1,244	1,302	1,348	1,385	1,406	1,406	0	2	3	6	9	12	14	26
Archerfield	1023	609	612	623	626	635	649	649	649	732	2,962	3,722	4,323	4,761	5,063	5,263	5,393	5,740
Ascot	1026	4885	4,909	4,925	4,937	4,931	4,950	4,950	4,950	5,065	756	815	866	884	892	897	899	904
Ashgrove	1031	11466	11,507	11,559	11,558	11,472	11,401	11,401	11,401	11,930	1,128	1,170	1,195	1,215	1,232	1,249	1,264	1,344
Aspley	1034	11386	11,455	11,776	12,020	12,186	12,506	13,025	13,329	14,140	1,648	1,873	2,019	2,118	2,190	2,248	2,297	2,722
Bald Hills	1037	6124	6,204	7,067	7,876	8,627	9,158	9,766	10,131	10,639	476	572	688	836	1,001	1,163	1,308	2,002
Balmoral	1042	3577	3,610	3,645	3,706	3,784	3,906	3,963	3,996	4,080	91	93	94	95	95	95	95	95
Banyo	1045	4935	4,941	4,929	4,913	4,882	4,868	4,884	4,893	5,178	1,477	2,179	2,856	3,293	3,500	3,626	3,707	4,985
Bardon	1048	8749	8,819	8,886	8,892	8,858	8,913	9,158	9,300	9,300	592	654	693	729	767	807	846	1,053
Bellbowrie	1053	4418	4,639	5,884	6,626	7,341	7,674	8,141	8,420	8,579	90	133	185	234	270	294	309	353
Belmont-Mackenzie	1057	4120	4,211	4,562	5,066	5,557	6,073	6,073	6,073	6,073	0	49	61	71	85	103	122	270
Boondall	1064	7821	7,948	8,331	8,812	9,163	9,209	9,927	10,363	10,363	544	667	793	965	1,176	1,398	1,604	2,528
Bowen Hills	1067	958	1,146	1,302	1,753	1,753	1,753	1,759	1,766	1,970	3,400	3,522	3,673	3,770	3,828	3,862	3,882	3,930
Bracken Ridge	1072	14149	14,368	15,217	15,964	16,599	17,850	17,850	17,850	18,909	968	1,182	1,340	1,456	1,539	1,595	1,632	1,722
Bridgeman Downs	1075	5674	5,954	6,848	7,477	8,095	8,404	10,533	12,054	11,945	24	47	52	58	65	72	78	104
Brighton	1078	8816	8,849	8,958	8,925	8,852	8,833	8,895	8,930	9,122	739	885	969	1,020	1,050	1,068	1,078	1,102
Brookfield (incl. Mnt Ctha)	1083	3497	3,587	3,659	3,712	3,724	3,735	3,815	3,861	3,861	86	105	124	154	194	239	284	530
Bulimba	1086	4063	4,107	4,533	4,771	4,751	4,745	4,745	4,745	5,275	1,307	598	607	612	614	615	615	617
Burbank	1091	1189	1,188	1,181	1,170	1,147	1,127	1,127	1,127	1,127	18	203	391	662	997	1,350	1,674	3,093
Calamvale	1094	8747	8,869	10,425	13,338	16,296	16,927	16,927	16,927	19,200	317	395	491	580	649	697	731	860
Camp Hill	1097	9270	9,316	9,334	9,311	9,228	9,163	9,689	10,002	10,232	407	473	495	510	523	535	546	600
Cannon Hill	1102	3949	4,021	4,245	4,347	4,415	4,497	4,582	4,630	4,629	894	1,206	1,413	1,554	1,668	1,769	1,859	2,306
Capalaba West	1105	374	374	381	376	368	365	365	365	365	18	38	83	126	181	244	310	756
Carina	1113	9169	9,268	10,384	10,317	10,163	10,037	10,100	10,135	10,750	397	450	480	511	546	584	622	846
Carina Heights	1116	5846	5,885	6,076	6,140	6,175	6,217	6,217	6,217	6,601	219	307	365	396	412	420	425	434
Carindale	1108	12676	12,975	13,785	14,683	15,258	15,265	15,265	15,265	16,924	2,127	2,165	2,153	2,134	2,113	2,090	2,066	2,212
Carseldine	1121	6316	6,348	6,942	8,246	9,545	10,143	10,538	10,769	11,356	828	985	1,109	1,209	1,282	1,337	1,379	1,552
Chandler	1124	973	982	1,021	1,056	1,079	1,098	1,098	1,098	1,098	124	147	173	211	262	318	372	747
Chapel Hill	1127	10400	10,533	10,971	11,082	11,283	11,852	11,852	11,852	12,614	325	394	421	433	439	441	442	445
Chelmer	1132	2663	2,686	2,692	2,687	2,657	2,653	2,683	2,700	2,700	261	272	284	292	298	301	303	307
Chermside	1135	6156	6,188	6,228	6,254	6,242	6,244	7,041	7,549	7,584	4,777	5,051	5,253	5,392	5,480	5,533	5,565	5,637
Chermside West	1138	5985	6,016	6,067	6,138	6,191	6,204	6,204	6,204	6,727	281	303	315	324	332	340	346	379
City-Inner	1143	633	1,000	2,738	3,913	5,020	6,101	6,685	7,047	7,047	29,500	29,524	29,540	29,554	29,568	29,583	29,597	29,666
City-Remainder	1146	1549	1,653	1,914	2,192	2,460	2,730	2,878	2,966	3,087	10,243	10,307	10,351	10,382	10,405	10,425	10,441	10,528
Clayfield	1151	9472	9,525	9,640	9,713	9,755	9,810	10,066	10,213	10,545	784	815	825	829	831	832	833	834
Coopers Plains	1154	4371	4,416	4,656	4,726	4,821	4,934	4,934	4,934	4,934	2,400	3,272	3,913	4,345	4,632	4,830	4,973	5,497
Coorparoo	1157	13292	13,427	13,782	13,948	13,978	14,048	14,048	14,048	14,447	2,061	2,183	2,260	2,306	2,333	2,350	2,361	2,403
Corinda	1162	4304	4,334	4,425	4,521	4,611	4,703	4,884	4,989	4,989	608	743	853	928	972	997	1,011	1,049
Darra-Sumner	1167	3803	3,860	4,317	4,615	4,728	4,864	5,095	5,231	5,806	2,683	3,750	4,597	5,245	5,775	6,239	6,648	8,797
Deagon	1173	3263	3,274	3,276	3,254	3,210	3,178	3,319	3,401	3,481	355	439	487	511	524	531	534	544
Doolandella-Forest Lake	1176	13231	13,887	15,927	18,001	18,959	21,019	23,223	24,598	24,598	174	261	356	475	603	719	812	1,118
Durack	1184	6143	6,177	6,364	6,918	7,462	7,729	7,729	7,729	7,729	345	402	458	514	570	628	684	1,020
Dutton Park	1187	1279	1,282	1,486	1,551	1,637	1,678	1,678	1,678	1,735	144	149	153	160	169	180	192	263
East Brisbane	1195	4941	4,962	5,010	5,086	5,182	5,323	5,379	5,411	5,470	1,055	1,025	998	973	950	928	906	1,014
Eight Mile Plains	1198	10791	10,935	11,665	13,451	15,310	15,758	15,758	15,758	15,757	432	559	658	716	759	795	828	1,049
Ellen Grove	1203	3161	3,453	5,313	6,298	7,945	11,193	11,335	11,416	13,366	2	5	8	12	16	20	25	53
Enoggera	1206	6723	6,339	6,543	6,478	6,357	6,940	6,969	6,986	6,437	1,054	1,162	1,234	1,278	1,305	1,322	1,334	1,453
Everton Park	1211	8076	8,097	8,199	8,336	8,509	8,940	9,152	9,273	10,049	532	668	762	818	852	876	893	958
Fairfield	1214	2221	2,227	2,223	2,227	2,216	2,214	2,344	2,422	2,422	130	224	278	308	323	331	335	347

Ferny Grove	1217	5665	5,728	5,910	6,146	6,607	7,599	7,599	7,599	7,975	641	716	749	769	783	793	801	830
Fig Tree Pocket	1222	2856	2,920	3,272	3,709	4,490	6,026	6,250	6,381	6,992	362	412	426	435	441	446	451	488
Fortitude Valley-Inner	1228	1466	1,427	1,729	2,111	2,155	2,333	2,884	3,236	3,236	3,310	3,332	3,349	3,363	3,375	3,386	3,395	3,444
Fortitude Valley-Remainder	1233	1851	1,939	2,005	2,188	2,407	2,722	3,078	3,321	3,399	1,590	1,805	1,957	2,057	2,118	2,154	2,176	2,229
Geebung	1236	4221	4,231	4,248	4,253	4,242	4,272	4,272	4,272	4,380	2,980	3,576	4,016	4,296	4,471	4,580	4,651	4,841
Graceville	1241	3946	3,974	3,993	4,014	4,020	4,025	4,025	4,025	4,025	480	516	535	544	548	551	552	559
Grange	1244	3815	3,825	3,832	3,834	3,828	3,826	3,826	3,826	3,826	257	279	288	293	295	296	297	298
Greenslopes	1247	7439	7,464	7,502	7,509	7,465	7,447	7,898	8,167	8,434	2,155	2,236	2,272	2,291	2,301	2,307	2,311	2,321
Gumdale	1252	1004	1,024	1,139	1,236	1,340	1,480	1,480	1,480	1,480	0	6	12	22	34	48	63	139
Hamilton	1255	4069	4,120	4,127	4,117	4,072	4,040	4,215	4,317	5,099	717	770	806	824	833	838	841	887
Hawthorne	1258	4021	4,051	4,084	4,099	4,113	4,127	4,267	4,348	4,348	136	144	145	145	145	145	145	145
Hemmant-Lytton	1265	2141	2,212	2,362	2,535	2,555	2,597	2,627	2,643	2,643	3,055	4,249	5,600	12,633	15,279	18,165	21,019	45,403
Hendra	1271	3600	3,634	3,706	3,828	3,968	4,162	4,162	4,162	4,162	778	1,039	1,232	1,370	1,475	1,556	1,616	1,800
Herston	1274	1782	1,810	1,919	2,103	2,333	2,558	2,558	2,558	2,558	601	659	710	779	865	964	1,064	1,722
Highgate Hill	1277	5316	5,346	5,433	5,515	5,630	5,754	5,754	5,754	5,830	33	37	39	43	47	53	59	99
Holland Park	1282	7383	7,401	7,427	7,419	7,374	7,377	7,424	7,450	7,698	400	464	499	518	529	537	542	563
Holland Park West	1285	5441	5,474	5,560	5,572	5,547	5,558	5,691	5,768	6,097	354	372	388	403	418	434	450	543
Inala	1288	13683	13,810	13,796	13,772	13,746	13,741	13,741	13,741	14,386	766	1,011	1,222	1,377	1,502	1,604	1,689	2,139
Indooroopilly	1293	10597	10,683	10,880	10,960	11,020	11,235	11,882	12,268	12,268	3,862	3,960	4,047	4,095	4,104	4,086	4,052	4,108
Jamboree Heights	1296	3345	3,348	3,400	3,541	3,678	3,735	3,735	3,735	3,904	246	260	272	288	308	332	356	502
Jindalee	1301	5373	5,377	5,374	5,352	5,310	5,311	5,311	5,311	5,563	427	454	475	489	499	504	507	515
Kangaroo Point	1304	5141	5,364	5,413	5,517	5,574	5,603	6,228	6,620	6,921	1,658	1,924	2,154	2,326	2,447	2,532	2,592	2,810
Kedron	1312	11313	11,352	11,445	11,471	11,405	11,354	12,373	12,999	13,036	976	1,101	1,218	1,298	1,346	1,373	1,388	1,461
Kelvin Grove	1315	4107	4,117	4,324	5,748	5,787	5,851	5,851	5,851	5,965	1,066	1,092	1,108	1,137	1,176	1,218	1,255	1,522
Kenmore	1318	8469	8,520	8,854	9,497	10,150	10,456	10,616	10,707	11,148	793	864	908	931	943	949	952	959
Kenmore Hills	1323	2571	2,610	2,734	2,711	2,663	2,619	2,679	2,713	2,713	543	748	864	923	956	977	992	1,045
Keperra	1326	7566	7,594	7,566	7,539	7,477	7,434	7,434	7,434	7,946	440	528	588	640	688	736	781	1,042
Kuraby	1331	3770	4,226	5,918	7,173	8,404	8,636	9,016	9,239	10,672	45	93	131	174	213	242	262	310
Lota	1337	2647	2,657	2,657	2,696	2,764	2,949	2,949	2,949	3,423	64	112	182	262	337	396	438	562
Lutwyche	1345	2587	2,596	2,632	2,645	2,663	2,705	2,785	2,831	3,116	334	363	385	400	412	420	427	459
MacGregor	1356	5631	5,644	5,659	5,630	5,621	5,635	5,680	5,705	5,706	1,306	1,605	1,809	1,939	2,014	2,056	2,079	2,124
Manly	1364	3676	3,711	3,734	3,713	3,683	3,697	3,697	3,697	3,767	594	612	620	625	628	630	632	642
Manly West	1367	9392	9,450	9,897	10,279	10,907	12,294	12,294	12,294	13,140	477	520	561	591	612	628	639	694
Mansfield	1372	9387	9,513	9,773	9,998	10,078	9,970	9,970	9,970	11,614	1,082	1,325	1,468	1,554	1,613	1,656	1,690	1,833
McDowall	1353	6515	6,653	6,970	7,414	8,031	9,311	9,311	9,311	9,951	296	307	318	335	356	379	403	530
Middle Park	1375	4470	4,478	4,474	4,447	4,388	4,346	4,346	4,346	4,416	312	348	373	387	395	399	401	406
Milton	1378	1682	1,846	2,557	3,175	3,453	3,628	3,628	3,628	3,843	9,427	9,421	9,321	9,213	9,100	8,984	8,868	8,872
Mitchelton	1383	6072	6,125	6,741	6,919	7,024	7,035	7,693	8,098	8,600	1,649	1,861	1,975	2,032	2,060	2,075	2,084	2,104
Moggill	1386	975	1,030	1,518	2,470	4,150	7,381	8,127	8,591	10,208	95	106	110	111	112	112	112	113
Moorooka	1391	8582	8,607	8,641	8,624	8,550	8,517	8,938	9,186	9,696	1,054	1,231	1,341	1,399	1,428	1,444	1,453	1,474
Moreton Island	1394	181	190	224	232	248	282	327	357	2,424	0	57	116	207	323	451	573	1,177
Morningside	1397	7802	7,844	7,969	8,017	8,028	8,032	8,629	8,991	8,986	3,055	3,816	4,196	4,386	4,495	4,568	4,623	4,882
Mount Gravatt	1402	3193	3,194	3,193	3,191	3,186	3,184	3,402	3,532	3,915	866	1,210	1,515	1,718	1,835	1,901	1,938	2,016
Mount Gravatt East	1405	9507	9,568	9,883	10,036	10,105	10,108	10,413	10,590	11,110	940	1,129	1,261	1,346	1,399	1,431	1,450	1,494
Mount Ommaney	1408	2287	2,365	2,620	2,611	2,598	2,609	2,866	3,025	3,025	750	1,022	1,168	1,236	1,268	1,284	1,293	1,314
Murarrie	1413	2499	2,972	5,459	5,978	5,878	5,809	5,809	5,809	5,851	22,130	23,148	24,171	25,099	25,877	26,519	27,045	29,377
Nathan	1416	1590	1,590	1,590	1,590	1,590	1,589	1,589	1,589	1,661	2,477	2,512	2,553	2,591	2,618	2,637	2,650	2,679
New Farm	1421	10136	11,095	11,491	12,135	12,635	12,696	12,882	13,182	13,182	320	321	320	319	318	317	316	316
Newmarket	1424	3837	3,890	4,019	4,165	4,349	4,531	5,405	5,997	5,997	188	236	273	301	320	333	340	363
Newstead	1427	2214	3,395	4,844	6,615	6,729	6,743	6,727	6,711	7,060	839	183	269	360	438	496	535	634
Norman Park	1432	6341	6,386	6,450	6,448	6,421	6,409	6,598	6,708	6,864	87	91	96	101	107	114	121	167
Northgate	1435	3817	3,849	3,957	3,945	3,915	3,898	4,017	4,087	4,084	12,229	12,634	12,969	13,204	13,351	13,440	13,497	13,639
Nudgee	1438	1934	1,947	2,533	2,694	2,767	2,974	2,974	2,974	3,527	10	102	158	235	324	414	496	838
Nudgee Beach	1443	335	340	376	405	465	574	601	617	637	96	259	477	738	998	1,232	1,428	2,277
Nundah	1446	8097	8,118	8,171	8,204	8,213	8,288	9,049	9,517	9,775	1,493	1,665	1,775	1,848	1,897	1,931	1,956	2,072
Oxley	1451	5913	6,067	6,811	7,338	7,843	8,163	8,385	8,513	9,116	794	1,249	1,648	1,954	2,194	2,395	2,567	3,464
Paddington	1454	7395	7,435	7,473	7,535	7,591	7,658	7,658	7,658	7,799	1,313	1,425	1,508	1,556	1,582	1,596	1,604	1,620
Pallara-Heathwood-Larapinta	1456	758	758	1,336	2,978	4,707	5,062	5,418	5,633	5,633	142	607	1,265	2,145	3,190	4,270	5,277	10,504

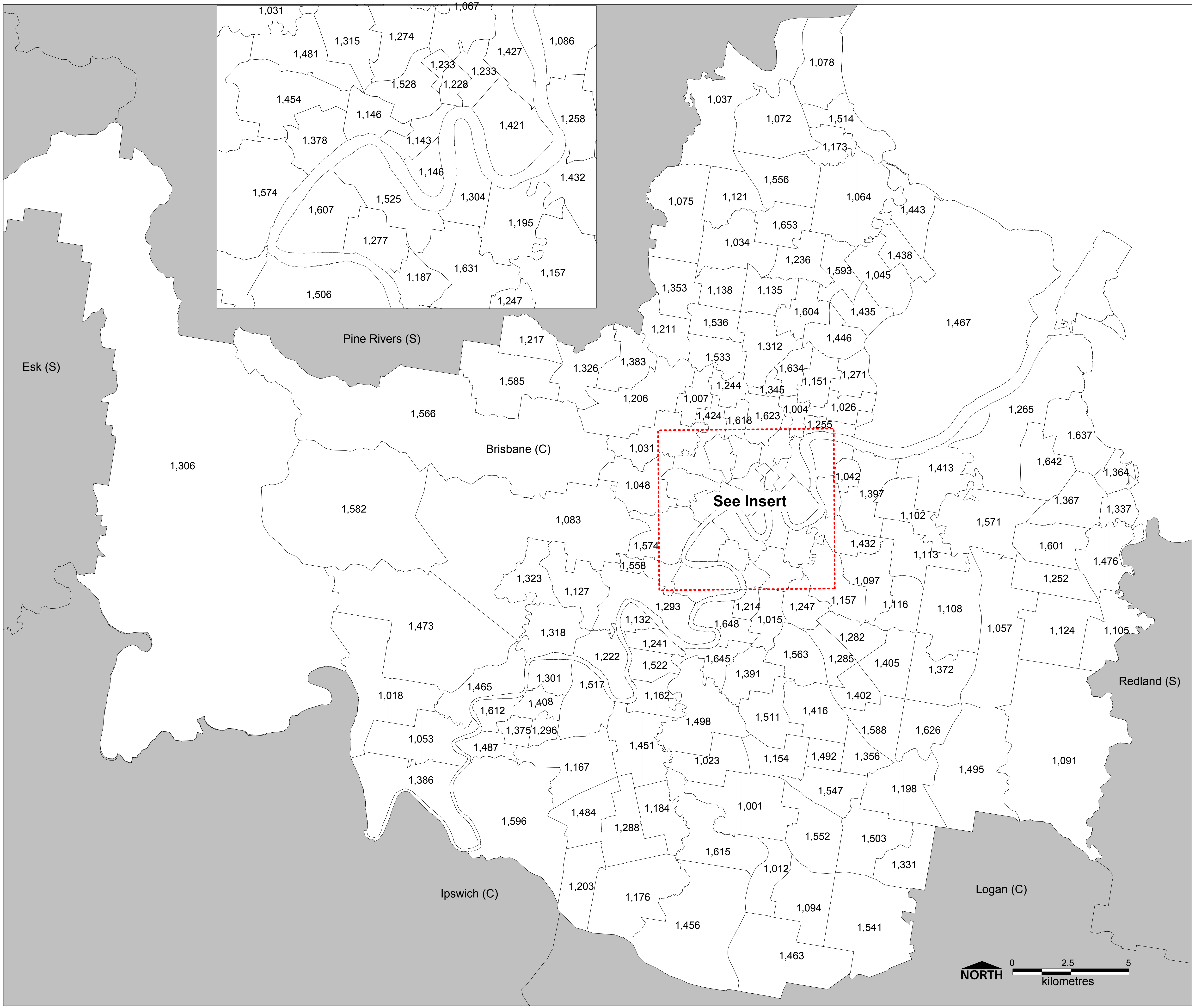
Parkinson-Drewvale	1463	5210	5,940	10,347	14,617	18,629	19,323	19,323	19,323	22,447	0	117	244	448	728	1,064	1,420	3,901
Pinjarra Hills	1465	481	484	495	505	510	515	781	1,013	1,013	581	1,240	2,138	3,043	3,757	4,241	4,548	5,227
Pinkenba-Eagle Farm	1467	501	482	494	509	551	625	749	833	833	14,669	17,112	20,062	22,627	25,376	28,163	30,788	61,521
Pullenvale	1473	2091	2,120	2,282	2,417	2,529	2,619	3,053	3,340	3,340	30	61	130	231	361	505	642	1,325
Ransome	1476	456	456	452	447	438	430	430	430	430	0	0	0	0	0	0	0	0
Red Hill	1481	5016	5,042	5,090	5,145	5,220	5,309	5,309	5,309	5,309	533	478	495	508	519	529	538	580
Richlands	1484	907	913	1,120	1,701	2,710	4,627	4,680	4,709	5,557	3,346	3,899	4,378	4,861	5,350	5,822	6,248	8,357
Riverhills	1487	3756	3,825	4,048	4,104	4,078	4,057	4,057	4,057	4,837	19	21	24	26	29	31	33	41
Robertson	1492	4403	4,469	4,684	4,857	5,021	5,106	5,106	5,106	5,333	935	970	996	1,010	1,018	1,022	1,024	1,028
Rochedale	1495	1351	1,354	1,362	1,395	1,436	1,505	1,751	1,913	1,913	65	136	228	326	418	496	558	777
Rocklea	1498	1484	1,522	1,592	1,610	1,639	1,687	1,781	1,836	1,836	6,554	8,209	9,581	10,577	11,265	11,756	12,118	13,523
Runcorn	1503	11667	11,853	12,505	13,525	14,552	14,794	14,794	14,794	15,079	552	727	869	978	1,052	1,098	1,128	1,206
Salisbury	1511	5405	5,431	5,468	5,484	5,467	5,468	5,584	5,651	5,712	2,966	3,496	3,864	4,097	4,237	4,323	4,376	4,509
Sandgate	1514	6325	6,337	6,332	6,303	6,237	6,186	6,186	6,186	6,209	488	656	761	842	909	968	1,019	1,250
Seventeen Mile Rocks	1517	6394	6,979	9,867	12,086	11,902	11,709	11,709	11,709	11,707	1,616	1,325	1,510	1,609	1,663	1,695	1,716	1,774
Sherwood	1522	4611	4,640	4,691	4,712	4,710	4,710	4,710	4,710	4,946	420	541	628	679	706	720	728	745
South Brisbane	1525	2748	2,760	3,259	5,083	6,388	6,379	6,379	6,379	6,379	11,291	11,163	11,226	11,156	11,028	10,874	10,708	10,786
Spring Hill	1528	3226	3,238	3,272	3,320	3,389	3,454	3,716	3,876	4,448	10,893	11,002	11,076	11,095	11,093	11,080	11,061	11,115
St. Lucia	1506	10633	10,710	10,805	10,877	10,880	10,900	10,900	10,900	11,037	4,684	4,711	4,733	4,755	4,780	4,808	4,838	5,041
Stafford	1533	5558	5,573	5,571	5,576	5,555	5,567	5,693	5,766	6,091	1,543	1,696	1,778	1,830	1,867	1,898	1,925	2,065
Stafford Heights	1536	7324	7,345	7,392	7,335	7,258	7,191	7,191	7,191	7,673	135	235	328	418	509	599	682	1,081
Stretton-Karawatha	1541	3238	3,317	3,721	4,487	5,278	5,763	6,014	6,161	7,613	0	11	23	41	64	89	114	247
Sunnybank	1547	7904	7,951	8,142	8,169	8,119	8,120	8,182	8,217	8,266	1,941	1,980	1,998	2,007	2,012	2,014	2,016	2,020
Sunnybank Hills	1552	16189	16,417	17,323	17,729	18,000	18,127	18,127	18,127	18,797	464	521	557	585	613	642	671	848
Taigum-Fitzgibbon	1556	6324	6,564	8,366	10,450	12,482	13,408	14,337	14,896	16,801	444	826	1,160	1,396	1,536	1,615	1,660	1,761
Taringa	1558	6636	6,677	6,858	6,889	6,872	6,870	6,870	6,870	7,785	755	773	786	798	810	822	833	893
Tarragindi	1563	9285	9,313	9,337	9,367	9,336	9,304	9,304	9,304	9,751	127	148	167	181	196	211	225	327
The Gap	1566	16045	16,195	16,468	16,605	16,824	17,541	17,541	17,541	18,684	479	580	661	720	761	791	814	916
Tingalpa	1571	9054	9,224	9,341	9,731	10,112	10,761	10,761	10,761	11,086	3,440	3,638	3,762	3,896	4,022	4,131	4,221	4,685
Toowong	1574	13354	13,714	14,086	14,274	14,337	14,436	14,436	14,436	15,167	5,802	5,837	5,871	5,901	5,924	5,939	5,947	6,138
Upper Brookfield	1582	546	546	541	536	526	536	571	591	591	0	1	2	3	5	7	9	22
Upper Kedron	1585	1186	1,306	2,429	4,278	5,973	6,444	6,792	6,999	7,946	0	7	15	27	42	58	74	151
Upper Mount Gravatt	1588	7488	7,513	7,609	7,760	7,873	7,933	8,749	9,258	9,840	1,855	2,431	2,866	3,125	3,267	3,347	3,393	3,532
Virginia	1593	1845	1,852	1,855	1,854	1,846	1,845	1,845	1,845	1,874	2,405	2,995	3,417	3,689	3,870	3,999	4,099	4,522
Wacol	1596	5636	6,401	6,529	6,794	7,067	7,402	7,402	7,402	7,909	5,960	7,390	8,928	10,339	11,550	12,554	13,367	16,778
Wakerley	1601	1188	1,743	3,343	5,168	7,489	8,728	8,794	8,547	11,582	64	134	251	399	560	716	854	1,464
Wavell Heights	1604	8516	8,536	8,526	8,477	8,369	8,282	8,317	8,336	9,069	169	233	280	308	322	330	334	342
West End	1607	5875	6,212	10,551	10,718	10,653	10,574	10,574	10,574	10,595	1,385	1,532	1,614	1,657	1,679	1,691	1,697	1,711
Westlake	1612	4077	4,236	4,608	4,682	4,740	4,688	4,688	4,688	4,775	17	20	23	27	33	39	45	74
Willawong	1615	245	245	387	792	1,223	1,308	1,656	1,907	1,907	0	65	115	190	287	393	494	991
Wilston	1618	3375	3,397	3,422	3,451	3,473	3,530	3,530	3,530	3,671	180	134	134	134	134	134	134	134
Windsor	1623	5812	5,836	5,902	5,902	5,867	5,858	6,013	6,103	6,612	689	828	907	956	987	1,009	1,026	1,102
Wishart	1626	9488	9,606	9,975	10,433	10,852	10,902	10,902	10,902	11,723	344	414	463	493	510	520	526	539
Woolloongabba	1631	3857	3,872	4,108	5,972	6,849	6,810	6,810	6,810	6,887	5,988	6,342	6,203	6,043	5,864	5,671	5,470	5,502
Wooloowin	1634	5494	5,534	5,619	5,598	5,545	5,515	5,515	5,515	5,806	815	822	826	828	829	829	829	830
Wynnum	1637	11194	11,286	11,436	11,408	11,303	11,231	11,491	11,640	12,175	1,243	1,460	1,610	1,707	1,771	1,816	1,849	1,966
Wynnum West	1642	9938	10,183	10,360	10,701	11,249	12,439	12,573	12,649	12,649	1,374	1,580	1,673	1,715	1,736	1,747	1,753	1,767
Yeerongpilly	1645	2246	2,272	2,313	2,315	2,313	2,330	2,495	2,595	2,616	2,260	2,543	2,725	2,844	2,930	3,000	3,058	3,348
Yeronga	1648	4954	4,995	5,082	5,100	5,097	5,141	5,603	5,887	6,190	507	665	775	858	916	955	980	1,048
Zillmere	1653	7681	7,721	7,690	7,676	7,619	7,641	8,004	8,217	8,265	613	938	1,254	1,483	1,621	1,699	1,744	1,830
Total Brisbane City (excl. Karana Downs - Lake Manchester`		**877,116**	**893,038**	**951,389**	**1,006,216**	**1,050,375**	**1,087,168**	**1,116,258**	**1,134,190**	**1,192,959**	**280,809**	**310,658**	**337,709**	**365,017**	**384,278**	**401,072**	**415,445**	**514,815**

Table 4-2 Non-residential GFA and employment forecasts by SLA, 2001-2021

SLA Name	SLA Code	Total Jobs					Industrial Development (GFA sq m)					Retail Services (GFA sq m)					Commercial (GFA sq m)					Miscellaneous Development (GFA sq m)				
		2001	2006	2011	2016	2021	2001	2006	2011	2016	2021	2001	2006	2011	2016	2021	2001	2006	2011	2016	2021	2001	2006	2011	2016	2021
Acacia Ridge	1001	10,440	11,409	12,151	12,575	12,689	669,823	761,875	831,866	869,457	874,321	16,843	19,773	22,623	25,043	26,943	-	-	-	-	-	16,417	20,897	23,717	25,237	26,067
Albion	1004	3,766	3,888	3,924	3,927	3,908	123,876	130,877	132,039	131,188	128,725	10,207	10,837	11,227	11,447	11,597	-	-	-	-	-	50,358	51,338	51,778	51,988	52,088
Alderley	1007	956	1,046	1,095	1,119	1,131	16,968	18,754	19,908	20,605	21,019	13,588	16,218	17,608	18,258	18,568	-	-	-	-	-	-	-	-	-	-
Algester	1012	788	822	850	878	907	-	-	-	-	-	2,510	3,730	4,480	5,270	6,010	-	-	-	-	-	11,738	11,738	12,048	12,308	12,678
Annerley	1015	2,097	2,199	2,264	2,304	2,331	-	-	-	-	-	32,386	35,066	36,886	37,966	38,606	-	-	-	-	-	17,637	18,547	19,007	19,347	19,657
Anstead	1018	98	98	98	98	98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Archerfield	1023	4,412	4,716	4,960	5,150	5,294	251,365	285,126	311,836	331,290	344,702	612	622	632	652	682	-	-	-	-	-	81,017	81,717	82,437	83,507	84,837
Ascot	1026	1,412	1,502	1,549	1,572	1,584	-	-	-	-	-	16,671	19,741	21,301	22,031	22,381	-	-	-	-	-	7,213	7,343	7,493	7,633	7,733
Ashgrove	1031	2,619	2,687	2,727	2,756	2,784	-	-	-	-	-	14,442	15,800	16,520	16,902	17,195	5,899	6,351	6,591	6,719	6,816	43,761	44,511	45,091	45,761	46,531
Aspley	1034	3,984	4,467	4,803	5,001	5,114	-	-	-	-	-	43,980	57,453	66,633	71,043	72,285	12,405	13,902	14,922	15,412	15,550	11,768	14,288	16,308	18,918	22,238
Bald Hills	1037	774	887	1,035	1,215	1,398	-	-	-	-	-	5,260	8,400	12,810	17,950	22,860	-	-	-	-	-	11,853	13,253	14,593	16,593	19,213
Balmoral	1042	325	330	333	335	336	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11,402	11,592	11,722	11,792	11,832
Banyo	1045	2,725	3,015	3,291	3,521	3,705	174,721	198,945	219,644	233,151	241,075	5,901	6,251	6,381	6,451	6,511	-	-	-	-	-	7,723	12,123	17,893	24,673	31,553
Bardon	1048	1,225	1,307	1,359	1,408	1,461	-	-	-	-	-	3,418	3,488	3,548	3,638	3,768	-	-	-	-	-	29,985	33,625	35,915	38,015	40,265
Bellbowrie	1053	492	566	658	741	801	-	-	-	-	-	2,448	5,048	8,268	11,178	13,258	-	-	-	-	-	-	30	60	110	180
Belmont-Mackenzie	1057	551	551	566	579	597	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	690	1,280	2,110
Boondall	1064	1,716	1,748	1,833	1,898	2,013	-	-	-	-	-	5,506	5,686	5,916	6,136	6,196	-	-	-	-	-	15,415	17,065	21,785	25,365	32,195
Bowen Hills	1067	6,965	7,409	8,316	9,422	9,577	133,786	123,417	124,958	125,658	126,015	14,472	22,148	34,620	51,249	52,873	75,762	82,805	89,771	96,253	98,387	24,879	26,390	27,582	28,381	28,883
Bracken Ridge	1072	1,826	2,143	2,369	2,530	2,656	-	-	-	-	-	13,556	18,416	21,106	22,376	23,466	-	-	-	-	-	42,467	50,487	57,237	62,857	67,147
Bridgeman Downs	1075	497	505	511	518	526	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	377	747	1,057	1,407	1,807
Brighton	1078	848	1,040	1,150	1,217	1,257	-	-	-	-	-	3,146	3,216	3,246	3,296	3,346	-	-	-	-	-	34,131	42,701	47,651	50,621	52,391
Brookfield (incl. Mnt Ctha)	1083	1,306	1,370	1,438	1,545	1,686	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10,801	13,071	15,481	19,231	24,191
Bulimba	1086	2,134	1,861	1,544	1,551	1,559	73,626	38,566	-	-	-	14,303	15,003	15,373	15,593	15,883	-	-	-	-	-	8,457	8,807	8,937	8,987	9,007
Burbank	1091	232	232	232	232	232	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	542	542	542	542	542
Calamvale	1094	836	984	1,057	1,123	1,169	-	-	-	-	-	19,808	21,887	24,461	26,774	28,416	-	-	-	-	-	-	3,110	3,110	3,110	3,110
Camp Hill	1097	1,237	1,285	1,313	1,334	1,353	833	1,304	1,758	2,074	2,258	5,554	5,774	5,884	5,994	6,094	-	-	-	-	-	18,406	20,076	21,016	21,696	22,336
Cannon Hill	1102	2,213	2,804	3,210	3,520	3,798	833	1,280	1,690	1,962	2,115	38,745	55,315	65,565	70,675	73,125	-	-	-	-	-	35,268	41,938	48,398	57,938	70,138
Capalaba West	1105	235	260	287	311	338	-	327	673	1,211	1,921	1,110	1,880	2,710	3,370	4,060	-	-	-	-	-	-	-	-	-	-
Carina	1113	2,189	2,321	2,418	2,525	2,651	-	-	-	-	-	5,294	6,264	6,684	7,104	7,384	-	-	-	-	-	24,206	27,886	30,866	34,196	38,336
Carina Heights	1116	636	755	835	884	911	-	-	-	-	-	4,753	5,313	5,683	6,083	6,373	-	-	-	-	-	8,410	13,060	16,230	17,940	18,800
Carindale	1108	3,816	3,949	4,098	4,278	4,481	-	-	-	-	-	61,664	63,161	65,107	67,539	70,267	59,246	59,719	60,333	61,101	61,963	11,600	13,170	14,150	15,090	16,150
Carseldine	1121	1,109	1,177	1,256	1,324	1,370	-	-	-	-	-	6,688	6,958	7,538	8,168	8,498	-	-	-	-	-	20,309	23,979	27,729	30,759	32,969
Chandler	1124	511	511	511	511	511	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chapel Hill	1127	763	856	897	923	952	-	-	-	-	-	15,852	17,892	18,652	19,262	20,132	-	-	-	-	-	4,083	5,673	6,553	6,963	7,153
Chelmer	1132	333	339	345	350	354	-	-	-	-	-	415	445	475	525	595	-	-	-	-	-	6,680	7,010	7,350	7,610	7,770
Chermside	1135	8,046	9,072	9,914	10,512	10,891	-	-	-	-	-	55,413	67,057	77,113	84,373	88,992	27,293	34,429	40,593	45,043	47,874	176,019	179,959	181,369	181,969	182,289
Chermside West	1138	664	693	709	723	736	-	-	-	-	-	1,822	1,872	1,952	2,062	2,142	-	-	-	-	-	14,813	16,083	16,723	17,243	17,733
City-Inner	1143	63,997	71,357	75,942	81,004	84,821	-	-	-	-	-	425,426	448,978	463,650	479,850	492,064	1,701,703	1,825,351	1,902,379	1,987,429	2,051,555	-	-	-	-	-
City-Remainder	1146	33,333	36,841	41,775	46,399	51,238	-	-	-	-	-	109,791	123,074	141,801	159,353	177,716	637,722	694,617	774,583	849,533	927,965	19,031	19,333	19,482	19,619	19,784
Clayfield	1151	2,132	2,165	2,181	2,192	2,201	-	-	-	-	-	26,938	27,138	27,298	27,518	27,788	-	-	-	-	-	19,977	21,217	21,747	21,967	22,067
Coopers Plains	1154	5,844	6,437	6,717	6,981	7,054	251,496	277,751	287,583	307,653	310,858	4,752	4,892	4,982	5,122	5,282	-	-	-	-	-	47,847	64,277	73,017	77,037	78,917
Coorparoo	1157	4,002	4,235	4,378	4,460	4,507	126,896	133,450	136,599	138,040	138,760	27,244	29,504	31,394	32,724	33,534	-	-	-	-	-	48,304	50,934	52,554	53,464	54,024
Corinda	1162	1,594	1,745	1,891	2,000	2,072	16,660	20,177	23,342	25,413	26,570	12,373	13,183	13,763	14,083	14,333	-	-	-	-	-	38,433	41,873	45,463	48,373	50,323
Darra-Sumner	1167	6,120	6,540	6,873	7,132	7,347	406,815	453,221	490,392	518,739	541,781	12,928	13,448	13,848	14,348	14,938	-	-	-	-	-	1,357	1,787	2,007	2,137	2,237
Deagon	1173	790	909	984	1,023	1,043	995	1,057	1,079	1,087	1,090	9,037	11,287	13,037	14,067	14,617	-	-	-	-	-	9,175	11,615	12,735	13,205	13,415
Doolandella-Forest Lake	1176	1,701	1,852	2,023	2,230	2,449	-	925	1,874	3,284	5,032	4,933	8,703	13,913	20,483	27,433	-	-	-	-	-	11,662	12,852	13,282	13,442	13,512
Durack	1184	403	431	459	487	515	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,506	11,206	12,906	14,586	16,306
Dutton Park	1187	972	983	994	1,011	1,034	2,015	2,297	2,536	2,874	3,311	-	-	-	-	-	-	-	-	-	-	16,461	16,741	17,041	17,521	18,191
East Brisbane	1195	2,922	2,824	2,730	2,638	2,549	57,870	51,041	44,212	37,383	30,554	17,451	17,821	18,231	18,601	18,921	-	-	-	-	-	23,208	23,508	23,918	24,488	25,248
Eight Mile Plains	1198	2,847	3,311	3,682	3,913	4,072	-	-	-	-	-	2,053	2,353	3,053	3,853	4,153	-	-	-	-	-	49,313	65,283	77,573	84,893	90,183
Ellen Grove	1203	253	257	260	264	269	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	134	314	484	684	914
Enoggera	1206	4,294	4,533	4,728	4,890	5,038	43,153	51,508	57,770	61,710	63,941	7,906	7,986	8,026	8,036	8,056	-	-	-	-	-	15,430	19,750	23,740	28,060	33,030
Everton Park	1211	1,566	1,781	1,921	2,010	2,082	16,430	19,412	21,753	23,124	23,840	19,172	20,482	21,332	21,792	22,312	-	-	-	-	-	13,502	18,852	22,212	24,462	26,272
Fairfield	1214	668	796	889	940	965	2,645	3,326	3,693	3,861	3,938	6,786	11,036	14,156	15,886	16,766	-	-	-	-	-	-	-	-	-	-
Ferny Grove	1217	862	904	934	955	977	-	-	-	-	-	18,585	19,215	19,895	20,435	21,065	-	-	-	-	-	10,171	11,611	12,271	12,621	12,871
Fig Tree Pocket	1222	465	476	483	487	490	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10,959	11,639	12,069	12,329	12,509
Fortitude Valley-Inner	1228	9,124	9,222	9,677	10,626	12,020	-	-	-	-	-	60,220	60,811	63,544	69,238	77,602	122,265	123,644	130,021	143,307	162,823	-	-	-	-	-
Fortitude Valley-Remainder	1233	7,737	7,996	8,802	10,033	10,924	18,418	18,779	18,914	18,966	18,988	65,006	66,558	72,504	82,000	88,920	67,660	69,988	78,907	93,151	103,531	2,488	4,658	6,828	8,378	9,298
Geebung	1236	3,691	4,414	4,947	5,288	5,500	383,855	446,709	492,971	522,062	539,688	10,140	10,270	10,350	10,440	10,550	-	-	-	-	-	4,600	6,260	7,540	8,570	9,380
Graceville	1241	545	567	579	587	593	-	-	-	-	-	6,680	6,910	7,050	7,210	7,380	-	-	-	-	-	9,943	10,913	11,403	11,613	11,703
Grange	1244	448	504	536	554	564	-	-	-	-	-	2,339	2,429	2,499	2,609	2,719	-	-	-	-	-	13,370	15,250	16,320	16,860	17,120
Greenslopes	1247	4,613	4,724	4,781	4,810	4,825	4,973	5,069	5,124	5,150	5,162	29,180	31,064	31,939	32,380	32,626	18,656	19,762	20,277	20,536	20,680	75,618	76,768	77,548	77,968	78,178
Gumdale	1252	236	256	278	312	356	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	720	1,490	2,680	4,250
Hamilton	1255	2,089	2,237	2,326	2,371	2,393	66,810	71,942	74,879	76,299	76,969	15,476	16,706	17,496	17,946	18,186	-	-	-	-	-	7,252	8,192	8,792	9,102	9,272
Hawthorne	1258	607	609	611	614	617	-	-	-	-	-	452	542	612	722	832	-	-	-	-	-	7,530	7,530	7,530	7,530	7,530
Hemmant-Lytton	1265	5,321	6,917	8,609	10,842	13,741	402,373	523,708	651,928	814,711	1,023,629	-	-	-	-	-	-	-	-	-	-	1,513	18,203	36,143	63,993	101,733
Hendra	1271	2,074	2,232	2,392	2,549	2,690	110,635	121,473	128,861	133,604	136,925	2,926	2,996	3,096	3,236	3,406	-	-	-	-	-	1,723	3,943	7,263	11,223	15,003
Herston	1274	7,267	7,497	7,732	8,072	8,508	16,736	17,954	18,863	19,437	19,764	-	-	-	-	-	-	-	-	-	-	250,130	257,750	265,640	277,340	292,480
Highgate Hill	1277	455	457	460	465	471	-	-	-	-	-	2,055	2,155	2,275	2,475	2,695	-	-	-	-	-	-	-	-	-	-
Holland Park	1282	1,701	1,896	2,002	2,058	2,091	4,430	4,430	4,430	4,430	4,430	2,835	3,905	4,605	4,985	5,185	-	-	-	-	-	40,148	45,918	48,948	50,548	51,508
Holland Park West	1285	305	328	346	360	371	-	-	-	-	-	7,488	8,188	8,728	9,048	9,218	-	-	-	-	-	5,492	5,692	5,902	6,202	6,582
Inala	1288	1,982	2,274	2,489	2,624	2,730	12,500	17,094	23,095	27,175	31,443	23,477	29,300	32,224	33,541	34,204	8,249	9,276	9,792	10,025	10,142	5,307	8,117	11,227	14,047	16,297
Indooroopilly	1293	6,759	7,099	7,440	7,760	8,059	6,140	6,140	6,140	6,140	6,140	70,800	73,038	75,438	78,158	81,198	27,534	28,586	29,716	30,996	32,426	96,574	104,474	111,884	117,304	120,744
Jamboree Heights	1296	332	339	347	357	368	-	-	-	-	-	625	655	735	825	875	-	-	-	-	-	7,158	7,558	7,928	8,408	9,018
Jindalee	1301	1,032	1,066	1,092	1,111	1,123	-	-	-	-	-	6,249	6,269	6,289	6,319	6,359	-	-	-	-	-	16,604	18,114	19,304	20,134	20,664
Kangaroo Point	1304	2,084	2,100	2,111	2,123	2,137	7,871	8,105	8,293	8,405	8,464	6,483	6,703	6,823	6,963	7,133	-	-	-	-	-	50,595	50,935	51,215	51,545	51,935
Kedron	1312	3,392	3,529	3,660	3,752	3,812	56,131	58,657	62,620	65,332	66,846	5,706	6,369	7,064	7,586	7,914	1,610	1,797	1,992	2,140	2,232	53,350	55,810	57,170	58,120	58,930
Kelvin Grove	1315	3,905	3,570	3,663	3,782	3,940	53,493	51,878	49,190	46,095	42,850	2,566	2,716	3,566	3,716	3,896	-	-	-	-	-	19,897	8,971	13,001	18,861	26,161
Kenmore	1318	2,406	2,502	2,572	2,621	2,653	-	-	-	-	-	24,446	24,856	25,426	26,166	26,806	-	-	-	-	-	23,612	27,442	29,882	31,172	31,822
Kenmore Hills	1323	489	679	785	836	863	-	-	-	-	-	10,530	14,780	17,120	18,200	18,740	-	-	-	-	-	11,343	15,503	17,883	19,133	19,873
Keperra	1326	1,205	1,264	1,317	1,377	1,447	-	-	-	-	-	3,831	4,931	5,951	7,461	9,481	-	-	-	-	-	11,079	12,779	14,219	15,259	16,019

Kuraby	1331	187	222	272	328	378	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,555	4,165	6,415	8,945	11,205
Lota	1337	321	345	380	420	457	290	363	402	420	428	-	-	-	-	-	-	-	-	-	-	1,700	3,150	5,230	7,660	9,930
Lutwyche	1345	1,172	1,223	1,261	1,287	1,306	-	-	-	-	-	13,946	15,132	16,003	16,613	17,055	6,869	7,453	7,882	8,182	8,400	39	79	129	169	209
MacGregor	1356	1,580	2,061	2,418	2,648	2,780	-	-	-	-	-	60,603	77,193	89,613	97,653	102,283	-	-	-	-	-	10,144	10,564	10,714	10,764	10,784
Manly	1364	842	868	882	889	894	-	48	99	180	291	9,040	9,890	10,330	10,530	10,680	-	-	-	-	-	26,285	26,375	26,425	26,455	26,475
Manly West	1367	1,326	1,387	1,444	1,493	1,539	-	-	-	-	-	1,735	1,935	2,125	2,465	3,095	-	-	-	-	-	21,452	23,982	26,342	28,112	29,372
Mansfield	1372	2,869	3,169	3,346	3,453	3,526	109,070	126,326	137,394	144,197	148,725	1,649	1,799	1,949	2,059	2,119	-	-	-	-	-	22,278	27,178	29,548	30,898	31,898
McDowall	1353	619	636	654	682	719	-	-	-	-	-	5,898	6,498	7,128	8,108	9,408	-	-	-	-	-	6,118	6,158	6,178	6,188	6,188
Middle Park	1375	451	511	553	576	587	-	-	-	-	-	3,523	5,603	7,063	7,853	8,243	-	-	-	-	-	7,733	7,813	7,853	7,893	7,923
Milton	1378	10,791	11,137	11,140	11,277	11,689	186,796	178,829	138,208	111,724	112,805	16,984	17,766	18,208	18,487	18,766	108,696	116,753	125,150	133,230	140,830	21,575	21,895	22,237	22,568	22,879
Mitchelton	1383	2,861	3,406	3,718	3,878	3,957	11,020	14,128	15,885	16,713	17,098	94,374	103,804	109,304	112,164	113,584	-	-	-	-	-	16,070	18,500	19,630	20,160	20,440
Moggill	1386	124	138	143	144	144	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,585	6,215	6,445	6,525	6,555
Moorooka	1391	3,171	3,439	3,599	3,683	3,730	78,315	94,286	104,445	109,821	112,514	17,619	18,379	18,899	19,209	19,529	-	-	-	-	-	31,766	34,326	35,546	36,136	36,456
Moreton Island	1394	172	172	172	172	172	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Morningside	1397	4,459	5,536	6,057	6,300	6,429	287,766	361,354	395,910	411,305	418,795	19,226	21,706	23,006	23,626	24,036	-	-	-	-	-	4,378	5,898	7,348	8,608	9,698
Mount Gravatt	1402	5,806	5,937	6,101	6,195	6,307	1,823	1,896	1,988	2,081	2,156	11,208	13,158	14,548	15,498	16,088	-	-	-	-	-	39,727	43,107	48,667	51,677	55,967
Mount Gravatt East	1405	1,001	1,285	1,498	1,641	1,730	-	-	-	-	-	25,706	34,946	42,146	47,036	50,116	-	-	-	-	-	16,013	17,263	17,753	17,953	18,053
Mount Ommaney	1408	1,263	1,738	1,992	2,108	2,162	-	-	-	-	-	42,048	57,708	65,988	69,748	71,468	-	-	-	-	-	2,790	4,070	4,890	5,320	5,560
Murarrie	1413	6,873	8,371	9,874	11,230	12,368	514,783	623,824	735,237	836,173	920,824	-	1,270	1,560	1,600	1,660	-	-	-	-	-	587	1,097	1,687	2,257	2,737
Nathan	1416	2,166	2,510	2,732	2,929	3,049	5,006	6,312	7,786	8,983	9,764	6,143	6,143	6,143	6,143	6,153	-	-	-	-	-	89,092	104,112	113,552	121,972	127,092
New Farm	1421	3,291	3,471	3,555	3,619	3,624	-	-	-	-	-	19,449	21,868	23,000	23,865	23,932	9,153	10,344	10,902	11,327	11,360	294	294	294	294	294
Newmarket	1424	1,205	1,284	1,344	1,387	1,424	-	-	-	-	-	8,453	10,753	12,253	13,163	13,993	-	-	-	-	-	2,772	3,392	4,172	4,942	5,552
Newstead	1427	3,770	3,215	4,729	6,243	6,596	120,142	-	-	-	-	7,032	30,724	54,948	79,172	84,820	2,735	8,658	14,714	20,770	22,182	-	-	-	-	-
Norman Park	1432	782	789	795	804	815	60	100	147	186	212	2,486	2,556	2,616	2,726	2,836	-	-	-	-	-	1,315	1,565	1,775	2,055	2,405
Northgate	1435	4,206	4,421	4,612	4,745	4,828	442,748	458,406	472,398	482,262	488,410	199	259	289	329	379	-	-	-	-	-	16,345	19,145	21,625	23,295	24,315
Nudgee	1438	676	701	727	764	808	1,680	2,120	2,619	3,026	3,293	-	-	-	-	-	-	-	-	-	-	-	1,330	2,690	4,720	7,230
Nudgee Beach	1443	48	130	239	370	501	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,900	7,850	14,440	22,330	30,230
Nundah	1446	2,930	3,517	3,915	4,169	4,330	11,220	13,195	15,314	17,209	18,728	86,162	94,524	100,082	103,547	105,692	21,540	24,328	26,180	27,335	28,050	5,980	6,470	6,740	6,900	7,010
Oxley	1451	1,018	1,582	2,010	2,436	2,690	50,995	66,293	72,806	87,559	92,781	6,568	7,878	8,758	9,418	9,958	-	-	-	-	-	20,736	36,986	51,966	63,086	71,276
Paddington	1454	1,868	1,935	1,982	2,018	2,046	1,933	1,933	1,933	1,933	1,933	58,577	59,187	59,537	60,037	60,597	-	-	-	-	-	10,842	13,832	16,092	17,442	18,172
Pallara-Heathwood-Larapinta	1456	134	1,302	2,867	4,985	6,619	23,678	160,195	343,087	590,559	781,279	-	-	-	-	-	-	-	-	-	-	-	90	180	330	530
Parkinson-Drewvale	1463	122	625	1,521	2,232	2,504	-	52,809	151,679	228,889	259,572	-	1,820	3,620	5,430	5,790	-	-	-	-	-	-	-	-	-	-
Pinjarra Hills	1465	293	293	319	326	342	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17,604	17,604	19,204	19,624	20,624
Pinkenba-Eagle Farm	1467	18,522	20,436	21,977	24,357	26,842	804,125	909,505	984,508	1,101,190	1,207,919	-	-	-	-	-	-	-	-	-	-	267,742	285,562	304,522	333,392	370,592
Pullenvale	1473	39	79	168	300	321	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,764	3,604	7,624	13,574	14,543
Ransome	1476	48	50	52	56	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	290	530	850
Red Hill	1481	1,494	1,338	1,389	1,432	1,473	14,103	-	-	-	-	10,006	10,816	11,126	11,296	11,486	-	-	-	-	-	33,951	36,041	37,541	38,891	40,161
Richlands	1484	3,152	3,701	4,191	4,679	5,172	251,925	308,795	360,568	412,921	466,005	-	-	-	-	-	-	-	-	-	-	3,120	5,350	7,020	8,470	9,870
Riverhills	1487	235	243	248	251	254	-	-	-	-	-	1,044	1,234	1,304	1,334	1,364	-	-	-	-	-	116	266	406	546	686
Robertson	1492	1,626	1,661	1,685	1,698	1,706	-	-	-	-	-	40,001	40,818	41,369	41,654	41,853	16,338	16,381	16,410	16,425	16,436	1,014	1,664	2,154	2,434	2,584
Rochedale	1495	1,443	1,512	1,601	1,697	1,787	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,844	7,994	13,374	19,134	24,554
Rocklea	1498	4,393	5,801	6,651	7,148	7,432	497,763	578,003	624,443	649,528	661,984	-	60	130	240	380	-	-	-	-	-	54,964	57,794	61,454	65,624	69,774
Runcorn	1503	1,122	1,252	1,356	1,432	1,477	3,555	7,231	11,665	15,534	18,213	9,483	9,783	10,243	10,793	11,043	-	-	-	-	-	17,781	21,871	24,291	25,551	26,261
Salisbury	1511	5,546	5,925	6,404	6,705	6,889	303,625	329,327	368,529	393,452	408,510	1,171	1,251	1,311	1,391	1,481	-	-	-	-	-	25,861	29,291	31,101	32,081	32,731
Sandgate	1514	2,277	2,519	2,698	2,828	2,929	10,604	15,352	18,242	19,682	20,372	13,330	17,930	21,390	23,660	25,040	-	-	-	-	-	8,669	10,049	11,459	13,319	15,609
Seventeen Mile Rocks	1517	1,790	1,881	2,125	2,259	2,330	88,586	88,586	93,275	95,939	97,521	14,770	22,910	28,840	32,120	33,780	-	-	-	-	-	24,362	15,912	17,342	18,032	18,432
Sherwood	1522	1,317	1,418	1,482	1,516	1,533	5,802	9,432	12,285	14,025	14,971	9,032	11,462	12,842	13,502	13,812	-	-	-	-	-	8,526	8,566	8,586	8,606	8,636
South Brisbane	1525	13,644	14,112	14,717	14,716	14,892	11,345	11,345	11,345	-	-	40,512	41,292	42,672	43,752	44,362	53,753	55,684	58,100	58,404	59,061	543,506	560,885	582,629	585,366	591,277
Spring Hill	1528	13,018	14,329	15,573	16,431	17,839	-	-	-	-	-	255,848	262,124	268,091	272,212	278,970	417,437	437,311	456,204	469,254	490,655	19,158	19,318	19,368	19,378	19,378
St. Lucia	1506	6,577	6,842	6,997	7,177	7,534	-	-	-	-	-	7,095	7,195	7,305	7,435	7,615	-	-	-	-	-	268,412	277,592	282,942	289,122	301,462
Stafford	1533	3,651	3,792	3,954	4,050	4,116	147,550	150,045	153,435	155,290	156,521	38,998	41,758	44,838	46,458	47,328	-	-	-	-	-	1,645	2,555	3,305	4,145	5,095
Stafford Heights	1536	346	488	617	738	858	-	-	-	-	-	3,072	4,642	5,642	6,142	6,382	-	-	-	-	-	5,028	9,428	13,988	18,808	23,928
Stretton-Karawatha	1541	205	210	215	224	235	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	340	690	1,230	1,920
Sunnybank	1547	3,647	3,695	3,720	3,734	3,743	-	-	-	-	-	41,218	41,380	41,485	41,615	41,752	16,835	16,873	16,898	16,928	16,961	57,849	59,789	60,749	61,189	61,399
Sunnybank Hills	1552	2,622	2,739	2,812	2,868	2,922	1,281	1,657	1,836	1,913	1,948	14,397	17,147	18,947	20,407	21,917	-	-	-	-	-	27,757	28,977	29,667	30,157	30,557
Taigum-Fitzgibbon	1556	707	997	1,294	1,517	1,655	-	-	-	-	-	5,683	11,243	17,533	22,643	25,973	-	-	-	-	-	10,690	18,620	25,680	30,340	32,970
Taringa	1558	2,242	2,281	2,312	2,338	2,360	-	-	-	-	-	24,101	24,491	24,683	24,857	25,049	12,978	13,238	13,366	13,482	13,610	20,226	20,966	21,746	22,396	22,866
Tarragindi	1563	876	904	930	950	970	-	-	-	-	-	1,791	1,841	1,911	2,011	2,101	-	-	-	-	-	4,357	5,597	6,697	7,497	8,307
The Gap	1566	2,190	2,334	2,451	2,536	2,598	-	-	-	-	-	13,845	15,665	17,255	18,435	19,275	-	-	-	-	-	12,362	16,532	19,762	22,112	23,842
Tingalpa	1571	2,886	3,018	3,173	3,344	3,509	261,103	272,393	285,749	300,197	313,549	6,567	6,737	6,927	7,157	7,487	-	-	-	-	-	8,320	8,480	8,660	8,940	9,310
Toowong	1574	10,464	10,964	11,558	11,783	12,041	30,103	30,406	30,509	30,547	30,563	69,160	71,740	74,920	76,000	77,380	71,982	78,033	85,481	88,022	91,254	197,368	200,368	203,179	205,199	206,466
Upper Brookfield	1582	64	64	64	65	67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	80	150	250
Upper Kedron	1585	83	83	83	83	83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Upper Mount Gravatt	1588	7,955	10,280	12,075	13,229	13,858	-	-	-	-	-	80,776	102,961	120,021	130,940	136,764	63,467	84,782	101,172	111,663	117,259	26,023	31,273	35,583	38,533	40,573
Virginia	1593	5,167	5,405	5,578	5,689	5,762	352,505	377,125	395,202	406,901	414,649	-	-	-	-	-	-	-	-	-	-	16,534	17,794	18,664	19,184	19,524
Wacol	1596	8,650	9,497	10,395	11,238	11,987	323,715	380,530	442,338	499,249	547,929	690	750	870	1,000	1,150	-	-	-	-	-	82,881	93,151	103,201	113,151	122,861
Wakerley	1601	453	732	866	1,035	1,216	10,666	17,732	29,858	45,082	61,358	-	7,000	7,000	7,000	7,000	-	-	-	-	-	-	110	220	390	610
Wavell Heights	1604	685	769	831	868	888	-	-	-	-	-	3,866	3,906	3,946	4,006	4,066	-	-	-	-	-	6,314	10,064	12,844	14,454	15,304
West End	1607	6,811	7,334	7,625	7,776	7,853	49,953	29,953	6,953	-	-	50,233	54,226	55,940	56,653	56,973	23,960	29,927	33,714	35,837	36,968	30,636	35,335	38,484	40,298	41,277
Westlake	1612	183	191	196	203	210	-	-	-	-	-	1,075	1,245	1,295	1,365	1,375	-	-	-	-	-	-	160	330	590	920
Willawong	1615	106	188	273	403	569	-	7,568	15,455	27,440	42,775	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wilston	1618	512	513	514	516	519	7,720	7,720	7,720	7,720	7,720	7,409	7,459	7,519	7,619	7,749	-	-	-	-	-	7,637	7,637	7,637	7,637	7,637
Windsor	1623	2,302	2,421	2,499	2,549	2,587	49,161	53,519	56,217	57,825	58,804	5,146	5,766	6,156	6,356	6,476	-	-	-	-	-	34,605	36,855	38,415	39,515	40,455
Wishart	1626	502	601	669	717	743	13,111	13,111	13,111	13,111	13,111	7,928	9,048	9,578	10,078	10,288	-	-	-	-	-	8,157	11,177	13,577	15,117	16,037
Woolloongabba	1631	10,345	10,764	11,157	11,546	11,942	66,545	73,195	76,429	77,938	78,650	82,462	84,996	88,114	91,721	95,652	45,154	46,316	47,693	49,249	50,927	131,016	136,720	142,045	146,982	151,832
Wooloowin	1634	1,065	1,074	1,078	1,080	1,080	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47,936	48,376	48,596	48,696	48,736
Wynnum	1637	4,007	4,340	4,573	4,721	4,817	21,146	26,086	29,742	32,261	33,920	28,361	34,569	38,954	41,591	43,145	8,472	9,654	10,489	10,992	11,288	23,995	27,085	29,085	30,485	31,625
Wynnum West	1642	1,432	1,751	1,905	1,975	2,049	-	-	-	-	-	31,948	40,928	45,358	47,318	49,618	-	-	-	-	-	23,408	26,238	27,518	28,158	28,538
Yeerongpilly	1645	1,708	2,043	2,258	2,420	2,567	137,178	145,634	151,678	155,339	157,563	-	-	-	-	-	-	-	-	-	-	22,538	31,768	37,498	42,088	46,578
Yeronga	1648	1,092	1,292	1,498	1,677	1,809	20,088	23,248	25,580	27,045	27,988	9,266	10,116	10,746	11,166	11,476	-	-	-	-	-	27,366	32,586	38,496	43,906	47,966
Zillmere	1653	2,005	2,271	2,491	2,632	2,712	48,011	59,697	71,883	81,018	86,630	4,788	6,688	7,938	8,588	8,898	-	-	-	-	-	22,462	26,382	29,192	30,762	31,582
Brisbane City Total (excl. Karana Downs - Lake Manchester)		508,942	556,948	601,132	641,926	676,523	8,893,765	10,016,186	11,136,405	12,261,937	13,191,905	2,954,955	3,317,641	3,608,028	3,842,777	4,002,150	3,645,371	3,925,963	4,184,233	4,432,743	4,657,185	4,362,105	4,767,855	5,133,537	5,455,382	5,778,656

Figure 4.3
Statistical Local Areas



Statistical Local Area boundaries

Surrounding LGA areas

Considerable care has been taken to avoid errors and omissions. The latest information has been sought out and included. The Brisbane City Council does not accept any responsibility for any errors, omissions or inaccuracies for information in the map.

Printed on: 21/03/2003

Source: ABS, (2001) Australian Standard Geographical Classification (ASGC) 2001, Catalogue No. 1216.0

BRISBANE CITY

5 DESIRED STANDARDS OF SERVICE

Waterways infrastructure is a component of urban water cycle management infrastructure. It includes infrastructure for collecting water, treating water, stream and water quality management, disposing of waters and flood mitigation.

Development is required to compliment infrastructure funded under PSPs with ‘at source’ controls. In combination, these types of infrastructure are intended to optimise the cost of the waterways network over the life of the network, taking into account operating and maintenance costs as well as capital.

The combined PSP and ‘at source’ infrastructure must achieve the Water Quality Objectives for the receiving waters, which are specified in the Guidelines on Identifying and Applying Water Quality Objectives in Brisbane City (BCC 2000).

Application of Water Sensitive Urban Design is generally required to meet these standards.

The waterways network is intended to achieve the Planning Criteria and Design Criteria that are outlined below.

Planning Criteria	User Benefit	Environmental Effect
• provide a network of shared infrastructure that allows for the free and safe drainage of urban land	• ensures the free and safe drainage of urban land at least cost	• minimises the impact of development on the ecological health of waterways • minimises the impact of development on water quality
• minimise the whole of life costs and adverse environmental impacts of shared waterways infrastructure by optimising the use of: - natural drainage systems - stormwater drainage systems, including pipes and channels - overland flow systems, including swales • maximise the retention and enhancement of the natural waterways	• improves water quality and waterways health at the least cost to the community as a whole • reduces the long term costs of maintaining the waterways corridor • minimises the impact of flooding by preserving existing storage • maintains or increases recreational opportunities along waterways • maintains or increases the scenic amenity of waterways	• protects the environmental values of waterways networks • protects areas of natural riparian vegetation and key habitat areas
• optimise the provision of shared infrastructure, taking into account the use of Water Sensitive Urban Design and other types of on-site infrastructure	• minimises the impact of development on natural waterways by maintaining existing hydrological parameters, such as flows, flow velocities and pattern of flood storage • improves water quality and waterways health at the least cost to the community as a whole	• improves water quality at the point of discharge • controls peak flows and thereby reduces the potential for erosion and sedimentation

Design Criteria	User Benefit	Environmental Effect
Waterways Corridors		
• convey floodwater from an acceptable design event (usually 100 year ARI) in the waterways channel and floodplains	• ensures no inundation of habitable areas • minimises risk to property and life from flooding • reduces the cost of flood damage to the community	• maintains the natural functions of creeks and floodplains • reduces environmental damage due to flooding by maintaining the natural functions of floodplains
• preserve sufficient buffers from urban development along waterways wherever appropriate for ecological links, including fauna movement • rehabilitate degraded waterways banks and floodplains through planting of native vegetation, erosion treatment measures and natural channel design features	• meets community expectations regarding waterways • ensures reasonable levels of water quality and turbidity in waterways by maximising the use of natural processes • retains scenic amenity • provides recreational opportunities	• protects environmentally sensitive areas from development • enhances nature conservation by retaining riparian areas for environmental purposes • facilitates fauna movement • provides for polished water, thereby improving the health and diversity of the waterways
• cater for long term morphological processes, such as erosion and sedimentation, by allowing sufficient width within waterways corridors	• minimises the impact of erosion or sedimentation on private property • reduces the need for costly structural treatments of waterways banks	• provides for natural processes of erosion and sedimentation
• provide certainty to landowners and developers about the future ownership and maintenance of waterways corridors	• provides certainty about the costs of development	• protects environmentally sensitive areas from future development
• preserve sufficient space in waterways corridors to accommodate stormwater quality improvement devices, including wetlands and water quality ponds	• provides opportunities to improve waterways health • reduces the number of stormwater quality improvement devices that need to be provided on private land	• improves the quality of receiving waters and minimises impacts on the natural marine environment, particularly Moreton Bay • maximises the potential for maintaining and improving the health of the waterways
Overland Flow Systems		
• convey floodwater from the local catchment for an acceptable design event (usually 50 year ARI) by a combined network of underground pipes, natural channels and overland flow-paths without: - adversely impacting on properties - compromising environmental values associated with the flow paths • design the combined drainage systems to comply with established codes and standards, including the Queensland Urban Drainage Manual	• ensures habitable areas are protected in time of inundation • provides an optimal balance of underground pipes, natural channels and overland flow-paths • improves safety during the majority of flood events by utilising the combined network	• promotes the environmental protection of areas • promotes the construction of natural channels or rehabilitation of existing natural flow paths

Design Criteria	User Benefit	Environmental Effect
• design constructed overland flow paths and channel works to comply with established codes and standards, including the Natural Channel Design Guidelines		
Detention and Retention Basins		
• consider regional and on-site detention facilities to minimise the impact of peak run-off from the new developments, taking into account safety and risk from failure • detention basins that maintain existing peak flows from the development site for all flood events • develop a release strategy from basins in the same catchment such that the coincident flooding is avoided and the peak discharge at further downstream control points is not increased • consider environmental effects, such as loss of vegetation • address safety and risk from failure	• minimises adverse impacts from flooding for existing and future developments • reduces the size of waterways corridors and underground drainage • provides active and passive recreation opportunities as appropriate	• minimises the impact on the environmental values of downstream waterways by maintaining existing flows and velocities • reduces potential sediments by slowing flow velocities, thereby making flow velocities reflect the natural channel cross section
Bridges and Culverts		
• design bridges and culverts with appropriate flood immunity and capacity to convey floodwater, taking into account the Council road hierarchy • upgraded bridges and culverts must not adversely impact on the natural environment, such as through the loss of vegetation and undesirable impacts on bio-diversity • bridges and culverts must maintain fauna and recreation links • upgrading of bridges and culverts must not adversely impact on the balance of minor flows conveyed in the main channel and major flows conveyed in the flood plain	• ensures road crossings operate safely in times of inundation • reduces the risk of flooding for upstream properties by providing adequate bridge and culvert capacity • provides opportunities for extended pedestrian and bicycle links	• enhances ecological links by providing appropriate movements options for fauna through the bridges and culverts
Stormwater Quality Improvement Devices (SQIDs) and Stormwater Quality Improvement Practices		
• ensure that stormwater run-off meets the Water Quality	• ensures water is suitable for primary and secondary	• improves the quality of receiving waters and

Design Criteria	User Benefit	Environmental Effect
Objectives for the receiving waters at all times by an appropriate balance of at source controls and shared infrastructure	contact • minimises the whole of life cycle costs for stormwater quality improvement devices • reduces the amount of land required in public ownership	minimises impacts on the natural marine environment, particularly Moreton Bay • maximises the potential for maintaining and improving the health of the waterways • reduces the velocity of flow to prevent scouring and erosion • reduces secondary problems like algal blooms • ensures that large rubbish does not affect larger aquatic and marine life

6 EXISTING AND FUTURE INFRASTRUCTURE

The waterways network contains the two integrated systems of:

- Water quantity infrastructure, and
- Water quality infrastructure.

The Waterways PSP includes both existing and future trunk infrastructure.

6.1 EXISTING INFRASTRUCTURE

6.1.1 Water Quantity Infrastructure

Natural waterways corridors may fulfil multiple uses in Brisbane, in addition to conveying stormwater run-off and providing for water quality requirements. For example, recreational open space and trails co-exist with waterways corridors, delivering the efficient utilisation of resources. Where this occurs, the land and works are included in either the Infill Community Purposes PSP or Infill Transport PSP.

No land for existing natural or engineered waterways is included in this PSP.

Piped drainage of 900 mm diameter and greater and associated works such as manholes, together with bridges and culverts is included in this PSP as trunk waterways infrastructure.

Regional detention and outlet facilities are included as trunk water quantity infrastructure.

6.1.2 Water Quality Infrastructure

Trunk water quality infrastructure is defined as shared infrastructure, the main purpose of which is to maintain or improve water quality in the waterways network.

Land and works associated with existing regional (shared) wetlands is defined as trunk infrastructure in this PSP.

Stormwater quality improvement devices (SQIDS) located on trunk piped drainage are also included as trunk infrastructure.

6.2 THE BASIS OF FUTURE PLANNING

6.2.1 Future Water Quantity Infrastructure

The water quantity system contains two elements of trunk infrastructure; existing and future. Future waterways infrastructure has been planned in a number of limited sub-catchments in the City. Reference is made to the following studies in the extrinsic material to identify future planned water quantity infrastructure:

- The Inner North Eastern Suburbs PSP,
- Pashen Creek, Bulimba (Bulimba PSP),
- Part of ATC South PSP,
- Calamvale PSP,
- Wakerley LAP and PSP,
- Richlands LAP and PSP,
- Fig Tree Pocket LAP and PSP,
- Wynnum West LAP and PSP,
- Doolandella LAP and PSP,
- Greenslopes LSMP,
- Coorparoo LSMP,

- Bridgewater Creek LSMP,
- West End LSMP,
- Langsville Creek LSMP,
- Westerham Street LSMP,
- Sandy Creek LSMP,
- Faulkner Park LSMP,
- Long Street East LSMP,
- Yeronga LSMP,
- Albion LSMP,
- Hendra-Doomben-Kemble Street LSMP,
- Gellibrand Street LSMP,
- Gerler Road (Clayfield) LSMP,
- Doomben Racecourses LSMP,
- Water-Campbell Street LSMP,
- Castlemaine- Caxton Street LSMP,
- Western Creek LSMP,
- Woolcock Park LSMP,
- Alderley LSMP, and
- Kedron LSMP

Future infrastructure needs are based upon full development of the Planning Scheme provisions in the LSMP catchments, in accordance with Section 2.8 of IPA Infrastructure Guideline 2/04. Full development is assessed using impervious area as the demand measure for water quantity purposes. Impervious area is based on developable area and QUDM impervious proportions.

The use of natural waterways is preferred over engineered channel or piped solutions. Piped drainage and overland flow paths are provided to connect properties to natural waterways, particularly in older and established inner areas.

Natural waterways width requirements are based on a 100 year flood event. Piped drainage is generally based on a 10 year flood event retained in the piped system together with the balance of Q50 contained in overland flow paths, including roads.

In some constrained inner areas such as the Inner North Eastern Suburbs and older LSMPs, piped drainage may be based on a Q2 flood event as defined in the extrinsic material.

6.2.2 Future Water Quality Infrastructure

Future water quality infrastructure is based on achieving EPA Water requirements in natural waterways and receiving waters. This is achieved in the LSMP areas by meeting City Plan 2000 water quality objectives on individual sites, together with regional water quality infrastructure dealing with bulky pollutants and sedimentation (waterways bank stabilisation and SQIDS) and nitrogen and phosphorous by way of regional wetlands and riparian vegetation and planting.

Council has not included a future land component for bank stabilisation and revegetation, rather Council intends to access these lands through a voluntary agreement with individual owners. Works and planting required for bank stabilisation and revegetation is defined as trunk infrastructure and included in this PSP.

6.3 SCHEDULES OF WORKS

Schedules of work are provided in each of the 23 major creek catchments for water quantity and water quality infrastructure (Details are provided in Appendices A & B).

6.4 DEVELOPMENT AND WATERWAYS EXTERNAL TO THE INFILL PSP

Brisbane City receives some stormwater run-off from development areas external to the City.

In terms of the use of existing Brisbane City Council waterways infrastructure, development external to the City have been allowed for in the impervious area assessment used for fixing this component of the contribution.

Brisbane City development in some catchments is expected to use waterways infrastructure external to the City, but no allowance has currently been made in the contributions for the use of this infrastructure.

Catchments west of Moggill and Breakfast Creek are part of the Lake Manchester Local Plan (this includes the community of Karana Downs) in which limited growth in development is planned. As a consequence, any development approved in this location will be subject to the full provision or cost of providing trunk water quantity and quality infrastructure necessary to service the development at the desired standards of service.

7 COST APPORTIONMENT

Cost apportionment is the process by which the establishment cost of infrastructure is fairly allocated to development on the basis of its planned allocation (the minimum planned demand) or use of capacity; in order to determine the infrastructure contributions.

Average cost apportionment is used in this planning scheme policy to determine contributions. Under average cost apportionment, the total value of existing and/or future development infrastructure within a contribution area or catchment is apportioned across the combined total and future impervious area of the contribution area or catchment.

7.1 ESTABLISHMENT COSTS AND VALUATION OF INFRASTRUCTURE

In Schedule 10 IPA defines the following elements of the establishment cost of waterways infrastructure that may be included in this PSP:

- The cost of preparing the infrastructure contributions including the DSS and the PFTI,
- The on-going costs of administering the contributions schedules,
- All costs for the land, construction, design and financing of future infrastructure, and
- The land acquired after 1st January 1990, the current replacement construction cost and residual financing cost of existing infrastructure.

No land costs are explicitly included in this PSP for either existing or future waterways infrastructure.

Table 7.1 Cost and Valuation of Waterways Infrastructure

The present value of current Waterways Infrastructure	1,132,588,645 ICUs
The present value of proposed Waterways Infrastructure	324,461,369 ICUs
Existing impervious areas (ha) used for calculating Infrastructure Contributions	18,643 Ha
Ultimate impervious areas (ha) used for calculating Infrastructure Contributions	24,508 Ha

7.2 OTHER ITEMS INCLUDED IN TRUNK INFRASTRUCTURE

Planning, design, construction supervisions costs, outstanding financing costs and contingencies for future projects are included in the PSP.

7.3 ACCOUNTING FOR THE TIME VALUE OF MONEY

Discounting has not been used in this PSP. Costs and demands are expressed in current values in accordance with Section 2.8 IPA Infrastructure Guideline 2/04.

In not including discounting in determining contributions, Council anticipates that the provision of future infrastructure will follow the marginal increase in waterways demand generated by the anticipated growth in development.

7.4 NON PAYING USERS

Non paying users are defined in this PSP as:

- Development external to Brisbane City that uses infrastructure defined in this PSP, and
- State developments as agreed between BCC and the State,

7.5 GRANTS AND SUBSIDIES

No infrastructure included in this PSP has or will be the subject of a grant or subsidy for its provision.

7.6 MEASURE OF DEVELOPMENT AND DEMAND FOR WATERWAYS INFRASTRUCTURE

Brisbane City Plan 2000 area classifications are the basis for determining future development and impervious area under this PSP. The City Plan provisions are defined in terms of GIS overlays that reflect development type categories in the City.

The proportion of impervious attached to each area classification of development is provide in Table 7.2 below. These have been determined by an examination of the development characteristics set out in the City Plan and by examination of actual development characteristics.

Table 7.2 Percentage Impervious for Development Classifications

Development Classification	Percentage Impervious (%)
Vacant Site	0
Low Density Residential (LDR) and Emerging Community (EC)	50
Low – Medium Density Residential (LMR)	65
High Density Residential (HDR)	85
Industry	90
Multi-purpose Centres	90
Community Purpose	20
Special Use	65

Impervious area is the measure of demand used in this Waterways PSP for both water quantity and quality infrastructure, generally expressed in terms of impervious hectare or impervious square metres.

The minimum planned demand for infrastructure in a catchment is the measure by which waterways establishment costs are apportioned for that catchment. Different types of development create different levels of minimum planned demand on waterways infrastructure and these are defined in Table 2.3.

7.7 WATERWAYS INFRASTRUCTURE COST APPORTIONMENT

Waterways infrastructure contributions are reported in this PSP as the combined contribution for water quantity and quality infrastructure using the following formulation:

$$\textbf{Contribution (ICUs/Ha)} = \frac{\textbf{Value of existing infrastructure} + \textbf{Value of future infrastructure}}{\textbf{Ultimate impervious area (Ha)}}$$

Contribution rates for each waterways catchment area have three inputs, value of existing infrastructure, value of proposed infrastructure and ultimate impervious area. Each of these three inputs is made up of the following elements:

a) Ultimate Impervious Area:

- This area is the assumed impervious developable area expected within the major catchment.

b) Value of Existing Infrastructure:

- The cost of replacing existing waterways infrastructure at present value.
- Existing infrastructure is shown as either water quality or water quantity per major catchment in (refer Appendix A).

c) **Value of Proposed Infrastructure**:

- Drawn from the schedule of proposed waterways infrastructure per major catchment (as shown in Appendix B – Planned Trunk Infrastructure).
- The total cost of proposed infrastructure is split into three minor catchment categories (Infill, SMP & LSMP) and displayed in Appendix B in dollars per each major catchment
- The Proposed total value of infrastructure listed in each major catchment area is shown as either water quality or water quantity and detailed as totals in the infill, SMP or LSMP categories.

Appendix A - Contribution Rates Methodology compiles the three input values to enable a contribution rate to be calculated for each major catchment area. Impervious areas are defined by minor and major catchment. Ultimate impervious area represents the total area within a catchment that existing and proposed infrastructure has been apportioned across. (For more detail regarding ultimate impervious area refer to Section 6.2 of this document).

Appendix A displays the total value of existing infrastructure and proposed infrastructure (including both water quantity and water quality) as ICUs. These values are apportioned across the ultimate impervious area of the major catchment to define the ICU per impervious hectare for each major catchment area as summarised in Table 2.2 Water Infrastructure Contributions.

7.8 HOW CONTRIBUTIONS ARE EXPRESSED

Contributions are expressed as ICU's per impervious developable hectare.

Infrastructure contributions are defined for each contribution area in a major creek catchment. Contribution areas acknowledge SMP and LSMP study boundaries using in principle, the average incremental cost apportionment approach. Contribution areas are defined in Map 1.

Contributions can be calculated for individual categories of development or for a unit of development by using waterways equivalent conversion rates. A summary of how to calculate contributions are contained in Section 2.

BIBLIOGRAPHY

Brisbane City Council, 2000, Brisbane City Plan 2000; Brisbane

Brisbane City Design 2006, Stormwater Drainage and Treatment Infrastructure; Brisbane

Queensland Government, 1997. Integrated Planning Act 1997; Brisbane

Queensland Government, 2003. Integrated Planning and Other Legislation Amendment Act 2003; Brisbane

Queensland Department of Local Government and Planning, 2004. IPA Infrastructure Guideline 1/04 and 2/04.

Queensland Department of Local Government and Planning, 1998. Draft IPA Guideline – Infrastructure Charging

GLOSSARY

‘Developable site area’ – means the total area of a site less the physical constraints identified through the provisions and overlays of the Brisbane City Plan 2000.

‘Existing Lawful Use’ – means a use that was approved to exist on a site by Brisbane City Council, on the day an assessable development application was lodged for the site.

‘**Lawful point of discharge’** – has the same meaning as that defined by the Queensland Urban Drainage Manual (QUDM)

‘Management lot’ - a lot greater than 2ha where the application identifies that the lot will be be subdivided with 2 years.

‘Offset’ – means an equivalent ICU (or cash) amount for land or works to be supplied by a proponent in respect of trunk waterways infrastructure identified in the PFTI of this planning scheme policy.

‘On-costs and contingencies’ – means in the case of on-costs a proportion of the cost of works added for planning, design, and for construction supervision. And in the case of contingencies, means an amount of the cost of works added to cover unforseen additional costs.