

LIVERPOOL CONTRIBUTIONS PLAN 2009



Adopted: 14 December 2009

Amended: 25 August 2021

Content Manager: 107975.2020



Liverpool Contributions Plan 2009

Table of Contents

1.	Introduction	1
2.	Schedule of Contributions.....	2
3.	Administration	18
4.	City Wide Planning Context, Development Trends and Nexus	26
5.	City Wide Facilities	43
6.	Established Areas	48
7.	Pleasure Point	49
8.	Pleasure Point East.....	54
9.	Hoxton Park Stage 2 Release Areas District Facilities	59
10.	Hoxton Park, Carnes Hill and Prestons Release Areas	77
11.	Prestons Industrial Release Area	116
12.	Middleton Grange Release Area	130
13.	Elizabeth Hills/Cecil Hills	149
14.	Range Road Precinct	151

1. Introduction

Liverpool continues to experience significant new urban development, which creates a need for additional public amenities and services. In order that the existing residents are not burdened with the cost of providing these public services and amenities it is necessary for new urban development to provide these at no cost to existing residents.

Section 7.11 of the *Environmental Planning and Assessment Act, 1979* (the Act) enables the Council to require new urban development to provide these public services and amenities at no cost to Council. In particular Section 7.12 enables the Council to require, as a condition of development consent, that land is dedicated or a cash contribution is made or both, for the provision of public services and amenities. Any such requirement must be in accordance with a contributions plan prepared by the Council.

The *Liverpool Contributions Plan 2009* provides information on the extent of anticipated new development, the extent of new public services and amenities needed to support the new development and the contributions that the new development must make to fund the public services and amenities.

Section 2 - Schedule of Contributions

This provides the monetary contribution rates for development in the various areas of the Liverpool LGA. There is a hierarchy of contributions levied under this plan. That is, a development may be levied for facilities that serve all of Liverpool (Citywide Facilities), a group of suburbs (District Facilities) and a particular suburb or release area (Local Facilities).

Section 3 - Administration

This provides background on S7.11 of the Act, details on how development will be levied contributions and when the contributions plan was adopted and subsequently amended.

Section 4 City Wide Planning Context, Development Trends and Nexus

This outlines how Council's vision for Liverpool, which is contained in Liverpool Directions, relates to the contributions plan. Further the section provides an outline on how this plan relates to *Liverpool Local Environment Plan 2008* and *Liverpool Development Control Plan 2008*. It also provides a guide on the scope of public services and amenities that are considered needed for residents in Liverpool. It also provides information on City Wide Development and Demographic Trends.

Sections 5 – 13

Sections 5 – 13 provide details on the actual facilities that contributions will fund, the nexus between development and facilities to be funded by contributions, the formulae for determining the contributions and a general comment on the timing of facilities. As *Liverpool Local Environmental Plan 2008* is amended to allow new urban areas to develop additional sections will be added.

The range of public services and amenities that are funded by developer contributions includes:

- **Community Facilities** - including multi-purpose community centres, libraries and cultural facilities.
- **Recreation Facilities** – including bushland reserves, outdoor passive facilities, Indoor and outdoor sporting facilities and bike paths.
- **Transport** – including various pedestrian, bike paths and traffic facilities, public transport facilities, frontage to public land uses and sub arterial roads.
- **Drainage** – including natural creek corridors, pipes, water treatment and detention basins.

2. Schedule of Contributions

Contributions are payable for development on land which is the subject of a Development Application in accordance with the following tables and subject to the provisions elsewhere in the contributions plan. In particular the contribution rates shown here are indexed in accordance with Section 3.7.6.

2.1 Established Areas

Table 2.1

Purpose	Lots > 450 sqm	Lots < 450 sqm	Multi dwelling housing			Aged /
			3 Bed +	2 Bed	1 Bed	Disabled
	Per Lot	Per Lot	Per Dwelling	Per Dwelling	Per Dwelling	Per person
Community Facilities						
City Library Extensions	\$167	\$161	\$161	\$120	\$62	\$45
Powerhouse	\$119	\$115	\$115	\$85	\$45	\$32
District	\$187	\$181	\$181	\$135	\$70	\$59
Recreation						
Whitlam Centre Extensions	\$245	\$238	\$238	\$176	\$92	\$77
District	\$695	\$673	\$673	\$499	\$260	\$217
Local	\$2,778	\$2,691	\$2,691	\$1,997	\$1,042	\$868
Other						
Administration	\$50	\$49	\$49	\$36	\$19	\$16
Total	\$4,241	\$4,108	\$4,108	\$3,048	\$1,590	\$1,313

The above rates are as at the September 2010 Quarter CPI.

The works index is 172.5.

The Established Areas includes the areas shown on the following map. It excludes the Liverpool City Centre, which is subject to *Liverpool Contributions Plan 2007 (Liverpool City Centre)*.

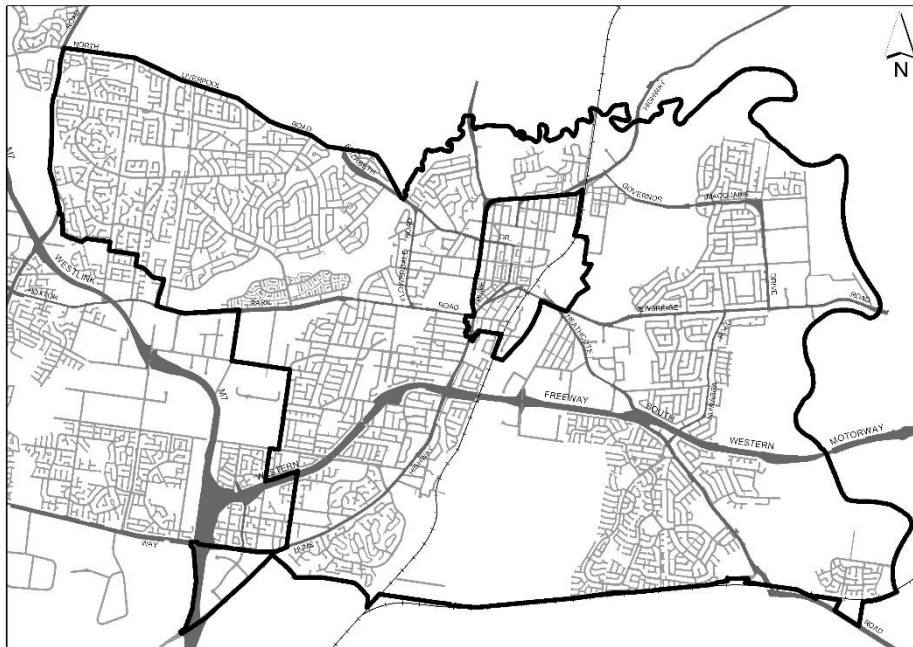


Figure 2.1 Established Areas Catchment Area

2.2 Pleasure Point East

Table 2.2

Purpose	Dwellings in River Heights Rd	Dwellings in River View Rd	Dwellings in Green St	Dwellings in Pleasure Point Rd
Community Facilities	Per dwelling	Per dwelling	Per dwelling	Per dwelling
City Library Extensions	\$167	\$167	\$167	\$167
Powerhouse	\$119	\$119	\$119	\$119
Recreation				
Whitlam Centre Extensions	\$245	\$245	\$245	\$245
Transport				
Local Streets	\$14,782	\$3,273	\$2,718	
Drainage				
Inter-allotment Drainage	\$2,623	\$2,623	\$2,623	\$2,623
Other				
Administration	\$64	\$64	\$64	\$64
Professional & Legal Fees	\$228	\$228	\$228	\$228
Plan Establishment Costs	\$392	\$392	\$392	\$392
Total	\$18,620	\$7,111	\$6,556	\$3,838

The above rates are as at the September 2010 Quarter CPI.

The works index is 172.5.

Pleasure Point East includes the areas shown on the following map.



Figure 2.2 Pleasure Point East Catchment Area

2.3 Pleasure Point

Table 2.3

Purpose	Lots	Lots
	> 450 sqm	< 450 sqm
Community Facilities	Per dwelling	Per dwelling
City Library Extensions	\$193	\$172
Powerhouse	\$137	\$122
District	\$187	\$95
Recreation		
Whitlam Centre Extensions	\$284	\$253
Local - Land	\$1,416	\$1,263
Local - Works	\$1,902	\$1,697
Transport		
Local - Land	\$10,586	\$9,480
Local - Works	\$4,906	\$4,394
Other		
Administration	\$280	\$250
Total	\$19,891	\$17,725

The above rates are as at the September 2010 Quarter CPI.

The works index is 172.5. The land index is 1.

Pleasure Point includes the areas shown on the following map.

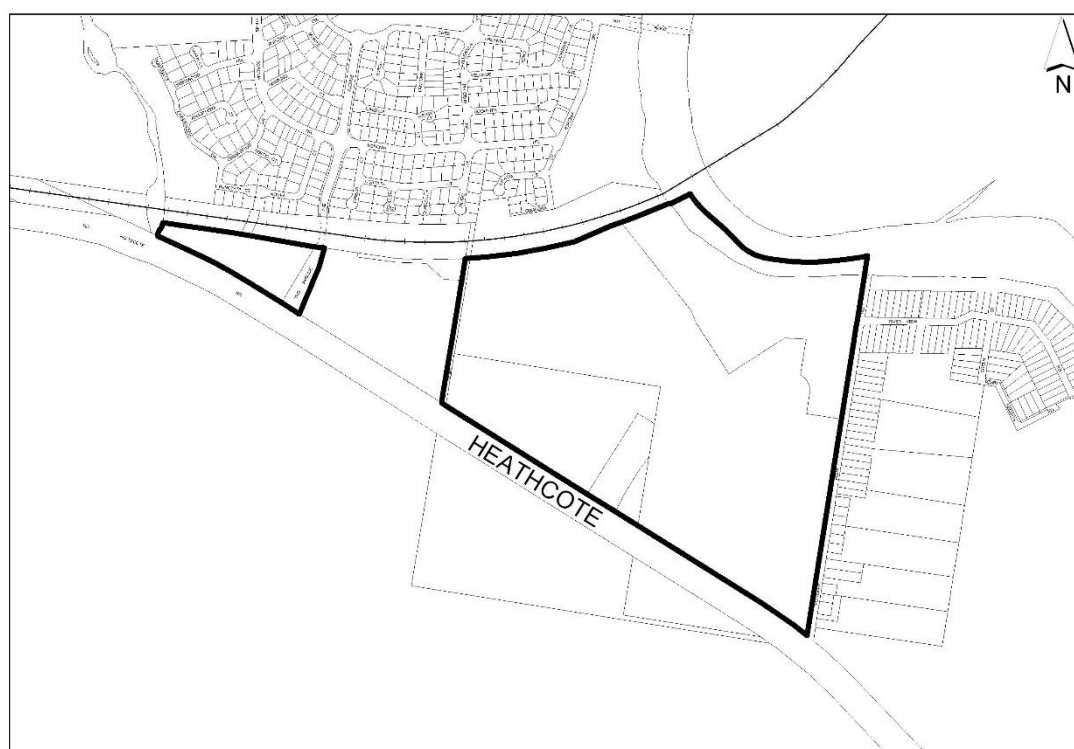


Figure 2.3 Pleasure Point Catchment Area

2.4 Hoxton Park, Carnes Hill and Prestons

Table 2.4

Purpose	Lots > 450 sqm	Lots < 450 sqm	Multi dwelling housing			Aged / Disabled
			3 Bed +	2 Bed	1 Bed	
	Per Lot	Per Lot	Per Dwelling	Per Dwelling	Per Dwelling	Per person
Community Facilities						
City Library Extensions	\$193	\$172	\$172	\$120	\$94	\$52
Powerhouse	\$137	\$122	\$122	\$85	\$67	\$37
District - Land	\$107	\$95	\$95	\$66	\$52	\$29
District - Works	\$1,105	\$986	\$986	\$687	\$538	\$299
Local - Works	\$652	\$582	\$582	\$405	\$317	\$176
Recreation	Per Lot	Per Lot	Per Dwelling	Per Dwelling	Per Dwelling	Per person
Whitlam Centre Extensions	\$284	\$253	\$253	\$176	\$138	\$77
District Recreation - Land	\$1,290	\$1,150	\$1,150	\$802	\$628	\$349
District Recreation - Works	\$1,043	\$930	\$930	\$648	\$507	\$282
Local Recreation - Land	\$8,110	\$7,233	\$7,233	\$5,041	\$3,945	\$2,192
Local Recreation - Works	\$4,434	\$3,954	\$3,954	\$2,756	\$2,157	\$1,198
Transport	Per Lot	Per Lot	Per Dwelling	Per Dwelling	Per Dwelling	Per person
District - Land	\$826	\$740	\$740	\$493	\$407	\$223
District - Works	\$2,199	\$1,969	\$1,969	\$1,313	\$1,083	\$594
Local (select sub catchment)						
East of Bernera Road - Land	\$1,868	\$1,673	\$1,673	\$1,115	\$920	\$505
East of Bernera Road - Works	\$2,057	\$1,842	\$1,842	\$1,228	\$1,013	\$556
West of Bernera Road - Land	\$1,867	\$1,672	\$1,672	\$1,114	\$919	\$505
West of Bernera Road - Works	\$1,433	\$1,284	\$1,284	\$856	\$706	\$387
East of Cowpasture Road - Land	\$2,106	\$1,886	\$1,886	\$1,258	\$1,038	\$569
East of Cowpasture Road - Works	\$1,187	\$1,063	\$1,063	\$709	\$585	\$321
West of Cowpasture Road - Land	\$2,625	\$2,350	\$2,350	\$1,567	\$1,293	\$709
West of Cowpasture Road - Works	\$2,605	\$2,333	\$2,333	\$1,555	\$1,283	\$704
Nineteenth Avenue - Land	\$3,117	\$2,792	\$2,792	\$1,861	\$1,535	\$843
Nineteenth Avenue - Works	\$2,635	\$2,360	\$2,360	\$1,573	\$1,298	\$712
Whitford Road South - Land	\$1,981	\$1,774	\$1,774	\$1,182	\$975	\$535
Whitford Road South - Works	\$1,426	\$1,277	\$1,277	\$851	\$702	\$385
Drainage	Per sqm	Per sqm	Per sqm	Per sqm	Per sqm	Per sqm
District - Land	\$4.32	\$4.98	\$4.98	\$4.98	\$4.98	\$4.98
District - Works	\$1.21	\$1.40	\$1.40	\$1.40	\$1.40	\$1.40
Local (select sub catchment)						
Prestons Central - Land	\$2.59	\$2.99	\$2.99	\$2.99	\$2.99	\$2.99
Prestons Central - Works	\$4.23	\$4.88	\$4.88	\$4.88	\$4.88	\$4.88
Prestons West - Land	\$1.57	\$1.81	\$1.81	\$1.81	\$1.81	\$1.81
Prestons West - Works	\$4.08	\$4.71	\$4.71	\$4.71	\$4.71	\$4.71
West of Cabramatta Creek - Land	\$2.10	\$2.42	\$2.42	\$2.42	\$2.42	\$2.42
West of Cabramatta Creek - Works	\$3.94	\$4.55	\$4.55	\$4.55	\$4.55	\$4.55
Other	Per Lot	Per Lot	Per Dwelling	Per Dwelling	Per Dwelling	Per person
Streetscape - Land	\$252	\$225	\$225	\$157	\$123	\$68
Streetscape - Works	\$118	\$105	\$105	\$73	\$57	\$32
Administration	\$280	\$250	\$250	\$174	\$136	\$76
Professional and Legal Fees	\$251	\$224	\$224	\$156	\$122	\$68

Purpose	Schools	Business & Non Res
Drainage	Per sqm	Per sqm
District - Land	\$4.32	\$6.31
District - Works	\$1.21	\$1.77
Local (select sub catchment)		
Prestons Central - Land	\$2.59	\$3.79
Prestons Central - Works	\$4.23	\$6.18
Prestons West - Land	\$1.57	\$2.29
Prestons West - Works	\$4.08	\$5.96
West of Cabramatta Creek - Land	\$2.10	\$3.07
West of Cabramatta Creek - Works	\$3.94	\$5.76
Other		
Streetscape - Land	\$0.56	\$0.56
Streetscape - Works	\$0.26	\$0.26
Administration	\$0.26	\$0.26
Professional and Legal Fees	\$0.62	\$0.62

The above rates are as at the September 2010 Quarter CPI.

The works index is 172.5. The land index is 1.

Hoxton Park, Carnes Hill & Prestons includes the areas shown on the following map.

Refer to Section 9 for sub catchments within Hoxton Park, Carnes Hill & Prestons.

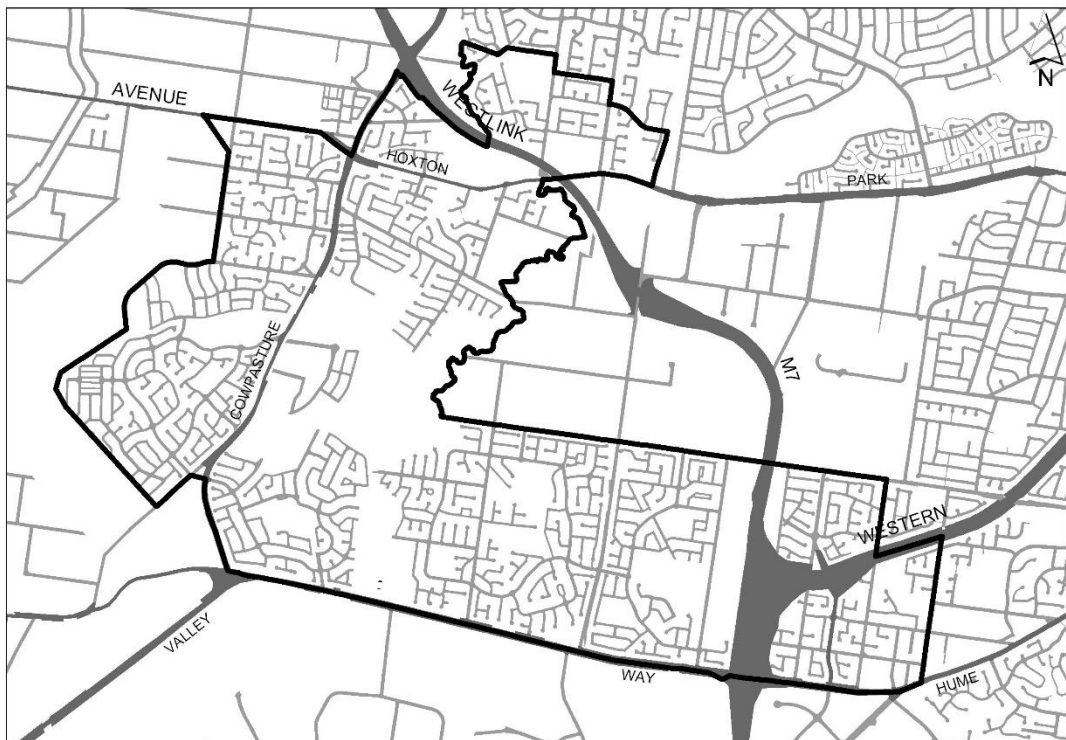


Figure 2.4 Hoxton Park, Carnes Hill & Prestons Catchment Area

2.5 Cecil Hills

Table 2.5

Purpose	Lots	Lots	Multi dwelling housing			Aged /
	> 450 sqm	< 450 sqm	3 Bed +	2 Bed	1 Bed	Disabled
	Per Lot	Per Lot	Per Dwelling	Per Dwelling	Per Dwelling	Per person
Community Facilities						
City Library Extensions	\$193	\$172	\$172	\$120	\$94	\$52
Powerhouse	\$137	\$122	\$122	\$85	\$67	\$37
District - Land	\$107	\$95	\$95	\$66	\$52	\$29
District - Works	\$1,105	\$986	\$986	\$687	\$538	\$299
Local - Works	\$704	\$628	\$628	\$438	\$343	\$190
Recreation						
Whitlam Centre Extensions	\$284	\$253	\$253	\$176	\$138	\$77
District - Land	\$1,290	\$1,150	\$1,150	\$802	\$628	\$349
District - Works	\$1,043	\$930	\$930	\$648	\$507	\$282
Local - Works	\$2,778	\$2,691	\$2,691	\$1,997	\$1,042	\$751
Drainage	Per sqm	Per sqm	Per sqm	Per sqm	Per sqm	Per sqm
District - Land	\$4.32	\$4.98	\$4.98	\$4.98	\$4.98	\$4.98
District - Works	\$1.21	\$1.40	\$1.40	\$1.40	\$1.40	\$1.40
Other	Per Lot	Per Lot	Per Dwelling	Per Dwelling	Per Dwelling	Per person
Administration	\$280	\$250	\$250	\$174	\$136	\$136

The above rates are as at the September 2010 Quarter CPI.

The works index is 172.5. The land index is 1.

Cecil Hills includes the areas shown on the following map.



Figure 2.5 Cecil Hills Catchment Area

2.6 Elizabeth Hills

Table 2.6

Purpose	Lots > 450 sqm	Lots < 450 sqm	Multi dwelling housing			Aged / Disabled
			3 Bed +	2 Bed	1 Bed	
	Per Lot	Per Lot	Per Dwelling	Per Dwelling	Per Dwelling	Per person
Community Facilities						
City Library Extensions	\$193	\$172	\$172	\$120	\$94	\$52
Powerhouse	\$137	\$122	\$122	\$85	\$67	\$37
District - Land	\$107	\$95	\$95	\$66	\$52	\$29
District - Works	\$1,105	\$986	\$986	\$687	\$538	\$299
Local - Works	\$704	\$628	\$628	\$438	\$343	\$190
Recreation						
Whitlam Centre Extensions	\$284	\$253	\$253	\$176	\$138	\$77
District - Land	\$1,290	\$1,150	\$1,150	\$802	\$628	\$349
District - Works	\$1,043	\$930	\$930	\$648	\$507	\$282
Other						
Administration	\$280	\$250	\$250	\$174	\$136	\$76
Total	\$5,143	\$4,587	\$4,587	\$3,197	\$2,502	\$1,390

The above rates are as at the September 2010 Quarter CPI.

The works index is 172.5. The land index is 1.

Elizabeth Hills includes the areas shown on the following map.



Figure 2.6 Elizabeth Hills Catchment Area

2.7 Prestons Industrial Area

Subdivision

Table 2.7a applies to land, which is the subject of a Development Application for the purpose of subdivision where the intention is to prepare the land for subsequent development and/or to on-sell the properties to industrial companies and/or future industrial land developers. This table does not apply to Development Applications, which involve the construction of buildings and/or the use of the land for any purpose in cases where the land has not been the subject of a previous approval involving developer contributions. In such cases, please refer to Table 2.7c.

Table 2.7a

Purpose	Per Sqm
Transport	
Local (select sub catchment)	
East of M7 - Works	\$0.96
West of M7 - Land	\$0.86
West of M7 - Works	\$0.73
West of M7 & Road A2 East of Bernera Road - Land	\$5.34
West of M7 & Road A2 East of Bernera Road - Works	\$2.94
West of M7 & Road B East of Bernera Road - Land	\$8.46
West of M7 & Road B East of Bernera Road - Land	\$4.50
West of M7 & Road C West of Kookaburra Road - Land	\$34.33
West of M7 & Road C West of Kookaburra Road - Works	\$19.75
West of M7 & Road D East of Kookaburra Road - Land	\$33.42
West of M7 & Road D East of Kookaburra Road - Works	\$15.78
Drainage	
Local (select sub catchment)	
East of M7 - Land	\$1.57
East of M7 - Works	\$6.35
West of M7 - Land	\$1.94
West of M7 - Works	\$6.33
North of M7 - Land	\$9.12

Buildings (where contribution has been paid for subdivision)

Table 2.7b is applicable to development applications for the construction of buildings and/or the use of land where developer contributions in accordance with Table 1 have been paid as a result of subdivision approved after this Plan came into force.

Table 2.7b

Purpose	Per Sqm
Transport	
District - Land	\$1.21
District - Works	\$3.22
Drainage	
District - Land	\$6.31
District - Works	\$1.77
Other	
Landscape - Buffer Land	\$0.91
Landscape - Buffer Works	\$0.08
Administration	\$0.27
Professional and Legal Fees	\$0.56

Buildings (where contribution for subdivision has not been paid)

Table 2.7c is applicable to development applications for the construction of buildings and/or the use of land where no previous developer contributions have been paid.

Table 2.7c

Purpose	Per Sqm
Transport	
District - Land	\$1.21
District - Works	\$3.22
Local (select sub catchment)	
East of M7 - Works	\$0.96
West of M7 - Land	\$0.86
West of M7 - Works	\$0.73
West of M7 & Road A2 East of Bernera Road - Land	\$5.34
West of M7 & Road A2 East of Bernera Road - Works	\$2.94
West of M7 & Road B East of Bernera Road - Land	\$8.46
West of M7 & Road B East of Bernera Road - Land	\$4.50
West of M7 & Road C West of Kookaburra Road - Land	\$34.33
West of M7 & Road C West of Kookaburra Road - Works	\$19.75
West of M7 & Road D East of Kookaburra Road - Land	\$33.42
West of M7 & Road D East of Kookaburra Road - Works	\$15.78
Drainage	
District - Land	\$6.31
District - Works	\$1.77
Local (select sub catchment)	
East of M7 - Land	\$1.57
East of M7 - Works	\$6.35
West of M7 - Land	\$1.94
West of M7 - Works	\$6.33
North of M7 - Land	\$9.12
Other	
Landscape - Buffer Land	\$0.91
Landscape - Buffer Works	\$0.08
Administration	\$0.27
Professional and Legal Fees	\$0.56

The above rates are as at the September 2010 Quarter CPI.

The works index is 172.5. The land index is 1.

Prestons Industrial Area includes the areas shown on the following map.

Refer to Section 10 for sub catchments within Prestons Industrial Area.



Figure 2.7 Prestons Industrial Area Catchment Area

2.8 Middleton Grange

Table 2.8

Purpose	Lots > 450 sqm	Lots < 450 sqm	Multi dwelling housing			Aged / Disabled
			3 Bed +	2 Bed	1 Bed	
	Per Lot	Per Lot	Per Dwelling	Per Dwelling	Per Dwelling	Per person
Community Facilities						
City Library Extensions	\$193	\$172	\$172	\$120	\$94	\$52
Powerhouse	\$137	\$122	\$122	\$85	\$67	\$37
District - Land	\$107	\$95	\$95	\$66	\$52	\$29
District - Works	\$1,105	\$986	\$986	\$687	\$538	\$299
Local - Land	\$48	\$43	\$43	\$30	\$23	\$13
Local - Works	\$704	\$628	\$628	\$438	\$343	\$190
Recreation						
Whitlam Centre Extensions	\$284	\$253	\$253	\$176	\$138	\$77
District - Land	\$1,290	\$1,150	\$1,150	\$802	\$628	\$349
District - Works	\$1,043	\$930	\$930	\$648	\$507	\$282
Local Recreation - Land	\$6,817	\$6,080	\$5,423	\$3,371	\$1,640	\$1,842
Local Recreation - Works	\$2,223	\$1,982	\$1,768	\$1,099	\$535	\$601
Transport						
District - Land	\$826	\$740	\$740	\$493	\$407	\$223
District - Works	\$2,199	\$1,969	\$1,969	\$1,313	\$1,083	\$594
Local - Land	\$1,311	\$1,174	\$1,174	\$783	\$646	\$354
Local - Works	\$3,751	\$3,359	\$3,359	\$2,239	\$1,847	\$1,014
Drainage (see below)						
Other						
Administration	\$254	\$254	\$254	\$254	\$254	\$69
Professional services	\$120	\$120	\$120	\$120	\$120	\$32
Implementation	\$1,204	\$1,204	\$1,204	\$1,204	\$1,204	\$325
Total	\$23,614	\$21,261	\$20,389	\$13,927	\$10,124	\$6,382

Drainage per dwelling	Land in 15 Dw / Ha	Land in 23 Dw / Ha	Land in 30 Dw / Ha	Aged Persons
	Per sqm	Per sqm	Per sqm	Per sqm
Drainage - Land	\$9.96	\$14.56	\$14.56	\$11.50
Drainage - Works	\$4.79	\$7.00	\$7.00	\$5.52

Purpose	Schools	Business & Non Res
	Per sqm	Per sqm
Drainage		
Local - Land	\$9.96	\$14.56
Local - Works	\$4.79	\$7.00
Other		
Administration	\$0.56	\$0.56
Professional services	\$0.27	\$0.27
Implementation	\$2.68	\$2.68

The above rates are as at the September 2010 Quarter CPI.

The works index is 172.5. The land index is 1.

Middleton Grange includes the areas shown on the following map.



Figure 2.8 Middleton Grange Catchment Area

2.9 Range Road Precinct

Table 2.9

Purpose	North segment	South segment
Transport and Administration	For contributing development (1 lot)	Per metre of frontage
Range Road - Works	\$1,824,000	\$2,040
Plan Administration	\$27,360	\$31.43
Total	\$1,851,360	\$2,071.43

The above rates are as at the March 2021 Quarter CPI.

Range Road includes the area shown on the following map.



Figure 2.9 Range Road Precinct Catchment Area

2.10 Rural Areas

Table 2.10

Purpose	Additional lots	Dual Occupancy Dwellings		
		3 Bed +	2 Bed	1 Bed
		Per Dwelling	Per Dwelling	Per Dwelling
Community Facilities				
City Library Extensions	\$177	\$161	\$120	\$94
	\$126	\$115	\$85	\$67
Powerhouse				
Recreation				
	\$261	\$238	\$176	\$138
Whitlam Centre Extensions				
Other				
Administration	\$7	\$6	\$5	\$4
Total	\$570	\$520	\$386	\$302

The above rates are as at the September 2010 Quarter CPI.

The works index is 172.5. The land index is 1.

Rural Areas include the areas shown on the following map.

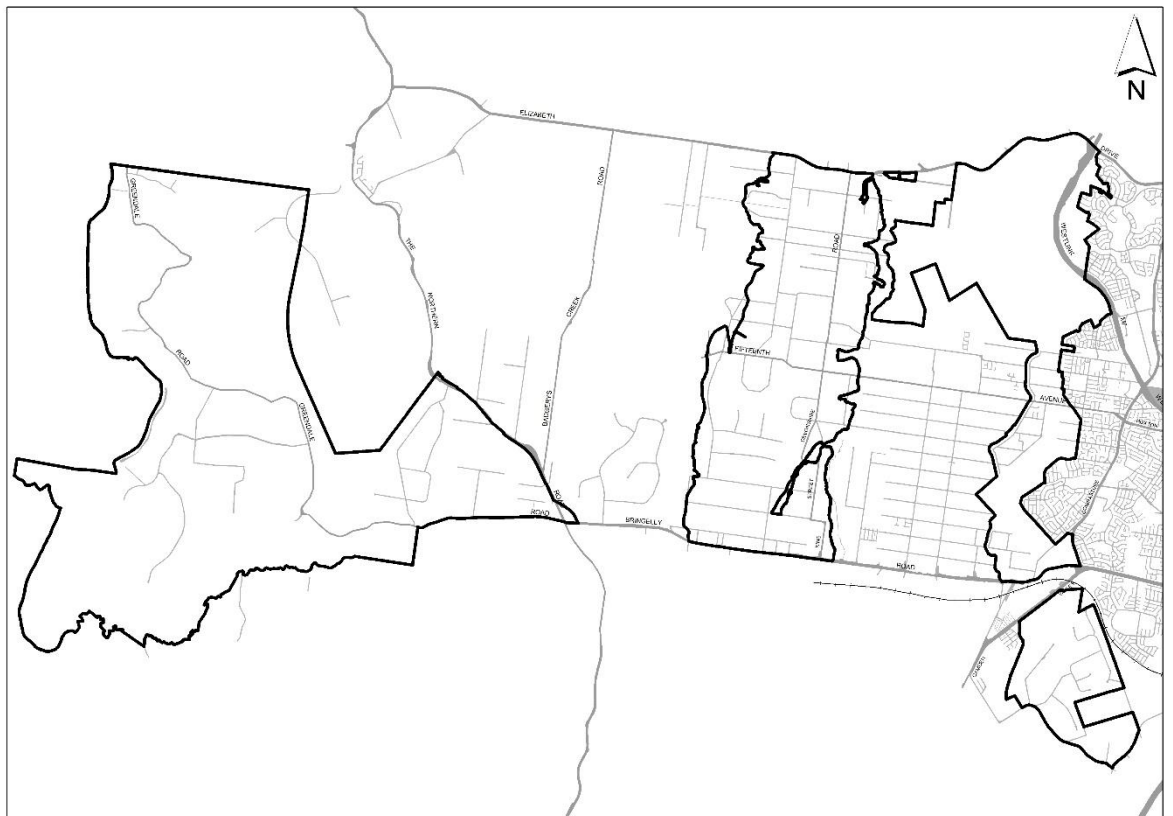


Figure 2.10 Rural Areas Catchment Area

2.11 Contributions to be levied

Contribution rates for development types other than conventional lots are calculated using the formulae contained within this plan. The conventional lot is the basis for most formulae. Contributions for development types other than conventional lots must be calculated individually based on the number of bedrooms, site area, number of residents etc. The actual amounts are not stated in this schedule, as each development is unique in terms of these factors.

Aged and Disabled Persons Housing Development

This plan seeks to levy contributions for Housing for Seniors or People with a Disability as defined under State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004. The formulae for such contributions are contained within various sections of the plan.

Developer contributions are proposed to be levied for aged and disabled persons housing development on the following grounds:

- The standard nexus between the new population and the demand for additional services.
- Older and disabled people will be future users of the citywide community and recreation facilities identified in this plan. and
- Residents' requirements for citywide community and recreation facilities cannot be met from services provided on site.

The contribution formula for Housing for Seniors or People with a Disability shows that such facilities will be levied relative to the number of persons anticipated for the development.

2.12 Credits for existing development

When calculating contributions for a particular development, other than in an industrial zone, a contribution credit equivalent of one conventional lot is given for each lot, which exists prior to subdivision or development. The basis of this practice is that each existing lot has an existing dwelling (or the potential to construct it) and no opportunity exists to levy contributions retrospectively. This practice also applies when recently created residential lots are re-subdivided or developed in some other form.

Where an existing dwelling is located over two or more small lots, these will be considered as one conventional lot.

3. Administration

3.1 Name of Plan

This plan is called *Liverpool Contributions Plan 2009*.

This Contributions Plan has been prepared in accordance with the provisions of Section 7.11 of the *Environmental Planning and Assessment Act 1979* and the *Environmental Planning and Assessment Regulation 2000*.

The contributions plan consists of this document and a series of maps entitled *Liverpool Contributions Plan 2009 Infrastructure Map*. The maps match the maps contained in *Liverpool Local Environmental Plan 2008*.

3.2 Applies to

This Contributions Plan applies to all land in Liverpool except that those areas covered by:

- *Liverpool Contributions Plan 2018 (Liverpool City Centre)*
- *Liverpool Contributions Plan 2008 (Edmondson Park)*
- *Liverpool Contributions Plan 2014 – Austral and Leppington North Precincts*
- *Liverpool Contributions Plan 2014 – East Leppington*
- *Liverpool Contributions Plan 2018 – Established Areas*
- Land identified on the land application map under *State Environmental Planning Policy (Western Sydney Aerotropolis) 2020*.

3.3 Purpose of Plan

The purpose of the Contributions Plan is to:

- (a) Provide an administrative framework under which specific public facilities strategies may be implemented and coordinated,
- (b) Ensure that adequate public facilities are provided for as part of any new development,
- (c) Authorise the council to impose conditions under *S7.11 of the Environmental Planning and Assessment Act 1979* when granting consent to development on land to which this plan applies,
- (d) Provide a comprehensive strategy for the assessment, collection, expenditure, accounting and review of development contributions on an equitable basis,
- (e) Ensure that the existing community is not burdened by the provision of public amenities and public services required as a result of future development,
- (f) Enable the council to be both publicly and financially accountable in its assessment and administration of the contributions plan.

3.4 Adoption of Contributions Plan

Council adopted the plan on 14 December 2009. The plan originally came into force on 15 December 2010. The value of works and land is at the September 2010 Quarter. The CPI for this quarter was 172.5.

Amendments to Contributions Plan

Liverpool Contributions Plan 2009 has been amended as follows:

<u>No</u>	<u>Adoption date</u>	<u>Amendment date</u>	<u>Description of Amendment</u>
1	10 June 2020	10 June 2020	Enacted Council resolutions of 29 April 2020 to clarify CDC and contributions; remove city wide facilities and update clause references to the Act and implement Covid-19 response.
2	27 October 2020	15 December 2020	Remove land to which State Environmental Planning Policy (Western Sydney Aerotropolis) 2020 from the Plan and minor housekeeping amendment to clarify relationship to other contributions plans.
3	23 August 2021	25 August 2021	Include new section for Range Road precinct to support changes to the zoning and development standards applying to the precinct.

Previous Contributions Plans

Liverpool Contributions Plan 2009 replaces *Liverpool Contributions Plan 2001*.

3.5 Relationship to other Plans

The land to which this contributions plan applies is also subject to the following plans:

- *Liverpool Local Environmental Plan 2008*.
- *Liverpool Development Control 2008*.

3.6 Types of Development to be levied

Council will levy all development in Liverpool, whether approved by a development consent or complying development certificate, which generates the need for additional amenities, facilities and services, which the Council provides. Development includes subdivision, new additional dwellings (except secondary dwellings) and non-residential development.

Development approved pursuant to *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004* will be levied development contributions in accordance with the Contributions Plan. Self contained dwellings and in-fill self-care housing (as defined in the policy) will be levied.

3.7 Payment of Contributions

3.7.1 Levying of Contributions

Council will require, as a condition of development consent (on a development application or complying development certificate), the payment of a monetary contribution and/or the dedication of land for the provision of public facilities specified in this Contributions Plan, from development, which it considers will contribute to the need for those facilities. The Contributions Plan applies to applications determined after the plan comes into force.

Contributions for subdivisions will be calculated according to the number of dwellings proposed on the allotment (with the exclusion of drainage and stormwater, which will be based on site area). Should the ultimate number of dwellings proposed on that allotment increase, post sub-division development consent, then contributions for additional dwellings must be paid to Council.

Council requires contributions to be satisfied in full, as follows:

Development applications involving subdivision only

Monetary contributions are required to be paid prior to the release of the Subdivision Certificate whether by Council or a Private Certifier (in the case of strata subdivision). Any dedication of land to

Council, in lieu of a monetary contribution, shall be shown on the plan of subdivision.

Development applications involving building work only

Monetary contributions shall be paid to Council prior to the issuing of the Construction Certificate, whether by Council or a Private Certifier. Dedication of land to Council, such as road widening, in lieu of monetary contribution, shall be shown on a plan of subdivision, to be registered prior to the issue of an Occupation Certificate.

Development applications involving subdivision and building work (for example, dual occupancy and integrated housing)

Monetary contributions are required to be paid to Council prior to the release of the Construction Certificate or Subdivision Certificate, whichever occurs first, whether by Council or a Private Certifier. Any dedication of land to Council, in lieu of monetary contribution, shall be shown on a plan of subdivision, to be registered prior to issue of an Occupation Certificate.

Development Applications where no building works are proposed

Monetary contributions are required to be paid to Council prior to occupation / commencement of the development. Any dedication of land to Council, in lieu of monetary contribution, shall be shown on a plan of subdivision to be registered prior to issue of an Occupation Certificate.

Complying Development Certificates and Principal Certifying Authorities

In accordance with CI 146 of the *EP&A Regulation 2000*, a certifying authority must not issue a construction certificate for building work or subdivision work under a development consent unless it has verified that each condition requiring the payment of levies has been satisfied.

In accordance with CI 136L of the *EP&A Regulation 2000*, a certifying authority must not issue a complying development certificate for work unless it has included a condition requiring payment of contributions prior to commencement of work.

In particular, the certifier must ensure that the applicant provides a receipt(s) confirming that levies have been fully paid and copies of such receipts must be included with copies of the certified plans provided to the Council in accordance with CI142(2) of the *EP&A Regulation 2000*. Failure to follow this procedure may render such a certificate invalid. The only exceptions to the requirement are where a works in kind, material public benefit, dedication of land or deferred payment arrangement has been agreed by the Council.

In such cases, Council will issue a letter confirming that an alternative payment method has been agreed with the applicant.

Landcom

Landcom is not required to submit final subdivision plans to Council for certification. Rather, subdivision plans are deposited directly with the Land Titles Office. Contributions (monetary, material public benefits and land transfer) shall be paid by Landcom to Council prior to the registration of subdivision plans. Any dedication of land to Council, in lieu of monetary contribution, shall be shown on the plan of subdivision.

Covid-19 Response

For Development Applications lodged or approved between 16 April 2020 and 31 December 2020 and for Section 4.55 modifications lodged in the same period which seek to modify the relevant contributions condition of a development consent for which any contributions have not yet been paid, 50% of the contribution can be paid prior to the issue of a construction certificate with the remaining 50% payable prior to the issue of the first occupation certificate. Any applications during this period that include subdivision must have all contributions paid prior to the issue of the Subdivision Certificate.

For such applications, Council will waive the requirement to have an unconditional bank guarantee in

place for the duration of the deferral.

3.7.2 Deferred Payments

Council will allow payment of contributions to be deferred in the following cases only:

- Where the applicant has the intention and ability to dedicate land or provide a material public benefit in part or to full satisfaction of a condition imposed by development consent. or
- In other circumstances, to be outlined in writing by the applicant and determined formally by Council on the merits of the case.

Deferred payments as outlined above are acceptable only where an unconditional bank guarantee is provided for the amount deferred. Bank guarantees will be accepted on the following conditions:

- The bank guarantee must carry specific wording, for example, "drainage contributions for Stage 3".
- The bank guarantee will be for the contribution amount plus the estimated amount of compound interest foregone by Council for the anticipated period of deferral. (Refer to formula in section 3.7.3).
- Council may call up the bank guarantee at any time without reference to the applicant, however, the guarantee will generally be called up only when cash payment has not been received, and land is not dedicated or material public benefit not provided by the end of the period of deferral.
- The period of deferral must be for a limited time only as agreed where land is to be dedicated or a material public benefit is to be provided. In merit cases, the period of deferral will be as approved by Council. The period of deferral may be extended subject to providing a renewed bank guarantee, which includes anticipated future interest.
- Council will discharge the bank guarantee when payment is made in full by cash payment, land transfer or by completion of works in kind.

For Development Applications lodged or approved between 16 April 2020 and 31 December 2020 and for Section 4.55 modifications lodged in the same period which seek to modify the relevant contributions condition of a development consent for which any contributions have not yet been paid, a bank guarantee for the deferred amount is not required.

3.7.3 Formula for Bank Guarantee Amounts

The following formula to be applied to all bank guarantees for contributions is:

Guarantee Amount = $P + P (CI \times Y)$, where:

P = Contribution due.

CI = Compound interest rate comprised of Council's estimate over the period plus 3 percent (allowance for fluctuations).

Y = Period of deferral (years).

3.7.4 Method of Payment

Contributions shall only be made by way of monetary contribution and will only be accepted in cash or by bank cheque.

Works in Kind and Transfer of Land

Applicants are encouraged to provide works in kind and transfer land identified in the contributions plan in conjunction with the development of land. However the works and land will not be offset against contributions payable for individual applications.

Where works and / or land identified in the contributions plan are proposed to be provided in conjunction with the development Council will reimburse the developer for the cost of the works in accordance with Council's *Developer Contributions Works in Kind Policy*.

Where land, which is the subject of a development application contains land identified for acquisition under this Contributions Plan, Council may as a condition of consent require that land to be dedicated free of charge to Council. Monetary contributions will be adjusted accordingly to reflect the value of land to be dedicated in lieu of payment of cash.

3.7.5 Credit for Existing Development

When calculating contributions for a particular development, a contribution credit equivalent of one conventional allotment is given for each allotment, which exists prior to subdivision or development. The basis of this practice is that each existing lot has an existing dwelling (or potential to construct) and no opportunity exists to levy contributions retrospectively. This practice also applies when recently created residential lots are re-subdivided or developed to the same dwelling type. Where an existing dwelling is located over two or more lots, these will be considered as one conventional lot, for the purposes of calculating applicable contributions.

3.7.6 Adjustment to Contribution Rates

The monetary contribution rates shown in Section 2 - Schedule of Contributions, are to be adjusted in accordance with the provisions set out below at the time of imposing a condition on a development consent requiring payment of the monetary contribution and again at the time that the monetary contribution is to be paid pursuant to the condition imposed on the development consent.

The adjusted contribution rates will be shown on Council's Web Page and updated quarterly.

This is distinct from Section 3.8, which deals with future reviews of the contributions plan. Future reviews will not affect any consent granted in accordance with this contributions plan.

Works, Administration, Professional and Legal Fees

The works, administration, professional and legal fee components of the monetary contributions rates set out in this plan are adjusted in accordance with the formula below headed “**Contribution at time of development consent**” at the time of imposing a condition on a development consent requiring payment of the monetary contribution to reflect quarterly variations in the *Consumer Price Index (All Groups Index Number for Sydney)* since the quarter year period shown for each Area in Section 1 – Schedule of Contributions.

In addition to the above adjustment, the works, administration, professional and legal fees components of the monetary contributions set out in this plan are adjusted in accordance with the formula below headed “**Contribution at time of payment**” at the time that the monetary contribution is to be paid pursuant to the condition imposed on the development consent to reflect quarterly variations in the *Consumer Price Index (All Groups Index Number for Sydney)* since the date that the consent was granted.

In that regard a condition imposed upon a development consent requiring payment of a monetary contribution set out in this plan that includes a works, administration, professional or legal fees component, shall include a requirement for the amount of the relevant component in the condition to be adjusted at the time that the contribution is to be paid to reflect quarterly variations in the *Consumer Price Index (All Groups Index Number for Sydney)* since the date that the consent was granted in accordance with the formula below headed “**Contribution at time of payment**”.

Contribution at time of development consent

$$C_2 = \frac{C_1 \times C P I_2}{C P I_1}$$

Contribution at time of payment

$$C_3 = \frac{C_2 \times C P I_3}{C P I_2}$$

where:	C₁ =	Works, administration, professional and legal fees components of the contributions as shown in this contributions plan
	C₂ =	Works, administration, professional and legal fees components of the contributions subject of the conditions imposed on the development consent
	C₃ =	Works, administration, professional and legal fees components of the contributions at the time that the contribution is to be paid
	C P I₁ =	Latest "Consumer Price Index: All Groups Index Number" for Sydney available from the Australian Bureau of Statistics shown in <i>Liverpool Contributions Plan 2009</i> for the respective area in Section 1
	C P I₂ =	Latest "Consumer Price Index: All Groups Index Number" for Sydney available from the Australian Bureau of Statistics as at the time of granting the relevant development consent
	C P I₃ =	Latest "Consumer Price Index: All Groups Index Number" for Sydney available from the Australian Bureau of Statistics at time that the contribution is to be paid

Land

The land components of the monetary contributions rates set out in this plan are adjusted in accordance with the formula below headed “**Contribution at time of development consent**” at the time of imposing a condition on a development consent requiring payment of the monetary contribution to reflect quarterly variations in the **Average Estimated Land Acquisition Cost Per Square Metre** since the quarter year period shown for each Area in Section 1 – Schedule of Contributions.

In addition to the above adjustment, the land components of the monetary contributions set out in this plan are adjusted in accordance with the formula below headed “**Contribution at time of**”

payment” at the time that the monetary contribution is to be paid pursuant to the condition imposed on the development consent to reflect quarterly variations in the **Average Estimated Land Acquisition Cost Per Square Metre** since the date that the consent was granted.

In that regard a condition imposed upon a development consent requiring payment of a monetary contribution set out in this plan that includes a land component, shall include a requirement for the amount of the land component in the condition to be adjusted at the time that the contribution is to be paid to reflect quarterly variations in the **Average Estimated Land Acquisition Cost Per Square Metre** since the date that the consent was granted in accordance with the formula below headed **“Contribution at time of payment”** .

In this clause **“Average Estimated Land Acquisition Cost Per Square Metre”** means the index figure prepared and published by or on behalf of the Council that represents the total costs that would have been incurred by the Council in respect of all land acquired by Council during the previous quarter year period divided by the number of square metres of such land and the phrase **“land”** where used herein means land that is in an englobo state being regular in shape, good average level land with an area of 2 ha with services available in the area for connection, subject to the payment of necessary developer contributions rates and not yet developed.

Contribution at time of development consent

$$C_2 = \frac{C_1 \times L_2}{L_1}$$

Contribution at time of payment

$$C_3 = \frac{C_2 \times L_3}{L_2}$$

- where:
- | | |
|------------------------|--|
| C₁ = | Land component of contributions as shown in this contributions plan |
| C₂ = | Land component of contributions subject of the conditions imposed on the development consent |
| C₃ = | Land component of contributions at the time that the contribution is to be paid |
| L₁ = | The latest Average Estimated Land Acquisition Cost Per Square Metre shown in <i>Liverpool Contributions Plan 2009</i> for the respective area in Section 1 |
| L₂ = | The latest Average Estimated Land Acquisition Cost Per Square Metre published by the Council at the time of granting the relevant development consent |
| L₃ = | The latest Average Estimated Land Acquisition Cost Per Square Metre published by the Council at time that the contribution is to be paid |

3.7.7 Goods and Services Tax

No Goods and Services Tax (GST) is applicable to the payment of contributions made under *Section 7.11 of the Environmental Planning and Assessment Act 1979*. This exemption applies to both cash contributions and land or works in lieu of contributions.

3.8 Review of Plan and Contributions

Council will review the contributions plan on a regular basis. The review process will canvass, where data is available:

- Development activity in terms of latest information on net additional dwellings and populations.
- Likely total development activity to be experienced in the future.
- Progress in the delivery of public facilities and amenities identified in the schedules of facilities.

- Modification of facility concepts, changes in anticipated facility costs, facility timing and land values.
- Annual contributions received and expenditure information.
- Any other factors likely to affect the delivery of works identified in this contributions plan.
- Changes resulting from amendments to *Liverpool DCP 2008*.

Any significant reviews of this contributions plan must be undertaken in accordance with the *EP&A Act 1979* and *EP&A Regulation 2000* and placed on public exhibition for a period of 28 days. The nature of the proposed changes and reasons for these changes would be clearly outlined as part of the exhibition.

Contributions will be adjusted, taking account of more recent information and, where relevant, the following:

- Consumer Price Index.
- Annual changes in land values.
- Actual costs of completed works.
- Reviewed costs yet to be completed works and land acquisition.
- Adjustment in projected project management and contingency costs associated with works.
- Management and legal costs associated with land acquisition.

This section is distinct from Section 3.7.6 Adjustment to Contribution Rates, which deals with future adjustment of contributions granted in accordance with the contributions plan. Future reviews under Section 3.8 will not affect any consent granted under this contributions plan.

3.9 Pooling of Funds

Council will administer money obtained under this plan and make decisions on the funding and provision of the projects in accordance with the *EP&A Act* and *EP&A Regulation*.

The funds collected under this plan may be pooled for projects included in the works schedule in other contribution plans which council administers. The priority for expenditure of pooled funds will be determined based on endorsed Council Strategies.

Council's ability to forward fund infrastructure identified in this Plan is very limited because it is contingent upon the availability of contributions funds.

To provide a strategy for the orderly delivery of the public services and amenities, this Contributions Plan authorises monetary contributions paid for different purposes, under this Plan and any other contributions plan approved by the Council, to be pooled and applied progressively for those purposes.

In any case of the Council deciding whether to pool and progressively apply contributions funds, the Council will have to first be satisfied that such action will not unreasonably prejudice the carrying into effect, within a reasonable time, of the purposes for which the money was originally paid.

4. City Wide Planning Context, Development Trends and Nexus

4.1 Planning Context

4.1.1 Major Plans of Council

Liverpool Directions 2006 - 2016

Liverpool Directions 2006-2016 is the community view on the future for Liverpool City. It was developed as a result of Council's Creating Our Future Together Partnership Project.

About 1,700 residents, workers, students and visitors were directly involved in developing *Liverpool Directions*. *Liverpool Directions* is used by Council, government agencies and community organisations in planning for the future of the City. It has been incorporated into Council's Corporate Plan as community outcomes that drive Council strategies. Council is planning its specific work directly in response to the issues and aspirations identified in 'Liverpool Directions'.

Liverpool Directions provides a basis for a range of Council strategies including the funding of public infrastructure by development.

The community view of Liverpool today serves as the starting point for thinking about the future. It is derived from community surveys of residents and from information collected at Partnership Project workshops.

Liverpool has a mix of land uses and offers a variety of lifestyles, from rural or country style, to traditional low-density suburban areas, to a large metropolitan centre. It also has prominent and highly valued natural features. Liverpool's people value the City's natural areas, in particular waterways such as the Georges River, Nepean River and the Cabramatta Creek system and appreciate access to the natural environment.

Liverpool is an area of urban growth. Historically it has accommodated some of Sydney's population expansion and provided homes and facilities for young families. Because Liverpool is a community with many young families, our community values resources, spaces and initiatives that support families. Development, change and growth are evident in Liverpool. Liverpool's people value appropriate progress in line with the City's past, existing land use and characteristics of its people. They also value the City's suburban and semi-rural heritage where new development fits into the existing character of an area.

Growth has brought with it people from many birthplaces, backgrounds and cultures. Liverpool's people value such diversity and the opportunities this provides. People also value a cohesive, harmonious community with strong social networks and connections. Wanting to feel safer in public spaces is a strong sentiment.

Liverpool is a convenient location in which to live. It is accessible to the rest of Sydney with good transport connections. Road congestion is a problem and short term parking in the City Centre is not considered to be adequate by some. On the other hand Liverpool is well provided with shops and essential services. The variety of parks, open spaces, recreational areas, walking tracks, bike tracks, lakes and rivers in Liverpool offer many leisure opportunities but there are indications that these may not currently cater to all demands. Residential areas are family-friendly, peaceful and safe. These could be made cleaner and more attractive.

Liverpool's people are enriched by their respect for those who came before them in the waves of settlement in Liverpool, and appreciate the wisdom of Aboriginal people, descendants of early settlers, those from overseas birthplaces and older people. Also valued are places and buildings from Liverpool's history. Liverpool's people acknowledge the need to leave a sound legacy for the young. They are mindful of the way things are today and are willing to look to the future.

In thorough community consultations, local residents, students and workers nominated the following as the directions for Liverpool’s future. Each theme is followed by a brief commentary on the role of Council in implementation in relation to the provision of developer-funded infrastructure.

The Regional City for South West Sydney

Elements of theme	Relevance to Contributions Plan
<p>The Liverpool City Centre will offer a variety of places, which foster an active social and cultural life for all age groups.</p>	<p>Applies to <i>Liverpool Contributions Plan 2007 (Liverpool City Centre)</i>. Contributions will augment community facilities as well as fund the upgrading of existing parks around the City Centre to provide for a variety of places, which foster an active social and cultural life for all age groups.</p>
<p>Strong regional-level precincts and activities will emerge over time: a major medical centre and health precinct centred on Liverpool Hospital; a commercial centre employing more people in the business and financial services; an education precinct of tertiary and secondary education; tourist activities highlighting heritage buildings and precincts; more street-front retail rather than in shopping centres; and civic and other events utilising suitable indoor and outdoor public spaces.</p>	<p>Not applicable.</p>
<p>The City Centre will be highly convenient and accessible to all: safe, pedestrian friendly, well signposted, with good public transport, free-flowing roads and convenient parking.</p>	<p>Applies to <i>Liverpool Contributions Plan 2007 (Liverpool City Centre)</i>. Contributions will fund facilities such as car parks, bridge link across railway line and bus priority measures.</p>
<p>Access will be opened in the City Centre to the Georges River and the open space corridor extending all the way to the Casula Powerhouse Arts Centre.</p>	<p>Applies to <i>Liverpool Contributions Plan 2007 (Liverpool City Centre)</i>. Contributions will fund facilities such as bridge link across railway line and park land embellishment along the Georges River foreshore.</p>
<p>The southern part of the City Centre will experience increased economic activity and development.</p>	<p>Not applicable.</p>
<p>The City’s transport services and assets will be designed around the needs of people.</p>	<p>Applies to <i>Liverpool Contributions Plan 2007 (Liverpool City Centre)</i>. Contributions will fund facilities such as car parks, bridge link across railway line and bus priority measures.</p>
<p>Better integrated and user-friendly public transport will attract more passengers.</p>	<p>Applies to <i>Liverpool Contributions Plan 2007 (Liverpool City Centre)</i>. Contributions will fund facilities such as bus priority measures.</p>
<p>Free-flowing roads and a convenient public transport system will be supported by funding from State and Federal Government resources.</p>	<p>Not applicable.</p>

Council has a significant role to provide and maintain civil and open space infrastructure (roads, footpaths, drainage structures, parks). Council's planning roles in existing urban areas flow from its high-level Local Environment Plan and Development Control Plans, which guide the zoning of land uses and design of buildings.

Applies to *Liverpool Contributions Plan 2007 (Liverpool City Centre)*. Contributions will fund facilities such as parkland embellishment to contribute to improvement of the public domain.

Neighbourhoods and Villages

Elements of theme	Relevance to Contributions Plan
Liverpool's neighbourhoods and villages will be safe, clean, well landscaped and well lit.	Contributions will fund certain landscaping in public areas and parklands.
Liverpool will be a place where housing, community facilities and neighbourhoods meet the needs of young families.	Contributions will fund community facilities and their surroundings for the residents of the neighbourhoods.
Each of the many neighbourhoods and villages will become more self-sufficient and have adequate local services (such as shops, medical services, schools, parks).	Contributions will fund infrastructure such as parks and community facilities as well as cycleways, certain walkways and streets and bus shelters.
People of all ages, levels of interest and skill will be able to find activities and venues for their sporting, recreation, leisure and community interests.	Contributions will fund infrastructure such as a variety of recreation facilities, parklands and community facilities.
Infrastructure will be provided as new urban areas are settled.	Contributions will fund the infrastructure as new urban areas develop.
There will be many ways of getting around neighbourhoods and villages, including cycleways and walkways that people regularly use.	Contributions will fund infrastructure such as cycleways, certain walkways and streets and bus shelters.
Neighbourhoods and village centres will be part of an integrated transport system linked with major centres.	Contributions will fund infrastructure such as cycleways, certain walkways and streets and bus shelters to facilitate an integrated transport system.
The character and heritage of existing suburbs, villages and semi-rural areas will guide new development.	Infrastructure that is funded by contributions will be consistent with the existing character and heritage of existing suburbs and villages.
Commercial and residential high-rise will ideally be located in major centres near transport interchanges, complemented by open space and landscaped areas.	Contributions will fund public open space and landscaping in public areas.

Council has a significant role to provide and maintain civil and open space infrastructure (roads, footpaths, drainage structures, parks). Council's planning roles in existing urban areas flow from its high-level Local Environment Plan and Development Control Plans, which guide the zoning of land uses and design of buildings.

Contributions will fund upgrading of recreation and community facilities in the Established Areas.

The Land between Two Rivers where City and Country Meet

Elements of theme	Relevance to Contributions Plan
The City's natural areas, in particular waterways such as the Georges River, Nepean River and the Cabramatta Creek system, will be cleaner, healthier and more widely and responsibly enjoyed as places for recreation.	Contributions will fund work in certain creek systems that drain new urban development to ensure that the development does not have an adverse impact on the creek system and flooding.
Some of the rural character of Liverpool will be maintained as significant urban development takes place.	Contributions will fund certain works such as parklands and creek works which will contribute to maintaining the rural character of Liverpool.
Agricultural land, open space and protected bushland will be part of an inviting and attractive mix of land uses.	Contributions will fund certain works such as parklands, including some bushland and creek works which will contribute to an inviting and attractive mix of land uses.
Because natural systems don't fit administrative boundaries, Council has a role to maintain working relationships with government agencies and other parties in the management of natural areas and waterways. Council has a role to improve the appearance and health of waterways through rehabilitation projects, including partnerships with environmental groups and volunteers. As part of its planning role, Council can influence the protection of rural land uses.	Contributions will fund infrastructure in certain creek systems that drain new urban development to ensure that the development does not have an adverse impact on the creek system. The provision of this infrastructure will provide a basis for forming partnerships for further work.

A Place for People

Elements of theme	Relevance to Contributions Plan
Liverpool's people will continue to value the diversity of Liverpool.	Not applicable.
People will celebrate the rich variety of cultures forming a cosmopolitan and multicultural City through events based on the City's cultural diversity and creativity.	Contributions will fund infrastructure such as community and recreation facilities that will provide venues for conducted such events.

Liverpool will be an integrated community with strong social networks and connections that will be strengthened by working together, promoting harmony and celebrating the City's unity.

Liverpool's people will care for and support others in the City, particularly those who are disadvantaged. Practical help and support will come from community organisations and volunteering, as well as programs offered or funded by government.

Liverpool's history and the City's unique places will be used to better guide current action and plans for the future.

Enjoyment of culture and the arts as well as participation in artistic production will be catered for by cultural centres including the Casula Powerhouse Arts Centre, Liverpool Regional Museum and libraries, offering increased variety of exhibitions, performances and education.

State and Federal Government resources will support the rapidly growing and changing City.

People will know what's available in Liverpool and where to get support because the City's main attractions, local services and facilities will be promoted and signposted.

Council has a role in social planning. It is required by law to complete a social plan, which identifies actions needed from Council and other organisations toward achieving community outcomes.

In community development, Council has coordinating, advisory, advocacy and partnership roles. It works with government agencies in obtaining services and grants for Liverpool. It conducts activities, which promote community unity and harmony.

Contributions will fund infrastructure such as community and recreation facilities that will provide venues to facilitate development of an integrated community.

Contributions will fund infrastructure such as community and recreation facilities that will provide venues for community organisations to operate.

This may inform the design of future infrastructure that is funded by contributions.

Contributions will partly fund infrastructure such as Casula Powerhouse Arts Centre and the libraries.

Such resources may supplement infrastructure provided by contributions.

Some of the attractions and local services will in part be funded by contributions.

The social plan provides input to the provision of community and recreation facilities that may be funded by contributions.

Contributions will fund infrastructure such as community and recreation facilities that will provide venues for community and government organisations to operate.

Communities and Governments Working Together

Elements of theme	Relevance to Contributions Plan
-------------------	---------------------------------

Council decision-making on Liverpool will be visible, open to participation and accompanied by practical steps enabling everyone's involvement.	The contributions plan was adopted following public consultation in accordance with the Environmental Planning and Assessment Act 1979.
The community will be encouraged to engage in Council initiatives and actions.	The provision of certain major infrastructure will involve input from the public.
Information will be available on Council services, actions and future proposals.	The provision of certain major infrastructure will involve input from the public.
One of Council's primary roles is to engage with the community at the local level through initiatives such as the Partnership Project, a range of consultative mechanisms and information on Council's activities. Council also uses neighbourhood forums, consultations and surveys to track its performance and make improvements.	The provision of certain major infrastructure will involve input from the public.
Council provides opportunities for participation in decision-making and civic activities.	The provision of certain major infrastructure will involve input from the public.

Sustainability

Elements of theme	Relevance to Contributions Plan
Community, business and governments will deliver specific programs, which make Liverpool more sustainable.	The concept of sustainability has influenced the scope and type of infrastructure that will be provided, including that funded by contributions.
Reduced waste, pollution and water usage will be the major noticeable results of future actions for sustainability.	Reduced waste, pollution and water usage have influenced the scope and type of infrastructure that will be provided, including that funded by contributions.
There will be local or easily accessed education and training for all ages, supported by well-equipped and convenient libraries.	Contributions will fund infrastructure such as libraries to facilitate such training.
Workers living in Liverpool will have increased access to local employment and job diversity.	Not applicable.
Liverpool will be a competitive city with good business opportunities.	Not applicable.

As part of its environmental leadership role, Council has developed programs to improve the sustainability of its own operations and services. It also promotes sustainable development through its policy-making, education and regulatory roles. Council has a role to establish and maintain sound working relationships with government agencies in their management of environmental pollution, water conservation and energy usage. Through its planning roles (zoning, infrastructure planning and urban design) Council encourages business and industrial development.

The concept of sustainability has influenced the scope and type of infrastructure that will be provided, including that funded by contributions.

Liverpool Local Environmental Plan 2008

Liverpool Local Environmental Plan 2008 was gazetted on 29 August 2008. It identifies the various land use zones and in particular the extent of land that is available for medium density and higher density development. Estimates of development trends take into account the development potential that the plan permits.

Liverpool Development Control Plan 2008

Liverpool Development Control Plan 2008 came into force on 29 August 2008. Each of the release areas has a chapter in the DCP regulating the subdivision pattern. These form the basis of the costing of facilities relevant to these areas in this plan. The relationship of the relevant chapter is specified in the next sub-section.

4.1.2 Development prior to the 1980's

Pre 1970's Development

Development in Liverpool during this time took place in the area around Miller and at Moorebank. There was also development at Casula and Lurnea.

Sydney Region Outline Plan

The *Sydney Region Outline Plan*, released in 1968 identified areas on the fringe of Sydney for urban development. The bulk of the land to the west of Liverpool identified in the plan now forms Hoxton Park Release Area, Stages 1 & 2. This was subsequently incorporated in the *Urban Development Program* (now *Metropolitan Development Program*) of the *Department of Planning*.

1970's Development

The bulk of urban fringe land development took place in Chipping Norton and Moorebank and to a lesser extent at Green Valley and Casula. There was also some urban redevelopment adjacent to Liverpool City Centre.

4.1.3 Development in the 1980's

Environmental Planning and Assessment Act, 1979

The *Environmental Planning and Assessment Act, 1979* came into force on 1 September 1980 replacing Part 12A of the *Local Government Act 1919* as the Act which administered land use planning in New South Wales. The Act provided Council's the power to levy development for contributions toward public facilities. It was not until 1992 that Council's were required to prepare contributions plans in order to levy development for contributions.

Hoxton Park Stage 1 Release Areas

Development in the 1980's commenced in the areas known as the Hoxton Park Stage 1 Release Area. These included:

- Green Valley Hinchinbrook Release Area (former *Liverpool Contributions Plan No 1*)
- Casula West Release Area (former *Liverpool Contributions Plan No 2*)
- Casula East Release Area (former *Liverpool Contributions Plan No 3*)

These areas were designated for urban development on 6th April 1982 by the then Minister of Environment and Planning. These areas are included in the *Metropolitan Development Program* for the Sydney Region.

Green Valley Hinchinbrook Release Area

- The area was rezoned under *Liverpool LEP 108* on 24 October 1984 and added to subsequently.
- The area was subject to *Liverpool DCP No 2*, which came into force on 9th January 1985 until it was incorporated into *Liverpool DCP 2008*.
- *Liverpool Contributions Plan No 1* was approved by Council on 12 October 1992 and came into force on 26 October 1992.
- *Liverpool Contributions Plan No 1* was amended Council on 11 April 1994.
- *Liverpool Contributions Plan No 1* was amended in August 1997 to exempt granny flats from the requirement to pay contributions.
- *The range of facilities in Plan No 1* was incorporated into *Liverpool Contributions Plan 2001*.
- Development in the area is almost complete.
- The area is now incorporated into the "Established Areas" under *Liverpool Contributions Plan 2009*.

Casula West Release Area

- The area was rezoned under *Liverpool LEP No 103* on 10th August 1984.
- The area was subject to *Liverpool DCP No 1*, which came into force on 9th January 1985 until it was incorporated into *Liverpool DCP 2008*.
- *Liverpool Contributions Plan No 2* adopted by Council on 9 November 1992 and came into force on 23 November 1992.
- *Liverpool Contributions Plan No 2* was amended in August 1997 to exempt granny flats from the requirement to pay contributions.
- The range of facilities in *Liverpool Contributions Plan No 2* was incorporated into *Liverpool Contributions Plan 2001*.
- Development in the area is almost complete.
- The area is now incorporated into the "Established Areas" under *Liverpool Contributions Plan 2009*.

Casula East Release Area

- The area was rezoned under *Liverpool LEP No 80* on 11th March 1983.
- The area was subject to *Liverpool DCP No 83/2*, which came into force on 26th January 1984 until it was incorporated into *Liverpool DCP 2008*.
- *Liverpool Contributions Plan No 3* adopted by Council on 23rd November 1992 and came into force on 7th December 1992.
- *Liverpool Contributions Plan No 3* was amended in August 1997 to exempt granny flats from the requirement to pay contributions.

- The range of facilities in *Liverpool Contributions Plan No 3* was incorporated into *Liverpool Contributions Plan 2001*.
- Development in the area is almost complete.
- The area is now incorporated into the “Established Areas” under *Liverpool Contributions Plan 2009*.

4.1.4 Development in the 1990’s

Hoxton Park Stage 2 Release Areas Structure Plan

Council adopted a Structure Plan for the Hoxton Park Stage 2 Release Area in April 1989. The area is included in the Urban Development Program of the Department of Planning for the Sydney Region. The Structure Plan divided the release area into six (6) precincts. These precincts were primarily delineated on the basis of staged availability of utility services. Major roads and creeks also formed boundaries to the Precincts.

Hoxton Park, Carnes Hill and Prestons Release Areas

- These release areas form parts of the Hoxton Park Stage 2 Release Areas Structure Plan.
- Hoxton Park was rezoned under *Liverpool LEP No 236* (Precinct 1) on 15 May 1992.
- Prestons was rezoned under *Liverpool LEP 238* (Precinct 5) on 15 May 1992.
- Carnes Hill was rezoned under *Liverpool LEP No 237* (Precinct 4) on 10 July 1992.
- Council approved a DCP for Precinct 1, 4 and 5 in December 1995 known as *Liverpool DCP No 31* until it was incorporated into *Liverpool DCP 2008*.
- *Liverpool Contributions Plan 6* was originally approved by Council on 23 November 1992 and came into force on 7 December 1992.
- *Liverpool Contributions Plan No 6* was subsequently amended in 1995 and 1997.
- *Liverpool Contributions Plan No 6* was amended on in August 1997 to exempt granny flats from the requirement to pay contributions.
- *Liverpool Contributions Plan No 6* was subsequently amended by Council on 11 October 1999 and came into force on 20 October 1999.
- This area contributes to district facilities, which serve the Hoxton Park Stage 2 Release Area.
- There is still some development remaining to take place.
- The range of facilities in *Liverpool Contributions Plan No 6* was incorporated into *Liverpool Contributions Plan 2001*.
- These facilities have largely been incorporated into *Liverpool Contributions Plan 2009*.

Cecil Hills Release Area

- The area forms part of the Hoxton Park Stage 2 Release Areas Structure Plan.
- The area was rezoned under *Liverpool LEP No 220*, on 12th April 1991.
- The area was subject to *Liverpool DCP No 23*, which came into force on 24th April 1991 until it was incorporated into *Liverpool DCP2008*.
- *Liverpool Contributions Plan 4* adopted by Council on 23rd November 1992 and came into force on 7th December 1992.
- *Liverpool Contributions Plan 4* was amended in August 1997 to exempt granny flats from the requirement to pay contributions.
- This area contributed to district facilities, which serve the Hoxton Park Stage 2 Release Area and is still incorporated in estimates of development potential for such facilities.

- Development is generally complete.
- The range of local facilities in *Liverpool Contributions Plan 4* was incorporated into *Liverpool Contributions Plan 2001*.
- These were not been incorporated in this plan, as these are now complete.
- The range of facilities in Cecil Hills now largely only includes District and City Wide Facilities under *Liverpool Contributions Plan 2009*.

Prestons Industrial Release Area

- The area forms part of the Hoxton Park Stage 2 Release Areas Structure Plan.
- The area was rezoned on 12 October 1990.
- The area was subject to *Liverpool DCP No19 Prestons Industrial Release Area*, *Liverpool DCP No 6 Industrial Development* and *Liverpool DCP No3 Car Parking and Service Provision* until it was incorporated into *Liverpool DCP 2008*.
- *Liverpool Contributions Plan No 7* was originally approved by Council on 23 November 1992 and came into force on 7 December 1992.
- *Liverpool Contributions Plan No 7* was subsequently updated in 1995 and 1997.
- *Liverpool Contributions Plan No 7* was subsequently amended by Council on 11 October 1999 and came into force on 20 October 1999.
- This area contributes to District Facilities involving transport and drainage, which serve the Hoxton Park Stage 2 Release Area and is incorporated in estimates of development potential for such facilities.
- Development is still occurring.
- The range of facilities in *Liverpool Contributions Plan No 7* was incorporated into *Liverpool Contributions Plan 2001*.
- Some additional area was rezoned in 2007. This was incorporated into *Liverpool Contributions Plan 2001* in 2007.
- These facilities have largely been incorporated into *Liverpool Contributions Plan 2009*.

Wattle Grove Release Area

- The area was rezoned under *Liverpool LEP No 221* on 19 April 1991, which added the land to LEP NO 108.
- The area was subject to *Liverpool DCP No 24*, which came into force on 1st May 1991.
- Prior to the current planning controls, residential development was permitted under the previous Interim Development Order with the concurrence of the Director of Planning.
- *Liverpool Contributions Plan No 5* was approved by Council on 23rd November 1992 and came into force on 7 December 1992.
- *Liverpool Contributions Plan No 5* was amended in August 1997 to exempt granny flats from the requirement to pay contributions.
- Development is now complete.
- The range of facilities in *Liverpool Contributions Plan No 5* was not incorporated in *Liverpool Contributions Plan 2001*, as they were complete.
- The area was included into the "Established Areas" under *Liverpool Contributions Plan 2001*.
- The area is included in the "Established Areas" under *Liverpool Contributions Plan 2009*.

Pleasure Point East

- The area was subdivided in the 1920's but not built upon. The lots fronting the riverside reserve were developed with dwelling houses in the 1970's.
- The zoning of the other 65 lots was amended on 8 July 1994 to permit dwelling houses to be constructed following agreement with Sydney Water to provide water and sewerage services to the land.
- *Liverpool Contributions Plan No 12* was adopted by Council on 13 December 1999, and came into force on 23 December 1999.
- Development is still taking place in the area.
- The range of facilities in *Liverpool Contributions Plan No 12* was incorporated into *Liverpool Contributions Plan 2001*.
- These facilities have been incorporated into *Liverpool Contributions Plan 2009*.

Cross Roads Transport Terminal

- The area was rezoned under *Liverpool LEP No 182* on 4 November 1988.
- The area was subject to *Liverpool DCP No 5*, which came into force on 9 February 1989 and which aimed to permit the development of an integrated transport terminal on this site.
- This original proposal did not eventuate. The controls have been amended to allow the subdivision of the land so that the sites may be developed independently.
- *Liverpool Contributions Plan No 8* was approved by Council on 19th December 1994 and came into force on 25th January 1995.
- Development is now complete.
- The range of facilities in *Liverpool Contributions Plan No 5* was not incorporated in *Liverpool Contributions Plan 2001*, as the facilities were complete.

Liverpool City Centre

- This plan was originally approved by Council on 8 August 1994 and came into force on 10 August 1994.
- The plan was amended by Council on 10 July 2000 and came into force on 19 July 2000.
- The plan was subsequently incorporated in *Liverpool Contributions Plan No 10* on 9 May 2001.
- The range of facilities in *Liverpool Contributions Plan No 9* was incorporated into *Liverpool Contributions Plan 2001*.
- In conjunction with a new LEP for Liverpool City Centre in 2006 (subsequently incorporated into *Liverpool LEP 2008*) Council adopted a separate contributions plan known as *Liverpool Contributions Plan 2006 (Liverpool City Centre)*. Accordingly these facilities have been not been incorporated into *Liverpool Contributions Plan 2009*.

4.1.5 Development in the 2000's

Established Areas

- Prior to 1992 Council levied contributions on some development in the established areas. While most development in the 1990's was taking place in the release areas it has become apparent that redevelopment will continue to occur in the established areas and generate the need for augmenting facilities.
- *Liverpool Contributions Plan No 10* was adopted by Council on 24 April 2001, and came into force on 9 May 2001.

- Redevelopment is still taking place in the area.
- The range of facilities in *Liverpool Contributions Plan No 10* was incorporated into *Liverpool Contributions Plan 2001*.
- These facilities have largely been incorporated into *Liverpool Contributions Plan 2009*.

City Wide Facilities

- It has become apparent that development in both the established areas and release areas will be substantial and generate the need to augment certain major Council facilities that serve all of Liverpool.
- *Liverpool Contributions Plan No 11* was adopted by Council on 24 April 2001, and came into force on 9 May 2001.
- Development is still taking place in the release areas and redevelopment is still taking place in the established areas.
- The range of facilities in *Liverpool Contributions Plan No 11* was incorporated into *Liverpool Contributions Plan 2001*.
- These facilities have been incorporated into *Liverpool Contributions Plan 2009* subject to the deletion of various facilities.

Middleton Grange

- The area was rezoned under *Liverpool LEP 1997 (Amendment No 71)* on 18 June 2004.
- The area was subject to *Liverpool DCP No 48*, which came into force on 26 June 2002 until it was incorporated into *Liverpool DCP 2008*.
- The inclusion of the area into *Liverpool Contributions Plan 2001* was approved by Council on 11 June 2002 and came into force on 26 June 2002.
- Development is still taking place in the area.
- The range of facilities for this area has been incorporated in *Liverpool Contributions Plan 2009*, subject to amendment.

Moorebank former Boral Quarry

- The area was rezoned under *Liverpool LEP 1997 (Amendment No 75)* on 9 July 2004.
- The area was subject to *Liverpool DCP No 50*, which came into force on 22 September 2003 until it was incorporated into *Liverpool DCP 2008*.
- Development is still taking place in the area.
- The area is within the Established Areas Catchment and as such is subject to contributions in that catchment except as provided for in accordance with a Developer Deed for the site.

Edmondson Park

- The area was rezoned under *Liverpool LEP 1997 (Amendment No 114)* on 31 March 2006.
- The area is covered by *Liverpool Contributions Plan 2008 (Edmondson Park)* for Edmondson Park.
- Accordingly this area is not subject to this contributions plan.

Len Waters Estate (Former Hoxton Park Aerodrome)

- The area was rezoned under *Liverpool LEP 2008* on 29 August 2008.
- It forms part of the Hoxton Park Stage 2 Release Areas.
- Local facilities are to be provided via a Voluntary Planning Agreement.
- The residential component has now been included into Elizabeth Hills.
- Contributions will be payable for residential development for City Wide Facilities and for District for Community and Recreation Facilities.

Pleasure Point

- The area was rezoned under *Liverpool LEP 2008* on 29 August 2008.
- Development is expected to take place in the area shortly.
- The range of facilities for this area has been incorporated in *Liverpool Contributions Plan 2009*.

Elizabeth Hills

- This area has not yet been rezoned for residential development.
- It is anticipated that facilities not contained in this contributions plan will be provided by way of a Voluntary Planning Agreement.
- It forms part of the Hoxton Park Stage 2 Release Areas.
- Contributions will be payable for residential development for City Wide Facilities and for District for Community and Recreation Facilities.

4.2 City Wide Development and Demographic Trends

Allotment / Dwelling Estimates

Estimates of the rate of housing development for the coming 5 years in the established areas, rural areas and release areas have been prepared in consultation with the Department of Planning through the *Metropolitan Development Program*. An allowance has been made for replacement dwellings based on Council consent records. Figures beyond the 5-year period have been projected by Council.

The following table summarises the dwelling forecasts for the period from mid 2000 to mid 2021.

Table 4.1 Dwelling Estimates Mid 2001 - Mid 2021

Area	Dwellings at Mid 2001	Dwellings at Mid 2006	Estimated Dwellings at Mid 2011	Estimated Dwellings at Mid 2021
Established Areas (including Liverpool City Centre)	31,650	32,850	34,450	39,350
Rural Areas	3,580	3,450	3,450	3,450
Release Areas	15,670	19,800	21,300	32,000
Total	50,900	56,100	59,200	74,800

Population Estimates

The range of community, recreation, transport and streetscape facilities is based on the estimated additional population in Liverpool. The methodology for estimating the additional population that will reside in Liverpool at 2021 is as follows:

- Estimate existing population of Liverpool;
- Estimate existing number of dwellings in Liverpool;
- Estimate occupancy rate in Liverpool at mid 2021;
- Estimate dwellings in Liverpool at mid 2021;
- Deduce population in Liverpool at mid 2021;
- Estimate increase in population from present to mid 2021.

Occupancy rates have been estimated for 2021, having regard to occupancy rates in the 2001 Census and the projections of the *Department of Planning*. These have been used in conjunction with estimates of dwellings to estimate the population of Liverpool in 2021.

The estimated population of Liverpool at mid 2021 is as follows.

Table 4.2 Population Projections Mid 2001 – Mid 2021

Area	Population at Mid 2001	Population at Mid 2006	Estimated Population at Mid 2011	Estimated Population at Mid 2021
Established Areas (including Liverpool City Centre)	92,700	93,600	97,450	109,800
Rural Areas	11,700	11,250	11,500	11,500
Release Areas	54,500	66,000	88,700	107,000
Total	158,900	170,850	197,650	228,500

Occupancy rates

The occupancy rate estimate of 3.7 persons per lot has been adopted in the Hoxton Park Stage 2 Release Areas. This estimate is derived from the following indicators:

- Council's study "Hoxton Park Stage 2 Release Areas Retail Review" estimated that Stage 2 release areas would resemble closely the Edensor Park area in Fairfield LGA. At 1986 Census, that area had an average of 3.69 persons per household.
- Council's 1990 Release Area Social Plan estimated Hinchinbrook would have a density of 3.7 persons per lot. Within 5 years of development commencing, the population density in that area was 3.5 persons per lot (1991 Census Preliminary Data). The increase to 3.7 persons per lot was estimated to occur after 5 years and up to 15 years following the commencement of development.
- A review of the 2001 and 2006 census has confirmed this estimate of occupancy rate in these areas.
- For projection purposes and calculating anticipated population, lots of less than 450 sqm are taken as generally indicating most types of medium density housing. As for Hinchinbrook, a density of 3.3 persons per lot can be expected for these types of development overall.

The occupancy rates for established areas and rural areas these rates are based upon analysis of 1996 Census data as these areas are well established.

Table 4.3 Occupancy Rates

Dwelling Type or Lot Size	Occupancy Rate per lot or dwelling		
	Established Areas	Release Areas (except Edmondson Park)	Rural Areas
Residential Lots 450 sqm or larger	3.2	3.7	3.4
Residential Lots smaller than 450 sqm	3.1	3.3	
Semi-detached dwellings, Multi dwelling housing & residential flat buildings (where permitted)			
3 or more bedrooms	3.1	3.3	3.1
2 bedrooms	2.3	2.3	2.3
1 bedroom	1.8	1.8	1.8

4.3 Nexus

Community Facilities

New development, which leads to an increase in the number of residents, will also increase the demand for community facilities including multi-purpose community centres, libraries and cultural facilities.

Local and district level facilities are levied for the various sub catchments in the established and release areas.

Recreation Facilities

Open space is a source for outdoor recreation opportunities and provides natural and open areas within an urban environment, which is experiencing increasing residential growth. The community is demanding that Council provide adequate open space for a variety of reasons. The community needs open space as a buffer against urban developments, a resource for flora and fauna, to link and consolidate diminishing natural areas, as well as a place for sports, recreation, play and outdoor activities.

A Leisure Needs Analysis for the Liverpool Community undertaken for Council revealed the need for the following facilities. To some extent these reflect the needs of the existing residents. Nevertheless they provide some guide to the needs of existing and future residents.

- Multi screen cinema
- Swimming pools
- Libraries
- Bushland reserves
- Nature reserves
- Dancing
- Gyms and fitness training
- Martial arts
- Picnicking

Sporting organisations have expressed the need for the following items:

- Provision of drinking water
- Directional signage
- Provision of seating
- Provision of change rooms / toilets

In relation to passive recreation facilities residents expressed the need for the following items:

- Improving lighting in parks
- Establishing more trees
- Improving toilet cleanliness and availability, particularly where barbecues and other facilities are provided
- Increase barbecue facilities and further develop and maintain the parks where this occurs, thus encouraging the use of the areas for other recreational activities
- Develop and promote the use of available bushland for recreational use
- Extending bike paths (including through bushland) and explore possibilities of providing bike lanes on suburban streets
- Maximising the recreational possibilities of all waterways in the Liverpool area, particularly the Georges River

Open space and recreation facilities, which are needed for an area the size of Liverpool, vary from local parks to major sporting and entertainment venues. The local parks are informal play areas within walking distance of where residents live while the major sporting and entertainment venues cater for large numbers of people and have a substantial catchment area.

This suggests a hierarchy of open space and recreation facilities. Accordingly there is a hierarchy of contributions. All new residential development creates the need to augment facilities that serve a citywide population. In the established areas of Liverpool new residential development creates the need to augment existing local and district facilities. In the release areas there is a need to provide all the open space facilities, as there are no existing facilities.

Transport

The cost of provision of streets in conjunction with a subdivision is normally borne by the individual developer. However the cumulative affect of numerous subdivisions requires provision of higher order roads and, various traffic facilities and frontage to public land uses. The cost of this should not

fall on developers of individual land uses but rather be shared amongst all developers.

Drainage

Community standards require that stormwater be conveyed through urban areas in a manner that emphasises the cost-effective achievement of safety and, to a lesser extent, amenity.

This requirement leads to a development standard where drainage is managed on a catchment wide basis in a system of pipes, channels, culverts and basins. The responsibility to contribute, or nexus, is a combination of the characteristics of land development that:

- Increase stormwater runoff volumes and flow rates so that a system of pipes and channels and/or stormwater detention basins is required to offset these impacts downstream.
- Increase population levels in the vicinity of potentially hazardous, uncontrolled rural standard drainage systems so that improvements, particularly large pipes and channel systems, are required to minimise and clearly demark the area of hazard potential.

The development of new release areas generally leads to a significant change in the stormwater runoff characteristics of drainage catchments. This change partially results from an increase in the ratio of runoff volumes to rainfall volumes due to a reduction in previous areas to absorb rainfall into the ground. It also influenced by the reduction in catchment response times, where the impact of piping and channelising more efficiently conveys concentrated runoff to the catchment outlets. It may also be influenced by a reduction in flood plain storage of runoff volumes due to developments that incorporate landfill.

5. City Wide Facilities

5.1 Community Facilities

Nexus

Council has funded major works such as the Casula Powerhouse Arts Centre and Liverpool Central Library in anticipation of population growth within the local government area. These facilities are intended to serve the broader cultural needs of the entire Liverpool community irrespective of geographic location and as such adopt a citywide status.

Accordingly it is reasonable to require a contribution for citywide facilities from all future residential development within the local government area inclusive of release areas, established residential areas and rural areas.

The cost of the city wide facilities is only partially recovered from new development as the demand from existing development and outside users is borne by Council. This is reflected in the contribution formulae.

Liverpool Central Library

Background

Liverpool City Council provides library services to the Liverpool community through its central library in the City Centre and branch library network at Miller, Moorebank, Casula and Green Valley.

The central library is the focus of the library service and provides a greater range of services/facilities than the branch libraries. Services provided from the central library not available at branch libraries include major lending collections; extensive reference and specialised information services; specialised programs for elderly, disabled and housebound residents; community language and English as a second language (ESL) materials and activities.

The higher tier services provided at the central library cater for the broader needs of the entire population of the Liverpool LGA and accordingly it is considered a citywide facility. These services cannot be provided at local branch libraries for economic and practical reasons. New development, which leads to an increase in the number of residents, will also increase the demand for central library facilities and services to be levied for under this contribution plan.

The State Library's recommended standard for a resident population of 100,000 is that there is a major central library facility. The State Library recommendation for floor space is a minimum of 2,100 sqm of net floor space for a population of 100,000 persons. (*The Planning and Design of Public Library Buildings - Sydney State Library of NSW, 1990*).

The lack of an adequate central library was identified in the study "*Leisure Requirements for the Residents of Liverpool*" - March 1994. Council subsequently undertook to upgrade and extend the central library to cater for the needs of the anticipated total future population. This upgrade altered the status of the library from a "district" to "citywide" facility. This plan seeks to recoup part of the costs to Council of upgrading the central library in anticipation of future population growth.

Cost of Facilities

The cost of the central library upgrade was \$12,985,815 (inclusive of interest), including:

- increase in floor area from 1,200 to 5,600sqm
- introduction of public access to Internet, personal computers and sound equipment
- enlarged reference area, seating and study areas and workrooms
- provision of areas for specialised services, e.g. multicultural and Aboriginal resources
- provision of a lift and disabled access

- provision of additional public toilets
- increase in storage area, and shelving to allow for future expansion of collections
- provision of public art component
- provision of six community meeting rooms, two with kitchen access

The following table provides a summary of the costs of central library and community meeting room works. The estimated costs of these two components of the facility have been separately identified to allow for the relevant apportionment of the cost of the central library to users from outside the Local Government area. A review of the proportion of outside users in 2008 showed that 9% of users were from outside Liverpool LGA. The community meeting rooms are provided for the benefit of existing and proposed residents of Liverpool LGA, therefore the estimated full cost of this component of the facility is included in the contribution calculation.

Table 5.1 Central Library Works Schedule

Item	Cost
1993-1997	
Central library upgrade including consultants fees, building contractors, materials, furniture & fittings, artists fees and interest on loan funds	\$12,174,202
Less 9% for users living outside of Liverpool LGA	(\$1,095,678)
Community meeting rooms including consultants fees, building contractors, materials, furniture & fittings, artists fees and interest on loan funds	\$811,613
Total	\$11,890,137

Note: Whilst actual figures are not available on the costs of meeting rooms in relation to the library upgrade, a proportional estimate has been made based on the relative floor area of the community rooms to the total area of the library building (350sqm / 5,600sqm).

Contributing Area: All of Liverpool LGA except Edmondson Park and Liverpool City Centre.

Casula Powerhouse Arts Centre

Background

The Liverpool community profile is characterised by diversity of cultures with a high proportion of local residents from non-English speaking backgrounds. The 2001 census data indicates that 38.1% of the population of Liverpool were born outside Australia and 43.7% of the population speak a language other than English at home.

In 1992 Council committed to the redevelopment of the Casula Powerhouse into an Arts Centre of local and regional significance. The purpose of the redevelopment was to provide a contemporary community-focused cultural and recreational facility. The Casula Powerhouse is available to all residents of the Liverpool LGA having between 75,000 and 100,000 visitors per year. Further improvements to the centre will be required progressively to cater for additional population growth.

A four stage re-development and plan was developed by Tonkin Zulaikha Architects for the Casula Powerhouse Arts Centre:

Stage 1 Construction - completed October 1994

- Multi-purpose exhibition spaces in Turbine Hall, Boiler house and Foyer.
- Shell of theatre/function centre.
- Art studios.
- Electrical and fire services.

Stage 2 Construction - completed October 1994

Complete work to Boiler house with permanent tenant and retail facilities for:

- Reverse Garbage (non-profit co-operative, which collects and sells unused industrial off cuts used by many community groups).
- Dance/Theatre studio.
- Powerhouse Design Studio.
- Centre Administration and tenant offices.

Stage 3 Construction - completed May 1997

- External works including car parks, roadway and landscaping.
- Signage.
- Auxiliary works.

Stage 4 Construction – completed 2008

- 250 seat theatre for performing arts (less grant funding).
- Riverbank development involving re-establishing access to the Georges River and developing links to Leacocks Regional Park, the Georges River Cultural Leisure Corridor and Casula Railway Station, including an outdoor amphitheatre.

Cost of Facilities

Analysis of visitor records indicates that 80% of visitors to the Powerhouse are from within the Liverpool LGA and 20% are from outside areas. The contribution calculation addresses the proportional cost of the centre attributable to the LGA population.

Table 5.2 Casula Powerhouse Works Schedule

Item	Cost
Theatre Space	\$3,100,000
Recreational Landscape Development	\$480,000
Collection Storage Facilities	\$400,000
Education Workshop Areas	\$500,000
Administrative Areas	\$330,000
Lift	\$250,000
Office Space for Cultural Organisations	\$525,000
Gallery Spaces	\$380,000
Production Area	\$400,000
Air Conditioning	\$305,000
Sub Total	\$6,670,000
Less grant funding	(\$1,700,000)
Sub Total	\$4,970,000
20% Discount for proportion of non Liverpool users	(\$994,000)
Total	\$3,976,000

Contributing Area: All of Liverpool LGA except Edmondson Park and Liverpool City Centre.

5.2 Recreation Facilities

Nexus

New residential development, which leads to an increase in the number of residents, will also increase the demand for citywide public open space and recreation facilities. The existing recreation facilities do not have adequate capacity to accommodate the increased demand, which will arise with the growth of Liverpool.

Council plans to augment existing recreation facilities to more adequately serve the citywide needs. Contributions will be used to provide additional capacity in response to the increase in demand arising from new development. Contributions will not reduce any existing shortfalls in the amount of provision. Shortfalls are to be addressed through other means (e.g. general revenue, grants and so on).

City Wide facilities are major open space and recreational opportunities intended to service the needs of all residents within the Liverpool Local Government Area irrespective of geographic location. City Wide open space/recreational facilities provide a higher tier of recreational opportunity than local or district facilities.

Whitlam Centre Extensions

Background

The Whitlam Centre is a major indoor recreational facility incorporating a heated pool, gymnasium and multi purpose hall. The centre provides a broad range of recreational opportunities specifically incorporating facilities not generally available at, or of a higher standard / capacity than, local and district recreation centres.

In anticipation of future population growth Liverpool City Council undertook major extensions to the Whitlam Centre in 1994 to 1996. The works undertaken sought to increase the capacity of the centre from a district to citywide facility. The diversity and standard of recreational opportunities of the Whitlam Centre are generally superior to those provided at a local or district level and accordingly the facility service a greater catchment. In effect, the completed extensions to the Whitlam Centre will provide a higher tier of recreation opportunities to all residents of Liverpool (both existing and future).

The cost of works to Council (and therefore the community) to 1996 was spent to cater for the existing population and in anticipation of future development, thereby ensuring that required facilities were "on the ground" to satisfy the requirements of future population growth. The contribution levied under this plan seeks to recoup part of the expenditure of Council making allowance for existing and future population likely to be served by the facility excluding non Liverpool patronage and Stage II release areas.

Table 4.3 Whitlam Centre Works Schedule

Item	Cost
Cost (inclusive of interest) of 1994 - 96 extensions comprising a 50 m outdoor heated pool, 25 m indoor heated pool, family leisure indoor heated pool, pool plant (heating, circulation, etc), fitness facility, aerobics room, kiosk, office complex and reception area	\$9,700,907
Less grant funding	-\$1,481,942
Total	\$8,218,965

Contributing Area: All of Liverpool LGA except Edmondson Park and Liverpool City Centre.

5.3 Contribution Formulae

Residential Development

The following formulae are used to calculate the contribution for City Wide Facilities.

$$\text{Contribution Rate = (per dwelling / lot)} = \frac{\mathbf{C \times O R \times N}}{\mathbf{228,500}}$$

where	C =	Cost of capital works of each facility
	O R =	Estimated occupancy rate for the development type and location
	N =	Number of additional lots / dwellings
	228,500 =	Estimated population of Liverpool LGA at 2021

For Occupancy Rate refer to Table 4.3

Note that this formula makes allowance for existing population. New development will only contribute its proportion of demand for facilities. It will not make up for any funding attributable to existing residential development. Contributions will not recover the full cost of the City Wide Facilities.

5.4 Staging of Facilities

Council has constructed these facilities and will now recoup the funds expended.

6. Established Areas

Important note: for development lodged after 12 December 2018, refer to Liverpool Contribution Plan 2018 – Established Area.

7. Pleasure Point

7.1 Development Trends

The Pleasure Point area was rezoned to allow residential development in conjunction with *Liverpool LEP 2008*. The LEP provides controls on minimum lot sizes and thus is the basis for the estimated development potential for the area.

Catchment Area

There is a single catchment for all local facilities in Pleasure Point. The catchment is shown on Figure 7.1.

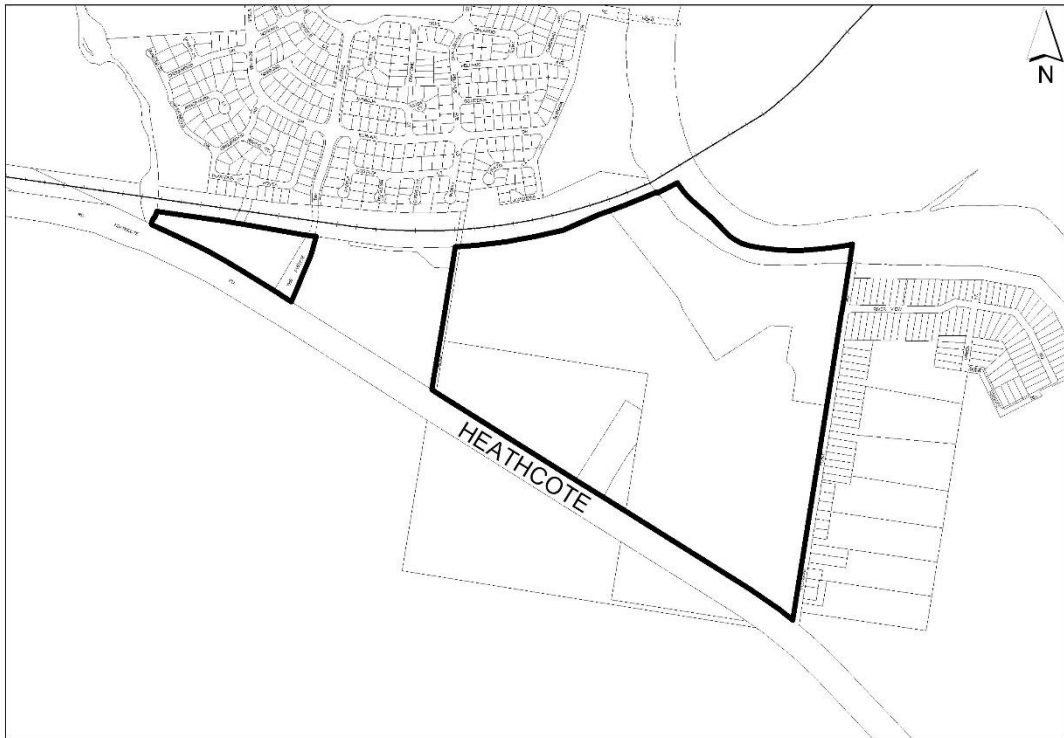


Figure 7.1 Catchment Area

7.2 Community Facilities

It is considered that the area is not of sufficient size to warrant a new community centre. Accordingly it is considered reasonable to include this area in the Established Areas Eastern Catchment as the additional population will increase the usage of community facilities in the nearby areas.

7.3 Recreation Facilities

The extent of open space in Pleasure Point would on a population basis be less than in other release areas of Liverpool. However the location of passive open space along the Georges River and Williams Creek foreshore has the most potential for best use by residents of the area. Further these areas connect to the open space network in the surrounding area.

Contributing Development, Works and Land Acquisition Schedule and Catchment Area

Contributing Development

440 dwellings/lots (no of dwellings or equivalent that are expected to contribute to local recreation facilities)

The area from which contributions would be received is shown on Figure 7.1.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 20 for the location of each item in Table 7.1.

It is envisaged that the land identified for open space will be dedicated to Council in conjunction with the development of the land in lieu of payment of a monetary contribution.

Works and Land Acquisition Schedule

The range of Works for local recreation facilities is shown in Table 7.1.

The cost of facilities is based a review of costs in 2008 by *Rider Hunt*.

Table 7.1 Works and Land Acquisition Schedule

No.	Items	Land Unit Cost \$ / sqm	Works Unit Cost \$ / ha or item	Area ha ha	Total Land \$	Total Works \$
OS1	Williams Creek Foreshore	\$25.51	\$175,065	0.4820	\$122,958	\$84,381
OS2	Georges River Foreshore	\$25.51	\$312,830	1.9600	\$499,996	\$613,148
Sub Totals						
Project Management 10%						
Contingency 10%						
Totals				2.4420	\$622,954	\$837,035

7.4 Transport Facilities

Scope of facilities

The facilities costed are based on a masterplan for this area identified in *Liverpool DCP 2008*.

Apportionment

No apportionment is allowed for as there were no existing local transport facilities in existence at the commencement of the development of the area.

Contributing Development, Works and Land Acquisition Schedule and Catchment Area

Contributing Development

440 dwellings/lots (Number of dwellings or equivalent that are expected to contribute to local community facilities)

The area from which contributions would be received is shown on Figure 7.1.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 20 for the location of each item in Table 7.2.

Works and Land Acquisition Schedule

The range of Works for local transport facilities is shown in Table 7.2.

The cost of facilities is based a review of costs in 2008 by *Rider Hunt*.

Table 7.2 Works and Land Acquisition Schedule

No.	Items	Length / No of items m	Pavement width m	Land width m	Land Unit Cost \$/ sqm	Works Unit Cost inc K&G \$/ m	Total Land \$	Total Works \$
R1	Roundabout - Pleasure Point Rd & Link Rd					\$157,678		\$157,678
R2	Collector Street Link - E3 zone to Pleasure Point Rd	300	4.8	4.8	\$210	\$494	\$302,400	\$148,344
R3	Collector Street Link - West of E3 zone	520	4.8	4.8	\$210	\$494	\$524,160	\$257,129
R4	Collector Street Link across E3 zone	30	20		\$210	\$1,027		\$615,951
B1	Collector Street Link Culvert	90		20	\$210	\$1,265	\$378,000	\$113,840
APZ1	Asset Protection Road	456	5.7	21	\$210	\$572	\$2,010,960	\$261,050
APZ2	Asset Protection Road	118	5.7	21	\$210	\$572	\$520,380	\$67,552
APZ3	Asset Protection Road	180	5.7	21	\$210	\$572	\$793,800	\$103,046
R5	Local Access Street adjacent to Georges River Foreshore	50	1.7	2.2	\$210	\$245	\$23,100	\$12,225
R6	Pedestrian Access Georges River Foreshore	50	2.5	10	\$210	\$100	\$105,000	\$5,000
	Bus shelter	4				\$14,270		\$57,080
Sub Total								
	Project Management 10%							\$179,889
	Contingency 10%							\$179,889
Totals							\$4,657,800	\$2,158,674

7.5 Contribution Formulae

Recreation Facilities

Conventional Lot Residential Subdivision, Small Lot Subdivision, Semi-detached dwellings and Multi dwelling housing

Contribution by cash

$$\text{Contribution Rate} = \frac{C}{N} \times \frac{O R}{3.7}$$

(per dwelling / lot)

where C = Cost of capital works or land identified for the catchment area

N = Number of equivalent lots / dwellings in the catchment area

O R = Estimated occupancy rate for lot size or dwelling type

Contribution by land dedication

$$\text{Area of land to be dedicated} = \frac{A}{N} \times \frac{O R}{3.7}$$

(per dwelling / lot)

where A = Total area to be acquired in the catchment area

N = Number of equivalent lots / dwellings in the catchment area

O R = Estimated occupancy rate for lot size or dwelling type

For Occupancy Rate refer to Table 4.3

Aged and Disabled Persons Housing

$$\text{Contribution for total development} = \frac{\text{Conventional Lot Contribution} \times R}{3.7}$$

where 3.7 = Estimated occupancy rate for a conventional lot

R = Number of residents

Transport facilities

Conventional Lot Residential Subdivision, Small Lot Subdivision, Semi-detached dwellings and Multi dwelling housing

Contribution by cash

$$\text{Contribution Rate} = \frac{C}{N} \times \frac{V}{6.7}$$

(per dwelling / lot)

where C = Cost of capital works and land identified for the catchment area

N = Number of equivalent lots in the catchment area

V = Vehicle trips per day for lot size or dwelling type

Contribution by land dedication

$$\text{Area of land to be dedicated} = \frac{A}{N} \times \frac{V}{6.7}$$

(per dwelling / lot / non residential development)

where A = Total area to be acquired in the catchment area

N = Number of equivalent lots in the catchment area

V = Vehicle trips per day for lot size or dwelling type (refer to Table 6.4)

Table 6.4 Vehicle Trips per day per dwelling

Dwelling Type or Lot Size	Vehicle Trips per day
Residential Subdivision Lots 450 sqm or larger	6.7
Residential Subdivision Lots smaller than 450 sqm	6.0
Semi-detached dwellings, Multi dwelling housing & Residential Flat Buildings (where permitted)	
3 or more bedrooms	6.0
2 bedrooms	4.0
1 bedroom	3.3
Aged and Disabled Persons Housing (total development)	Total vehicle trips per day

Administration Fees

All Development

The cost of administering contributions plans over the coming years has been estimated at 1.2% of the value of contributions.

7.6 Staging of Facilities

It is expected that facilities will be provided by the developer, including dedication of land, in conjunction with the development. The timing of this will depend on the timing of the development.

It is envisaged that infrastructure will be provided in conjunction with the development of the land, as the land is in only two lots.

8. Pleasure Point East

8.1 Development Trends

There are 65 existing lots, which can be developed. No subdivision potential is expected.

8.2 Transport Facilities

Council appreciates the need to carefully balance the management of traffic in order to achieve a safer local road system with appropriate residential amenity within this rural context and to provide for the efficient transfer of people, goods and services.

In adopting this strategy some cost savings on the construction of the local residential streets is advocated in the plan. These benefits are improved safety and amenity in residential areas as well as savings in local development construction costs.

The existing local street network is built to a rural standard and can accommodate the traffic volumes associated with the existing dwellings situated on the northern side of Riverview Road. The development of the subject 65 allotments will generate traffic volumes beyond the rural road threshold. The development potential necessitates the upgrading of Pleasure Point Road, Riverview Road and Green Street.

Contributing Development, Works and Land Acquisition Schedule and Catchment Area

There are three catchments for local transport facilities in Pleasure Point East. For each catchment area, information is provided on:

- Contributing Development (number of dwellings or equivalent that are expected to contribute to recreation facilities)
- Works and Land Acquisition Schedule
- The area from which contributions would be received is shown on Figure 8.1.

River Heights Road

Contributing Development: 7 dwellings

Table 8.1

Item	Cost
Establishment	\$3,475
Roadway Construction	\$100,000
Total	\$103,475

River View Road

Contributing Development: 32 dwellings

Table 8.2

Item	Cost
Establishment	\$3,475
Kerb & Pavement	\$84,095
Footway	\$17,167
Total	\$104,737

Green Street

Contributing Development: 9 dwellings

Table 8.3

Item	Cost
Pavement at Intersection	\$24,464

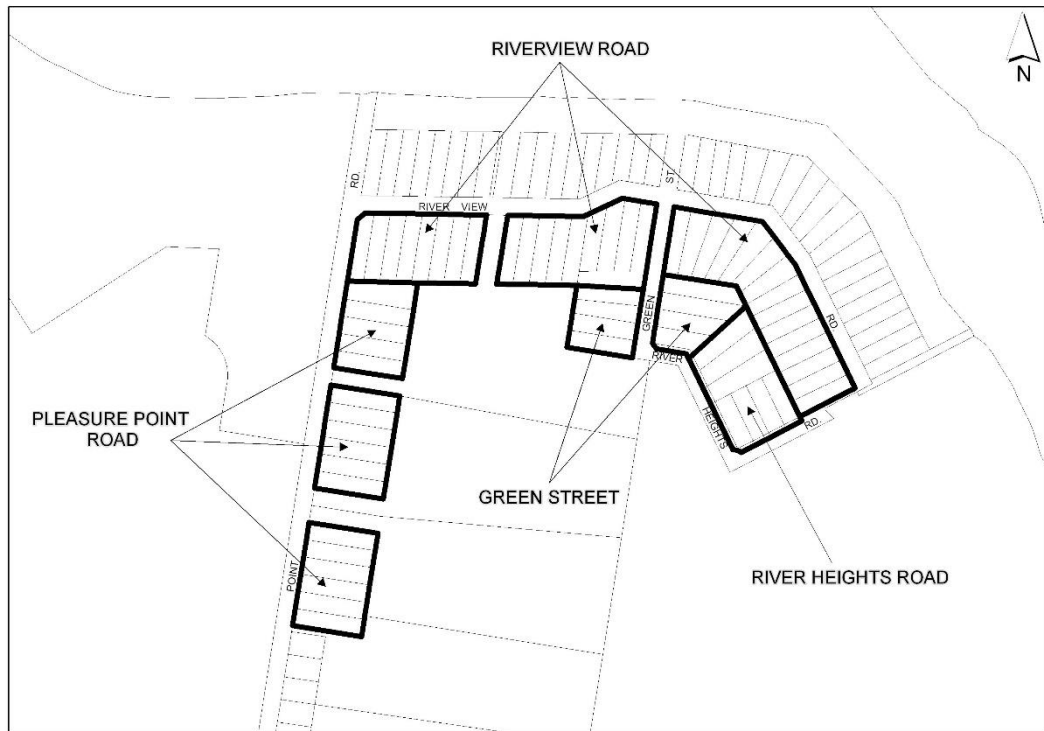


Figure 8.1

8.3 Drainage

Almost all allotments within the plan area require some form of inter-allotment drainage for the removal of concentrated stormwater from the individual sites. The DCP allows for the creation of easements where necessary but does not specify the location or width of these easements. It will be a condition of consent that such easements are dedicated across the property affected. The actual construction of the inter-allotment drains will be covered by this plan.

The cost of drainage works to service the area is \$133,823.

Contributing Development, Works and Land Acquisition Schedule and Catchment Area

There is one catchment for local drainage facilities in Pleasure Point East. For the catchment area information is provided on:

- Contributing Development (number of dwellings or equivalent that are expected to contribute to recreation facilities)
- Works and Land Acquisition Schedule
- The area from which contributions would be received is shown on Figure 8.2.

Contributing Development: 65 dwellings

Table 8.4

Item	Cost
Easements	\$938
Inter - Allotment lines	\$170,491
Total	\$171,430

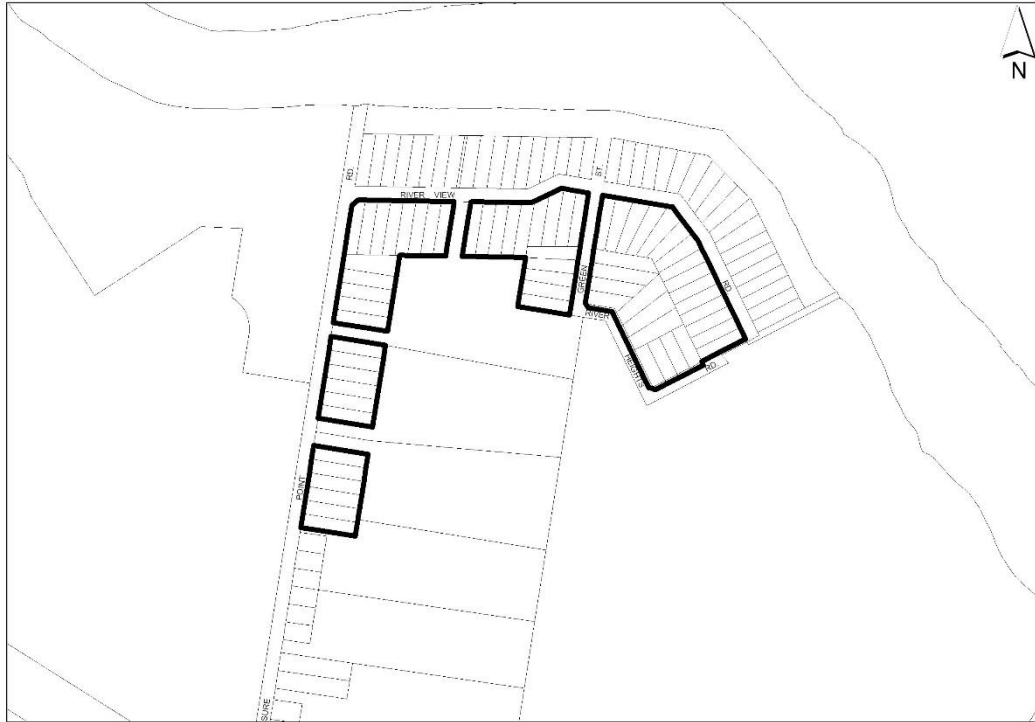


Figure 8.2

8.4 Administration Costs

There are significant costs associated with administering funds of this magnitude. Both the plan preparation / review and implementation aspects of developer contributions are administered staff within Council. A core team of employees are engaged to provide support in co-ordinating such a process, as well as prepare status reports, review and relevant data, liaise with Council staff and external agencies.

In accordance with the directive of the Department of Planning, the administration costs are comprised of those expenses relative only to those personnel directly responsible for the formulation and / or administration of a Contributions Plan. The cost per lot per year has been averaged across all of the Contribution Plan areas.

8.5 Professional Fees

The cost of independent land valuations and legal documents are clearly part of the costs of administering this plan. In relation to land acquisition, Council will be required to acquire land for roads and incur the associated conveyancing costs.

It is recognised that the costs associated with land acquisition could be added to the cost of individual facilities; however the cost of professional fees attributable to any one facility is completely unpredictable. It is therefore more appropriate that a pool of contribution funds is available to meet these costs as they arise. The contribution rate will be reviewed in light of income and expenditure when this plan is reviewed in accordance with section 2.8.

The contribution rate is the same regardless of the size of the lot or form of development. In arriving at this rate the following factors were taken into account:

- The cost of independent valuations is anticipated to vary from \$500 - \$2,000 depending on individual sites and whether the valuation is general or specific;
- Valuations will be required at least annually for reviewing this contribution plan and more frequently depending on movements in the property market;
- Stamp duty and estimated costs of vendor's solicitor in land acquisition.

8.6 Plan Establishment

The preparation of a contributions plan requires the development of options for the scope of works and the corresponding contributions. The formulation of the contribution plan has required extensive discussion on a range of facilities from full urban infrastructure to rural standards. Preliminary designs for many of these options and costing have also been required.

This contributions plan and all future plans developed will be required to fund the establishment costs of the plan itself. The costs of establishing each plan will vary dependent upon the magnitude of development potential. The establishment costs of this plan have been estimated at \$20,000 in total a portion of which has already been spent by Council.

Contributing Development: 65 dwellings

Table 8.5

Item	Cost
Administration	\$64
Professional & Legal Fees	\$228
Plan Establishment Costs	\$392
Total	\$684

8.7 Contribution Formulae

Drainage, Land Acquisition, Professional Fees and Plan Establishment

$$\text{Contribution Rate = } \frac{C}{65} \\ \text{(per dwelling)}$$

where C = Cost of fees, capital works or land identified for the catchment area
 65 = Number of existing lots

Road works

$$\text{Contribution Rate = } \frac{C}{N} \\ \text{(per dwelling)}$$

where C = Cost of capital works or land identified for the particular street
 N = Number of existing lots in the street catchment

Administration

The cost of administering contributions plans over the coming years has been estimated at 1.2% of the value of contributions.

8.8 Staging

The works will be provided by Council following the receipt of contributions.

9. Hoxton Park Stage 2 Release Areas District Facilities **(Includes Cecil Hills, Hoxton Park, Carnes Hill, Prestons, Middleton Grange, Elizabeth Hills and Prestons Industrial)**

9.1 Background

Facilities in the Hoxton Park Stage 2 Residential Release Area are provided on a district wide basis and local basis. This is because they involve facilities, which by their nature have a larger catchment and are provided more efficiently on a district scale. It should be noted that the Hoxton Park Stage 2 District catchment area previously included Edmondson Park. It was excluded following discussions with the Department of Planning.

9.2 Community Facilities

Nexus

The Liverpool Stage 2 Release Area Human Services Strategy Study provides the basis for the nexus for the community facilities. The study was completed in November 1992, and endorsed by Council in December 1992 as the strategy for human services planning in Stage 2 release areas. This study is the primary technical tool, which underpins the provision of community facilities.

Since 1992 Council has annually held a number of community consultations under the Western Sydney Area Assistance Scheme (WSAAS). These consultations have reinforced the issues highlighted in the original study with regard to community needs in new release areas. The range of facilities for which contributions are levied include the following.

District community centre

District community centres are important as they provide a base for a number of needed community services. These include community development, neighbourhood centres, family support agencies, outreach programs, geriatric services, etc.

District centres can accommodate larger meetings and functions, as well as an additional range of activities. District centres act as important civic buildings, helping to define a sense of community and a sense of social space in an emerging urban area. The district centres also have larger spaces, which can generate a substantial hire income to subsidise the centre's ongoing costs or the costs of smaller community facilities.

Branch libraries

The State Library of NSW publication *The planning and design of public library buildings* (1990) provides guidelines for calculating branch library floor space. The plan adopts the guideline of 42 sqm per 1,000 residents. A branch library is proposed for Stage 2 release areas. Large branches are preferable, as more resources are concentrated in one location, with lower recurrent costs.

Scope of facilities

A review of the range of local community facilities was undertaken in 2008. It was decided that only a district multipurpose community centre and Library would be provided.

Apportionment

No apportionment is allowed for as there were no existing district community facilities in existence at the commencement of the development of the area.

Contributing Development, Works and Land Acquisition Schedule and Catchment Area

Contributing Development

15,840 dwellings/lots (Number of dwellings or equivalent that are expected to contribute to district community facilities)

The area from which contributions would be received is shown on Figure 9.1.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 8 for the location of each item in Table 9.1.

Works and Land Acquisition Schedule

The range of Works for local community facilities is shown in Table 9.1.

The cost of facilities not yet built was reviewed in 2008 following a review of unit costs by *Rider Hunt*.

Table 9.1 Works and Land Acquisition Schedule

Ref	Item	Floor space sqm	Land Area sqm	Land Unit Cost \$/ sqm	Total Land Cost \$	Total Works Cost \$
DC	Multi purpose Community Centre (2,000 sqm)	1,200				\$5,237,988
DC	Library	2,300				\$11,655,961
DC	Youth Space					\$500,000
	Land acquisition		12,000	\$140	\$1,680,000	
	Total				\$1,680,000	\$17,393,949



Figure 9.1 Catchment Area

9.3 Recreation Facility

Nexus

As part of its planning for the Hoxton Park Stage 2 Release Areas, Council commissioned an Open Space Strategy Report by Manidis Roberts Pty Ltd, in 1990. Frank Small & Associates also undertook market research into the Leisure Requirements for the Residents of Liverpool, a Leisure Needs Analysis for the Liverpool Community and a report on Sporting Organisations in 1994. The contents of these reports and their recommendations also form the basis for open space provision.

The 1990 report identifies the following specific District Recreation Facilities for the Hoxton Park Stage 2 Release Areas:

- District swimming pool/indoor leisure complex of 8 ha.
- District sporting area of 10 ha, with a minimum of 4 quality fields.
- District Netball Complex of 4 ha, located within a larger recreation area.
- District children playground of 2 ha, located within a larger recreation area.
- Cycleways providing links throughout the release areas (provided under local facilities)

Scope of facilities

A review of the range of district recreation facilities was undertaken in 2008. It was decided that the district recreation facility should consist of the following items:

- Tennis courts
- Indoor Recreation Centre
- Playground / Civic Park
- Playing Fields

The changes arise in part due to the impact of the M7 on the proposed open space, street and drainage networks and the *Liverpool City Wide Recreation Strategy 2020* in 2003.

Apportionment

No apportionment is allowed for as there were no existing major recreation facilities in existence at the commencement of the development of the area.

Contributing Development, Works and Land Acquisition Schedule and Catchment Area

Contributing Development

15,840 dwellings/lots (Number of dwellings or equivalent that are expected to contribute to district recreation facilities)

The area from which contributions would be received is shown on Figure 9.2.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 8 for the location of each item in Table 9.2.

Works and Land Acquisition Schedule

The range of Works for local community facilities is shown in Table 9.2.

The cost of facilities not yet built was reviewed in 2008 following a review of unit costs by *Rider Hunt*.

Table 9.2 Works and Land Acquisition Schedule

No	Item	No / Area sqm	Area sqm	Land Unit Cost \$/ sqm	Total Land Costs \$	Total Works Cost \$
DR	Tennis courts	6				\$675,000
DR	Indoor Recreation Centre					\$7,860,000
DR	Playground / Civic Park	20,000				\$1,129,000
DR	Playing Fields	93,000				\$4,250,000
	Sub Total					\$13,914,000
	Project Management allowance 8%					\$1,113,120
	Contingency Sum 10%					\$1,391,400
			11,000	\$25	\$275,000	
		12.2378	34,790	\$140	\$4,870,600	
		112,000	77,210	\$175	\$13,511,750	
	Total				\$18,657,350	\$16,418,520

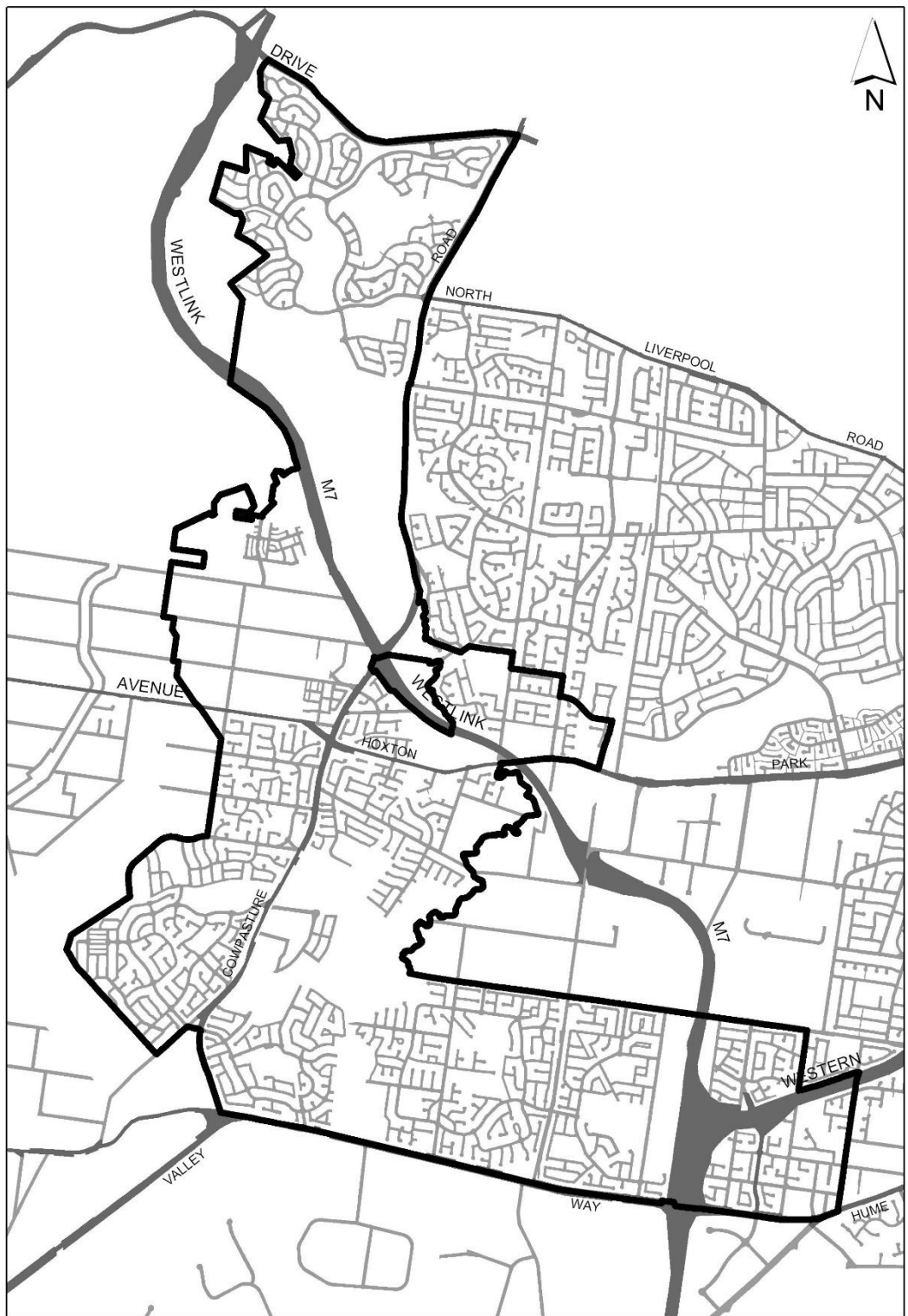


Figure 9.2 Catchment Area

9.4 Transport Facilities

Nexus

Council appreciates the need to carefully balance the management of traffic in order to achieve a safer local street system with appropriate residential amenity and to provide the efficient transfer of people, goods and services in a wider urban structure. In recognition of these objectives the road network in the Hoxton Park, Carnes Hill and Prestons areas are designed according to the principles of the *Australian Model Code for Residential Development 1990*. The Code develops a concept of "residential streets" and "transport roads". The characteristics of the "residential streets" effectively discourage major traffic intrusion into residential areas. "Transport roads" facilitate traffic efficiency and direct movement.

In adopting this strategy some cost savings on the construction of the local residential "streets" is advocated in the Code. The trade off to these benefits, that is improved safety and amenity in residential areas as well as savings in local development construction costs, is that an appropriate level of monetary contribution to the development of roads dedicated to transport is deemed appropriate.

Consequently contributions for Transport Facilities are divided into two categories:

- District Transport Facilities
- Local Transport Facilities (schemes as identified by local catchments)

Hoxton Park Stage 2 Release Areas Traffic Study

Council undertook a detailed study of the future road requirements to service the area, assuming the Hoxton Park Stage 2 Release Areas and the Prestons Industrial area have been developed by the year 2011. This study has developed a detailed computer model (T Model II software) of the land use and transport system at the present and in the future.

It is important to recognise that the future road network will be significantly congested and it has been necessary to accept a level of service of E for the design network performance. This level of service is characterised by unstable traffic flow, congestion and intolerable delays. In some instances, especially regarding access to Liverpool City Centre areas east of the Hume Highway, it has not been practical to achieve this and peak hour forced flow appear to be unavoidable.

The cost of the future road network has been estimated for the sub arterial and arterial roads in the area and proportional funding allocation has been developed based on the relative influences of various sources of traffic generation.

The Traffic Study (October 1992) developed a hypothetical apportionment on the basis of the levels of traffic, from different areas of traffic generation, which are identified as occurring on various road links or at various intersections. This apportionment took into account the local arterial and sub arterial road costs (but not including the Cumberland Highway or South Western Freeway corridors). The total cost of these works (not including land acquisition) was in the order of \$99,000,000, at 1992 costs.

This would be apportioned as follows:

Prestons Industrial Area	11%
Stage 2 Residential Release Areas	46%
Roads and Traffic Authority Through Traffic	37%
Council Existing Traffic	6%

After excluding the amount for the Roads and Traffic Authority, the proportions would be as follows:

Prestons Industrial Area	18%
Stage 2 Residential Release Areas	72%
Council Existing Traffic	10%

The emphasis in devising the works schedule has been to:

- Maintain opportunity for long term expansion of transport corridors; and
- Provide a safer road system by ensuring major roads is flood free and major intersections are appropriately controlled (signals, seagulls or roundabouts).

Scope of facilities

A review of the range of district transport facilities was undertaken in 2008. This was undertaken in conjunction with the preparation of *Liverpool DCP 2008*. This plan included amongst other items a review of the masterplan for this area. The changes arise in part due to the impact of the M7, the addition of land north of Hoxton Park Rd, changes to the land use adjacent to the Carnes Hill Centre on the proposed open space, street and drainage networks. The Cowpasture Road deviation was originally included in order to provide access to the Horningsea Park area. The scope of works did not include the full extent of road works that now exists.

Apportionment

The original traffic study estimated that 10% of the district transport works were attributable to existing traffic.

Contributing Development, Works and Land Acquisition Schedule and Catchment Area

Contributing Development

18,310 dwellings/lots (incorporating residential and equivalents from industrial development in Prestons)

The area from which contributions would be received is shown on Figure 9.3.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 2 - 17 for the location of each item in Table 9.3.

Works and Land Acquisition Schedule

The range of Works for local community facilities is shown in Table 9.3.

The cost of facilities not yet built was reviewed in 2008 following a review of unit costs by Council.

Table 9.3 Works and Land Acquisition Schedule

No	Item	Land Unit Cost \$/sqm	Works Unit Cost \$/m	Length m	Width m	Area sqm	Total Land Cost \$	Total Works Cost \$
Corridors								
RD1	Beech Rd Deviation							
	Road reserve	\$175		930	24	22,320	\$3,906,000	
	2 lane undivided carriageway		\$788	930				\$732,999
RD2	Beech Rd Widening							
	Road reserve	\$175		470	4	1,880	\$329,000	
	Structural Overlay existing central pavement		\$52	420	5.1	2,142		\$21,794
	Widen existing pavement to form 4 lane undivided urban road		\$175	420	1.9	798		\$139,893
	Lyn Parade Extension							
RD3.1	Road reserve over special use land	\$175		560	11	6,160	\$1,078,000	
RD3.2	Road reserve over special use land	\$48		560	1	560	\$26,880	
RD3.3	Road reserve over industrial land	\$175		690	2	1,380	\$241,500	
RD3.4	Environmental studies for Lyn Parade ext						\$98,900	
RD3.5	Pavement over special use land		\$1,540	560				\$862,400
RD3.6	Pavement over industrial land		\$50	690				\$34,500
RD3.7	Re-instate fence along frontage to Transmission Tower		\$133	560				\$74,610
	Kurrajong Rd							
RD4.1	Road reserve: Cowpasture Rd to Marketplace	\$175		300	24	7,200	\$1,260,000	\$175
RD4.2	Road reserve: Marketplace to Cabramatta Ck	\$175		900	20	18,000	\$3,150,000	\$175
RD4.3	Road reserve: Intersection widening - Future Road	\$175		240	15	3,600	\$630,000	\$175
RD4.4	Road reserve: Intersection widening - Mowbray Road	\$175		240	3	720	\$126,000	\$175
RD4.5	Road reserve: Intersection widening - Bernera Road	\$175		160	6	960	\$168,000	\$175
RD4.6	Road reserve: Intersection widening - San Marino Drive	\$175		80	5	400	\$70,000	\$175
RD4.7	Road reserve: Crossing of Cabramatta Creek on east side					3,783	\$1,214,500	
		\$100				3,000	\$300,000	\$100
RD4.8	4 lane urban road with median: Cowpasture Road to Marketplace		\$2,411	300				\$723,238

No	Item	Land Unit Cost \$/sqm	Works Unit Cost \$/m	Length m	Width m	Area sqm	Total Land Cost \$	Total Works Cost \$
RD4.9	4 lane urban road: Marketplace to Cabramatta Ck			900				\$5,200,000
RD4.10	Bridge over Cabramatta Ck							
	Twin bridges with 2 x 14m spans x 9.5 wide					532		\$5,000,000
RD4.11	Re-instate fence along frontage to Transmission Tower		\$133	560				\$74,610
	15% Contingency for Civil Works							\$1,638,486
RD4.12	4 lane urban Road upgrade		\$788	3,930				\$3,097,511
	Structural Overlay existing central pavement		\$49	3,930	7	27,510		\$7,350,338
	15% Contingency for Civil Works							\$1,567,177
RD5	Cowpasture Rd Deviation							
	Road Reserve	\$175				13,700	\$2,397,500	
	Two lane undivided carriageway with unsealed shoulders and table drains		\$788	800				\$630,537
RD6	Provision for bus priority facilities							
	Bus filter							\$73,290
	1 bridge over Cabramatta Ck at Bumberra St							
	2 x 14m spans x 5m wide							\$291,707
	Bernera Rd							
	Road reserve: Kurrajong Rd to Camden Valley Way	\$175		1,400	7	9,800	\$1,715,000	
RD7.1	Kurrajong Rd to Camden Valley Way							\$7,700,000
	Structural Overlay existing central pavement		\$49	1,400	7	9,800		\$68,720
RD7.2	South of Yarrawa Rd (half road width)	west side	\$920	150	6.5	Pre-existing street		\$137,925
RD7.3	Around Yarrunga St (full road width)		\$1,839	240	13	Pre-existing street		\$441,360
RD7.4	South of Yarrunga St (half road width)	west side	\$920	320	6.5	Pre-existing street		\$294,240
	15% Contingency for Civil Works							\$1,296,337
	Sub Totals						\$16,711,280	\$37,451,671
	Intersections							
RD8.1	Signalised intersection Camden Valley Way and Beech Rd Deviation (incl all RTA Fees)							\$175,897
	Turn / Slip lane, State Rd T intersection							\$304,887

No	Item	Land Unit Cost \$/sqm	Works Unit Cost \$/m	Length m	Width m	Area sqm	Total Land Cost \$	Total Works Cost \$
RD8.2	Signalised intersection Camden Valley Way & Cowpasture Rd Deviation (incl all RTA Fees)							\$175,897
	Turn / Slip lane, State Rd T intersection							\$304,887
RD8.3	Signalised intersection Cowpasture Rd & Joshua Moore Drive (incl all RTA Fees)							\$175,897
	Turn / Slip lane, State Rd T intersection							\$304,887
RD8.4	Seagull intersection at Kurrajong Rd deviation							\$175,897
RD8.5	Seagull intersection at Kurrajong Rd deviation & un-made Rd							\$175,897
RD8.6	Roundabout at intersection Kurrajong Rd deviation & un-made Rd							\$175,897
RD8.7	Roundabout at intersection Kurrajong Rd & Mowbray Rd							\$175,897
RD8.8	Signalised intersection at Bernera & Kurrajong Rds Signals Cost (incl all RTA Fees)							\$175,897
	Turn / Slip lane, Sub Arterial X intersection							\$304,887
RD8.9	Roundabout at intersection Kurrajong & San Marino Drive							\$175,897
RD8.10	Signalised intersection Bernera Rd, Wroxham St & Bomaderry Drive (incl all RTA Fees)							\$175,897
	Turn / Slip lane, Sub Arterial X intersection							\$304,887
RD8.11	Roundabout at intersection Kurrajong & Beech Rds							\$175,897
RD8.12	Roundabout at intersection of Kurrajong & Cedar Rds							\$175,897
RD8.13	Roundabout at intersection of Kurrajong & Wonga Rds							\$175,897
RD8.14	Roundabout or Seagull intersection at Kurrajong & Napier Rds							\$76,223
RD8.15	Roundabout at Beech Rd & Barcelona Drive							\$175,897
RD8.16	Roundabout at Beech Rd deviation & Pine Rd extension							\$175,897
RD8.17	Signalised intersection at Lyn Parade & Jemma Rd (incl all RTA Fees)							\$304,887
	Various signalised intersections							\$2,500,000
RD8.19	Signalised intersection at Hoxton Park & Banks Rd (incl all RTA Fees)							
RD8.20a	Camden Valley Way & Ash Rd (incl all RTA Fees)							
	Turn / Slip lane, State Rd T intersection							
RD8.20b	Camden Valley Way & Bernera Rd (incl all RTA Fees)							
	Turn / Slip lane, State Rd X intersection							
RD8.20c	Camden Valley Way & Corfield Rd (incl all RTA Fees)							
	Turn / Slip lane, State Rd T intersection							
RD8.20d	Camden Valley Way & Rynan Avenue (incl all RTA Fees)							
	Turn / Slip lane, State Rd T intersection							
RD8.20e	Camden Valley Way & Horningsea Park Drive (incl all RTA Fees)							
	Turn / Slip lane, State Rd T intersection							
RD8.20f	Cowpasture Rd & Chapman Rd (incl all RTA Fees)							
	Turn / Slip lane, State Rd T intersection							
RD8.20g	Cowpasture Rd & Kurrajong Rd extension (incl all RTA Fees)							
	Turn / Slip lane, State Rd X intersection							
RD8.20h	Cowpasture Rd & Twelfth Avenue (incl all RTA Fees)							
	Turn / Slip lane, State Rd T intersection							
RD8.20i	Hoxton Park Rd & either Webster or Calabro Rds (incl all RTA Fees)							
RD8.20j	Cartwright Avenue & Hoxton Park Rd (incl all RTA Fees)							
RD8.20k	Hoxton Park Rd & Lyn Pde (incl all RTA Fees)							
RD8.20l	Hoxton Park Rd & Ash Rd (incl all RTA Fees)							
	Turn / Slip lane, Sub Arterial T intersection							
RD8.20m	Hoxton Park, Whitford & Illaroo Rds (incl all RTA Fees)							
	Turn / Slip lane, Sub Arterial X intersection							
RD8.20n	Hoxton Park Rd & First Avenue (incl all RTA Fees)							

No	Item	Land Unit Cost \$/sqm	Works Unit Cost \$/m	Length m	Width m	Area sqm	Total Land Cost \$	Total Works Cost \$
	Turn / Slip lane, Sub Arterial T intersection							
RD8.20o	Hoxton Park Rd & un-named Rd (incl all RTA Fees)							
	Turn / Slip lane, Sub Arterial T intersection							
RD8.20p	Hoxton Park & Cowpasture Rd (incl all RTA Fees)							
RD8.20q	Cowpasture Rd & Mannow Rd (incl all RTA Fees)							
	Turn / Slip lane, State Rd X intersection							
RD8.20r	Cowpasture Rd & Sixteenth Avenue (incl all RTA Fees)							
	Turn / Slip lane, State Rd X intersection							
RD8.20s	Cowpasture Rd & Seventeenth Avenue (incl all RTA Fees)							
	Turn / Slip lane, State Rd T intersection							
RD8.20t	Cowpasture Rd & Green Valley Rd (incl all RTA Fees)							
	Turn / Slip lane, State Rd T intersection							
RD8.20u	Cowpasture Rd & North Liverpool Rd (incl all RTA Fees)							
	Turn / Slip lane, State Rd X intersection							
	Sub Total							\$7,043,998
	Total						\$16,711,280	\$44,495,669

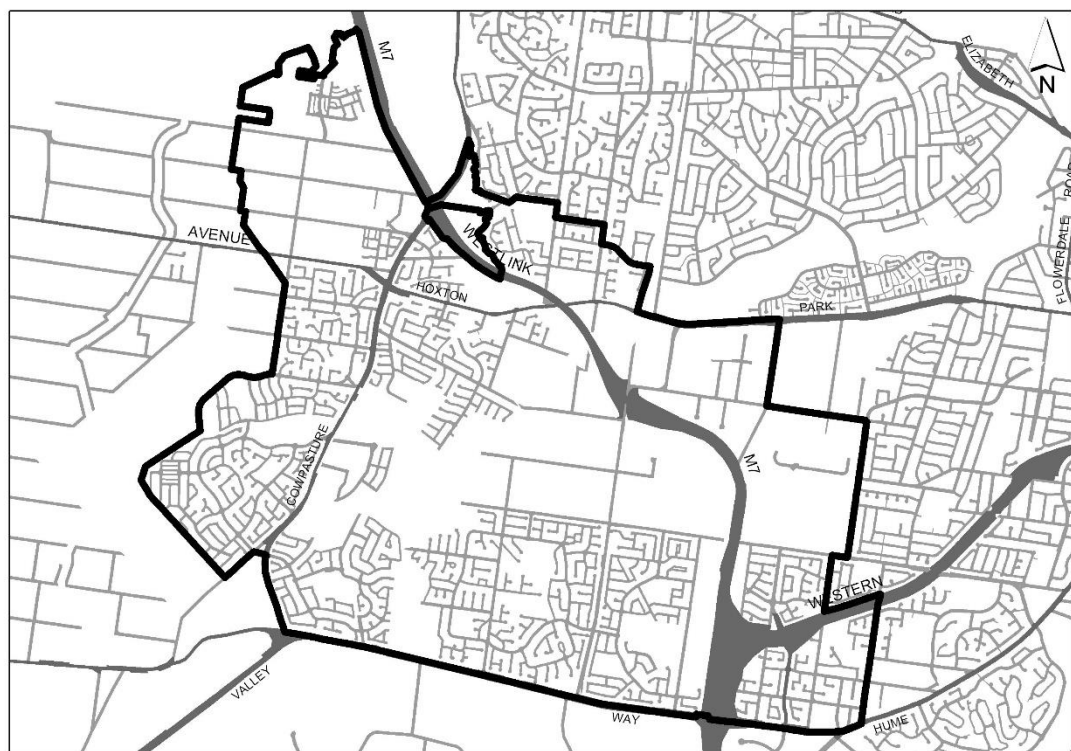


Figure 9.3 Catchment Area

9.5 Drainage Facilities

Nexus

The factors outlined at the beginning of Section 8 mean that the development of new areas may cause or exacerbate flooding problems in areas remote from the development areas themselves. Council has identified a strategic trunk drainage scheme to offset the impacts of the development in the Hoxton Park Stage 2 Release Areas and taking into account development in the Hoxton Park Stage 1 Release Areas. This scheme, known as Option A3 in the Trunk Drainage Study carried out on Council's behalf by Kinhill Engineers, involves a system of wet and dry detention basins. The scheme relies on the principle of controlling differential catchment response rates to optimise the required basin storage capacities. This is a cost effective solution and in practice means that some tributary creeks are retarded with extra basin storage compared to other tributary creeks. This is reflected in the placement of more basins on Hinchinbrook Creek.

The scheme is an effective, integrated strategy to offset the impacts of development on stormwater runoff both on the major creek tributaries within the release areas and downstream of the release areas. Consequently, the entire release area contributes as a collective whole to the implementation of the Option A3.

The drainage systems identified for developer contributions in the Hoxton Park Stage 2 Release Areas fall into two basic categories:

- The Major Trunk Drainage System of detention basins and water quality ponds system as identified in the selected Option A3 in the Kinhill's Report.
- Various local catchment pipe and channel systems as identified in the local catchment schedules by Council.

Contributions are levied on all development for both of these categories. The contribution for major drainage basins is constant throughout the whole stormwater catchment, while that for local trunk drainage varies according to the appropriate local catchment. Within the various local drainage catchments, individual developers are required to directly bear the cost of all pipelines up to 825mm diameter within or past their own land. The cost difference between any larger pipe size or drainage swale/channel is funded by developer contributions.

Background study

Capital costs for basins are based on the Kinhill Study. The land acquisition cost involves all of the basins, including those that were previously part of the Open Space Strategy.

The NSW Dams Safety Committee (DSC) has a statutory role to oversee dam owners where public safety, property and the environment could be at risk. As part of this role, the Committee prescribes (i.e. legally registers) those basins, which pose a potential threat to downstream communities with a view to ensuring the basins meet adequate safety standards. This means that these basins are treated as prescribed dams and must meet the standards set by the committee at all stages of the development and operation of the basins, including regular surveillance inspections to ensure their continuing safety.

In particular the Committee requires that these basins are designed such that during extreme floods, rather than the design flood (Probable Maximum Flood etc) the basins will behave in a manner such as not to threaten lives or cause major property/environmental damage downstream. That is, the basins are "fail safe" or designed to fail at an acceptable level and rate.

In NSW, prescribed basins owned by local government authorities also come under the oversight of the NSW Public Works under the requirements of the Local Government Act 1993.

1992 Hoxton Park Stage 2 Release Area Total Catchment Management Study – Kinhill only considered 1:100 year flood for basins and did not consider floods larger than 1:100 year. Hence no cost was allowed for in design or construction requirements of extreme floods.

Scope of facilities

A review of the range of district drainage transport facilities was undertaken in 2008. This was undertaken in conjunction with the preparation of *Liverpool DCP 2008* and decisions following the masterplanning of Middleton Grange, the preparation of the contributions plan for Edmondson Park, a review of the trunk drainage strategy by *Bewsher Consulting* and the impact of the M7.

Apportionment

No apportionment is allowed for as there were no existing district drainage facilities in existence at the commencement of the development of the area.

Contributing Development, Works and Land Acquisition Schedule and Catchment Area

Contributing Development

15,450 dwellings/lots (incorporating residential, business and equivalents from industrial development in Prestons)

The area from which contributions would be received is shown on Figure 9.4.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 2 - 17 for the location of each item in Table 9.4.

Works and Land Acquisition Schedule

The range of Works for local community facilities is shown in Table 9.4.

The cost of facilities not yet built was reviewed in 2008 following a review of unit costs by Council.

This area incorporates the development potential of residential lots (including the Business zones) in Hoxton Park, Carnes Hill, Prestons, Cecil Hills and the equivalent lots for Prestons Industrial Area.

There are other drainage detention facilities to be provided which contribute to the overall trunk drainage strategy in Cabramatta Creek. These are provided either by local developer contributions in Middleton Grange and Edmondson Park or by a Voluntary Planning Agreement in the future Elizabeth Hills and the former Hoxton Park Aerodrome.

Table 9.4 Works and Land Acquisition Schedule

No	Items	Area	Land Unit Cost	Land	Works
DD 3A	Basin 3A	30,380		Existing	\$1,948,235
DD 3B	Basin 3B	70,000		Within Corridor	1,024,745
DD 4	Basin 4	100,000		Existing	\$806,691
DD 6	Basin 6	55,000	\$175	\$5,725,000	
DD 10	Basin 10	133,100	\$101	\$13,469,720	\$4,718,383
DD 11	Basin 11				\$745,809
		87,434	\$116	\$12,135,349	
		16,606		\$1,639,577	
Totals				\$32,969,646	\$9,243,862

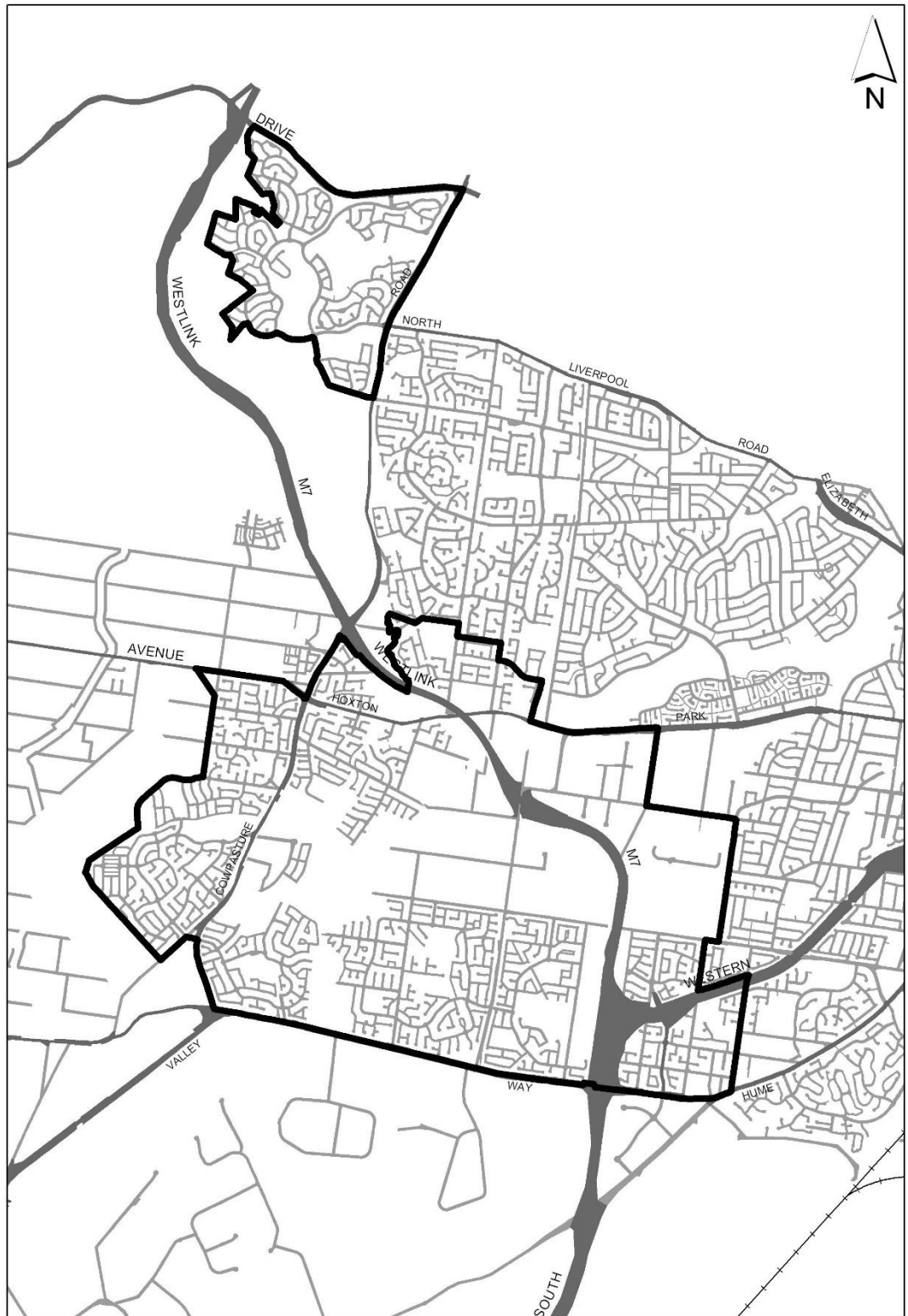


Figure 9.4 Catchment Area

9.6 Contribution Formulae

Community and Recreation Facilities

Conventional Lot Residential Subdivision, Small Lot Subdivision, Semi-detached dwellings, Multi dwelling housing and Residential Flat Buildings

Contribution by cash

$$\text{Contribution Rate = (per dwelling / lot)} = \frac{C}{N} \times \frac{OR}{3.7}$$

where C = Cost of capital works or land identified for the catchment area

N = Number of equivalent lots / dwellings in the catchment area

OR = Estimated occupancy rate for lot size or dwelling type

Contribution by land dedication

$$\text{Area of land to be dedicated = (per dwelling / lot)} = \frac{A}{N} \times \frac{OR}{3.7}$$

where A = Total area to be acquired in the catchment area

N = Number of equivalent lots / dwellings in the catchment area

OR = Estimated occupancy rate for lot size or dwelling type

For Occupancy Rate refer to Table 4.3

Aged and Disabled Persons Housing

$$\text{Contribution for total development = } \frac{\text{Conventional Lot Contribution} \times R}{3.7}$$

where 3.7 = Estimated occupancy rate for a conventional lot

R = Number of residents

Transport facilities

Conventional Lot Residential Subdivision, Small Lot Subdivision, Semi-detached dwellings, Multi dwelling housing, Residential Flat Buildings and other development

Contribution by cash

$$\text{Contribution Rate (per dwelling / lot)} = \frac{C}{N} \times \frac{V}{6.7}$$

where C = Cost of capital works and land identified for the catchment area

N = Number of equivalent lots in the catchment area

V = Vehicle trips per day for lot size or dwelling type

Contribution by land dedication

$$\text{Area of land to be dedicated (per dwelling / lot / non residential development)} = \frac{A}{N} \times \frac{V}{6.7}$$

where A = Total area to be acquired in the catchment area

N = Number of equivalent lots in the catchment area

V = Vehicle trips per day for lot size or dwelling type (refer to Table 8.5).

Table 8.5 Vehicle Trips per day per dwelling

Dwelling Type or Lot Size	Vehicle Trips per day
Residential Subdivision Lots 450 sqm or larger	6.7
Residential Subdivision Lots smaller than 450 sqm	6.0
Semi-detached dwellings, Multi dwelling housing & Residential Flat Buildings (where permitted)	
3 or more bedrooms	6.0
2 bedrooms	4.0
1 bedroom	3.3
	Total vehicle trips per day
Aged and Disabled Persons Housing (total development)	

Drainage Facilities

Conventional Lot Residential Subdivision

Contribution by cash

$$\text{Contribution Rate (per sqm of lots)} = \frac{C}{N \times 450}$$

where C = Cost of capital works or land identified for the catchment area

N = Number of equivalent lots / dwellings in the catchment area

Contribution by land dedication

$$\text{Area of land to be dedicated (per conventional lot)} = \frac{A}{N}$$

where A = Total area to be acquired

N = Number of equivalent lots / dwellings in the catchment area

Small Lot Subdivision, Semi-detached dwellings, Multi dwelling housing, Residential Flat Buildings, Aged and Disabled Persons Housing and Non Residential Development

Contribution by cash

$$\text{Contribution (per sqm of site area)} = \frac{\text{Conventional Lot Contribution} \times \text{CR} \times \text{Site Area}}{0.65}$$

Where C R = Runoff coefficient for the specific development type as specified in the Table 9.

Contribution by land dedication

$$\text{Area of land to be dedicated (total development)} = \frac{A}{N} \times \frac{C R}{0.65} \times \text{Site Area}$$

where A = Total area to be acquired in the catchment area

N = Number of equivalent lots / dwellings in the catchment area

C R = Runoff coefficient for the specific development type as specified in Table 8.6

The relative impacts of different types of land development on any drainage system can be estimated by comparing the peak discharge rates of runoff that the different types of development would produce. The rational formula estimates the peak discharge rates by use of runoff coefficients that are directly related to the proportion of a site that is impervious to rainfall infiltration. The following table gives the relative impacts of alternate types of land development on runoff generation.

Table 9.6 Co efficient of Runoff for development types

Development Type	Co efficient of Runoff
Conventional residential lots and schools	0.65
Semi-detached dwellings, villa houses, small lot subdivision and Aged and Disabled Persons Housing	0.75
Town houses	0.80
Shopping Centre & other non-residential	0.95

9.7 Staging of Facilities

Council will build most facilities as the population threshold for their construction is usually much larger than individual developments. These will be provided as funds become available and as land can be acquired.

10. Hoxton Park, Carnes Hill and Prestons Release Areas

10.1 Background

Development in the Cecil Hills, Hoxton Park, Carnes Hill and Prestons Residential Release Areas has now reached an advanced stage of development.

Catchment Areas

There is a single catchment for Community, Recreation Facilities and Streetscape works. There are a number of separate sub catchments for transport and drainage facilities.

10.2 Community Facilities

Background

New development, which leads to an increase in the number of residents, will also increase the demand for community facilities including multi-purpose community centres, libraries and cultural facilities.

It is intended that contributions will be levied on aged or disabled housing development (as defined under *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004*).

One of the key criteria, which allow development under the SEPP, is the local availability of support services.

Contributions are levied for aged and disabled housing development on the following grounds:

- The standard nexus between the new population and the demand for additional services.
- Older and disabled people will be future users of multi-purpose community centres and the branch library.
- Service providers in Liverpool generally will use these facilities to provide local services for the anticipated population.
- Aged or disabled housing will not provide additional facility capability to people other than residents of the development.
- Not all residents' requirements can be met from services provided on site.
- The criteria within the SEPP for availability of local support services cannot be met without Council facilities in the locality.

Nexus

Local level multi-purpose community centres provide a locally based facility. Poor public transport, inadequate human services infrastructure, distance and therefore poor access to centrally located services are key obstacles facing new residents. As a focal point for residents, community centres provide flexible space for a broad range of community activities. Some of the functions and activities that can occur in these centres include:

- Meeting space for community groups and organisations.
- An informal meeting place and information centre.
- Multi-purpose working space for a range of activities such as play groups, educational classes, cultural and leisure activities (arts and crafts classes, cultural projects, workshops, etc).
- Sessional space for visiting and specialist services such as community nurses, health services, family support services, etc.
- Office accommodation, interview rooms and generally an administrative base for community

workers and local Neighbourhood Centre services.

- Spaces for private functions such as weddings, celebrations, formal meetings, cultural events, etc.

Elected committees comprising local residents and users usually manage such centres.

Council proposes a standard for such facilities, a 600sqm building for a population of approximately 8,000 - 10,000 residents. This standard is proposed based on experience of facilities in other Liverpool release areas. In areas with a projected population over 10,000 but less than 20,000, it is proposed to build centres that are proportionately based on this standard. This will be incorporated into the floor-space ratio adopted in this Plan for community facilities.

Scope of facilities

A review of the range of local community facilities was undertaken in 2008. It was decided that a local multipurpose community centre for each suburb would be provided. An analysis of local community centres in areas adjacent release areas showed that bookings for these centres were at full capacity.

Apportionment

No apportionment is allowed for as there were no existing local community facilities in existence at the commencement of the development of the area.

Contributing Development, Works Schedule and Catchment Area

Contributing Development

10,540 dwellings/lots (number of dwellings or equivalent that are expected to contribute to local community facilities)

The area from which contributions would be received is shown on Figure 10.1.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 7, 8 & 13 for the location of each item in Table 10.1.

Works and Land Acquisition Schedule

The range of Works for local community facilities is shown in Table 10.1.

The cost of facilities not yet built was reviewed in 2008 following a review of unit costs by *Rider Hunt*.

Table 10.1 Works Schedule

No.	Item	Works Cost \$
C1	Multi-Purpose Community Centre (600 sqm)	\$2,269,150
C2	Multi-Purpose Community Centre (600 sqm)	\$2,269,150
C3	Multi-Purpose Community Centre (600 sqm)	\$2,269,150
Total		\$6,807,450

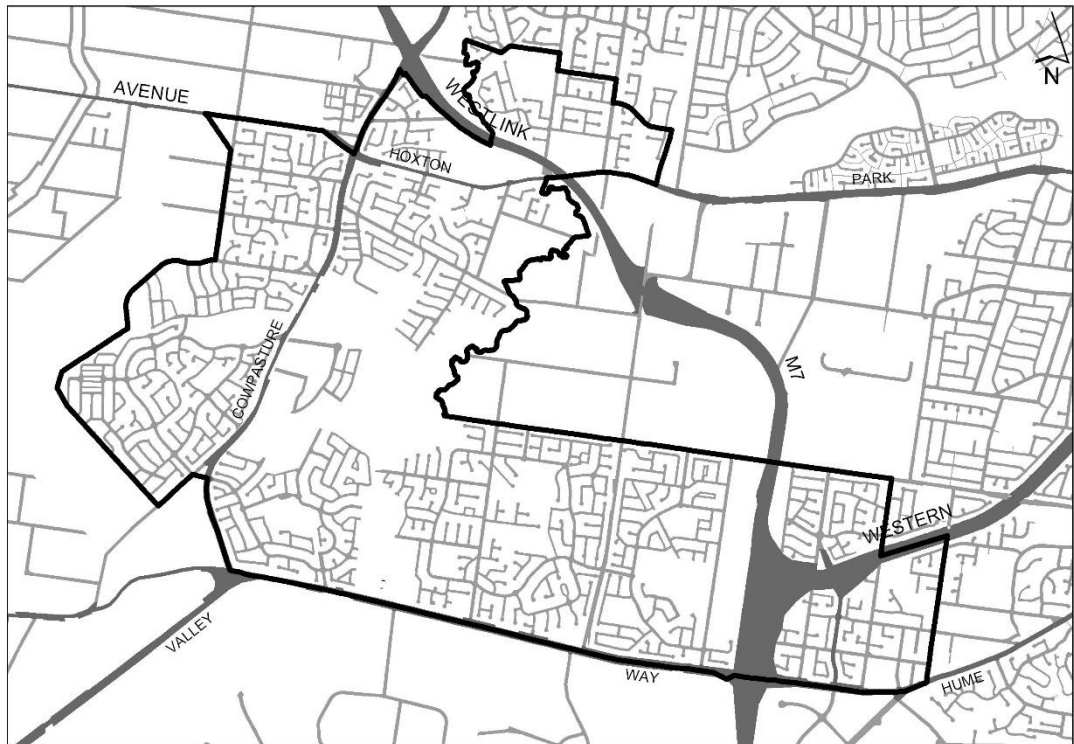


Figure 10.1 Catchment Area

10.3 Recreation Facilities

Nexus

The link between residential development, the recreational needs of the incoming population and the provision and subsequent embellishment of open space is based upon:

- Demographics of projected incoming population
- Needs of major target groups
- Market research
- Location/design constraints and requirements

As part of its planning for the Hoxton Park Stage 2 Release Areas, Council commissioned an Open Space Strategy Report by Manidis Roberts Pty Ltd, in 1990. Frank Small & Associates also undertook market research into the Leisure Requirements for the Residents of Liverpool, a Leisure Needs Analysis for the Liverpool Community and a report on Sporting Organisations in 1994. The contents of these reports and their recommendations also form the basis for open space provision.

Heather Nesbitt Planning with CD Recreation Services and Parkland Environmental Planners completed a review in March 2003.

Needs of Major Target Groups

The major target age groups from a recreational viewpoint in new release areas are children 0-14 years and adults 20-34 years. The recreational activities and open space needs for these specific age groups mainly comprise:

- Small parks within walking distance of all residences with play equipment
- Formal playing fields

- Areas for informal sporting facilities
- Corridors linking open space features
- Large natural and parkland areas

More specific desired recreational activities for these groups are.

0 - 14 years	20 - 34 years
Cricket/football	Cricket/football
Bicycle paths	Tennis
Walking for pleasure	Walking for pleasure
Parks/playgrounds	Picnic/barbeques
Picnic/barbeques	Jogging
Swimming	Swimming
Visiting friends	Squash
Going to movies	Visiting friends
Going to beach	Going to clubs
	Going to movies
	Dancing / disco

The need for open space and its embellishment also exists for age groups other than those discussed above to provide a total community environment. Local parklands, walking, bicycle paths, tennis courts and hard court areas will provide such recreational opportunities.

Location and Design

The market research stresses easy access to all facilities, which emphasises the need for good transport facilities and increased community awareness of recreational opportunities. The final location and design of facilities is however influenced by a number of factors including population thresholds, existing site conditions, transport networks, easements, and open space policy objectives. The distribution and use of Open Space is based on the hierarchy of open space as outlined in the *Open Space Strategy Report (1990)*.

The following tables outline the proposed hierarchy of open space provision within the broader Hoxton Park Stage 2 Release Area and the Department of Planning recommended quality goals for open space.

Open Space Quality Goals

Goal	Rationale
Minimum open space size of 0.5ha for new release areas.	Increased maintenance cost and reduced useability for areas smaller than this. The pocket park concept has been shown to be largely a failure and many councils are attempting to dispose of many of these sites.
Each area of greater than 10ha be linked to at least one other area.	To encourage linkages between open spaces. Footpaths and street narrowing can be used in some circumstances.
Each household should be within 500m of open space of at least 0.5ha.	Equity of distribution and to reduce car dependence.
Diversity of settings is encouraged.	Diversity of settings will more likely cater for a greater range of recreation need. In new release areas this can be facilitated through flexible design modules.
Sports fields should primarily be playable.	Sports fields should be designed to ensure that playing surfaces are in use for the maximum period possible, particularly if designed within detention basins.
Terrain should provide an alternative to that prevailing in the area.	More appeal and interest will be generated with mounding, creek lines and ridge tops
Linear open space should have capacity for good pedestrian and bicycle movements and have houses 'facing' and side-on.	Increase useability and decreased vandalism.

Source: NSW Dept of Planning - *Outdoor Recreation & Open Space (1992)*

Background to Open Space Design and Location

A number of constraints have influenced where and how the above mentioned open space requirements have been allocated within the precinct areas.

- Flooding/Drainage - the concept of dual use of open space for drainage functions includes the retention of natural creek lines to control flooding and the use of dry basins as sporting fields.
- Electricity Easements - the presence of large easements, some of which have been, incorporated within larger open space areas.
- Existing Dwellings - where possible locating major open spaces & collector streets away from existing development so as not to impede initial development. Due to the rate of development a number of smaller pocket parks have already been provided prior to the review of this plan.
- Street Network - where major impact on access to recreational facilities occurs, open space provisions may be either under or over desired levels.
- Landform & Vegetation - where open space has been allocated to retain natural features or where natural barriers such as creeks occur, some areas may contain smaller open space areas in close proximity.

The final layout of open space areas has also been influenced by the following open space objectives.

- District facilities are centrally located adjacent to the District Retail Centre and are easily accessible by public and private transport.
- Provision of open space links radiating from the District Retail / Recreational Centre to the surrounding precincts, to the Special Uses Corridor in the west, and along Hinchinbrook, Cabramatta and Cowpasture Creeks.
- Retention of local features such as bushland, creek lines, natural high points and vistas.

The report identifies the following specific recreation facilities for the Hoxton Park, Carnes Hill and

Prestons areas:

- District park/bushland of which a minimum 10ha is to be provided along Hinchinbrook & Cabramatta Creeks and 10ha to be provided along Hinchinbrook Ck within Precinct 3 (Middleton Grange).
- Cycleways providing links throughout
- Local Sports fields - total 20 playing fields with this number inclusive of the 4 quality fields allocated for the district sporting area.
- Precinct Park - total 8.
- Children's playgrounds - total of 10ha.

The required open space provision is 114.73ha of which 102.5ha local open space plus a proportion of district open space of 12.23ha.

Scope of facilities

A review of the range of local recreation facilities was undertaken in 2008. This was undertaken in conjunction with the preparation of *Liverpool DCP 2008*. This plan included amongst other items a review of the masterplan for this area. The changes arise in part due to the impact of the M7 on the proposed open space, street and drainage networks and the *Liverpool City Wide Recreation Strategy 2020* in 2003.

Apportionment

No apportionment is allowed for as there were no excess local recreation facilities in existence at the commencement of the development of the area.

Contributing Development, Works and Land Acquisition Schedule and Catchment Area

Contributing Development

10,540 dwellings/lots (Number of dwellings or equivalent that are expected to contribute to local recreation facilities)

The area from which contributions would be received is shown on Figure 10.1.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 3 – 5, 7 – 9, 11 – 14, 16 & 17 for the location of each item in Table 10.2.

Works and Land Acquisition Schedule

The range of Works for local community facilities is shown in Table 10.2.

The cost of facilities not yet built was reviewed in 2008 following a review of unit costs by *Rider Hunt*.

Table 10.2 Works and Land Acquisition Schedule

No.	Items	Works Unit Cost \$ per item	Land Unit Cost \$ / sqm	Area ha	Works Cost \$	Land Cost \$
Major Parks						
1	Peter Miller Park (Cedar Road)		\$175	5.6634		\$9,910,950
	Children's Play Area			0.04	\$57,426	
	Sportsfield	\$806,431		3.0000	\$2,419,293	
	Consolidated Passive Area	\$312,830		2.4299	\$760,147	
	Existing public street			0.1935		
2	Ash Road Sports Ground		\$50	10.2713		\$5,135,650
	Children's Play Area				\$57,426	
	Amenities building				\$1,100,000	
3	Macleod Park & Harvard Park (Braidwood Dr)		\$175	13.482		\$23,593,500
	Children's Play Area			0.04	\$57,426	
	Sportsfield	\$806,431		7.842	\$6,324,032	
	Consolidated Passive Area	\$312,830		5.6	\$1,751,851	
4	Schoeffel Park (Basin 11) (Strzlecki Dr)			8.584		(Dist Drainage)
	Children's Play Area			0.04	\$57,426	
	Sportsfield	\$806,431		1.81	\$1,459,640	
	Consolidated Passive Area	\$312,830		6.734	\$2,106,600	
5	Edmund Barton Park					(Dist Drainage)
6	Basin 10			13.27		(Dist Drainage)
	Children's Play Area			0.04	\$57,426	
	Sportsfield	\$2,426,751			\$4,853,503	
7	Brownes Farm Reserve (First Ave)		\$50	9.447		\$4,723,500
	Children's Play Area			0.04	\$57,426	
	Sportsfield	\$806,431		3.75	\$3,024,116	
	Consolidated Passive Area	\$312,830		2.1	\$656,944	
	Bushland / Natural Areas	\$175,065		3.017	\$528,170	
	Community Facilities			0.54		
8	Cabramatta Creek Corridor		\$17	0.157		\$27,268
			\$50	7.647		\$3,823,500
	Bushland / Natural Areas	\$175,065			\$1,338,719	
9	Hinchinbrook Creek Corridor		\$17	2.225		\$386,447
	Bushland / Natural Areas	\$175,065			\$389,519	
10	Bears Creek Corridor		\$17	1.5		\$260,526
			\$25	0.7		\$175,000
			\$50	1.422		\$711,000
	Bushland / Natural Areas	\$175,065			\$248,942	
11	Bushland (Adjacent Maxwell's Creek)		\$50	2.144		\$1,072,000
	Bushland / Natural Areas	\$175,065			\$375,339	
12	Bert Burrows Park (Warialda Way)		\$175	0.6411		\$1,121,925
	Children's Play Area				\$57,426	
	Consolidated Passive Area	\$312,830			\$200,556	
13	Wendy Paramor Park (12th and Mallow Ave)		\$175	0.8		\$1,400,000
	Children's Play Area				\$57,426	
	Consolidated Passive Area	\$312,830			\$250,264	
14	Link (Cowpasture / Muller / 2nd Ave)		\$175	3.767		\$6,592,250
	Linear Passive area	\$381,239			\$1,436,129	

No.	Items	Works Unit Cost	Land Unit Cost	Area ha	Works Cost	Land Cost
		\$ per item	\$ / sqm		\$	\$
15	Link (Basin 10 - Special Uses Corridor)		\$17	1.32		\$229,263
	Linear Passive area	\$381,239			\$503,236	
16	Knoll (west Cowpasture Road)		\$175	1.4469		\$2,532,075
	Children's Play Area				\$57,426	
	Consolidated Passive Area	\$312,830			\$452,634	
17	Precinct Park (adjacent Horningsea Park)		\$175	0.416		\$728,000
	Children's Play Area				\$57,426	
	Consolidated Passive Area	\$312,830			\$130,137	
18	Precinct Park (within District Retail Centre)		\$175	0.2		\$350,000
	Children's Play Area				\$57,426	
	Consolidated Passive Area	\$312,830			\$62,566	
19	Precinct Park (Bumbera Road)		\$175	0.7859		\$1,375,325
	Bushland / Natural Areas	\$175,065			\$137,583	
20	Link (across Kookaburra Road)		\$175	1.724		\$3,017,000
	Linear Passive area	\$381,239			\$657,257	
21	Rettalack Park (adj. Prestons Shops)		\$175	0.487		\$852,250
	Children's Play Area				\$57,426	
	Consolidated Passive Area	\$312,830		0.307	\$96,039	
	Community Facilities			0.18		
22	Dalmeny Reserve (east of Bernera Road)		\$175	1		\$1,750,000
	Children's Play Area				\$57,426	
	Consolidated Passive Area	\$312,830			\$312,830	
23	Precinct Park (Maple Road)		\$175	0.49		\$857,500
	Children's Play Area				\$57,426	
	Consolidated Passive Area	\$312,830			\$153,287	
26	Link (Maxwells Creek - Kurrajong Rd)		\$175	0.2		\$350,000
	Linear Passive area	\$381,239			\$76,248	
	Land at junction of Hinchinbrook / Cabramatta Creeks		\$50	1.677		\$838,500
Sub Totals				90.7676	\$32,609,542	\$71,813,430
Playground Parks						
PP1	Pavo Park		\$175	0.2		\$350,000
	Children 's Play Area				\$36,744	
	Consolidated Passive Area	\$179,284			\$35,857	
PP2	Aston Reserve		\$175	0.2		\$350,000
	Children 's Play Area				\$57,426	
	Consolidated Passive Area	\$312,830			\$62,566	
PP3	Joe D'quino Park (Pacific Palms Cct)		\$175	0.2		\$350,000
	Children 's Play Area				\$57,426	
	Consolidated Passive Area	\$312,830			\$62,566	
PP4	Alex Grimson Reserve		\$175	0.2		\$350,000
	Children 's Play Area				\$36,744	
	Consolidated Passive Area	\$179,284			\$35,857	
PP5	A E Reay Park		\$175	0.2		\$350,000
	Children 's Play Area				\$57,426	
	Consolidated Passive Area	\$312,830			\$62,566	
PP6	Off Pacific Palms Circuit		\$175	0.2		\$350,000

No.	Items	Works Unit Cost \$ per item	Land Unit Cost \$ / sqm	Area ha	Works Cost \$	Land Cost \$
	Children 's Play Area				\$57,426	
	Consolidated Passive Area	\$312,830			\$62,566	
PP7	Off Coffs Harbour Ave		\$50	0.4		\$200,000
	Children 's Play Area				\$57,426	
	Consolidated Passive Area	\$312,830			\$125,132	
PP8	Walter Baldery Park		\$175	0.6		\$1,050,000
	Children 's Play Area				\$36,744	
	Consolidated Passive Area	\$179,284			\$107,570	
PP9	Glendevie Park		\$175	0.2		\$350,000
	Children 's Play Area				\$57,426	
	Consolidated Passive Area	\$312,830			\$62,566	
PP10	Gatto Place		\$175	0.2		\$350,000
	Children 's Play Area				\$36,744	
	Consolidated Passive Area	\$179,284			\$35,857	
PP11	Ayshford Reserve		\$175	0.2		\$350,000
	Children 's Play Area				\$36,744	
	Consolidated Passive Area	\$179,284			\$35,857	
PP12	Riddell Park		\$175	0.2		\$350,000
	Children 's Play Area				\$36,744	
	Consolidated Passive Area	\$179,284			\$35,857	
PP13	Dryander Ave		\$175	0.2		\$350,000
	Children 's Play Area				\$57,426	
	Consolidated Passive Area	\$312,830			\$62,566	
PP14	Prout St/Cobble Circuit		\$175	0.2		\$350,000
	Children 's Play Area				\$57,426	
	Consolidated Passive Area	\$312,830			\$62,566	
PP15	Wingate Ave		\$175	0.2		\$350,000
	Children 's Play Area				\$57,426	
	Consolidated Passive Area	\$312,830			\$62,566	
PP16	Solander Ave		\$175	0.4		\$700,000
	Children 's Play Area				\$36,744	
	Consolidated Passive Area	\$179,284			\$71,714	
PP17	Watling Ave		\$175	0.4		\$700,000
	Children 's Play Area				\$36,744	
	Consolidated Passive Area	\$179,284			\$71,714	
PP19	Yalwal Court		\$150	0.2		\$300,000
	Children 's Play Area				\$57,426	
	Consolidated Passive Area	\$312,830			\$62,566	
PP20	Trash & Treasure		\$150	0.8		\$1,200,000
	Children 's Play Area				\$57,426	
	Consolidated Passive Area	\$312,830			\$250,264	
PP21	Abbeville Cl		\$175	0.2		\$350,000
	Children 's Play Area				\$36,744	
	Consolidated Passive Area	\$179,284			\$35,857	
PP22	Taralga Street		\$175	0.2		\$350,000
	Children 's Play Area				\$36,744	
	Consolidated Passive Area	\$179,284			\$35,857	
PP23	Fortunato Park		\$175	0.2		\$350,000

No.	Items	Works Unit Cost \$ per item	Land Unit Cost \$ / sqm	Area ha	Works Cost \$	Land Cost \$
	Children 's Play Area				\$36,744	
	Consolidated Passive Area	\$179,284			\$35,857	
PP24	Linkage between Dalmeny Drive & Ash Road		\$175	0.5		\$875,000
	Children 's Play Area				\$57,426	
	Consolidated Passive Area	\$312,830			\$156,415	
PP25	Sid Neville Reserve		\$175	0.4		\$700,000
	Children 's Play Area				\$36,744	
	Consolidated Passive Area	\$179,284			\$71,714	
PP26	Henry Kitchen Park (Barcelona Dr)		\$175	0.6		\$1,050,000
	Children 's Play Area				\$36,744	
	Consolidated Passive Area	\$179,284			\$107,570	
PP27	Pavisi Park (Corner Calabria & Venezia Streets)		\$175	0.4		\$700,000
	Children 's Play Area				\$36,744	
	Consolidated Passive Area	\$179,284			\$71,714	
PP29	Morris Park at Thirroul Circuit		\$175	0.2		\$350,000
	Children 's Play Area				\$36,744	
	Consolidated Passive Area	\$179,284			\$35,857	
PP30	Fintray Park		\$175	0.4		\$700,000
	Children 's Play Area				\$57,426	
	Consolidated Passive Area	\$312,830			\$125,132	
PP31	East of Dalmeny Drive		\$175	0.4		\$700,000
	Children 's Play Area				\$36,744	
	Consolidated Passive Area	\$179,284			\$71,714	
PP32	Varley Park at Corfield Rd		\$175	0.2		\$350,000
	Children 's Play Area				\$36,744	
	Consolidated Passive Area	\$179,284			\$35,857	
Sub Totals				9.1	\$3,523,489	\$15,175,000
Cycleways						
	Cycleways through open space linkages and along creeks				\$2,439,877	
Sub Total					\$38,572,908	
	Project Management 10%				\$3,857,291	
	Contingency 10%				\$3,857,291	
Totals				99.9	\$46,287,490	\$86,988,430

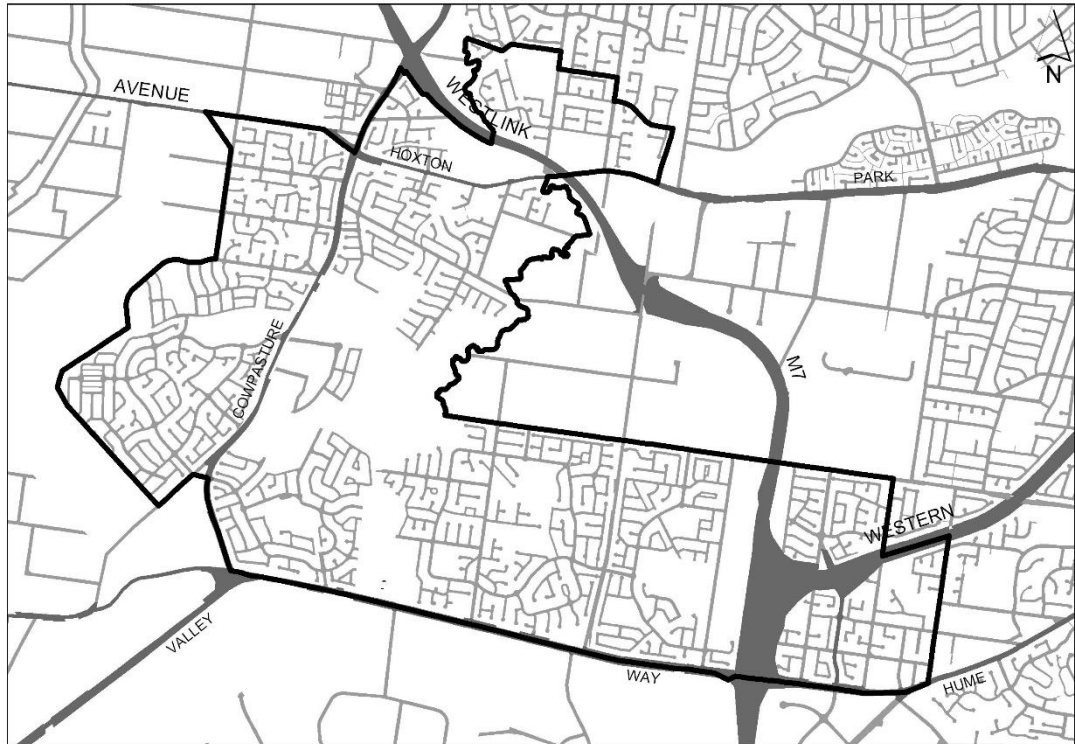


Figure 10.2 Catchment Area

10.4 Transport Facilities

Nexus

Collector Streets

In the Hoxton Park, Carnes Hill and Prestons Residential Release Areas, the Local Access Street was adopted as the benchmark to assess developer contributions. Council has adopted the philosophy that within each neighbourhood, all streets of higher standard than collector streets are necessary to provide access for everyone in that neighbourhood. Therefore there is a contribution toward the difference in cost between a local access street and each street of higher standard. This applies to the additional width, pavement depth and land value (in excess of 18m width).

Within the Council's road hierarchy are the following:

- Access places and cul-de-sac: cater for up to 300 vehicles per day (vpd) and not more than 100m long
- Local access streets: cater for up to 1,000 vpd with provision for up to 2000vpd with wider pavements
- Collector streets: cater for up to 3,000vpd
- Trunk collector streets: cater for up to 6,000 vpd and usually provide a link between the internal collector road system of a residential precinct and the major road system
- Sub arterial roads: cater for up to 15,000 vpd and are the principal traffic carriers within an urban neighbourhood

Streets adjacent to public schools, open space and drainage corridors

Streets which front public facilities such as public schools, open space and drainage corridors are not directly the responsibility of any one developer and are, therefore, levied for under this Plan. For any street which a developer has one frontage to and the other side of the road is fronted by a public facility such as public schools, open space and drainage corridors, the developer is required to provide the following:

- 9 m street reserve or half street reserve, whichever is greater
- The cost of constructing half of a street with a minimum 5.5m street pavement width, or half the designated street width, whichever is greater

The remainder of the full width street dedication and construction is funded by contributions.

Upgrading existing public roads

Where an existing road is identified within the contributions plan as requiring an upgrade, Council has made an assessment of the remaining life of the pavement and deducted this from the cost of construction of a new pavement. Where the road is identified as access denied on the relevant chapter of *Liverpool DCP 2008*, the work is costed for the construction of full width pavement. If future residential lots have access directly to the road, the contributions plan funds central pavement only.

Roundabouts

Roundabouts serve the whole street system within each neighbourhood and consequently serve each property. The cost is determined by the difference in cost between an intersection with a roundabout and a normal intersection.

Other Traffic Facilities

The other facilities include:

- Trunk Collector Streets
- Local Streets fronting open space, drainage, schools etc and within heritage precinct
- Roundabouts
- School Bus Bays
- Structural upgrading and overlay of pavements on existing streets
- Bus shelters
- Wombat crossings
- Closure of some existing streets
- Miscellaneous works

Scope of facilities

A review of the range of local transport facilities was undertaken in 2008. This was undertaken in conjunction with the preparation of *Liverpool DCP 2008*. This plan included amongst other items a review of the masterplan for this area. The changes arise in part due to the impact of the M7, the addition of land north of Hoxton Park Rd, changes to the land use adjacent to the Carnes Hill Centre on the proposed open space, street and drainage networks.

Apportionment

No apportionment is allowed for as there were no existing local transport facilities in existence at the commencement of the development of the area.

Composition of the works and land component

The composition of the works and land component for streets fronting a public facility identified in the following tables is as follows:

Table 10.3 Composition of works and land component

Item	Land component	Works component
Collector street frontage to school	$(18 - 9) = 9.0\text{m}$	$(7.5 - 5.5) = 2.0\text{m}$
Local Street frontage to school	$(14.5 - 9) = 5.5\text{m}$	$(6.5 - 5.5) = 1.0\text{m}$
Local street fronting open space or drainage res	$(14.5 - 9) = 5.5\text{m}$	$(6.5 - 5.5) = 1.0\text{m}$
Collector Street fronting Open Space or Drainage Res	$(18 - 9) = 9.0\text{m}$	$(7.5 - 5.5) = 2.0\text{m}$
Collector Street through Open Space or Drainage Res	18m	7.5m
Local Street fronting Cabramatta Creek / Drain	$(10.5 - 9) = 1.5\text{m}$	$(6.5 - 5.5) = 1.0\text{m}$

Contributing Development, Works and Land Acquisition Schedule and Catchment Area

There are several local transport sub catchments within the Hoxton Park, Carnes Hill and Prestons Release Areas. These are shown on Figure 10.3.

The cost of facilities not yet built was reviewed in 2008 following a review of unit costs by Council.

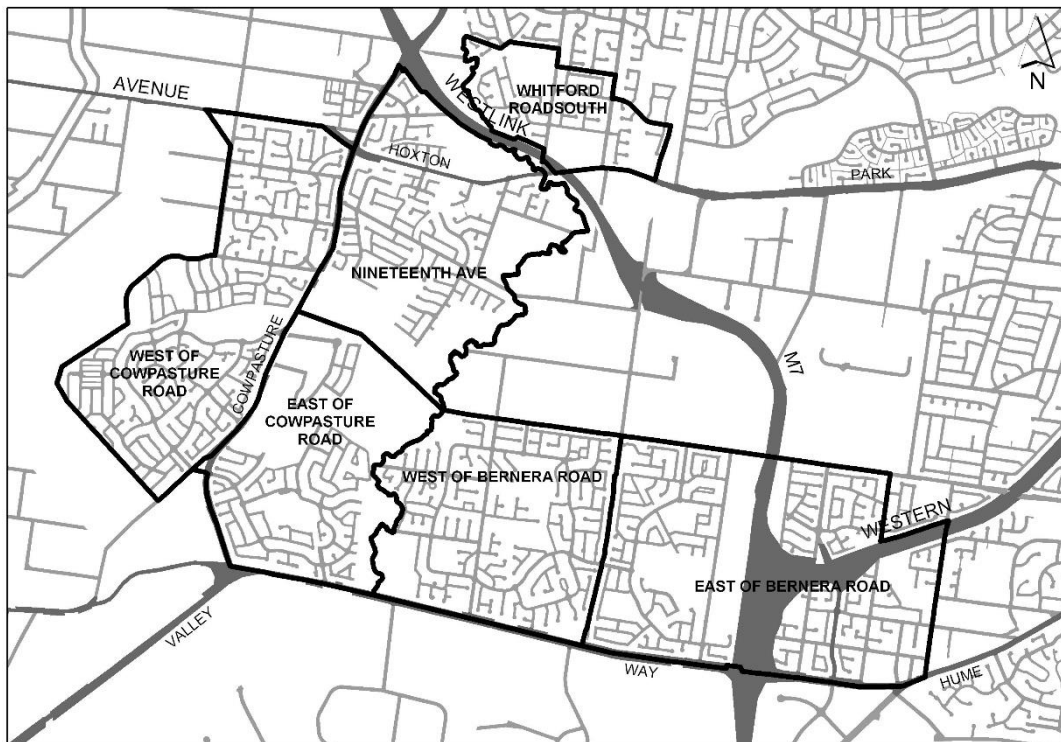


Figure 10.3 Catchment Area

East of Bernera Road Sub Catchment

Contributing Development

2,250 dwellings/lots (Number of dwellings or equivalent that are expected to contribute to local transport facilities)

The area from which contributions would be received is shown on Figure 10.3.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 13, 14, 16 & 17 for the location of each item in Table 10.4.

Works and Land Acquisition Schedule

The range of Works and land acquisition for local transport facilities is shown in Table 10.4.

Table 10.4 Works and Land Acquisition Schedule

No.	Items	Length / No of items m	Street / Pavement width m	Frontage width m	Land Unit Cost \$/ sqm	Works Unit Cost \$/ m	Total Land \$	Total Works \$
Minor Roundabout								
1.1	Pine Rd & Maple Rd							\$44,118
1.2	Pine Rd & Cedar Rd							\$44,118
1.4	Myall, Box, & un-named Roads							\$44,118
1.5	Bottlebrush Av & Maple Rd							\$44,118
1.6	Wattle Rd & Cedar Rd							\$44,118
1.8	San Marino Dr/Sicillian Av/Venega Av							\$44,118
1.9	Dalmeny Dr & Bombaderry Rd							\$44,118
1.10	San Marino Dr & Dalmeny Dr							\$44,118
1.11	Ash Rd & Dalmeny Dr 120m north of Camden Valley Way							\$44,118
1.12	Cedar Rd/Acacia Av/Barcelona Rd							\$44,118
1.15	Dalmeny Dr & Venezia St							\$44,118
Collector Street Frontage to School site								
2	Dalmeny Dr	225		9	\$175	\$372	\$354,375	\$83,620
Local Street Frontage to School site								
3	Umbria St	30		5.5	\$175	\$292	\$28,875	\$8,751
4	School Bus Bay	1				\$51,471		\$51,471
Local Street Fronting Open Space or Drainage Res								
5.1	Maple Rd	145		Pre-existing street				\$150,000
5.2	Paperbark Cct	70		5.5	\$175	\$266	\$67,375	\$18,632
5.3	Geraldton St	60		5.5	\$175	\$266	\$57,750	\$15,971
5.4	Strathyre Dr	100		5.5	\$175	\$266	\$96,250	\$26,618
5.7	Toscana St	220		5.5	\$175	\$266	\$211,750	\$58,559
5.8	Flametree St	105		5.5	\$175	\$266	\$101,063	\$27,949
5.9	Off Ash Rd	150		5.5	\$150	\$266	\$123,750	\$39,926
5.10	Stansmore Av	80		5.5	\$175	\$266	\$77,000	\$21,294
5.11	William Mahoney St	80		5.5	\$175	\$266	\$77,000	\$21,294
5.12	Rowan Pl	80		5.5	\$175	\$266	\$77,000	\$21,294
5.13	Ash Rd	150		Pre-existing street		\$266		\$39,926
5.14	Dee Cl	25		5.5	\$175	\$266	\$24,063	\$6,654
5.15	Witchhazel Pl	20		5.5	\$175	\$266	\$19,250	\$5,324

No.	Items	Length / No of items m	Street / Pavement width m	Frontage width m	Land Unit Cost \$/ sqm	Works Unit Cost \$/ m	Total Land \$	Total Works \$
5.16	extension of Barcelona Dr	80		5.5	\$175	\$266	\$77,000	\$21,294
Local Street through Open Space or Drainage Res								
6	Stansmore Av	60						
Collector Street fronting Open Space or Drainage Res								
7.1	Dalmeny Dr at Bomaderry Dr	110		9	\$175	\$390	\$173,250	\$42,868
7.2	Dalmeny Dr at Stansmore Av	80		9	\$175	\$390	\$126,000	\$31,176
7.3	Ash Rd	450		Pre-existing street		\$390		\$175,368
7.4	Ash Rd	95		Pre-existing street		\$390		\$37,022
7.5	Ash Rd	90		Pre-existing street		\$390		\$35,074
7.6	Barcelona Dr	100		9	\$175	\$390	\$157,500	\$38,971
Trunk Collector Street								
8.1	Bomaderry Dr	180		20	\$175	\$1,637	\$630,000	\$294,596
8.2	San Marino Dr	255		20	\$175	\$1,637	\$892,500	\$417,345
8.3	Ash Rd	120		Pre-existing street		\$1,637		\$196,398
8.4	Barcelona Dr	190		20	\$175	\$1,637	\$665,000	\$310,963
Collector Street through Open Space or Drainage Res								
9.1	Dalmeny Dr at Bomaderry Dr	30		18	\$175	\$1,028	\$94,500	\$30,840
9.2	Dalmeny Dr at Stansmore Av	25		18	\$158	\$1,028	\$71,100	\$25,700
9.3	Ash Rd	35		Pre-existing street		\$1,028		\$35,980
	Culvert on Ash Rd	25		14.5		\$1,027		\$372,137
9.4	Ash Rd	165		Pre-existing street		\$1,028		\$169,618
	Culvert on Ash Rd	20		14.5		\$1,027		\$297,710
Collector Street upgrade								
10	Pine Rd (south side)	200		Pre-existing street				\$250,000
11	Wombat Crossings	2				\$11,765		\$23,529
12	Bus Shelters	12				\$8,824		\$105,882
13	Road Closures							
	Beech	1				\$14,706		\$14,706
	Cedar	1				\$14,706		\$14,706
Sub Total								\$4,024,458
15% Contingency for Works								\$603,669
Total							\$4,202,350	\$4,628,127

West of Bernera Road Sub Catchment

Contributing Development

2,140 dwellings/lots (Number of dwellings or equivalent that are expected to contribute to local transport facilities)

The area from which contributions would be received is shown on Figure 10.3.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 12 & 13 for the location of each item in Table 10.5.

Works and Land Acquisition Schedule

The range of Works and land acquisition for local transport facilities is shown in Table 10.5.

Table 10.5 Works and Land Acquisition Schedule

No.	Items	Length / No of items m	Pavement width m	Land width m	Land Unit Cost \$/ sqm	Works Unit Cost \$/ m	Total Land \$	Total Works \$
1	Minor Roundabout							
1.1	Wroxham St/Minnamurra Cct/Braidwood Dr.							\$44,118
1.2	Minnamurra Cct/Kydra Cl/Yerona Cl							\$44,118
1.4	Minnamurra Cct and Braidwood Dr.							\$44,118
1.5	Braidwood Dr and Corfield Rd							\$44,118
1.6	Braidwood Dr and Bumbera St							\$44,118
1.7	Braidwood Dr and Bugong St							\$44,118
1.8	Bugong St / Yalwal Ct/ Berry Rd							\$44,118
1.9	Bugong St / Milton Ct / Taralga St							\$44,118
1.10	Bugong St and Kookaburra Rd							\$44,118
1.11	Braidwood Dr/Abbeville Cl/Batehaven Cl							\$44,118
1.12	Braidwood Dr and Mowbray St							\$44,118
1.13	Braidwood Dr/ Michelago Cct/Ulladulla St							\$44,118
1.3	Michelago Cct/Mollymook St/ Culburra St							\$44,118
	Trunk Collector Street							
4.1	Mowbray St	200	10	20	\$175	\$1,637	\$700,000	\$327,329
4.2	Wroxham St	200	10	20	\$175	\$1,637	\$700,000	\$327,329
4.3	Corifield Rd	220		Pre-existing street		\$1,637		\$360,062
5	Local Street fronting Open Space or Drainage Res							
5.1	Kiora / Yalwal Ct	40	1	5.5	\$175	\$266	\$38,500	\$10,647
5.2	Galba Cl / Bombo Cl	40	1	5.5	\$175	\$266	\$38,500	\$10,647
5.3	Quaama Cl	80	1	5.5	\$175	\$266	\$77,000	\$21,294
5.4	Richlands Pl	25	1	5.5	\$175	\$266	\$24,063	\$6,654
5.5	Thirroul Ct	80	1	5.5	\$175	\$266	\$77,000	\$21,294
5.6	Fortunato St	210	1	5.5	\$175	\$266	\$202,125	\$55,897
5.7	South of Bumbera St	180	1	5.5	\$175	\$266	\$173,250	\$47,912
5.8	Bundanoon Rd	50	1	5.5	\$175	\$266	\$48,125	\$13,309
5.9	Gerroa Cl / future st	50	1	5.5	\$175	\$266	\$48,125	\$13,309
5.10	Dapto / Greenwell	50	1	5.5	\$175	\$266	\$48,125	\$13,309
5.11	Ulladulla Dr	140	1	5.5	\$175	\$266	\$134,750	\$37,265
5.12	Tulich Av	25	1	5.5	\$175	\$266	\$24,063	\$6,654
5.13	Abbeville Cl	25	1	Pre-existing street		\$266		\$6,654

No.	Items	Length / No of items m	Pavement width m	Land width m	Land Unit Cost \$/ sqm	Works Unit Cost \$/ m	Total Land \$	Total Works \$	
5.14	Bumbera St	180	1	Pre-existing street		\$266		\$47,912	
5.15	Minnamurra Ct	35	1	5.5	\$175	\$266	\$33,688	\$9,316	
6	Collector Street fronting Open Space or Drainage Res								
6.1	Braidwood Dr at Minerva	180	2	9	\$175	\$372	\$283,500	\$66,896	
6.2	Braidwood Dr at Ulladulla	320	2	9	\$175	\$372	\$504,000	\$118,927	
6.3	Braidwood Dr at Bumbera St	40	2	9	\$175	\$372	\$63,000	\$14,866	
6.4	Braidwood Dr at Minnamurra	160	2	9	\$175	\$372	\$252,000	\$59,463	
6.5	Braidwood Dr at Minnamurra	80	2	9	\$175	\$372	\$126,000	\$29,732	
7	Collector Street through Open Space or Drainage Res								
	Braidwood Dr	50	7.5	18	\$175	\$1,028	\$157,500	\$51,399	
8	Local Street fronting Cabramatta Creek / Drain								
8.1	Marulan Wy	205	1	1.5	\$175	\$266	\$53,813	\$54,566	
8.2	Nerriga Ct	80	1	1.5	\$175	\$266	\$21,000	\$21,294	
8.3	Taralga St	30	1	1.5	\$175	\$266	\$7,875	\$7,985	
8.4	Bateman Cl	190	1	1.5	\$175	\$266	\$49,875	\$50,574	
8.5	Wagga Wagga St	340	1	1.5	\$175	\$266	\$89,250	\$90,500	
8.6	Bugong St	75	1	1.5	\$175	\$266	\$19,688	\$19,963	
10	Overlay existing Central Pavement (sqm)								
	Bumberra Road open space frontage 560 x 6.3 (exist width)	1,008				\$70		\$70,683	
11	Wombat Crossings	1				\$11,765		\$11,765	
12	Bus Shelters	10				\$8,824		\$88,235	
Sub Total								\$2,667,172	
15% Contingency for Works								\$400,076	
Total								\$3,994,813	\$3,067,248

East of Cowpasture Road Sub Catchment

Contributing Development

2,720 dwellings/lots (Number of dwellings or equivalent that are expected to contribute to local transport facilities)

The area from which contributions would be received is shown on Figure 10.3.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 7, 8, 11 & 12 for the location of each item in Table 10.6.

Works and Land Acquisition Schedule

The range of Works and land acquisition for local transport facilities is shown in Table 10.6.

Table 10.6 Works and Land Acquisition Schedule

No.	Items	Length / No of items m	Street / Pavement width m	Frontage width m	Land Unit Cost \$/ sqm	Works Unit Cost \$/ m	Total Land \$	Total Works \$
Minor Roundabout								
1.1	Joshua Moore Dr /Horningsea Park Dr /Brindabella Dr							\$44,118
1.2	Horningsea Park Dr /Bunya Way / Gungarlin Dr							\$44,118
1.3	Horningsea Park Dr and Strzlecki Dr							\$44,118
1.4	Horningsea Park Dr & Joshua Moore Dr (east)							\$44,118
1.5	Joshua Moore Dr / Bimberi St / Wellumba St							\$44,118
1.6	Joshua Moore Dr /Kearns Place /Sarah Hollands Dr							\$44,118
1.7	Sarah Hollands Dr & Packard Pl							\$44,118
1.8	Brindella Dr & Carruthers Dr							\$44,118
1.9	Street along west side of Cabramatta Ck							\$44,118
1.10	Street extension of Wingham Rd south of Kurrajong Rd							\$44,118
2	Collector Street Frontage to School site Horningsea Park Dr	350	2	9	\$175	\$390	\$551,250	\$136,397
3	Local Street Frontage to School site Toolong Pl	105	1	5.5	\$175	\$266	\$101,063	\$27,949
4	School Bus Bay					\$51,471		\$51,471
Trunk Collector Street								
5.1	Horningsea Park Dr	75	10	20	\$175	\$1,637	\$262,500	\$122,748
5.2	Joshua Moore Dr	180	10	20	\$175	\$1,637	\$630,000	\$294,596
5.3	Sarah Hollands Dr	170	10	20	\$175	\$1,637	\$595,000	\$278,230
5.4	south off Kurrajong Rd	100	10	20	\$175	\$1,637	\$350,000	\$163,665
Local Street fronting open space or drainage Res								
6.1	Wheat Pl	200	1	5.5	\$175	\$266	\$192,500	\$53,235
6.2	North side of creek and Cabramatta Ck	950	1	5.5	\$175	\$266	\$914,375	\$252,868
Collector Street Fronting Open Space or Drainage Res								
7.1	Sarah Hollands Dr	750	2	9.0	\$175	\$372	\$1,181,250	\$278,735
7.2	Strezlecki Dr	380	2	9.0	\$175	\$372	\$598,500	\$141,226
7.3	Strezlecki Dr	170	2	9.0	\$175	\$372	\$267,750	\$63,180
Collector Street Through Open Space or Drainage Res								

No.	Items	Length / No of items m	Street / Pavement width m	Frontage width m	Land Unit Cost \$/ sqm	Works Unit Cost \$/ m	Total Land \$	Total Works \$
8.1	Extension of Bumbera St	110						
8.2	Strezlecki Dr	30	7.5	18	\$158	\$1,028	\$85,320	\$30,840
	Culverts	25		14.5		\$1,027		\$372,137
14	Wombat Crossings	1				\$11,765		\$11,765
15	Bus Shelters	10				\$8,824		\$88,235
Sub Total								\$2,808,452
15% Contingency for Works								\$421,268
Total							\$5,729,508	\$3,229,720

West of Cowpasture Road Sub Catchment

Contributing Development

2,370 dwellings/lots (Number of dwellings or equivalent that are expected to contribute to local transport facilities)

The area from which contributions would be received is shown on Figure 10.3.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 3, 4, 7, 8 & 11 for the location of each item in Table 10.7.

Works and Land Acquisition Schedule

The range of Works and land acquisition for local transport facilities is shown in Table 10.7.

Table 10.7 Works and Land Acquisition Schedule

No.	Items	Length / No of items m	Street / Pavement width m	Frontage width m	Land Unit Cost \$/ sqm	Works Unit Cost \$/ m	Total Land \$	Total Works \$
1	Minor Roundabout							
1.1	Mannow Ave and Mathinna Cct (west)							\$44,118
1.2	Twelfth Ave / Hoskins Ave / Gatto Pl							\$44,118
1.3	Carmichael Dr / Latrobe Rd							\$44,118
1.4	Greenway Dr and Wyattville Dr. (north)							\$44,118
1.5	Greenway Dr and Carmichael Dr							\$44,118
1.6	Greenway Dr /Wingate Ave /Mitchell Dr.							\$44,118
1.7	Greenway Dr / Hume Dr /Mitchell Dr							\$44,118
1.8	Greenway Dr / Addison Wy / Wyattville Dr							\$44,118
1.9	Muller Ave/Scottsdale Cct/Beaconsfield Cct							\$44,118
1.10	Muller Ave/Scottsdale Cct/Ringarooma Cct							\$44,118
1.11	Mannow Ave and Carmichael Dr							\$44,118
1.13	Carmichael Dr and Riddell St							\$44,118
1.14	Second Ave and Dunally St.							\$44,118
1.15	Wyattville Dr and Chapman St							\$44,118
1.16	Poole St and Chapman St							\$44,118
2	Collector Street frontage to School							
	Wyattville Dr	200	2	9	\$175	\$372	\$315,000	\$74,329
3	School Bus Bay	1				\$51,471		\$51,471

No.	Items	Length / No of items m	Street / Pavement width m	Frontage width m	Land Unit Cost \$/ sqm	Works Unit Cost \$/ m	Total Land \$	Total Works \$
4	Trunk Collector Street							
4.1	Greenway Dr South	160	10	20.0	\$175	\$1,637	\$560,000	\$261,863
4.2	Chapman St	135	10	20.0	\$175	\$1,637	\$472,500	\$220,947
4.3	Greenway Dr North	360	10	20.0	\$175	\$1,637	\$1,260,000	\$589,193
4.4	Latrobe Rd	80	10	20.0	\$175	\$1,637	\$280,000	\$130,932
4.5	Second Av	300	10	Pre-existing street		\$1,637		\$490,994
4.6	Mannow Av	120	10	Pre-existing street		\$1,637		\$196,398
5	Local Street fronting open space or drainage Res							
5.1	Lennox Pl	20	1	5.5	\$175	\$266	\$19,250	\$5,324
5.2	Poole St	180	1	5.5	\$175	\$266	\$173,250	\$47,912
5.3	Woodside Av	180	1	5.5	\$175	\$266	\$173,250	\$47,912
5.4	Cranbrook Cl	120	1	5.5	\$175	\$266	\$115,500	\$31,941
5.5	Riddel & Gladstone	110	1	5.5	\$175	\$266	\$105,875	\$29,279
5.6	St Helens Cl	115	1	5.5	\$175	\$266	\$110,688	\$30,610
5.7	Bridport Cl	20	1	5.5	\$175	\$266	\$19,250	\$5,324
5.8	Winnaleah St	80	1	5.5	\$175	\$266	\$77,000	\$21,294
5.9	Tunnack St	120	1	5.5	\$175	\$266	\$115,500	\$31,941
5.10	Glendevie St	95	1	5.5	\$175	\$266	\$91,438	\$25,287
5.11	Ringarooma Ct	75	1	5.5	\$175	\$266	\$72,188	\$19,963
5.12	Meander Cl	150	1	5.5	\$175	\$266	\$144,375	\$39,926
5.13	Mathina Ct	160	1	5.5	\$175	\$266	\$154,000	\$42,588
5.14	Watling Av / Hallen Pl	50	1	5.5	\$175	\$266	\$48,125	\$13,309
5.15	Erith Cl / Gretna Cl	50	1	5.5	\$175	\$266	\$48,125	\$13,309
5.16	Bicheno Cl	105	1	5.5	\$175	\$266	\$101,063	\$27,949
5.17	Swansea Pl	240	1	5.5	\$175	\$266	\$231,000	\$63,882
5.18	Bellerive Cl	25	1	5.5	\$175	\$266	\$24,063	\$6,654
5.19	Larmar Pl	80	1	5.5	\$175	\$266	\$77,000	\$21,294
5.20	Scottsdale / Cascades	200	1	5.5	\$175	\$266	\$192,500	\$53,235
5.21	Second Av	220	1	5.5	\$175	\$266	\$211,750	\$58,559
5.22	Gerraro Cr	75	1	5.5	\$175	\$266	\$72,188	\$19,963
5.23	Forcett Cl	45	1	5.5	\$175	\$266	\$43,313	\$11,978
6	Collector Street Fronting Open Space or Drainage Res							
6.1	Carmichael Dr	140	2	9.0	\$175	\$372	\$220,500	\$52,030
6.2	Greenway Dr	140	2	9.0	\$175	\$372	\$220,500	\$52,030
6.3	Carmichael Dr	60	2	9.0	\$175	\$372	\$94,500	\$22,299
6.4	Carmichael Dr	60	2	9.0	\$175	\$372	\$94,500	\$22,299
6.5		75	2	9.0	\$175	\$372	\$118,125	\$27,873
6.6		60	2	9.0	\$175	\$372	\$94,500	\$22,299
6.7		30	2	9.0	\$175	\$372	\$47,250	\$11,149
6.8		95	2	Pre-existing street		\$372		\$35,306
6.9		170	2	Pre-existing street		\$372		\$63,180
6.10		135	2	Pre-existing street		\$372		\$50,172

No.	Items	Length / No of items m	Street / Pavement width m	Frontage width m	Land Unit Cost \$/ sqm	Works Unit Cost \$/ m	Total Land \$	Total Works \$
7	Local Street Through Open Space or Drainage Res							
	Haraden Dr	40	6.5	14.5	\$175	\$767		\$30,685
	Meander Cl	50	6.5	14.5	\$175	\$767		\$38,357
8	Collector Street Through Open Space or Drainage Res							
8.1	Carmichael Dr North	20	7.5	Pre-existing street		\$1,028		\$170,817
	Culverts	20		14.5		\$1,027		\$297,710
8.2	Second Av	20	7.5	Pre-existing street		\$1,028		\$170,817
	Culverts	20		14.5		\$1,027		\$297,710
8.3	Carmichael Dr South	25	7.5	18	\$50	\$1,028	\$22,500	\$170,817
	Culverts	25		14.5		\$1,027		\$372,137
9	Wombat Crossings	1				\$11,765		\$11,765
10	Bus Shelters	10				\$8,824		\$88,235
11	Road Closures							
	Second Ave	1				\$14,024		\$14,024
	Sub Total							\$5,369,038
	15% Contingency for Civil Works							\$805,356
	Total						\$6,220,563	\$6,174,394

Nineteenth Avenue Sub Catchment

Contributing Development

1,890 dwellings/lots (Number of dwellings or equivalent that are expected to contribute to local transport facilities)

The area from which contributions would be received is shown on Figure 10.3.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 4, 5 & 8 for the location of each item in Table 10.8.

Works and Land Acquisition Schedule

The range of Works and land acquisition for local transport facilities is shown in Table 10.8.

Table 10.8 Works and Land Acquisition Schedule

No.	Items	Length / No of items m	Street / Pavement width m	Frontage width m	Land Unit Cost \$/ sqm	Works Unit Cost \$/ m	Total Land \$	Total Works \$
1	Minor Roundabout							
1.1	Government Rd & Collarenebri Rd							\$44,118
1.2	Glen Innes Rd / Pacific Palms Cct / Byron Bay Cl.							\$44,118
1.3	Nineteenth Ave (east) & Pacific Palms Cct							\$44,118
1.4	Nineteenth Ave (west) & Pacific Palms Cct							\$44,118
1.5	Tibooburra Rd & Pacific Palms Cct.							\$44,118
1.6	First Ave & Twentieth Ave							\$44,118
1.7	Pacific Palms Cct & Wingham St							\$44,118
1.9	Pacific Palms Cct. 150 m east of School							\$44,118

No.	Items	Length / No of items m	Street / Pavement width m	Frontage width m	Land Unit Cost \$/ sqm	Works Unit Cost \$/ m	Total Land \$	Total Works \$
1.10	Wingham Rd, south of Pacific Palms Crt							\$44,118
2	Collector Street frontage to School	120	2	9	\$175	\$372	\$189,000	\$44,598
3	Local street frontage to School	210	1	5.5	\$175	\$292	\$202,125	\$61,259
4	School Bus Bay	1				\$51,303		\$51,303
5	Trunk Collector Street							
5.1		100	10	20.0	\$175	1,637	\$350,000	\$163,665
5.2		100	10	20.0	\$175	1,637	\$350,000	\$163,665
7	Local Street fronting Open Space or Drainage Res							
7.1	Belata Pl	100	1	5.5	\$175	\$266	\$96,250	\$26,618
7.2	Walgett Cl	180	1	5.5	\$158	\$266	\$156,420	\$47,912
7.3	Warialda Wy	460	1	5.5	\$158	\$266	\$399,740	\$122,441
7.4	Armidale Av	40	1	5.5	\$175	\$266	\$38,500	\$10,647
7.5	Merriwa Av	25	1	5.5	\$175	\$266	\$24,063	\$6,654
7.6	Wilcannia Wy	90	1	5.5	\$175	\$266	\$86,625	\$23,956
7.7	Baradine Wy	140	1	5.5	\$175	\$266	\$134,750	\$37,265
7.8	street along creek north of Pacific Palms Cct	185	1	5.5	\$175	\$266	\$178,063	\$49,243
7.9	Nymboida / Woolgoolga Av	25	1	5.5	\$175	\$266	\$24,063	\$6,654
7.10	Baradine Wy / Merriwa Av	100	1	5.5	\$175	\$266	\$96,250	\$26,618
7.11	Wollombi Wy	215	1	5.5	\$175	\$266	\$206,938	\$57,228
7.12	Bay Cl	20	1	5.5	\$175	\$266	\$19,250	\$5,324
7.13	Dorrigo Av	25	1	5.5	\$175	\$266	\$24,063	\$6,654
7.14	Coonabarabran Cr	80	1	5.5	\$175	\$266	\$77,000	\$21,294
7.15	Coffs Harbour Av	220	1	5.5	\$158	\$266	\$191,180	\$58,559
7.16	Bellingen Wy	190	1	5.5	\$175	\$266	\$182,875	\$50,574
7.17	street north side of channel	220	1	5.5	\$174	\$266	\$210,540	\$58,559
7.18	Warialda Wy extension	190	1	1.5	\$174	\$266	\$49,590	\$50,574
7.19	adjacent to park off Inverell Av	130	1	5.5	\$174	\$266	\$124,410	\$34,603
8	Collector Street fronting Open Space or Drainage Res							
8.1	Pacific Palms Cct	60	2	9.0	\$175	\$372	\$94,500	\$22,299
8.2	Link from Kurrajong Rd to Pacific Palms Cct	200	2	9.0	\$175	\$372	\$315,000	\$74,329
8.3	Link fro Kurrajong Rd to Pacific Palms Cct	240	2	9.0	\$175	\$372	\$378,000	\$89,195
8.4	Pacific Palms Cct	40	2	9.0	\$175	\$372	\$63,000	\$14,866

No.	Items	Length / No of items m	Street / Pavement width m	Frontage width m	Land Unit Cost \$/ sqm	Works Unit Cost \$/ m	Total Land \$	Total Works \$
9	Collector Street through Open Space or Drainage Res							
9.1	Pacific Palms Cct at creek	40		18		\$1,028		\$41,120
	Culvert	30		14.5		\$1,027		\$446,565
9.2	Pacific Palms Cct at creek	45		18	\$175	\$1,028	\$141,750	\$46,259
	Culvert	30		14.5		\$1,027		\$446,565
9.3	Pacific Palms Cct at Tibooburra Rd	40		18	\$175	\$1,028	\$126,000	\$41,120
9.4	Pacific Palms Cct at school	200		18	\$175	\$1,028	\$630,000	\$205,598
9.5	Link from Kurrajong Rd to Pacific Palms Cct	60		18	\$175	\$1,028		\$61,679
9.6	Wingham Rd	60		18	\$175	\$1,028	\$189,000	\$61,679
10	Local Street fronting Cabramatta Ck							
		975	1	1.5	\$158	\$266	\$231,075	\$259,522
11	Overlay existing Central Pavement (sqm)							
	Nineteenth Av (open space frontage) 570m x 5.3m (exist width)	212				\$52		\$11,001
	First Avenue (open space frontage) 460m x 4.7m (exist width)	188				\$52		\$9,755
12	Wombat Crossings	1				\$11,765		\$11,765
13	Bus Shelters	8				\$8,824		\$70,588
14	Road Closures							
	Nineteenth Ave at Cowpasture Ck & restore					\$140,244		\$140,244
	Nineteenth Ave at Cowpasture Rd					\$14,024		\$14,024
15	Culvert Upgrading in First Ave							\$200,000
16	Culvert across channel south of Government Rd							\$250,000
	Sub Total							\$4,101,094
	15% Contingency for Works							\$615,164
	Total						\$5,580,018	\$4,716,258

Whitford Road South Sub Catchment

Contributing Development

550 dwellings/lots (Number of dwellings or equivalent that are expected to contribute to local transport facilities)

The area from which contributions would be received is shown on Figure 10.3.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 5 for the location of each item in Table 10.10.

Works and Land Acquisition Schedule

The range of Works and land acquisition for local transport facilities is shown in Table 10.10.

Table 10.10 Works and Land Acquisition Schedule

No.	Items	Length / No of items	Street / Pavement width	Frontage width	Land Unit Cost	Works Unit Cost	Total Land	Total Works	
		m	m	m	\$/sqm	\$/m	\$	\$	
Four Major Roundabouts (costs include \$10,000 for landscaping)									
1.1	Topnot Ave/Wilson Rd/Rossini Dr							\$44,118	
1.2	Topnot Ave/Whitford Rd/Draco Rd							\$44,118	
1.3	Whitford Rd/Centaurus Dr/Frigate Bird Av							\$44,118	
1.4	Wilson Rd & Frigate Bird Av							\$44,118	
2	Collector street fronting open space								
		375		5.5	\$175	\$371	\$360,938	\$0	
3	90 degree parking bay								
		200				\$227		\$45,400	
4	Minor road frontage to open space								
		40	4.5		\$175	\$265	\$31,500	\$10,602	
5	Local street frontage to floodplain Hinchinbrook Creek								
		350	2		\$158	\$265	\$110,600	\$92,771	
7	Minor Road frontage to High School								
		150	9		\$175	\$458	\$236,250	\$68,700	
8	Sub-arterial with Median								
		500	4		\$175	\$576	\$350,000	\$287,851	
Sub Total								\$681,795	
15% Contingency for Works								\$102,269	
Total								\$1,089,288	\$784,064

10.5 Drainage

Drainage Easements

In order to achieve an economical local drainage system it was required to drain stormwater runoff through the lowest possible path. This path was in some cases required to traverse privately owned properties, which creates the need for drainage easements or drainage reserve.

A drainage easement is the area of land dedicated to construct and maintain an enclosed drainage conduit (usually a pipe or box culvert).

The drainage easement can serve a number of privately owned properties in which case it is described to be an "inter-allotment drainage easement". The width of an inter-allotment drainage easement will be indicated by the formula given below. This will be not less than 1.2m for residential lots or 2.5 m for industrial lots.

$$\text{Easement Width} = (1.5 \times \text{depth of trench}) + \text{Pipe Diameter (or Culvert Width)}$$

The area of land required for inter-allotment drainage easement shall be dedicated for that purpose and shall belong to those properties benefiting from the drainage system within the easement. The owners the properties will be responsible for the maintenance and functioning of the drainage system.

Drainage Reserves

A drainage reserve is known as the area of land dedicated to open drainage. The drainage reserve can serve a number of privately owned properties, public land (such as road drainage, parks, etc.) or a combination of these. The area of land required for drainage reserve shall be dedicated to Council for that purpose and Council shall be responsible for the maintenance and functioning of the drainage system. The area of land dedicated to drainage reserve has been included in the contribution rate as "cost of land acquisition" for each local drainage catchment.

Minimum size pipes

The Local Trunk Drainage is costed on the basis of drainage infrastructure requirements of the local catchment. Each of the local catchments is costed down to 900mm diameter pipe only. The individual developers are required to directly bear the cost of all pipelines up to 825mm diameter within or past their own land. The cost difference between any larger pipe size and open drainage is funded by Developer contributions.

Where it is anticipated that the developer will carry out the works as part of a development, the cost of supply, lay and backfilling of 825mm diameter is deducted from the cost of works to get the contribution. These works, when carried out by the developer, means that the developer will receive the credits of the difference between the total cost of works and the cost of 825mm diameter pipe (to be borne by the developer). Should the developer default from undertaking the works identified in this plan as the developer's responsibility, then the developer shall pay for the cost of 825mm diameter pipe for the reach of drainage works for which they are responsible to provide as part of their development.

Where the work is costed in full without deducting the cost of 825mm diameter, it is anticipated that Council will undertake these works from contributions. Where a developer undertakes these works as part of their development, they shall receive full credits for the work as shown in this plan.

Gross pollutant traps

Gross pollutant traps have also been costed as source control for litter at the end of each network.

Scope of facilities

A review of the range of local transport facilities was undertaken in 2008. This was undertaken in conjunction with the preparation of *Liverpool DCP 2008*. This plan included amongst other items a review of the masterplan for this area. The changes arise in part due to the impact of the M7, the addition of land north of Hoxton Park Rd, changes to the land use adjacent to the Carnes Hill Centre on the proposed open space, street and drainage networks.

Apportionment

No apportionment is allowed for as there were no existing local transport facilities in existence at the commencement of the development of the area.

Contributing Development, Works and Land Acquisition Schedule and Catchment Area

There are several local transport sub catchments within the Hoxton Park, Carnes Hill and Prestons Release Areas. These are shown on Figure 10.3.

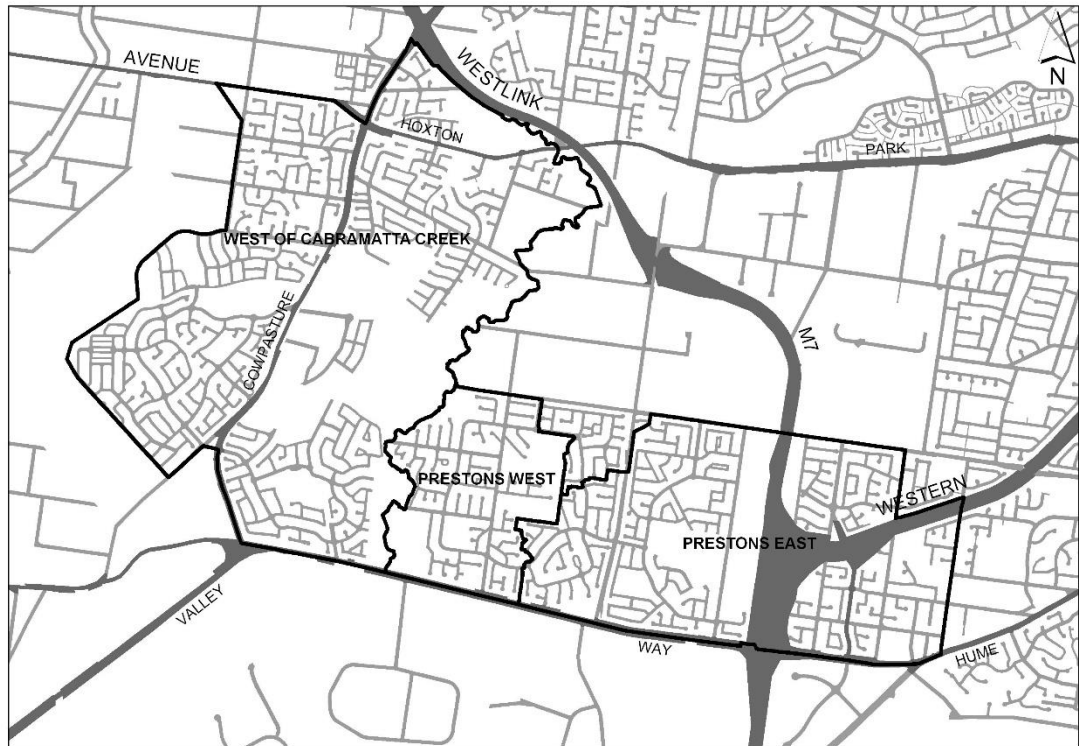


Figure 10.4

Prestons East Sub Catchment

Contributing Development

2,960 dwellings/lots (Number of dwellings or equivalent that are expected to contribute to local transport facilities)

The area from which contributions would be received is shown on Figure 10.4.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 13, 14, 16 & 17 for the location of each item in Table 10.11. The location of drainage lines as shown on the maps are in the original "in principle" locations and may be constructed in a slightly different locations to match the eventual street layout.

Works and Land Acquisition Schedule

The range of Works and land acquisition for local transport facilities is shown in Table 10.11.

Table 10.11 Works and Land Acquisition Schedule

Works

From	To	Pipe Dia	Length	Unit Cost	Cost of Works	Cost of 825 dia Pipe	Total Works Cost after Credits
		mm	m	\$/m	\$	\$	\$
109.04	109.03	900	35	\$582	\$20,370	\$12,250	\$8,120
109.02	109.01	1,050	120	\$722	\$86,671	\$42,000	\$44,671
109.01	101.1	1,200	44	\$826	\$36,346	\$15,400	\$20,946
103.04	103.03	900	20	\$582	\$11,640	\$7,000	\$4,640
103.03	103.02	1,050	90	\$722	\$65,003	\$31,500	\$33,503

From	To	Pipe Dia mm	Length m	Unit Cost \$/ m	Cost of Works \$	Cost of 825 dia Pipe \$	Total Works Cost after Credits \$
103.02	103.01	1,200	175	\$826	\$144,556	\$61,250	\$83,306
103.01	102.03	1,200	125	\$826	\$103,255	\$43,750	\$59,505
102.03	102.02	1,500	125	\$1,248	\$156,021	\$43,750	\$112,271
102.02	102.01	1,500	85	\$1,248	\$106,095	\$29,750	\$76,345
102.01	101.04	1,650	115	\$1,445	\$166,119	\$40,250	\$125,869
101.1	101.09		90		\$31,500	\$31,500	
116.01	73				\$158,365		\$97,168
95.05	95.04	900	110	\$582	\$64,021	\$38,500	\$25,521
95.04	95.03	1,050	90	\$722	\$65,003	\$31,500	\$33,503
95.03	95.02	1,350	220	\$1,052	\$231,402	\$77,000	\$154,402
77.01	73.06	900	20	\$582	\$11,640	\$7,000	\$4,640
75.02	75.01	1,050	100	\$722	\$72,226	\$35,000	\$37,226
75.01	73.04	1,200	60	\$826	\$49,562	\$21,000	\$28,562
73.07	73.06	900	70	\$582	\$40,741	\$24,500	\$16,241
73.06	73	1,500	50	\$1,248	\$62,409	\$17,500	\$44,909
Swale (Maxwells Creek east to South Western Freeway)							
73	73.05		170		\$120,039	\$59,500	\$60,539
73.05	73.04		125		\$138,342	\$43,750	\$94,592
73.04	73.03		140		\$147,375	\$49,000	\$98,375
68.01	63.07	1,050	130	\$722	\$93,893	\$45,500	\$48,393
65.01	63.04	1,050	110	\$722	\$79,448	\$38,500	\$40,948
63.15	63.14	1,050	60	\$722	\$43,335		\$43,335
63.14	63.13	1,200	20	\$826	\$16,521		\$16,521
63.13	63.12	1,200	70	\$826	\$57,823		\$57,823
63.12	63.11	1,350	60	\$1,052	\$63,110		\$63,110
63.11	63.1	1,500	100	\$1,248	\$124,817		\$124,817
63.1	63.09	1,500	100	\$1,248	\$124,817		\$124,817
63.09	63.08	1,500	100	\$1,248	\$124,817		\$124,817
63.08	63.07	1,650	120	\$1,445	\$173,341		\$173,341
Swale (Maxwells Creek east to Beech Road)							
63.07	63.06				\$16,187		\$16,187
63.06	63.05				\$53,958		\$53,958
63.05	63.04				\$64,750		\$64,750
63.04	63.03				\$70,146		\$70,146

From	To	Pipe Dia mm	Length m	Unit Cost \$/ m	Cost of Works \$	Cost of 825 dia Pipe \$	Total Works Cost after Credits \$
47.02	47.01	1,050	205	\$722	\$148,063	\$71,750	\$76,313
47.01	23.02	1,200	25	\$826	\$20,651	\$8,750	\$11,901
37.03	37.02	1,200	150	\$826	\$123,905	\$52,500	\$71,405
37.02	37.01	1,200	80	\$826	\$66,083	\$28,000	\$38,083
37.01	19.14	1,200	80	\$826	\$66,083	\$28,000	\$38,083
31.03	31.02	900	120	\$582	\$69,841	\$42,000	\$27,841
31.02	31.01	1,050	140	\$722	\$101,116	\$49,000	\$52,116
31.01	19.09	1,050	20	\$722	\$14,445	\$7,000	\$7,445
Swale (Maxwells Creek south west to Camden Valley Way)							
23.09	23.08		295		\$241,573	\$103,250	\$138,323
23.08	23.07		50		\$40,553	\$17,500	\$23,053
23.07	23.06		150		\$110,135	\$52,500	\$57,635
23.06	23.05		80		\$69,497	\$28,000	\$41,497
23.05	23.04		155		\$139,549	\$54,250	\$85,299
23.04	23.03		135		\$91,052	\$47,250	\$43,802
23.03	23.02		105		\$75,943	\$36,750	\$39,193
23.02	23.01		55		\$83,800	\$19,250	\$64,550
19.18	19.17	900	70	\$582	\$40,741	\$24,500	\$16,241
19.17	19.16	1,050	30	\$722	\$21,668	\$10,500	\$11,168
19.16	19.15	1,350	120	\$1,052	\$126,220	\$42,000	\$84,220
19.15	19.14	1,500	45	\$1,248	\$56,168	\$15,750	\$40,418
Swale (Maxwells Creek west to Bernera Road)							
19.14	19.13		60		\$67,959	\$21,000	\$46,959
19.13	19.12		25		\$40,055	\$8,750	\$31,305
19.12	19.11		65		\$95,796	\$22,750	\$73,046
19.11	19.1		60		\$109,700	\$21,000	\$88,700
19.1	19.09		95		\$111,515	\$33,250	\$78,265
19.09	19.08		30		\$104,417	\$10,500	\$93,917
19.08	19.07		100		\$139,351	\$35,000	\$104,351
19.07	19.06		80		\$111,482	\$28,000	\$83,482
19.06	19.05		125		\$127,232	\$43,750	\$83,482
19.05	19.04		85		\$81,926	\$29,750	\$52,176
19.04	19.03		190		\$228,246	\$66,500	\$161,746
13.02	13.01	1,050	150	\$722	\$108,338	\$52,500	\$55,838
13.01	12.03	1,200	20	\$826	\$16,521	\$7,000	\$9,521
12.04	12.03	1,050	75	\$722	\$54,169	\$26,250	\$27,919
12.03	12.02	1,500	130	\$1,248	\$162,262	\$45,500	\$116,762
12.02	12.01	1,500	25	\$1,557	\$38,918	\$8,750	\$30,168
4.12	4.11	1,050	30	\$722	\$21,668	\$10,500	\$11,168

From	To	Pipe Dia mm	Length m	Unit Cost \$/m	Cost of Works \$	Cost of 825 dia Pipe \$	Total Works Cost after Credits \$
4.11	4.1	1,050	60	\$722	\$43,335	\$21,000	\$22,335
4.1	4.09	1,050	120	\$722	\$86,671	\$42,000	\$44,671
4.09	4.08	1,200	50	\$826	\$41,302	\$17,500	\$23,802
4.08	4.07	1,200	120	\$826	\$99,124	\$42,000	\$57,124
4.07	4.06	1,350	120	\$1,052	\$126,220	\$42,000	\$84,220
4.06	4.05	1,650	70	\$1,445	\$101,116	\$24,500	\$76,616
4.05	4.04	1,650	25	\$1,445	\$36,113	\$8,750	\$27,363
4.04	4.03	1,650	90	\$1,445	\$130,006	\$31,500	\$98,506
4.03	4.02	1,650	40	\$1,445	\$57,780	\$14,000	\$43,780
3.02	3.01	900	45	\$582	\$26,191	\$15,750	\$10,441
3.01	1.04	900	20	\$582	\$11,640	\$7,000	\$4,640
Sub Total					\$7,281,802		\$4,898,705
Add 15% Contingencies							\$734,806
Total							\$5,633,511
Item No	Items	Land sqm	Land Unit Cost \$ / sqm	Total Land Cost \$			
PED 1	Swale (Maxwells Creek east to South Western Freeway)	13,715	\$50	\$685,750			
PED 2	Swale (Maxwells Creek east to Beech Road)	4,150	\$50	\$207,500			
PED 3	Dudley Creek (Maxwells Creek south west to Camden Valley Way)	13,350	\$50	\$667,500			
PED 4	Swale (Maxwells Creek west to Bernera Road)	11,410	\$50	\$570,500			
PED 5	Maxwells Creek	26,421	\$50	\$1,321,050			
							\$3,452,300

Prestons West Sub Catchment

Contributing Development

1,200 dwellings/lots (Number of dwellings or equivalent that are expected to contribute to local transport facilities)

The area from which contributions would be received is shown on Figure 10.4.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 12, 13 & 16 for the location of each item in Table 10.12. The location of drainage lines as shown on the maps are in the original "in principle" locations and may be constructed in a slightly different locations to match the eventual street layout.

Works and Land Acquisition Schedule

The range of Works and land acquisition for local transport facilities is shown in Table 10.12.

Table 10.12 Works and Land Acquisition Schedule

Works

From	To	Pipe Dia	Length	Rate	Cost of Works	Cost of 825 dia Pipe	Total Works Cost after Credits
		mm	m	\$/m	\$	\$	\$
M5	M4	1,200	90	\$826	\$74,343	\$31,500	\$42,843
M4	M3	1,200	130	\$826	\$107,385	\$45,500	\$61,885
M3	M2	1,650	65	\$1,445	\$93,893	\$22,750	\$71,143
M2	M1	2X1200	150	\$1,625	\$243,814	\$52,500	\$191,314
M1.7	M1.6	900	90	\$582	\$52,381	\$31,500	\$20,881
M1.6	M1.5	1,050	90	\$722	\$65,003	\$31,500	\$33,503
M1.5	M1.4	1,050	70	\$722	\$50,558	\$24,500	\$26,058
M1.4	M1.3	1,050	70	\$722	\$50,558	\$24,500	\$26,058
M1.3	M1.2	1,200	80	\$826	\$66,083	\$28,000	\$38,083
M1.2	M1.1	1,200	70	\$826	\$57,823	\$24,500	\$33,323
M1.1	M1	1,200	80	\$826	\$66,083	\$28,000	\$38,083
M1	M0	2X1650	110	\$2,791	\$306,994	\$38,500	\$268,494
N6	N5	1,050	110	\$722	\$79,448	\$38,500	\$40,948
N5.11	N5	1,050	230	\$722	\$166,119	\$80,500	\$85,619
N5	N4	1,500	90	\$1,248	\$112,335	\$31,500	\$80,835
N4	N3	1,500	70	\$1,248	\$87,372	\$24,500	\$62,872
N3	N2	1,800	50	\$1,697	\$84,848	\$17,500	\$67,348
N2	N1	2X1500	80	\$2,314	\$185,122	\$28,000	\$157,122
N1	N0	2 x 1.8 x 0.9 BC	160	\$3,035	\$485,524		\$485,524
Structures					\$84,146		\$84,146
Sub Total					\$2,519,832		\$1,916,082
Add 15% Contingencies							\$287,412
Total							\$2,203,495
Item No	Items				Land sqm	Land Unit Cost \$/ sqm	Total Land Cost \$
CCD	Cabramatta Creek (from Kurrajong Road to Camden Valley Way)				17,000	\$50	\$850,000
Total							\$850,000

West of Cabramatta Creek Sub Catchment

Contributing Development

5,680 dwellings/lots (Number of dwellings or equivalent that are expected to contribute to local transport facilities)

The area from which contributions would be received is shown on Figure 10.4.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 3 - 5, 7 - 9, 11 & 12 for the location of each item in Table 10.13.

Works and Land Acquisition Schedule

The range of Works and land acquisition for local transport facilities is shown in Table 10.13. The location of drainage lines as shown on the maps are in the original "in principle" locations and may be constructed in a slightly different locations to match the eventual street layout.

Table 10.13 Works and Land Acquisition Schedule

Works

From	To	Pipe Dia	Length	Rate	Cost of Works	Cost of 825 dia Pipe	Total Works Cost after Credits
		mm	m	\$/m	\$	\$	\$
CW 1.1	CW 1.0	900	60	\$582	\$34,921	\$21,000	\$13,921
CW 1.2	CW 1.1	900	60	\$582	\$34,921	\$21,000	\$13,921
Structures					\$4,000		\$4,000
CW 2.1	CW 2.0	1,050	100	\$722	\$72,226	\$35,000	\$37,226
Structures					\$4,000		\$4,000
CW 3.1	CW 3.0	1,050	70	\$722	\$50,558	\$24,500	\$26,058
CW 3.2	CW 3.1	900	70	\$582	\$40,741	\$24,500	\$16,241
Structures					\$7,012		\$7,012
Swale (Basin 10 to Open Space Corridor)							
Excavation					\$277,683		\$277,683
Surface Treatment					\$385,671		\$385,671
Secondary (Northern) Channel							
Excavation					\$36,463		\$36,463
Surface Treatment					\$134,634		\$134,634
F6	F5	1,050	100	\$722	\$72,226	\$35,000	\$37,226
F5	F4	1,050	110	\$722	\$79,448	\$38,500	\$40,948
F4	F3	1,050	40	\$722	\$28,890	\$14,000	\$14,890
F3.1	F3	900	130	\$582	\$75,662	\$45,500	\$30,162
F3	F2	1,650	30	\$1,445	\$43,335	\$10,500	\$32,835
F2	F1	1,650	60	\$1,445	\$86,671	\$21,000	\$65,671
F1	F0	1,800	190	\$1,662	\$315,759	\$66,500	\$249,259
Structures					\$22,439		\$22,439
K10	K9	1,200	140	\$826	\$115,645	\$49,000	\$66,645
K9	K8	1,350	50	\$1,052	\$52,591	\$17,500	\$35,091
K8	K7	1,650	100	\$1,445	\$144,451	\$35,000	\$109,451
K7	K6	1,800	60	\$1,662	\$99,713	\$21,000	\$78,713
K6	K5	1,800	80	\$1,662	\$132,951	\$28,000	\$104,951
K5	K4	1,800	50	\$1,662	\$83,095	\$17,500	\$65,595
K4	K3	2X1350	135	\$2,034	\$274,527	\$47,250	\$227,277
K3	K2	2X1350	60	\$2,034	\$122,012	\$21,000	\$101,012
K2	K1	2X1350	60	\$2,034	\$122,012	\$21,000	\$101,012
K1	K0	2X1350	130	\$2,034	\$264,360	\$45,500	\$218,860
Structures					\$70,122		\$70,122
Flood Channel WCD4							
Excavation					\$267,866		\$267,866
Surface Treatment					\$478,232		\$478,232
H4	H3	900	200	\$582	\$116,402	70000	\$46,402
H3	H2	1,200	170	\$826	\$140,426	\$59,500	\$80,926
H2	H1	1,500	260	\$1,248	\$324,524	\$91,000	\$233,524
H1	H0		130	Swale	\$133,933		\$133,933

From	To	Pipe Dia mm	Length m	Rate \$/ m	Cost of Works \$	Cost of 825 dia Pipe \$	Total Works Cost after Credits \$
Structures					\$9,817		\$9,817
J7	J6	900	80	\$582	\$46,561	\$28,000	\$18,561
J6	J5	1,050	140	\$722	\$101,116	\$49,000	\$52,116
J5	J4	1,050	60	\$722	\$43,335	\$21,000	\$22,335
J4	J3	1,200	100	\$826	\$82,604	\$35,000	\$47,604
J3	J2	1,350	70	\$1,052	\$73,628	\$24,500	\$49,128
J2	J1	1,500	70	\$1,248	\$87,372	\$24,500	\$62,872
J1	J0	1,500	60	\$1,248	\$74,890	\$21,000	\$53,890
Structures					\$16,829		\$16,829
Cabramatta Creek (Kiora Ct to Camden Valley Way)							
G9	G8	900	110	\$582	\$64,021	\$38,500	\$25,521
G8	G7	1050	80	\$722	\$57,780	\$28,000	\$29,780
G7	G6	1050	40	\$722	\$28,890	\$14,000	\$14,890
G6	G5	1200	60	\$826	\$49,562	\$21,000	\$28,562
G5	G4	2x900	90	\$1,136	\$102,238	\$31,500	\$70,738
G4	G3	2x1050	80	\$1,416	\$113,317	\$28,000	\$85,317
G3	G2	2.4x0.9 RCBC	70	\$2,030	\$142,102	\$24,500	\$117,602
G2	G1	3.3x0.9 RCBC	90	\$2,577	\$231,928		\$231,928
G1	G0	3.3x0.9 RCBC	55	\$2,577	\$141,734		\$141,734
Pits and Headwalls					\$35,061		\$35,061
L6	L5	900	170	\$582	\$98,942	\$59,500	\$39,442
L5	L4	1,050	150	\$722	\$108,338	\$52,500	\$55,838
L4	L3	1,200	80	\$826	\$66,083	\$28,000	\$38,083
L3	L2	1,500	80	\$1,248	\$99,854	\$28,000	\$71,854
L2	L0	1,650	290	\$1,445	\$418,909	\$101,500	\$317,409
Pits and Headwalls					\$28,049		\$28,049
Minor GPT					\$142,348		\$142,348
Cabramatta Creek (Kiora Ct to Lot 53 DP 2475)							
E6	E5	1,050	120	\$722	\$86,671	\$42,000	\$44,671
E5	E4	1,050	60	\$722	\$43,335	\$21,000	\$22,335
E4.2	E4.1	900	80	\$582	\$46,561	\$28,000	\$18,561
E4.1	E4	1,050	100	\$722	\$72,226	\$35,000	\$37,226
E4	E3	2x1200	90	\$1,625	\$146,288	\$31,500	\$114,788
E3	E2	2x1200	100	\$1,625	\$162,543	\$35,000	\$127,543
E2	E1	3x1050	80	\$2,104	\$168,293	\$28,000	\$140,293
E1	E0	3x1050	30	\$2,104	\$63,110	\$10,500	\$52,610
Pits & Headwall					\$36,463		\$36,463
8 Minor Gross Pollutant Traps					\$113,878		\$113,878
2 Bridges / Culverts 14m long 18m wide on Pacific Palms Ct							\$846,170
A1	A0	900	70	\$582	\$29,050	\$24,500	\$4,550
Channel - Second Ave to Cowpasture Road					\$554,644		\$554,644

From	To	Pipe Dia	Length	Rate	Cost of Works	Cost of 825 dia Pipe	Total Works Cost after Credits
		mm	m	\$/m	\$	\$	\$
Channel - Cowpasture Road to Hinchinbrook Ck					\$493,946		\$493,946
					Area	Depth	Unit Cost
					sqm	m	\$/m³
Drainage compensatory works					3,000	2	\$300,000
Drainage compensatory works					1,650	2	\$165,000
Sub Total							\$8,749,859
Add 15% Contingencies							\$1,312,479
Totals							\$10,062,338
Item No	Items		Land		Land Unit Cost	Total Land Cost	
			sqm		\$/sqm	\$	
WCD 1	Swale (Basin 10 to Open Space Corridor)		30,800		\$50	\$1,540,000	
WCD 2	Swale (Cabramatta Creek to Cowpasture Rd)		15,280		\$50	\$764,000	
			10,800		\$25	\$270,000	
			16,600		\$17	\$288,316	
WCD 3	Swale (Cabramatta Creek to Horningsea Pk)		3,200		\$50	\$160,000	
CCD	Cabramatta Creek (Kiora Ct to Camden Valley Way)		7,000		\$50	\$350,000	
CCD	Cabramatta Creek (Kiora Ct to Lot 53 DP 2475)		2,000		\$50	\$100,000	
WCD 4	Swale (Cowpasture Road to Cabramatta Creek)		5,600		\$50	\$280,000	
			11,000		\$17	\$191,053	
CCD	Cabramatta Creek (Lot 53 DP 2475 to Twentieth Ave)		4,000		\$50	\$200,000	
WCD 5	Hopkins Creek (Second Ave and Cowpasture Rd)		18,100		\$17	\$314,368	
WCD 6	Hopkins Creek (down stream from Cowpasture Road)		19,600		\$17	\$340,421	
WCD 7	Hinchinbrook Creek (M7 to Hoxton Park Rd)		2,400		\$50	\$120,000	
WCD 8	Drainage compensatory works		3,000		\$50	\$150,000	
WCD 9	Drainage compensatory works		1,650		\$50	\$82,500	
WCD 10	Swale (Pentecost St to Hinchinbrook Ck)		4,230		\$50	\$211,500	
							\$5,362,158

10.6 Streetscape

Nexus

Council is committed to ensuring that the urban release areas are developed to the best standard possible. Part of this involves ensuring an attractive landscape setting. This involves not only the establishment of parkland but also development of the streetscape. The major roads around and within residential areas are the most visually prominent in that most residents and visitors travel them each day either as drivers, passengers or pedestrians.

Landscaping will be carried out adjacent to the arterial roads on land to be dedicated to Council for landscaping, not on the public road but as part of the visual road reserve. The responsibility for the construction of arterial roads rests with the Roads and Traffic Authority.

Landscaping will similarly be carried out on along sub-arterial roads controlled by the Council. Landscaping on other streets will be carried out in conjunction with the construction of the streets. Much of the landscaping will be carried out in conjunction with traffic facilities within the roadway designed to regulate traffic speed.

Scope of facilities

A review of the range of streetscape facilities was undertaken in 2008. This was undertaken in conjunction with the preparation of *Liverpool DCP 2008*. This plan included amongst other items a review of the masterplan for this area. The changes arise in part due to the impact of the M7, the works undertaken on arterial roads by the Roads and Traffic Authority and the changes to the land use adjacent to the Carnes Hill Centre on the proposed open space, street and drainage networks.

Apportionment

No apportionment is allowed for as there were no existing local transport facilities in existence at the commencement of the development of the area.

Contributing Development, Works and Land Acquisition Schedule and Catchment Area

Contributing Development

10,540 dwellings/lots (Number of dwellings or equivalent that are expected to contribute to local transport facilities)

The area from which contributions would be received is shown on Figure 10.1.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 3 – 5, 7 – 9, 11 – 14, 16 & 17 for the location of each item in Table 10.14. The location of drainage lines as shown on the maps are in the original “in principle” locations and may be constructed in a slightly different locations to match the eventual street layout.

Works and Land Acquisition Schedule

The range of Works and land acquisition for local transport facilities is shown in Table 10.14.

Table 9.14 Works and Land Acquisition Schedule

Mulched Garden Beds on Trunk Collector Streets

No	Length m	Width m	Area sqm	Land Unit Cost \$/ sqm	Works Unit Cost \$/ sqm	Total Land Cost \$	Total Works Cost \$
S14.1	120	3	360		\$47		\$16,970
S15.1	320	3	960	\$175	\$47	\$168,000	\$45,253
S15.2	260	3	780	\$175	\$47	\$136,500	\$36,768
S15.3	260	3	780	\$175	\$47	\$136,500	\$36,768
S15.4	80	3	240	\$175	\$47	\$42,000	\$11,313
S15.5	200	3	600		\$47		\$28,283
S15.6	420	3	1,260	\$175	\$47	\$220,500	\$59,394
S16.1	340	3	1,020	\$175	\$47	\$178,500	\$48,081
S16.2	400	3	1,200	\$175	\$47	\$210,000	\$56,566
S16.3	140	3	420	\$175	\$47	\$73,500	\$19,798
S16.4	320	3	960	\$175	\$47	\$168,000	\$45,253
S16.5	180	3	540	\$175	\$47	\$94,500	\$25,455
S16.6	100	3	300	\$175	\$47	\$52,500	\$14,141
S17.1	400	3	1,200	\$175	\$47	\$210,000	\$56,566
S17.2	380	3	1,140	\$175	\$47	\$199,500	\$53,737
S17.3	200	3	600	\$175	\$47	\$105,000	\$28,283
S17.4	420	3	1,260	\$175	\$47	\$220,500	\$59,394

S17.5	200	3	600	\$175	\$47	\$105,000	\$28,283
S17.6	400	3	1,200	\$175	\$47	\$210,000	\$56,566
S17.7	200	3	600	\$175	\$47	\$105,000	\$28,283
Sub Total							\$755,153
Plus 5% contingency sum							\$37,758
Sub Total							\$792,910
Street trees at 20 m intervals on Sub Arterial Roads and Trunk Collector Streets							
			Length	No of trees	\$ per tree		
Sub-arterial roads			9,040	452	\$420		\$190,030
Trunk collector streets			10,680	534	\$420		\$224,505
Sub Total							\$414,535
Plus 5% contingency sum							\$20,727
Sub Total							\$435,262
Totals						\$2,635,500	\$1,228,172

10.7 Professional Fees

Nexus

The cost of independent land valuations and legal documents are clearly part of the costs of administering this plan. In relation to land acquisition, Council will be required to acquire land for car parking and roads and incur the associated conveyancing costs.

It is recognised that the costs associated with land acquisition could be added to the cost of individual facilities. However the cost of professional fees attributable to any one facility is completely unpredictable. It is therefore more appropriate that a pool of contribution funds is available to meet these costs as they arise.

The contribution rate is based on the following costs.

- The cost of independent valuations is anticipated to vary from \$500 - \$2,000 depending on individual sites and whether the valuation is general or specific;
- Valuations will be required at least annually for reviewing this contribution plan, and more frequently depending on movements in the property market;
- Stamp duty and estimated costs of vendor's solicitor in land acquisition.

10.8 Administration Costs

Nexus

There are significant costs associated with administering funds of this magnitude. Both the plan preparation / review and implementation aspects of Developer contributions are administered staff within Council. A core team of employees are engaged to provide support in co-ordinating such a process, as well as prepare status reports, review and relevant data, liaise with Council staff and external agencies.

In accordance with the directive of the Department of Planning, the administration costs are comprised of those expenses relative only to those personnel directly responsible for the formulation and / or administration of a Contributions Plan. The cost per lot per year has been averaged across all of the Contribution Plan areas.

10.9 Contribution Formulae

Community and Recreation Facilities

Conventional Lot Residential Subdivision, Small Lot Subdivision, Semi-detached dwellings, Multi dwelling housing and Residential Flat Buildings

Contribution by cash

$$\text{Contribution Rate (per dwelling / lot)} = \frac{C}{N} \times \frac{OR}{3.7}$$

where C = Cost of capital works or land identified for the catchment area

N = Number of equivalent lots / dwellings in the catchment area

OR = Estimated occupancy rate for lot size or dwelling type

Contribution by land dedication

$$\text{Area of land to be dedicated (per dwelling / lot)} = \frac{A}{N} \times \frac{OR}{3.7}$$

where A = Total area to be acquired in the catchment area

N = Number of equivalent lots / dwellings in the catchment area

OR = Estimated occupancy rate for lot size or dwelling type

For Occupancy Rate refer to Table 43.3

Aged and Disabled Persons Housing

$$\text{Contribution for total development} = \frac{\text{Conventional Lot Contribution} \times R}{3.7}$$

where 3.7 = Estimated occupancy rate for a conventional lot

R = Number of residents

Transport facilities

Conventional Lot Residential Subdivision, Small Lot Subdivision, Semi-detached dwellings, Multi dwelling housing and Residential Flat Buildings

Contribution by cash

$$\text{Contribution Rate (per dwelling / lot)} = \frac{C}{N} \times \frac{V}{6.7}$$

where C = Cost of capital works and land identified for the catchment area

N = Number of equivalent lots in the catchment area

V = Vehicle trips per day for lot size or dwelling type

Contribution by land dedication

$$\text{Area of land to be dedicated (per dwelling / lot / non residential development)} = \frac{A}{N} \times \frac{V}{6.7}$$

where A = Total area to be acquired in the catchment area

N = Number of equivalent lots in the catchment area

V = Vehicle trips per day for lot size or dwelling type (refer to Table

Table 9.15 Vehicle Trips per day per dwelling

Dwelling Type or Lot Size	Vehicle Trips per day
Residential Subdivision Lots 450 sqm or larger	6.7
Residential Subdivision Lots smaller than 450 sqm	6.0
Semi-detached dwellings, Multi dwelling housing & Residential Flat Buildings (where permitted)	
3 or more bedrooms	6.0
2 bedrooms	4.0
1 bedroom	3.3
Aged and Disabled Persons Housing (total development)	Total vehicle trips per day

Drainage Facilities

Conventional Lot Residential Subdivision

Contribution by cash

$$\text{Contribution Rate (per sqm of lots)} = \frac{C}{N \times 450}$$

where C = Cost of capital works or land identified for the catchment area

N = Number of equivalent lots / dwellings in the catchment area

Contribution by land dedication

$$\text{Area of land to be dedicated (per conventional lot)} = \frac{A}{N}$$

where A = Total area to be acquired

N = Number of equivalent lots / dwellings in the catchment area

Small Lot Subdivision, Semi-detached dwellings, Multi dwelling housing, Residential Flat Buildings, Aged and Disabled Persons Housing and Non Residential Development

Contribution by cash

$$\text{Contribution (total development)} = \frac{\text{Conventional Lot Contribution} \times \text{CR} \times \text{Site Area}}{0.65}$$

Where C R = Runoff coefficient for the specific development type as specified in the Table 9.

Contribution by land dedication

$$\text{Area of land to be dedicated (total development)} = \frac{A}{N} \times \frac{C R}{0.65} \times \frac{\text{Site Area}}{450}$$

where A = Total area to be acquired in the catchment area

N = Number of equivalent lots / dwellings in the catchment area

C R = Runoff coefficient for the specific development type as specified in Table 9.16

The relative impacts of different types of land development on any drainage system can be estimated by comparing the peak discharge rates of runoff that the different types of development would produce. The rational formula estimates the peak discharge rates by use of runoff coefficients that are directly related to the proportion of a site that is impervious to rainfall infiltration. The following table gives the relative impacts of alternate types of land development on runoff generation.

Table 9.16 Co efficient of Runoff for development types

Development Type	Co efficient of Runoff
------------------	------------------------

Conventional residential lots and schools	0.65
Semi-detached dwellings, villa houses, small lot subdivision and Aged and Disabled Persons Housing	0.75
Town houses	0.80
Shopping Centre & other non-residential	0.95

Streetscape

The following formulae are use to calculate contributions.

Conventional Lot Residential Subdivision, Small Lot Subdivision, Semi-detached dwellings, Multi dwelling housing and Residential Flat Buildings

Contribution by cash

$$\text{Contribution Rate = (per dwelling / lot)} = \frac{C}{N} \times \frac{O R}{3.7}$$

where C = Cost of capital works and / or land identified for the catchment area

N = Number of equivalent lots / dwellings in the catchment area

O R = Estimated occupancy rate for lot size or dwelling type

For Occupancy Rate refer to Table 4.3

Aged and Disabled Persons Housing

$$\text{Contribution for total development} = \frac{\text{Conventional Lot Contribution} \times R}{3.7}$$

where 3.7 = Estimated occupancy rate for a conventional lot

R = Number of residents

Other Development

$$\text{Contribution for total development} = \frac{\text{Conventional Lot Contribution} \times C}{450}$$

where C = Area of site area of development

450 = Minimum area of standard lot

Contribution by land dedication

$$\text{Area of land to be dedicated = (per dwelling / lot)} = \frac{A}{N} \times \frac{O R}{3.7}$$

where A = Total area to be acquired in the catchment area

N = Number of equivalent lots / dwellings in the catchment area

O R = Estimated occupancy rate for lot size or dwelling type

Professional Fees

Residential Development

$$\text{Contribution Rate = (per dwelling/ lot)} = \frac{PF}{N}$$

Where PF = total estimated cost of professional fees

N = Number of equivalent lots / dwellings in the catchment area

All other development

$$\text{Contribution Rate} = \frac{\text{Residential Contribution} \times A}{450}$$

Where A = Site area

450 = area of conventional lot

Administration Fees

All Development

The cost of administering contributions plans over the coming years has been estimated at 1.2% of the value of contributions.

10.10 Staging of Facilities

Council will build most Community Facilities, as the population threshold for their construction is usually much larger than individual developments. These will be provided as funds become available and as land can be acquired from existing owners.

Some small parks and recreation facilities are likely to be provided as works in kind by developers and as such are provided at the beginning of a development. Council will build larger recreation facilities such as playing fields as the population threshold for their construction is usually much larger than individual developments. These will be provided as funds become available and as land can be acquired from existing owners.

11. Prestons Industrial Release Area

11.1 Background

A substantial part of the Prestons Industrial Area was rezoned in the early 1990's. Development has subsequently taken place over a substantial portion of this area. Since this time the M7 has been constructed which cut through this area resulting in some changes to the drainage and road network. Hoxton Park Road was also upgraded by the Roads and Traffic Authority with the provision of a service road along the southern side of Hoxton Park Road. This included drainage works in conjunction with road works.

Subsequently the area west of the Prestons Industrial Area was rezoned for industrial development. This took place after the M7 was constructed. This has necessitated changes to the range of infrastructure in the portion of the Prestons Industrial Area rezoned in the early 1990's. The planning of infrastructure in the area to the west of the M7 has taken into account the presence of the M7 and the works carried out in its construction.

11.2 Transport

Nexus

The development of the Prestons area for industrial purposes will generate a significant volume of heavy traffic. The impact of this traffic generation may be considered in terms of road network traffic capacity and road pavement bearing capacity. With regard to the first consideration, the required contribution towards the District Transport Facilities provides for the appropriate contribution from a traffic management point of view.

There are, however, a number of existing local roads that will be subjected to heavy traffic loading that they were never designed to bear. The central pavement of these roads will require reconstruction to a standard suitable to accommodate the increased volume of heavy vehicular traffic. Consequently a contribution for the upgrade of the central pavement of these existing sub-standard pavements is considered appropriate.

It may not always be appropriate for Council to require the developer to wholly reconstruct the central pavement of the roads adjoining the subject property at the time of development. It is a component only, representing the difference between a normal standard road and the upgrading required for industrial usage, for which Council levies developer contributions.

Council considers that the most efficient and equitable way of providing for Local Transport Facilities in an area characterised by fragmented ownership is via developer contributions. This approach does not preclude Council considering a proposal for works-in-kind by a group of developers or owners.

The areas west of the M7 were rural roads prior to any industrial development taking place. Any new development of land in this area will be required as a condition of consent to reconstruct the half of the road that immediately fronts the land. This work will not be funded by developer contributions.

To allow several sites to be developed in the Prestons Industrial Release Area, several new roads will be constructed.

To adequately handle the increased traffic on the site the intersection of Bernera Road / Yarrunga Street will be upgraded. This upgrade will include the installation of traffic signals. The cost of these works will be proportioned across the West of M7 Catchment.

Scope of facilities

A review of the range of local transport facilities was undertaken in 2008. This was undertaken in conjunction with the rezoning of land west and south of the area rezoned in the early 1990s.

Apportionment

No apportionment is allowed for as there were no existing local transport facilities in existence at the commencement of the development of the area.

Contributing Development, Works and Land Acquisition Schedule and Catchment Areas

There are several local transport catchments within the Prestons Industrial Release Area. These are shown on Figure 11.1.



Figure 11.1 Catchment Areas

East of M7 Catchment Area

This is largely the area that was rezoned in the early 1990's. The scope of facilities and the developable area has changed following the construction of the M7.

Contributing Development

123ha (area of land that is expected to contribute to local transport facilities)

The area from which contributions would be received is shown on Figure 11.1.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 5, 6, 8, 9 & 13 for the location of each item.

Works and Land Acquisition Schedule

The range of Works and Land Acquisition for local transport facilities is shown in Table 11.1.

Table 11.1 Works and Land Acquisition Schedule

No	Item	Unit Cost \$/m	Length m	Works \$
R1	Ash Rd - half central pavement 3m width	\$402	700	\$281,357
R2	Jedda Rd - half central pavement 3m (from Ash Rd to Wonga Rd)	\$402	800	\$321,551
R3	Jedda Rd - central pavement 6m width (from Bernera Rd to Ash Rd)	\$710	810	\$575,485
Total				\$1,178,394

West of M7 Catchment Area

New industrial development in this area will generate the need for the provision of traffic signals at Yarrunga Street and Bernera Road.

Some of the area east of Bernera Road was rezoned along with the area east of the M7 in the early 1990's. It would have had frontage to Ash Road and have been required to reconstruct the half road frontage to Ash Road as well as contribute to local transport facilities. This area was cut off from Ash Road when the M7 was constructed. It was left land locked with no viable alternate road access. There is a need to provide access to Bernera Road by acquiring private land and constructing a road.

Some lots which have frontage to Kurrajong Road are required under the provisions of *Liverpool DCP 2008* to provide access other than to Kurrajong Road for industrial traffic. This is provided by new road construction off Bernera and Kookaburra Roads. There is also a need to provide pedestrian links across Cabramatta Creek to Hoxton Park

Contributing Development

137.5ha (area of land that is expected to contribute to local transport facilities)

The area from which contributions would be received is shown on Figure 11.2.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 6, 9, 10 & 14 for the location of each item.

Works and Land Acquisition Schedule

The range of Works and Land Acquisition for local transport facilities is shown in Table 11.2.

Table 11.2 Works and Land Acquisition Schedule

No	Item	Unit Cost \$/sqm	Length m	Width m	Area sqm	Land \$	Works \$
A1	Eastern extension of Yarrunga St	\$200	295	20	5,900	\$1,180,000	
							\$587,564
R4	Pedestrian paths to creek crossings	\$111	350	2.5	875		\$97,004
R5	Traffic Signals at Bernera Rd & Yarrunga St						\$221,722
R6	Pedestrian crossing of Cabramatta Ck at Yarrunga Rd						\$33,258
R7	Pedestrian crossing of Cabramatta Ck at Illaroo Rd						\$33,258
R8	Pedestrian crossing of Hinchinbrook Ck at Twentieth Av						\$33,258
Totals						\$1,180,000	\$1,006,065

Road A2 East of Bernera Road Catchment Area (additional to West of M7)

This area was rezoned along with the area east of the M7 in the early 1990's. It would have had frontage to Ash Road and have been required to reconstruct the half road frontage to Ash Road as well as contribute to local transport facilities. This area was cut off from Ash Road when the M7 was constructed. It was left land locked with no viable alternate road access. There is a need to provide access to Bernera Road by acquiring private land and constructing a road. The cost of Road A2 is fully attributable to the catchment.

Contributing Development

10.57ha (area of land that is expected to contribute to local transport facilities)

The area from which contributions would be received is shown on Figure11.3.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 9 for the location of each item.

Works and Land Acquisition Schedule

The range of Works and Land Acquisition for local transport facilities is shown in Table 11.3.

This area also contributes to the other facilities in the “West of M7” catchment.

Table 11.3 Works and Land Acquisition Schedule

No	Item	Unit Cost \$/sqm	Length m	Width m	Area sqm	Land \$	Works \$
A2	Road north from A1	\$200	141	20	2,820	\$564,000	
							\$306,812
Totals						\$564,000	\$306,812

Road B East of Bernera Road Catchment Area (additional to West of M7)

This area having frontage to Kurrajong Road is required under the provisions of *Liverpool DCP 2008* to provide access other than to Kurrajong Road for industrial traffic. This is provided by Road B. There is a need to provide access to Bernera Road by acquiring private land and constructing a road. The cost of Road B is fully attributable to the catchment.

Contributing Development

17.73ha (area of land that is expected to contribute to local transport facilities)

The area from which contributions would be received is shown on Figure11.4.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 9 for the location of each item.

Works and Land Acquisition Schedule

The range of Works and Land Acquisition for local transport facilities is shown in Table 11.4.

This area also contributes to the other facilities in the “West of M7” catchment.

Table 11.4 Works and Land Acquisition Schedule

No	Item	Unit Cost \$/sqm	Length m	Width m	Area sqm	Land \$	Works \$
B	Road east from A1	\$200	141	20	2,820	\$564,000	
							\$310,411
Totals						\$564,000	\$310,411

Road C West of Kookaburra Road Catchment Area (additional to West of M7)

This area having frontage to Kurrajong Road is required under the provisions of *Liverpool DCP 2008* to provide access other than to Kurrajong Road for industrial traffic. This is provided by Road C. There is a need to provide access to Kookaburra Road by acquiring private land and constructing a road. The cost of Road C is fully attributable to the catchment.

Contributing Development

2.33ha (area of land that is expected to contribute to local transport facilities)

The area from which contributions would be received is shown on Figure 11.5.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 8 for the location of each item.

Works and Land Acquisition Schedule

The range of Works and Land Acquisition for local transport facilities is shown in Table 11.5.

This area also contributes to the other facilities in the "West of M7" catchment.

If alternate road access is provided in a form acceptable to Council this contribution will not be levied.

Table 11.5 Works and Land Acquisition Schedule

No	Item	Unit Cost \$/sqm	Length m	Width m	Area sqm	Land \$	Works \$
C	Road west from Kookaburra Rd	\$200	200	20	4,000	\$800,000	
							\$454,740
Totals						\$800,000	\$454,740

Road D East of Kookaburra Road Catchment Area (additional to West of M7)

This area having frontage to Kurrajong Road is required under the provisions of *Liverpool DCP 2008* to provide access other than to Kurrajong Road for industrial traffic. This is provided by Road D. There is a need to provide access to Kookaburra Road by acquiring private land and constructing a road. The cost of Road D is fully attributable to the catchment.

Contributing Development

3.83ha (area of land that is expected to contribute to local transport facilities)

The area from which contributions would be received is shown on Figure 11.6.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 8 for the location of each item.

Works and Land Acquisition Schedule

The range of Works and Land Acquisition for local transport facilities is shown in Table 11.6.

This area also contributes to the other facilities in the "West of M7" catchment.

If alternate road access is provided in a form acceptable to Council this contribution will not be levied.

Table 11.6 Works and Land Acquisition Schedule

No	Item	Unit Cost \$/sqm	Length m	Width m	Area sqm	Land \$	Works \$
D	Road east from Kookaburra Rd	\$200	320	20	6,400	\$1,280,000	
							\$604,193
Totals						\$1,280,000	\$604,193

11.3 Drainage

Nexus

Drainage Easements

In order to achieve an economical local drainage system it is necessary to drain stormwater runoff through the lowest possible path. This path was in some cases required to traverse privately owned properties which creates the need for drainage easements or drainage reserve.

A drainage easement is known as the area of land dedicated to construct and maintain an enclosed drainage conduit (usually a pipe or box culvert). The drainage easement can serve a number of privately owned properties in which case it is described to be an “inter-allotment drainage easement”. The area of land required for inter-allotment drainage easement would be dedicated for that purpose and would belong to those properties benefiting from the drainage system within the easement. The owners the properties will be responsible for the maintenance and functioning of the drainage system.

In some cases it is proposed to have an easement in favour of Council to drain water from properties and streets. This is where a drainage reserve is not considered to be practical. The cost of the construction of the drainage works will be funded by contributions. Affected lands will be required as a condition of consent to dedicate an easement in favour of Council to drain upstream land.

Drainage Reserves

A drainage reserve is the area of land dedicated to construct and maintain an open drainage conduit (usually a formed earth or concrete channel). The drainage reserve can serve a number of privately owned properties, public land (such as road drainage, parks, etc.) or a combination of these.

The area of land required for drainage reserve will be required to be dedicated to Council for that purpose and Council will be responsible for the maintenance and functioning of the drainage system. The area of land dedicated to drainage reserve has been included in the contribution rate as “cost of land acquisition” for each local drainage catchment.

Minimum size pipes

The Local Trunk Drainage is costed on the basis of drainage infrastructure requirements of the local catchment. Each of the local catchments is costed down to 900mm diameter pipe only. The individual developers are required to directly bear the cost of all pipelines up to 825mm diameter within or past their own land. The cost difference between any larger pipe size or drainage swale/channel is funded by Developer contributions.

Where it is anticipated that the developer will carry out the works as part of a development, the cost of supply, lay and backfilling of 825mm diameter is deducted from the cost of works to get the contribution. These works, when carried out by the developer, means that the developer will receive the credits of the difference between the total cost of works and the cost of 825mm diameter pipe (to be borne by the developer). Should the developer default from undertaking the works identified in this plan as the developer’s responsibility, then the developer shall pay for the cost of 825mm diameter pipe for the reach of drainage works for which they are responsible to provide as part of their development.

Where the work is costed in full without deducting the cost of 825mm diameter, it is anticipated that Council will undertake these works from contributions. Where a developer undertakes these works as part of their development, they shall receive full credits for the work as shown in this plan.

Gross pollutant traps

Gross pollutant traps have also been costed as source control for litter at the end of each network.

Scope of facilities

A review of the range of local transport facilities was undertaken in 2008. This was undertaken in

conjunction with the rezoning of land west and south of the area rezoned in the early 1990s.

Apportionment

No apportionment is allowed for as there were no existing local drainage facilities in existence at the commencement of the development of the area.

Contributing Development, Works and Land Acquisition Schedule and Catchment Area

There are several local drainage catchments within the Prestons Industrial Release Area. These are shown on Figure 11.2.



Figure 11.2 Catchment Areas

East of M7 Catchment Area

Contributing Development

88.05ha (area of land that is expected to contribute to local drainage facilities)

The area from which contributions would be received is shown on Figure 11.7.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 9 & 10 for the location of each item.

Works and Land Acquisition Schedule

The range of Works and Land Acquisition for local transport facilities is shown in Table 11.7.

Table 11.7 Works and Land Acquisition Schedule

Works

From	To	Pipe Diameter	Length	Unit Cost	Other	Cost of Works	Cost of 825 dia Pipe	Contribtn/ Credits
		mm	m	\$/m		\$	\$	\$
0.02	0.03	900	48	\$582		\$27,937	\$16,800	\$11,137
0.03	0.06	1,050	82	\$722		\$59,225	\$28,700	\$30,525
0.05	0.06	900	19	\$582		\$11,058	\$6,650	\$4,408
0.06	0.07	1,200	17	\$826		\$14,043	\$5,950	\$8,093
0.07	0.09	1,350	72	\$1,052		\$75,732	\$25,200	\$50,532
0.09	0.11	1.5x1.2 RCBC	99	\$1,430		\$141,618	\$34,650	\$106,968
0.11	0.13	2.1x1.2 RCBC	90	\$1,778		\$159,983	\$31,500	\$128,483
0.13	0.15	2.1x1.2 RCBC	70	\$1,778		\$124,431	\$24,500	\$99,931
0.15	0.17	2.1x1.2 RCBC	80	\$1,778		\$142,207	\$28,000	\$114,207
0.17	0.19	2.4x1.2 RCBC	74	\$2,041		\$151,001	\$25,900	\$125,101
0.19	.24A	2.7x1.2 RCBC	91	\$2,304		\$209,619	\$31,850	\$177,769
0.2	0.21	900	88	\$582		\$51,217	\$30,800	\$20,417
Structures						\$36,000		\$36,000
1.18	1.17	900	70	\$582		\$40,741	\$24,500	\$16,241
1.17	1.16	1,050	70	\$722		\$50,558	\$24,500	\$26,058
1.16	1.14	1,200	142	\$826		\$117,297	\$49,700	\$67,597
1.14	1.13	1.5x1.2 RCBC	78	\$1,430		\$111,578	\$27,300	\$84,278
1.13	1.10	1.8x1.2 RCBC	140	\$1,672		\$234,137	\$49,000	\$185,137
1.10	1.7	2.1x1.2 RCBC	118	\$1,778		\$209,756		\$209,756
1.7	1.6	3.0x1.2 RCBC	30	\$2,588		\$77,625		\$77,625
1.6	1.5	3.6x1.2 RCBC	42	\$3,397		\$142,691		\$142,691
1.5	1.1	4.2x1.2 RCBC	74	\$3,545		\$262,305		\$262,305
13.4	13.1	1,050	168	\$722		\$121,339	\$58,800	\$62,539
13.1	1.14	1,200	15	\$826		\$12,391	\$5,250	\$7,141
3.4	3.3	900	78	\$582		\$45,397	\$27,300	\$18,097
3.3	1.5	1,050	110	\$722		\$79,448	\$38,500	\$40,948
Structures						\$44,000		\$44,000
1.05	1.04	1,200	80	\$826		\$66,083	\$28,000	\$38,083
1.03	1.01	1,350	100	\$1,052		\$105,183	\$35,000	\$70,183
Structures						\$8,000		\$8,000
14.13	14.11	1,050	110	\$722		\$79,448	\$38,500	\$40,948
14.11	14.9	1,200	128	\$826		\$105,733	\$44,800	\$60,933
14.9	14.8	1.2x1.2 RCBC	66	\$1,315		\$86,776	\$23,100	\$63,676
14.8	14.5	1.5x1.2 RCBC	140	\$1,430		\$200,268	\$49,000	\$151,268
14.5	14.1	1.8x1.2 RCBC	30	\$1,672		\$50,172	\$10,500	\$39,672
14.12	14.11	1,050	30	\$722		\$21,668	\$10,500	\$11,168
15.01	11.09	900	30	\$582		\$17,460	\$10,500	\$6,960
11.09	11.08	1,050	160	\$722		\$115,561	\$56,000	\$59,561
11.08	11.07	1,200	20	\$826		\$16,521	\$7,000	\$9,521

From	To	Pipe Diameter	Length	Unit Cost	Other	Cost of Works	Cost of 825 dia Pipe	Contribtn/ Credits
		mm	m	\$/m		\$	\$	\$
11.07	11.06	1,500	240	\$1,248		\$299,561	\$84,000	\$215,561
11.06	11.05	1,650	40	\$1,445		\$57,780	\$14,000	\$43,780
11.05	11.01		315		Channel	\$446,817		\$446,817
	11.01				Energy Dissipater	\$77,134		\$77,134
13.05	13.04	1,500	70	\$1,248		\$87,372	\$24,500	
13.04	13.03	1,650	60	\$1,445		\$86,671	\$21,000	\$65,671
13.03	13.01	1,800	150	\$1,697		\$254,543	\$52,500	\$202,043
21.01	11.05	900	35	\$582		\$20,370	\$12,250	
22.01	13.05	1,050	100	\$722		\$72,226	\$35,000	\$37,226
Structures						\$46,000		\$46,000
Jedda Road Culverts				\$1,012,192				\$1,012,192
Sub Total								\$4,864,381
Add 15% Contingencies								\$729,657
Total								\$5,594,038
Land								
Item			Total Area	Proportion		Area sqm	Unit cost	Cost
Maxwells Creek Channel			23,000	60%		23,000	\$100	\$1,380,000
Total								\$1,380,000

West of M7 Catchment Area

Contributing Development

137.5ha (area of land that is expected to contribute to local drainage facilities)

The area from which contributions would be received is shown on Figure 11.8.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 8, 9 & 13 for the location of each item.

Works and Land Acquisition Schedule

The range of Works and Land Acquisition for local transport facilities is shown in Table 11.8.

Table 11.8 Works and Land Acquisition Schedule

Works

Item	From	To	Pipe Diameter	Length	Unit Cost	Cost of Works	Rate of 825mm Dia Conduit	Cost of 825 Dia Conduit	Contribution Credits
			mm	m	\$/m	\$	\$	\$	\$
	(1)	(2)	(3)	(4)	(5)	(6)=(4)x(5)	(7)	(8)=(3)x(9)	(9)=(6)-(8)
Catchment A									
Pits						\$11,655	\$1,217	\$0	\$11,655
Headwalls						\$4,450	\$1,217	\$0	\$4,450
GPT						\$34,500	\$1,217	\$0	\$34,500
Outlet Treatment						\$44,000	\$1,217	\$0	\$44,000
Catchment B									

Item	From	To	Pipe Diameter	Length	Unit Cost	Cost of Works	Rate of 825mm Dia Conduit	Cost of 825 Dia Conduit	Contribution Credits
			mm	m	\$/m	\$	\$	\$	\$
Box Section	B0	B2	-	190	\$2,966	\$563,540	\$1,217	\$231,230	\$332,310
Pipe	B2	B3	1,350	130	\$1,911	\$248,393	\$1,217	\$158,210	\$90,183
	B8	B2	1,050	40	\$1,911	\$248,393	\$1,217	\$48,680	\$199,713
Pipe	B3	B4	900	100	\$1,408	\$140,846	\$1,217	\$121,700	\$19,146
Pits						\$41,625	\$1,217	\$0	\$41,625
Headwalls						\$4,450	\$1,217	\$0	\$4,450
GPT						\$34,500	\$1,217	\$0	\$34,500
Outlet Treatment						\$70,000	\$1,217	\$0	\$70,000
Catchment C									
Pipe	C0	C1	1,050	65	\$1,911	\$124,196	\$1,217	\$79,105	\$45,091
Pits						\$9,990	\$1,217	\$0	\$9,990
Headwalls						\$4,450	\$1,217	\$0	\$4,450
GPT						\$34,500	\$1,217	\$0	\$34,500
Outlet Treatment						\$50,000	\$1,217	\$0	\$50,000
Catchment D									
Pipe	D0	D1	1,050	30	\$1,911	\$57,321	\$1,217	\$36,510	\$20,811
Pipe	D1	D2	900	152	\$1,408	\$214,085	\$1,217	\$184,984	\$29,101
Pits						\$11,655	\$1,217	\$0	\$11,655
Headwalls						\$4,450	\$1,217	\$0	\$4,450
GPT						\$0	\$1,217	\$0	\$0
Outlet Treatment						\$59,000	\$1,217	\$0	\$59,000
Catchment E									
Pipe	E0	E1	1,200	99	\$2,018	\$199,744	\$1,217	\$120,483	\$79,261
Pipe	E1	E2	1,050	200	\$1,911	\$382,143	\$1,217	\$243,400	\$138,743
Pits						\$24,975	\$1,217	\$0	\$24,975
Headwalls						\$4,450	\$1,217	\$0	\$4,450
GPT						\$34,500	\$1,217	\$0	\$34,500
Outlet Treatment						\$0	\$1,217	\$0	\$0
Catchment F									
Open Channel	F0	F1		475	\$1,548	\$735,356	\$1,217	\$578,075	\$157,281
Box Section	F1	F7	2.4x1.2 (2Nos)	425	\$8,168	\$1,735,765	\$1,217	\$517,225	\$1,218,540
Box Section	F7	F9	3.0x1.2	475	\$2,966	\$1,408,691	\$1,217	\$578,075	\$830,616
Pits						\$41,625	\$1,217	\$0	\$41,625
Headwalls						\$4,450	\$1,217	\$0	\$4,450
GPT						\$69,000	\$1,217	\$0	\$69,000
Outlet Treatment						\$75,000	\$1,217	\$0	\$75,000
Catchment G									
Open Channel	G00	G0		408	\$1,548	\$631,632	\$1,217	\$496,536	\$135,096
Box Section	G0	G1	2.4x1.5	30	\$2,600	\$1,245,579	\$1,217	\$36,510	\$1,209,069
	G1	G2	1,500	70	\$2,720	\$726,340	\$1,217	\$85,190	\$641,150
Pipe	G2	G3	1,350	150	\$2,380	\$726,340	\$1,217	\$182,550	\$543,790
Pipe	G3	G5	1,200	200	\$2,018	\$726,340	\$1,217	\$243,400	\$482,940
Pits						\$39,960	\$1,217	\$0	\$39,960

Item	From	To	Pipe Diameter mm	Length m	Unit Cost \$/m	Cost of Works \$	Rate of 825mm Dia Conduit \$	Cost of 825 Dia Conduit \$	Contribution Credits \$
Headwalls						\$4,450	\$1,217	\$0	\$4,450
GPT						\$34,500	\$1,217	\$0	\$34,500
Outlet Treatment						\$75,000	\$1,217	\$0	\$75,000
Catchment H									
Pipe	H00	H0	1,200	176	\$2,018	\$355,100	\$1,217	\$214,192	\$140,908
Pipe	H00	H1	1,050	95	\$1,911	\$181,518	\$1,217	\$115,615	\$65,903
Pipe	H1	H2	900	195	\$1,408	\$274,649	\$1,217	\$237,315	\$37,334
Pits						\$24,975	\$1,217	\$0	\$24,975
Headwalls						\$4,450	\$1,217	\$0	\$4,450
GPT						\$34,500	\$1,217	\$0	\$34,500
Outlet Treatment						\$59,000	\$1,217	\$0	\$59,000
Jedda Road Culverts						\$1,012,192	40%	of catchment	\$407,790
Sub Total									\$7,774,836
Contingencies plus contract administration					8%				\$621,987
Design					4%				\$310,993
Total									\$8,707,816
Land									
Item	From	To	Length m	Width m	Area sqm	Unit Cost \$/sqm	Cost \$		
Cabramatta Ck	Kurrajong Rd	Hinchinbrook Ck	2,230	10	22,300	\$50	\$1,115,000		
Cabramatta Ck	Hinchinbrook Ck	M7	340	10	3,400	\$50	\$170,000		
Cabramatta Ck	M7	Lot 2 DP 1051510	380	10	3,800	\$50	\$190,000		
Cabramatta Ck	Lot 2 DP 1051510	Hoxton Park Rd	520	10	5,200	\$50	\$260,000		
Total Area			Proportion						
Maxwells Ck Channel		23,000	40%		9,266	\$100	\$926,619		
Total									\$2,661,619

North of M7

Contributing Development

2.85ha (area of land that is expected to contribute to local drainage facilities)

The area from which contributions would be received is shown on Figure 11.9.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 5 & 9 for the location of each item.

Works and Land Acquisition Schedule

The range of Works and Land Acquisition for local transport facilities is shown in Table 11.9.

Table 11.9 Works and Land Acquisition Schedule

Item	From	To	Length	Width	Area	Unit Cost	Cost
Cabramatta Ck	Hinchinbrook Ck	Hoxton Park Rd	520	10	5,200	\$50	\$260,000

Total	\$260,000
-------	-----------

11.4 Landscaped Buffer Areas

Wonga Road Frontage

The development of the Prestons Industrial Area has the potential for conflict with the adjoining residential area over noise generation, air pollution, security lighting, operational hours and traffic generation. Accordingly a 10 m wide landscaped buffer is to be provided along the frontage to Wonga Road.

The buffer area is essential between any industrial area and an adjoining residential area to protect the amenity of the residential area without resorting to unreasonable restrictions on business hours of operation, noise and lighting in the industrial area.

The contributing area is the area east of the M7 with an area of 123 ha. This is on the basis that the works border this release area where it adjoins the residential areas. It does not include the former Liverpool Showground, as this will provide its own buffer to the adjoining residential area to the south.

Contributing Development

123ha (area of land that is expected to contribute to Landscaped Buffer Areas)

The area from which contributions would be received is shown on Figure 10.10.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 10 for the location of each item.

Works and Land Acquisition Schedule

The range of Works and Land Acquisition for Landscaped Buffer Areas is shown in Table 11.10.

Table 11.10 Works and Land Acquisition Schedule

No	Item	Length m	Area sqm	Cost \$/m	Land Unit Cost \$/sqm	Cost of Land \$	Cost of Works \$
Wonga Road Frontage							
S1	Landscaping		5,600		\$200	\$1,120,000	
	Landscaping	560		\$250			\$92,810
Totals						\$1,120,000	\$92,810

11.5 Professional Fees

Nexus

The cost of independent land valuations and legal documents are clearly part of the costs of administering this plan. In relation to land acquisition, Council will be required to acquire land for car parking and roads and incur the associated conveyancing costs.

It is recognised that the costs associated with land acquisition could be added to the cost of individual facilities. However the cost of professional fees attributable to any one facility is completely unpredictable. It is therefore more appropriate that a pool of contribution funds is available to meet these costs as they arise.

The contribution rate is based on the following costs.

- The cost of independent valuations is anticipated to vary from \$500 - \$2,000 depending on individual sites and whether the valuation is general or specific;
- Valuations will be required at least annually for reviewing this contribution plan, and more

- frequently depending on movements in the property market;
- Stamp duty and estimated costs of vendor's solicitor in land acquisition.

11.6 Administration Costs

Nexus

There are significant costs associated with administering funds of this magnitude. Both the plan preparation/review and implementation aspects of Developer contributions are administered staff within Council. A core team of employees are engaged to provide support in co-ordinating such a process, as well as prepare status reports, review and relevant data, liaise with Council staff and external agencies.

In accordance with the directive of the Department of Planning, the administration costs are comprised of those expenses relative only to those personnel directly responsible for the formulation and / or administration of a Contributions Plan. The cost per lot per year has been averaged across all of the Contribution Plan areas and is calculated as follows.

11.7 Contribution Formulae

Transport and Drainage Facilities

$$\text{Contribution} = \frac{C}{N}$$

(per sqm)

where C = Cost of capital works and land identified for the catchment area
N = Area of land in the catchment area

$$\text{Area of land to be dedicated} = \frac{A}{N}$$

(per sqm)

where A = Total area to be acquired
N = Area of land in the catchment area

Landscaped Buffer Areas

$$\text{Contribution} = \frac{C}{N}$$

(per sqm)

where C = Cost of capital works and land identified for the catchment area
N = Area of land in the catchment area

$$\text{Area of land to be dedicated} = \frac{A}{N}$$

(per sqm)

where A = Total area to be acquired
N = Area of land in the catchment area

Professional Fees

$$\text{Contribution Rate} = \frac{\text{Residential Contribution}^* \times A}{450}$$

(per sqm)

Where * Residential Contribution in Hoxton Park, Carnes Hill and Prestons
A = Site area
450 = area of conventional lot

Administration Fees

All Development

The cost of administering contributions plans over the coming years has been estimated at 1.2% of the value of contributions.

11.8 Staging of Facilities

The timing of construction of specific facilities depends largely on where and when development occurs. It is the intention of Council to provide facilities at the earliest opportunity. This intention is constrained by the funding limitations, which occur due to cash flows directly linked to the rate of development. Council must accumulate sufficient contributions to meet the funding commitment to any particular facility, which is required. In this regard, facilities will be constructed as funds received allow and in response to the priority needs of the developing community.

12. Middleton Grange Release Area

12.1 Background

Liverpool City Council adopted on 24 June 2002 a masterplan for the development of Middleton Grange Release Area. The masterplan makes provision for 152ha of mostly residential development and forecasts the creation of 2,580 dwellings. This will result in an additional population of approximately 9,000 in the area. Due to this anticipated development, the current absence of public amenities and services available in the area, and the expected characteristics of the new population, it will be necessary to undertake works detailed in this Contributions Plan.

Relationship to other plans

The masterplan is supported by a set of technical Background Reports and by further background information in the draft Master Plan - December 2001. Council prepared *Liverpool DCP No 48* based on the masterplan. This DCP was subsequently incorporated into *Liverpool DCP 2008*.

Staging of all facilities and services

The timing of construction and provision of all facilities and services will depend largely on where and when development occurs. It is the intention of Council to provide facilities, services and infrastructure at the earliest opportunity in order to provide for the access, amenity and liveability of the residents of Middleton Grange. This intention will be constrained by the funding limitations of cash flows directly linked to the pace of development and by Council's ability to acquire land from existing owners.

Council must accumulate adequate funds through contributions to meet the costs of any facility. Therefore construction will occur as funds allow and in response to the priority needs of the developing community. It is intended, however that, water management facilities will be constructed for each section or water catchment of Middleton Grange as it develops.

Planning principles

Council seeks to achieve the following in Middleton Grange.

- **Accessibility** – A community that ensures the safe, convenient and appropriate movement of people and goods.
- **Social benefits** – A balanced community that provides a full and diverse range of social, community and recreational resources.
- **Environmental benefits** – A community with quality urban design and high environmental standards that values and enhances its natural and built environment.
- **Economic benefits** – A community that provides a full range of employment and training opportunities for its inhabitants.

The contributions levied by this Plan for infrastructure, facilities and services will be directed at achieving outcomes in line with these visionary elements.

The Middleton Grange originally consisted of 1.2ha rural-residential lots, the majority in separate ownership and some with dwellings; a grid of streets consisting of one north-south road and three east west roads; a private school; a church and a small club. The area to the north of the central environmental corridor along McIver Avenue is used for low intensity grazing of cattle. Three small waterways traverse the area. Given its history as a rural residential area, Middleton Grange has no facilities for recreation, community services and water cycle management or a road network to support a new resident population.

The area is envisioned to have a high quality public domain of parks, playing fields, streets, footpaths, cycle ways and open space. A network of connected roads will traverse the area and encourage walking and cycling, while transport nodes will provide access and links to public transport, both locally and regionally. The neighbourhood centre will be the focus of the new area and include a community

centre. Water quality, run-off and drainage will be incorporated into the existing watercourses and have high aesthetic appeal. The principles of ecologically sustainable development will govern the provision of all facilities.

While residential development is to be the main form of development in the Middleton Grange Release Area, there will also be some development for commercial uses as well as for church and private education purposes. These developments and uses will place demands on the road and water management system. Accordingly, they will be levied for these two forms of infrastructure for the stormwater water run-off that they generate.

Development trends

The number of additional dwellings/lots is therefore forecast to be 2,580. For the purposes of this plan, dwelling occupancy rates per lot are those adopted for the new release areas, i.e.:

- Lots 450 sqm or larger = 3.7 persons per dwelling
- Lots smaller than 450 sqm = 3.3 persons per dwelling.

Assuming an average of 3.5 persons per dwelling, the future additional resident population of Middleton Grange at the full extent of development is estimated to be approximately 9,000 persons.

Catchment Area

There is a single catchment for all local facilities in Middleton Grange. The catchment is shown on Figure 12.1.



Figure 12.1 Catchment Area and location of works and land acquisition

12.2 Community Facilities

Background

The provision of appropriate and useable community facilities is a key requirement for developing socially sustainable communities. In new development areas, residents will demand and require community facilities such as multi-purpose community centres, children's facilities, libraries and cultural facilities to meet their needs.

Middleton Grange is expected to accommodate an estimated 9,000 residents based on the development of 2,580 dwellings. As the release area will allow for both multi unit housing and separate detached dwellings, anticipated occupancy rates are likely to range from 3.3 persons per dwelling to 3.7 persons per dwelling based rates adopted for other release areas in Liverpool.

Analysis of the demographic profile of other recent release areas in Liverpool suggests that Middleton Grange may have the following characteristics:

- Large number of children aged 0-4 years
- Large number of children aged under 15 years
- Increasing number of youth aged 10-19 years living in the release area particularly as the development matures
- High proportion of adults of child-bearing age groups, i.e. 20-34 years old
- Low proportion of older residents compared to the Liverpool LGA
- High level of cultural diversity with a significant number of residents likely to be from non-English speaking background.

These characteristics together with the lack of existing community infrastructure within the immediate area require that a range of appropriate community facilities be provided to meet the need of new residents.

Nexus

As outlined in the Background Reports, this release area has no existing local neighbourhood facilities except for a non-government school and private church/club facilities. Council community facilities in the surrounding suburbs are at full capacity with direct access to these facilities difficult. Therefore given the socio-demographic profile of new residents outlined earlier, local facilities required by new residents in this community are a local multipurpose community centre and facilities for families and children. Neighbourhood level facilities and services are those, which can be accessed within the immediate area and are typically provided for communities of 8,000-10,000 residents.

Facilities

Local level multi-purpose community centres provide a locally based facility. Poor public transport, inadequate human services infrastructure, distance and therefore poor access to centrally located services are key obstacles facing new residents. As a focal point for residents, community centres provide flexible space for a broad range of community activities. Some of the functions and activities that can occur in these centres include:

- Meeting space for community groups and organisations.
- An informal meeting place and information centre.
- Multi-purpose working space for a range of activities such as play groups, educational classes, cultural and leisure activities (arts and crafts classes, cultural projects, workshops, etc).
- Sessional space for visiting and specialist services such as community nurses, health services, family support services, etc.
- Office accommodation, interview rooms and generally an administrative base for community

workers and local Neighbourhood Centre services.

- Spaces for private functions such as weddings, celebrations, formal meetings, cultural events, etc.

Elected committees comprising local residents and users usually manage such centres.

Council proposes a standard for such facilities, a 400sqm building for a population of approximately 8,000 residents. This standard is proposed based on experience of facilities in other Liverpool release areas. In areas with a projected population over 10,000 but less than 20,000, it is proposed to build centres that are proportionately based on this standard. This will be incorporated into the floor-space ratio adopted in this Plan for community facilities.

Scope of facilities

A review of the range of local community facilities was undertaken in 2008. It was decided that a local multipurpose community centre would be provided. An analysis of local community centres in adjacent release areas showed that bookings for these centres were at full capacity.

Apportionment

No apportionment is allowed for as there were no existing local community facilities in existence at the commencement of the development of the area.

Contributing Development, Works and Land Acquisition Schedule

Contributing Development

2,580 dwellings/lots (Number of dwellings or equivalent that are expected to contribute to local community facilities)

The area from which contributions would be received is shown on Figure 12.1.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 4 for the location of each item.

Works and Land Acquisition Schedule

The range of Works and Land Acquisition for local community facilities is shown in Table 12.1.

The cost of facilities not yet built was reviewed in 2008 following a review of unit costs by *Rider Hunt*.

Table 12.1

No.	Item	Land Area sqm	Land Unit Cost \$/sqm	Total Land Cost \$	Total Works Cost \$
C1	Multi-Purpose Community Centre (400 sqm)	800	\$155	\$124,000	\$1,816,435
Total				\$124,000	\$1,816,435

12.3 Recreation Facilities

Background

A sustainable community requires access to quality open space and recreation facilities. As a result of new development, natural areas also need to be maintained and enhanced to preserve the environmental quality and bio-diversity of the area. Open spaces provide increased residential amenity; a resource for flora and fauna; consolidation of diminishing natural areas as well as a place for sports, recreation, play and outdoor activities.

This plan and the *Background Reports* to the masterplan provide a detailed assessment of the size and demographic characteristics of the expected population of Middleton Grange Release Area. They

highlight the need for open space and recreation facilities, which meet the needs of new residents while also recognising the existing significant environmental features of the release.

Nexus

As presented in the Background Reports, Middleton Grange has some strong natural features such as existing creek lines, remnant bushland and scenic views. It is proposed to use these environmental qualities to develop useable, high quality open space areas with specific recreational facilities to meet the needs of residents. The population characteristics outlined in this chapter have strongly influenced the type of facilities to be provided together with information on community demands in adjoining release areas (see Background Reports). Many of the open spaces are also part of the water cycle management system and will be jointly developed for both purposes.

All residential development will contribute for the following facilities.

Facilities

Based on this information, the following open space and recreation areas are required:

Small parks

Small parks increase residential amenity by providing a focus for local residents and encouraging a “sense of place”. Embellishments such as children’s playgrounds, seating, lighting, planting, fencing, footpaths and shade are key requirements in this type of park.

Large neighbourhood parks

Large neighbourhood parks are larger multipurpose open spaces providing for a range of activities and age groups. As Middleton Grange will house primarily families, these parks will provide space where all age groups can recreate together. Embellishments such as children’s playgrounds, seating, BBQs, shade pavilion, plantings, pathways, bicycle parking, irrigation and public art are key requirements of this type of park. Given the large number of youth aged 10-19 years expected to be living in this release, neighbourhood parks will also provide recreational facilities appropriate for youth such as a skateboard ramp, hard courts or multipurpose cycle/rollerblade paths. Only large parks of suitable size can accommodate this diversity of activities.

Bushland parks

Bushland parks are open spaces with identified high environmental values such as existing large tree stands and creeks. Where the parks are primarily bushland/environmental protection, embellishment will include bush regeneration works, soil stabilisation, fencing, site furniture, environmentally sensitive pathways and interpretative shelters.

Sportsgrounds

Sportsgrounds are active recreation areas, which provide local residents with opportunities to participate in organised and unorganised sports such as soccer, cricket, football etc. This open space will be of high quality and multipurpose with the minimum configuration of a sportsground being one oval comprising of two playing fields. Embellishments will include major site works, automatic irrigation, turfing and top soil, amenities block, cricket wicket/nets, goal posts, car parking, spectator seating, shade pavilion, basic lighting planting and playground facilities for children/youth.

There are a total of 14.7 ha of recreation and open space excluding those areas set-aside specifically for water cycle management and environmental protection. This gives a rate of 1.63ha of open space per 1,000 residents based on an anticipated population of approximately 9,000. This is less than the Department of Planning standard of 2.3 Ha per 1,000 residents and other comparable new release areas (see *Background Reports*).

The approach used, however, focuses on ensuring high quality open space, recreation facilities and bushland with careful attention to developing sites, which have appropriate levels of embellishment to meet community needs. Residents will also have the benefits of the adjoining proposed Western Sydney Regional Parklands and land primarily set aside for water cycle management.

Scope of facilities

A review of the range of local recreation facilities was undertaken in 2008. This was undertaken in conjunction with the preparation of *Liverpool DCP 2008*. This plan included amongst other items a review of the masterplan for this area.

Apportionment

No apportionment is allowed for as there were no excess local recreation facilities in existence at the commencement of the development of the area.

Contributing Development, Works and Land Acquisition Schedule

Contributing Development

2,580 dwellings/lots (Number of dwellings or equivalent that are expected to contribute to local recreation facilities)

The area from which contributions would be received is shown on Figure 12.1.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 1 - 4 for the location of each item.

Works and Land Acquisition Schedule

The range of Works and Land Acquisition for local recreation facilities is shown in Table 12.2.

The cost of facilities not yet built was reviewed in 2008 following a review of unit costs by *Rider Hunt*.

Table 12.2

No.	Item	Park Area sqm	Park Type	Land Unit Cost \$/ sqm	Works Unit Cost \$	Total Land Cost \$	Total Works Cost \$
OS01	Stante Reserve (Southern Oval)	23,355	Sportsfield		\$80.64		\$1,883,457
	Serbian club	4,496		\$155		\$696,880	
	257/2475	9,434		\$218		\$2,056,612	
	1/778319	9,425		\$203		\$1,913,370	
OS02	Stante Reserve (Northern Oval)	31,670	Sportsfield		\$80.64		\$2,553,935
	B/381267	4,195		\$221		\$925,212	
	35/1044841	3,278		\$95		\$311,410	
	36/1044841	367		\$95		\$34,827	
	189/2475	12,140		\$270		\$3,277,800	
	37/1044841	11,690		\$201		\$2,349,690	
OS04	Southern Woodland Area	10,450	Env. Protection	\$190	\$17.51	\$1,985,500	\$182,943
OS06	Park on 16th Ave	2,870	Small Park	\$110	\$31.28	\$315,700	\$89,782
OS07	Park west of 2nd Ave, south of 16th Ave.	5,641	Small Park	\$155	\$31.28	\$874,355	\$176,468
OS09	Park on Collector Street 3	1,820	Small Park	\$155	\$31.28	\$282,100	\$56,935
OS11	Park west of 2nd Ave, south of Mclver Ave	5,799	Small Park	\$155	\$31.28	\$898,845	\$181,410
OS12	Park in northern area - eastern side	3,431	Small Park	\$155	\$31.28	\$531,805	\$107,332
OS13	Park in northern area - western side	7,312	Large Park	\$155	\$31.28	\$1,133,360	\$228,742
Sub Total							
	Plus 5% Contingency						\$273,050
Totals		147,373				\$17,587,466	\$5,734,054

12.4 Transport Facilities

Background

The cost of provision of streets, access and transport facilities in conjunction with a subdivision will be borne by individual developers. However, various traffic facilities and frontages to public land uses such as parks will be funded through developer contributions. As all residents use these cost should not fall on developers of individual land uses but rather should be shared across the whole precinct.

Nexus

The existing street network in Middleton Grange consists of a grid of one north-south road and three east-west roads, and connections to Fifteenth Avenue and Cowpasture Road. These are adequate for the existing population and land uses, but overall is not in good condition. The street network is not appropriate for, nor has the capacity to service, a new incoming resident population and a public transport system.

The masterplan for Middleton Grange provides a new street layout with the objective of creating a highly accessible suburb. The network is designed to enhance the internal accessibility of the area and provide external access to arterial roads and the M7. In particular it facilitates bus circulation and the use of public transport.

The design utilises existing roads in the new layout, which will need to be upgraded. In addition it provides for new collector streets, frontages to public open space, intersections with Cowpasture Road and Fifteenth Ave and various road treatments. Pedestrian safety and cyclist amenity is accommodated. Existing streets will be upgraded during the development of Middleton Grange and new facilities and infrastructure built.

While timing and staging will be dependent on available funding as a result of this plan and the location of new development, it is the intention of Council and accordingly this Contributions Plan, that access is provided to new residents as they take up residence. Staging will also accord with the provision of other infrastructure that would be built in conjunction with streets.

All residents, commercial/retail businesses, private schools, churches and other developments, will use and benefit from the new access and transport facilities.

Facilities

Collector streets

In previous release areas within the Hoxton Park Stage 2 Release Area, the local access street was adopted as the benchmark to assess developer contributions. Council has adopted the philosophy that within each neighbourhood, all streets of higher standard than local access streets (i.e. collector streets) are necessary to provide access for everyone in that neighbourhood. Accordingly there is a contribution toward the difference in cost between a local access street and a collector street. This applies to additional width, pavement depth and land value and is normally funded by the developer of land having frontage to the collector street.

Within the Council's road hierarchy are the following:

- Access streets and rear service lanes – which cater for up to 300 vehicles per day (vpd) and are not more than 100m long.
- Local access streets – which cater for up to 1,000vpd with provision for up to 2,000vpd with wider pavements.
- Neighbourhood collector streets – which cater for up to 6,000vpd and usually provide a link between the internal collector street system of a residential precinct and the major road system.
- Sub-arterial roads – which cater for up to 15,000vpd and are the principal traffic carriers within an urban neighbourhood.

In Middleton Grange additional collector streets have been added to the existing street structure to enhance accessibility of the precinct and handle the predicted traffic demand created by the new land release. The new streets are diagonal to the existing rectilinear street layout and focus on the neighbourhood centre while linking the southern and northern sections. A bridge will be built over the environment protection zone and central creek and connect the two parts of the precinct.

Streets adjacent to public reserves or public schools

Streets which front public facilities such as public schools and open space are not directly the responsibility of any one developer and are, therefore, levied for under this Plan. For any street, which a developer has one frontage to and the other side of the road is fronted by a public facility such as public schools and open space, the developer is required to provide the following:

- 9m street reserve or half street reserve, whichever is greater.
- The cost of constructing half of a street with a minimum 5.5m street pavement width, or half the designated street width, whichever is greater.

The remainder of the full width street dedication and construction is funded by developer contributions.

Upgrading existing public roads

Where an existing road is identified within this chapter requiring an upgrade, Council has made an assessment of the remaining life of the pavement and deducted this from the cost of construction of a new pavement. If future residential lots have access directly to the road, the Contributions Plan funds the central pavement only. A specific allowance has been included for the pavement upgrade to Second Avenue.

Traffic lights

New traffic lights have been included at the junction of Fifteenth and Kingsford Smith Avenues and at Flynn and Kingsford Smith Avenues.

Roundabouts

Roundabouts serve the whole street system within each neighbourhood and consequently serve each property. The cost is determined by the difference in cost between an intersection with a roundabout and a normal intersection.

Other traffic facilities

The other access and traffic facilities are detailed and summarised in the following tables. These include the provision of bridges/culverts over the water cycle management channels, additional landscaping to the collector roads, share ways, bus shelters and associated works. The costs included in this chapter have been determined by the difference in cost of a local access street and the extra cost of the additional access or traffic facilities required by *Liverpool DCP 2008*.

Scope of facilities

A review of the range of local transport facilities was undertaken in 2008. This was undertaken in conjunction with the preparation of *Liverpool DCP 2008*. This plan included amongst other items a review of the masterplan for this area. The changes arise in part due to the impact of the M7, the addition of land north of Hoxton Park Rd, changes to the land use adjacent to the Carnes Hill Centre on the proposed open space, street and drainage networks.

Apportionment

No apportionment is allowed for as there were no existing local transport facilities in existence at the commencement of the development of the area.

Table 12.3

Item	Land component	Works component
Collector street frontage to school	(18 - 9) = 9.0m	(7.5 - 5.5) = 2.0m
Local Street frontage to school	(14.5 - 9) = 5.5m	(6.5 - 5.5) = 1.0m
Local street fronting open space or drainage res	(14.5 - 9) = 5.5m	(6.5 - 5.5) = 1.0m
Collector Street fronting Open Space or Drainage Res	(18 - 9) = 9.0m	(7.5 - 5.5) = 2.0m
Collector Street through Open Space or Drainage Res	18m	7.5m
Local Street fronting Cabramatta Creek / Drain	(10.5 - 9) = 1.5m	(6.5 - 5.5) = 1.0m

Contributing Development, Works and Land Acquisition Schedule

Contributing Development

2,580 dwellings/lots (Number of dwellings or equivalent that are expected to contribute to local transport facilities)

The area from which contributions would be received is shown on Figure 12.1.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 1 - 4 for the location of each item.

Works and Land Acquisition Schedule

The range of Works and Land Acquisition for local transport facilities is shown in Table 12.4.

The cost of facilities not yet built was reviewed in 2008 following a review of unit costs by Council.

Table 12.4 Works and Land Acquisition Schedule

No.	Item	Length / No of items m	Pavement width m	Land width m	Land Unit Cost \$/ sqm	Works Unit Cost \$/ m	Total Land Cost \$	Total Works Cost \$
R1	Collector Centre Street Park frontage (one side) (Qantas Boulevard)	466	9.7	17.2	\$155	\$1,315	\$1,242,356	\$612,611
R2	Local Street Type 2 (drainage frontage both sides) (Hall Cct between WM 1 & WM2)	122	9.4	17.4	\$149	\$981	included in drainage	\$119,678
C1	Bridge – Creek Crossing between water management facilities on Hall Ct							\$204,000
R3	Local Street Type 1 Drainage frontage (both sides) (Bravo Ave between Qantas & Globe)	47	7.2	15.2	\$149	\$801	included in drainage	\$37,627
R4	Local Street Type 1 Community frontage (one side) (Bravo Ave between Globe & Beard)	67	1.7	5.7	\$155	\$245	\$59,195	\$16,382
C2	Bridge – Neighbourhood Centre Bravo Av							\$205,000
R5	Collector Centre Street including over culvert Drainage frontage (one side)	22	9.7	17.2	\$130	\$1,315	\$49,192	\$28,922

No.	Item	Length / No of items m	Pavement width m	Land width m	Land Unit Cost \$/ sqm	Works Unit Cost \$/ m	Total Land Cost \$	Total Works Cost \$
	(Middleton Dr between Qantas & Globe)							
R6	Collector Centre Street over Culvert Drainage frontage (both sides) (Middleton Dr near Globe)	18	15.2	26.7	\$149	\$1,986	included in drainage	\$35,754
C3	Bridge – Middleton Dr	18						\$205,000
R7	Local Street Type 2 over culvert eastern side (both sides) (Hall Circuit at Swoffer Ave)	18	9.4	17.4	\$149	\$981	included in drainage	\$17,657
R8	Local Street Type 2 including over culvert western side (one side) (Hall Circuit near Swoffer St)	14	3.9	7.9	\$130	\$425	\$14,378	\$5,948
C4	Culvert – Eastern end of WM4	32						\$205,000
R9	Collector Centre Street over culvert northern side (both sides) (Flynn Boulevard at Swoffer St)	29	15.2	Pre-existing street		\$1,986		\$57,603
R10	Collector Centre Street drainage frontage including culvert on southern side (one side) (Flynn Blvd nr Swoffer)	46	8	Pre-existing street		\$1,034		\$47,581
C5	Culvert – Southern end of WM5	29						\$205,000
R11	Collector Centre Street frontage to drainage over Culvert (both sides) (Kingsford Smith @ Irvine)	77	15.2	Pre-existing street		\$1,986		\$152,947
C6	Second Av Creek Crossing south of Sixteenth Av			Pre-existing street				\$208,000
R12	Water management median street (drainage frontage) (Afflick and Irvine Gdns)	23	5.5	10	\$155	\$820	\$35,650	\$18,858
R13	Local Street Type 1 over culvert western side (one side) (Afflick and Percival Ave)	25	1.7	5.7	\$155	\$245	\$22,088	\$6,113
R14	Local Street Type 1 drainage frontage including over culvert (both sides) (Afflick and Percival)	17	7.2	15.2	\$155	\$801	included in drainage	\$13,610
C7	Culvert – Western end of OS07	42						\$265,000
R15	Parkland edge street over culvert (both sides) (Garrett St)	19	5.5	10	\$155	\$612	included in drainage	\$11,620

No.	Item	Length / No of items m	Pavement width m	Land width m	Land Unit Cost \$/ sqm	Works Unit Cost \$/ m	Total Land Cost \$	Total Works Cost \$
C8	Culvert – Garret St western end of Southern Creek	18						\$205,000
R16	Local Street Type 1 Parkland frontage (one side) (McGuinness Ave adjacent to park)	67	1.7	5.7	\$155	\$245	\$59,195	\$16,382
R17	Local Street Type 1 (one side) (Hall Circuit adjacent to park)	67	1.7	Pre-existing street		\$245		\$16,382
R18	Oval edge street frontage to parkland (one side) (Hall Circuit adjacent to OS 1)	151	8.5	12.5	\$221	\$981	\$416,290	\$148,095
R19	Water Management Stante CI (both sides)	146	14	Pre-existing street		\$1,547		\$225,913
R20	Oval edge street frontage to parkland (one side) (Hall CCT nr Stante CI)	133	8.5	Pre-existing street		\$981		\$130,441
R21	Oval edge street frontage to parkland (one side) (Bird Walton)	345	8.5	12.5	\$221	\$981	\$951,126	\$338,362
R22	Local Street Type 1 drainage frontage (one side) (Bird Walton)	510	1.7	Pre-existing street		\$245		\$124,698
R23	Bridge and approaches across central creek	197		22.6		\$1,611	\$0	\$317,419
C9	Culvert Middleton Dr							\$205,000
B1	Bridge – Environmental Corridor							\$2,200,000
R24	Local Street Type 1 parkland frontage (one side) (Mclver Ave)	80	1.7	Pre-existing street		\$245		\$19,561
C10	Culvert - Mclver Av							\$200,000
R25	Local Street Type 1 parkland frontage (one side) (Kingsford Smith)	51	1.7	Pre-existing street		\$245		\$12,470
R26	Local Street Type 1 over culvert (both sides) (Kingsford Smith)	17	7.2	Pre-existing street		\$801		\$13,610
C11	Culvert - Second Av							\$208,000
R27	Local Street Type 1 over culvert (both sides) (Hugh Terrace nr Windsock)	30	7.2	15.2	\$155	\$801	\$70,680	\$24,018
R28	Local Street Type 1 drainage frontage including culvert (western side) (Hugh Terrace Nr Windsock)	17	1.7	5.7	\$155	\$245	\$15,020	\$4,157
C12	Culvert							\$265,000

No.	Item	Length / No of items m	Pavement width m	Land width m	Land Unit Cost \$/ sqm	Works Unit Cost \$/ m	Total Land Cost \$	Total Works Cost \$
R29	Local Street Type 1 parkland frontage (Kelsey Ave @ Hugh)	47	7.2	15.2	\$155	\$801	\$110,732	\$37,627
R30	Northern Collector Street (one side only)	120	8.1	12.6	\$155	\$940	\$234,360	\$112,746
R31	Local Street Type 1 (one side) (Love Road adjacent to park)	30	1.7	5.7	\$155	\$245	\$26,505	\$7,335
R32	Local Street Type 1 (one side) (Monoplane Ave adjacent to park)	87	1.7	5.7	\$155	\$245	\$76,865	\$21,272
R33	Mclver St (both sides)							
R34	Intersection Upgrade - 15th & Kingsford Smith Aves.							\$400,000
R35	Roundabout							\$120,000
R36	Link under M7			Under M7				\$400,000
	Traffic Calming Measure and Pedestrian Crossing Points							\$200,000
	Bus Shelters	10				\$14,270		\$112,500
T1	Traffic Lights - 15th & Kingsford Smith Ave's							\$150,000
T2	Traffic Lights – Flynn & Kingsford Smith Ave's							\$300,000
	Sub Total							\$9,215,898
	Plus 5% Contingency							\$460,795
	Total						\$3,383,630	\$9,676,693

12.5 Water Cycle Management

Background

Community standards require that stormwater be conveyed through urban areas in a manner that emphasises the cost-effective achievement of safety and amenity. This requirement leads to a development standard where drainage is managed on a catchment wide basis in a system of pipes, channels, culverts and basins. The responsibility to contribute, or nexus, is a combination of the characteristics of land development that:

- Increases stormwater runoff volumes and flow rates so that a system of pipes and channels and/or stormwater detention basins is required to offset these impacts downstream; and
- Increases population levels in the vicinity of potentially hazardous, uncontrolled rural standard drainage systems so that improvements, particularly large pipes and channel systems, are required to minimise and clearly demark the area of hazard potential.

The development of new release areas generally leads to a significant change in the stormwater runoff characteristics of drainage catchments. This change partially results from an increase in the ratio of runoff volumes to rainfall volumes due to a reduction in previous areas to absorb rainfall into the ground. It is also influenced by the reduction in catchment response times, where the impact of piping and channelising more efficiently conveys concentrated runoff to the catchment outlets. It may also be influenced by a reduction in flood plain storage of runoff volumes due to developments that incorporate landfill.

Nexus

An overall Water Cycle Management strategy has been established for the Middleton Grange area and is detailed in the Background Reports. This strategy supports the following objectives:

- Management of drainage and the flood plain contribute positively to the area

- Water quality and pollution management is to be of a high standard
- Quality of the natural environment is to be maintained and enhanced

The water cycle management strategy utilises detention basins, wetlands, natural channels, swales, gross pollution traps and other facilities to ensure that the outflow from the precinct after its development is no worse than in the pre-development situation. At the same time it returns the creeks and waterways to a more natural state. The creeks and associated riparian zone have been enhanced to provide flood mitigation and water quality improvement as well as public open space amenity. This plan has allocated the costs for management of the water cycle and for open space areas across both sets of facilities as equitably as possible. All land uses are beneficiaries of the system and the enhanced amenity of the area.

Developers will be responsible for the costs of transporting stormwater from their land to the trunk drainage system. However, the cost of the trunk drainage system will be shared over the whole precinct. As background, it is seen by Council that every property that has stormwater drainage passing through it in a pre-development state has an obligation to provide proportionally for the runoff. In addition, all upstream properties will have an obligation to contribute to the cost of downstream drainage in proportion to the increase in runoff produced by their development.

In order to achieve an economical local drainage system it is required to drain stormwater runoff through the southern most water channel. This channel in some cases traverses privately owned land.

The area of land acquired, as drainage reserves shall be dedicated to the Council for that purpose and the Council will be responsible for the maintenance and functioning of the trunk drainage system.

Facilities

The Water Cycle Management infrastructure includes the following:

- Detention basins
- Water treatment zones and wetlands
- Aquatic and riparian vegetation rehabilitation
- Drainage channels
- Swales
- Pools and riffles
- Drainage culverts
- Gross pollutant traps.

Contribution credits for works in kind will not be accepted for temporary work required to fulfil developments on individual sites. All stormwater works are to be in accordance with Council requirements.

Scope of facilities

A review of the range of local drainage facilities was undertaken in 2008. This was undertaken in conjunction with the preparation of *Liverpool DCP 2008*. This plan included amongst other items a review of the masterplan for this area.

Apportionment

No apportionment is allowed for as there were no existing local transport facilities in existence at the commencement of the development of the area.

Contributing Development, Works and Land Acquisition Schedule

Contributing Development

2,580 dwellings/lots (Number of dwellings or equivalent that are expected to contribute to local drainage facilities)

The area from which contributions would be received is shown on Figure 12.1.

Map of Works and Land Acquisition

Refer to Infrastructure Map No 1 - 4 for the location of each item.

Works and Land Acquisition Schedule

The range of Works and Land Acquisition for local drainage facilities is shown in Table 12.5.

The cost of facilities not yet built was reviewed in 2008 following a review of unit costs by Council.

Table 12.4 Works and Land Acquisition Schedule

No.	Item	Area sqm	Land Unit Cost \$/ sqm	Total Land Cost \$	Total Works Cost \$
WM1	Entry Parklands				\$898,384
	100/813874	12,140	\$174	\$2,112,360	
	10/1043937	14,180	\$207	\$2,935,260	
	Pt 260/2475	2,350	\$206	\$484,100	
WM2	Wetlands				\$445,893
	Pt 102/1128111	6,826	\$149	\$1,014,763	
	Pt 260/2475	4,674	\$206	\$962,844	
WM3	Water Cycle area in Village Centre	2,790	\$149	\$414,765	\$127,812
WM4	Water cycle area on southern creek west of village centre				\$237,731
	Pt 102/1128111	2,335	\$149	\$361,925	
		4,969	\$130	\$770,195	
WM5	Water cycle area between Monkton and Bonython Aves	3,185	\$155	\$493,675	\$147,843
WM6	Water cycle area on Irving Gardens east of Pentland	1,800	\$155	\$279,000	\$98,478
WM7	Water cycle area west of Kingsford Smith	895	\$155	\$138,725	\$93,910
WM8	Water cycle area west of Percival Ave	1,725	\$155	\$267,375	\$127,218
WM9	Water cycle area between Hugh and Kingsford Smith				\$133,085
	Pt 172/2475	1,250	\$155	\$193,750	
	Pt 173/2475	901	\$85	\$76,568	
WM10	Water cycle area between Kingsford and McIver	3,540	\$107	\$378,780	\$190,046
WM11	Water cycle area on either side of bridge	9,203	Corridor		\$607,539
WM12	Water cycle area north of playing fields, east of Bird Walton	16,707			\$667,621
	B/381267	4,195	\$221	\$925,212	
	2/1115645	10,200	\$95	\$969,000	
	3/1115645	2,159	\$95	\$205,105	
WM13	Water cycle area adjacent to Hemsworth Ave	3,209	\$155	\$497,395	\$319,058
WM14	Water cycle area adjacent to Hemsworth and Bridge	6,472	Corridor		\$496,618
WM15	Water cycle area adjacent to Bonney Flight Cct	2,005	Corridor		\$106,918
WM16	Water cycle area adjacent to Robey Ave	881	\$155	\$136,555	\$122,051
EC1			Corridor		\$494,826
EC2			Corridor		\$637,313

WM17	Water cycle area adjacent to Dragonfly Cct	7,687	\$155	\$1,191,485	\$392,915
WM18	Water cycle area adjacent to Ivor Cct	4,226	\$130	\$549,380	\$373,958
WM19	Water cycle area adjacent to Truscott Ave	2,366	\$155	\$366,730	\$476,335
Sub Total				\$7,195,551	
Plus 5% Contingency				\$359,778	
Totals				\$15,724,947	\$7,555,328

12.6 Administration, Professional Services and Implementation

Nexus

Implementation of this plan will require ongoing administration. A contribution is required for the costs associated with administration, professional services and implementation such as:

- Preparing this Plan;
- Ongoing monitoring, review and administration of the Plan.
- Independent reviews for the purposes of adjusting contribution rates.
- Executing legal documents for works-in-kind agreements.
- Land valuations and acquisition.
- Ongoing land valuations, to review this contribution plan, at least annually and more frequently depending on movements in the property market.
- Specialist technical studies.
- Research and investigation to amend or modify parts of this Plan.
- The up front implementation of the Plan.

Administration

The administration of contributions funds carries significant associated costs. Professional officers within Council are required to prepare, review and implement the Plan throughout its life. They are assisted by a team which provides support in coordinating the process, preparing status reports, reviewing relevant data, and liaising with other Council staff, external consultants and other external authorities.

In accordance with the requirements of the Department of Planning, the administration costs contributed under this Plan consist only of the expenses for personnel directly involved in the preparation and administration of this Plan. It is considered appropriate that a pool of funds be available to meet these costs.

Professional services

There are a number of costs associated with professional services for implementing the Middleton Grange release – such as studies in relation to Aboriginal archaeology and contamination of land identified for public open space. In addition, there are also costs for independent land valuations, legal assistance and management of the land acquisition process. In relation to land acquisition, Council will be required to acquire land for roads, public open space, community facilities and water cycle management and incur the associated conveyancing costs.

It is recognised that the costs associated with land acquisition could be added to the cost of individual facilities. However, because it is difficult to predict the cost of professional fees attributable to any one facility, it is considered more appropriate that a pool of funds be available to meet these costs as they arise.

Implementation

It is an objective of the Middleton Grange release that certain infrastructure and facilities will be in

place when residents first move into the area, requiring that key roads and water management infrastructure be provided early in the development process. As a result in the early years of the development expenditure will exceed income from contributions.

Because of the fragmented ownership situation in Middleton Grange, it will be necessary for Council to borrow funds to front fund land acquisition and construction of these road and water management facilities, and then to recoup the cost through contributions.

The plan also makes provision for costs associated with front funding the purchase of land. In acquiring parts of certain parcels there are likely to be additional costs for existing dwellings, disturbance and severance that would not be incurred if the land were to be provided as works in kind in lieu payment of contributions. It will also be necessary for Council to recover this cost in the contribution rate.

Costing

The estimated costs associated with administering and implementing this contributions plan and for professional service fees are shown in the following tables.

Given that **administration costs and professional service fees** for the Plan are likely to be the same for all residential lots, all will be levied equally regardless of sizes. However, in relation to **implementation** – where costs are linked to the value and size of land to be acquired – the contribution will be levied differentially. All residential lots will be levied equally, but non-residential uses, including housing for aged and disabled people, will be levied on the basis of an equivalent 450sqm lot. Therefore, for example, a development of 4,500sqm will contribute 10 times the standard contribution rate.

Table 12.5 Administration

Item	Cost
Preparation, review and monitoring of MG component of Contributions Plan	\$160,000
Project management and administration	\$270,000
Total	\$430,000

Table 12.6 Professional services

Item	Cost
Contamination study	\$35,000
Aboriginal archaeology	\$50,000
Land valuations and reviews	\$136,000
Project management of land acquisition	\$87,500
Total	\$308,500

Table 12.7 Implementation costs

Item	Cost
Up front land acquisition costs	\$1,644,000
Valuation fees	\$140,000
Legal fees	\$56,000
Transfer costs	\$56,000
Court costs	\$350,000
Advertising/issues of acquisition notices	\$70,000
Studies for flooding, environment	\$70,000
Relocation and disturbance	\$280,000
Stamp duty	\$440,000
Total	\$3,106,000

12.7 Contribution Formulae

Community and Recreation Facilities

Conventional Lot Residential Subdivision, Small Lot Subdivision, Semi-detached dwellings, Multi dwelling housing and Residential Flat Buildings

Contribution by cash

$$\begin{aligned} \text{Contribution Rate} &= \frac{C}{N} \times \frac{OR}{3.7} \\ \text{(per dwelling / lot)} & \end{aligned}$$

where C = Cost of capital works or land identified for the catchment area
N = Number of equivalent lots / dwellings in the catchment area
OR = Estimated occupancy rate for lot size or dwelling type

Contribution by land dedication

$$\begin{aligned} \text{Area of land to be dedicated} &= \frac{A}{N} \times \frac{OR}{3.7} \\ \text{(per dwelling / lot)} & \end{aligned}$$

where A = Total area to be acquired in the catchment area
N = Number of equivalent lots / dwellings in the catchment area
OR = Estimated occupancy rate for lot size or dwelling type

Transport Facilities

Conventional Lot Residential Subdivision, Small Lot Subdivision, Semi-detached dwellings, Multi dwelling housing and Residential Flat Buildings

Contribution by cash

$$\begin{aligned} \text{Contribution Rate} &= \frac{C}{N} \times \frac{V}{6.7} \\ \text{(per dwelling / lot)} & \end{aligned}$$

where C = Cost of capital works and land identified for the catchment area
N = Number of equivalent lots in the catchment area
V = Vehicle trips per day for lot size or dwelling type

Contribution by land dedication

$$\begin{aligned} \text{Area of land to be dedicated} &= \frac{A}{N} \times \frac{V}{6.7} \\ \text{(per dwelling / lot / non residential development)} & \end{aligned}$$

where A = Total area to be acquired in the catchment area
N = Number of equivalent lots in the catchment area
V = Vehicle trips per day for lot size or dwelling type (refer to Table 12.8)

Table 12.8 Vehicle Trips per day per dwelling

Dwelling Type or Lot Size	Vehicle Trips per day
Residential Subdivision Lots 450 sqm or larger	6.7
Residential Subdivision Lots smaller than 450 sqm	6.0
Semi-detached dwellings, Multi dwelling housing & Residential Flat Buildings (where permitted)	
3 or more bedrooms	6.0
2 bedrooms	4.0
1 bedroom	3.3
Aged and Disabled Persons Housing (total development)	Total vehicle trips per day

Drainage Facilities

Contributions for drainage are calculated as follows:

$$\text{Contribution rate (per sqm)} = \frac{C \times \text{Proportion of total Runoff of the respective dwelling density group}}{\text{Area in sqm of the respective dwelling density group}}$$

or where land is required to be dedicated in lieu of payment of a contributions for land acquisition

$$\text{Area of land to be dedicated (sqm)} = \frac{A \times \text{Proportion of total Runoff of the respective dwelling density group}}{\text{Area in sqm of the respective dwelling density group}}$$

Where:

C = Cost of works or land identified in the contributions plan.

A = Total area of land identified to be acquired in the contributions plan.

Area in sqm of the respective dwelling density group includes the full width of proposed streets within a proposed subdivision. This includes the full width of streets adjacent to open space or drainage land.

Dwelling density group means the minimum dwelling density as specified by *Liverpool LEP 2008*.

Table 12.9 gives the relative impacts of alternative types of development on runoff generation.

Table 12.9 Development Details

Dwellings/ha	Total	Dwelling Yield	Run-off Coeffs	% of Runoff
15 Dwellings / ha	106.51	1,598	0.65	63.78%
23 Dwellings / ha	24.50	563	0.95	21.44%
30 Dwellings / ha	16.89	507	0.95	14.78%
Totals	147.89	2,668		100.00%

Administration

The cost per lot per year has been averaged across all of the sub catchment and is calculated as follows:

$$CR = \frac{A}{N}$$

Where:

CR = the contribution rate for administration per lot.

A = the total cost of administration.

N = the total estimated number of additional lots at the full extent of development in Middleton Grange.

The administration cost for the District and City Wide component is estimated as \$87 per lot.

Professional services

The cost per lot per year has been averaged across all of the catchment area and is calculated as follows:

$$CR = \frac{PS}{N}$$

Where:

CR = the contribution rate for professional services per lot.

PS = the total cost of professional services.

N = the total estimated number of additional lots.

The Contribution Rate for non-residential lots/uses will be based on the following formula:

$$CR \text{ (non-residential)} = CR \text{ for residential lot} \times \frac{\text{area of non-residential development}}{450}$$

Implementation

Residential Development

$$CR = \frac{I}{N}$$

Where:

CR = the contribution rate for implementation per residential lot.

I = the total cost of implementation.

N = the total estimated number of additional lots.

The Contribution Rate for non-residential lots/uses will be based on the following formula:

$$CR \text{ (non-residential)} = CR \text{ for residential lot} \times \frac{\text{area of non-residential development}}{450}$$

12.8 Staging of Facilities

While timing and staging will be dependent on available funding as a result of this plan and the location of new development, it is the intention of Council and accordingly this Contributions Plan, that necessary infrastructure is in place as soon as possible. Staging will also accord with the provision of other infrastructure that would be built in conjunction with the water management facilities, such as parks and roads.

13. Elizabeth Hills/Cecil Hills

13.1 Background

That portion of Elizabeth Hills that was part of the former Hoxton Park Aerodrome is already zoned for residential development. The other portion west of Cecil Hills has not yet been zoned for residential development. It is anticipated that facilities in Elizabeth Hills not contained in this contributions plan will be provided by way of a Voluntary Planning Agreement.

Elizabeth Hills and Cecil Hills form part of the Hoxton Park Stage 2 Release Areas.

13.2 Local Community Facilities in Elizabeth Hills

Background

There will be additional development at Elizabeth Hills. As this area will not be of sufficient size to require a new Multi-Purpose Community Centre, it is proposed to augment the existing community centre at Cecil Hills. The rate per dwelling is the same as for dwellings in Hoxton Park, Carnes Hill and Prestons Release Areas.

Contributing Development and Catchment Area

900 dwellings/lots (Number of dwellings or equivalent that is expected to contribute to local community facilities).

The area from which contributions would be received is shown on Figure 13.1.



Figure 13.1

13.3 Local Community and Recreation Facilities in Cecil Hills

The Cecil Hills Release Area is generally complete. Local community and recreation facilities have been provided. It is considered that any further development or more intense redevelopment should contribute at the same rate as the Established Areas catchment area. Any such development will also contribute to the relevant District Facilities in the Hoxton Park Stage 2 Release Areas.

Catchment Areas

There is a single catchment in Cecil Hills. The area from which contributions would be received is shown on Figure 13.2.



Figure 13.2

14. Range Road Precinct

14.1 Background

Formerly a part of this Plan's Rural Areas catchment, the Range Road precinct was established as a new sub precinct in response to a change to the planning controls on the lots adjacent to Elizabeth Drive.

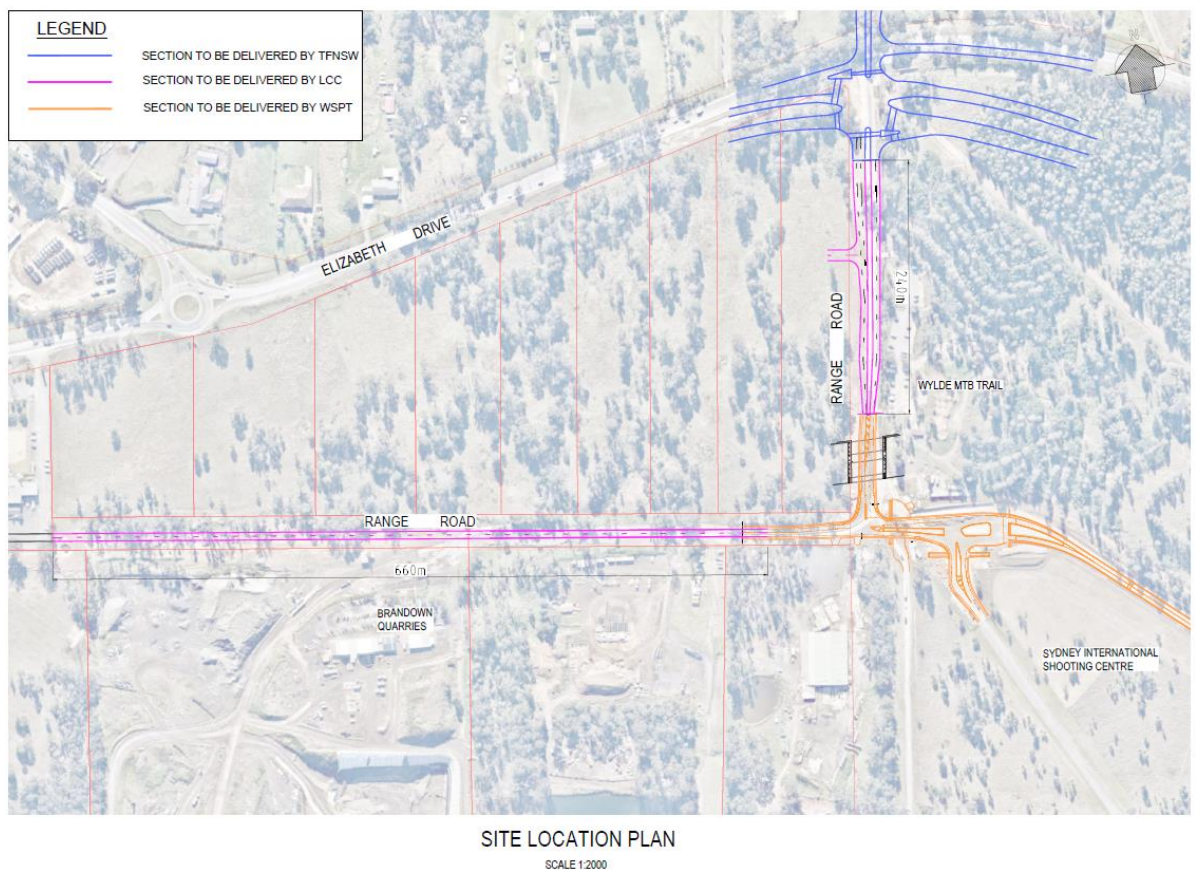
As a result of the change to the planning controls, site access for lots in the precinct is now contingent on the upgrade of Range Road to an industrial standard road.

14.2 Transport Facilities

Range Road is a local industrial road branching off Elizabeth Drive. Transport for NSW (TfNSW) are delivering the traffic signals at the intersection with Elizabeth Drive, and the Western Sydney Parklands Trust (WSPT) are delivering upgrades to a section of Range Road.

This Plan covers the remainder of road infrastructure as shown in Figure 14.1. The planned upgrade of Range Road will not require acquisition of any land.

Figure 14.1: Range Road upgrade



Contributing Development and Catchment Area

The Plan divides the remainder of Range Road into two segments, each with its own contributing area. The north segment will be delivered by a single adjacent lot, while the south segment will be funded by contributions from multiple adjacent lots benefiting from an upgraded Range Road.



North and South Segments of Range Road

Legend

- Contributing Development to Range Road - north segment
- Contributing Development to Range Road - south segment
- Range Road - north segment
- Range Road - south segment
- M12 Corridor

Fig 14.2 – Plan showing catchment area and contributing development

Works Schedule

Range Road – north segment

Contributing Development: 1 lot

Table 8.1

Item	Cost
Footpath, driveway, kerb and gutter	\$264,000
Drainage	\$142,000
4 lane pavement (4 x 3.5m)	\$734,000
Subtotal	\$1,140,000
Contingencies plus contract administration (60%)	\$684,000
Total	\$1,824,000

Range Road – south segment

Contributing Development: 5 lots

Table 8.2

Item	Cost
Footpath, driveway, kerb and gutter, island	\$204,000
Drainage	\$387,000
2 lane pavement (2 x 3.5m)	\$659,000
Subtotal	\$1,250,000
Contingencies plus contract administration (60%)	\$750,000
Total	\$2,000,000

14.3 Administration Costs

Councils incur significant costs in the preparation and administration of contributions plans.

Council staff are deployed to:

- prepare and review contributions plans;
- account for contributions receipts and expenditure; and
- co-ordinate the implementation of contributions plans and works, including involvement in negotiating Works in Kind and material public benefit agreements.

Consultant studies are also commissioned by Council from time to time in order to determine the value of land to be acquired, the design and cost of works, as well as to review the development and demand assumptions of the contributions plan. Council is also required to engage the services of legal professionals from time to time to assist it in the administration of this Plan.

As these costs arise directly as a result of the development in the Plan area, it is reasonable that the costs associated with preparing and administering this Plan be recouped through contributions from development.

Costs associated with the ongoing administration and management of the Plan will be levied on all applications that are required to pay a development contribution.

Costs included in the Range Road catchment for these purposes are based on the recommended rate by IPART, being 1.5% of the total cost of works and included in Tables 8.1 and 8.2 above.

14.4 Contributions Formula

Range Road – north segment

As there is only 1 lot contributing to the infrastructure delivery of this segment. The entire cost of delivering this segment (including plan administration costs) will be levied from the single lot's development.

Range Road – south segment

As there are a few lots contributing to this segment, the total cost is proportionally divided amongst the contributing development using a contribution rate per metre of frontage.

The contribution rate per metre of frontage is calculated as follows:

$$\begin{aligned} \text{Contribution Rate per metre of frontage (\$)} &= \frac{C}{L} \\ &= \frac{\$2,000,000 + (1.5\% * 2,000,000)}{980\text{m}} \\ &= \$2,071.43 \text{ per metre} \end{aligned}$$

where

C	=	Total cost to deliver the south segment of Range Road (including plan administration costs)
L	=	Total frontage length of lots in the catchment

To determine the total contribution for each lot, multiply the length (in metres) of the lot's frontage to Range Road by contribution rate per metre of frontage (\$2,071.43).

14.5 Staging

At the time of preparation of the Plan, works were being undertaken by WSPT for specific upgrades to Range Road as identified in Figure 14.1.

The north segment will be delivered in connection with the redevelopment of contributing development site 1.

The south segment will be delivered by Council following redevelopment of one of the contributing development sites. Contributions from the remainder of the contributing sites will be collected retrospectively.