Local Government Infrastructure Plan

Summary of extrinsic material for the parks component of the parks and land for community facilities network

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DEFINITIONS

Base date	means the date from which a local government has estimated its projected infrastructure demand and cost. The base date for LGIP is 30 June 2014.
Cost date	means the date at which the planned item or land was costed (prior to it being indexed to the base date).
Current cost	means the current replacement cost of an infrastructure item as at the base date.
Demand unit	provides a standard of unit measurement to express demand on a trunk infrastructure network.
Desired standard of service	see section 627 in the *Sustainable Planning Act* (2009)[1]
Development types	see section 2.2
Equivalent person	means the demand represented by an average person.
Establishment costs	see section 627 in the *Sustainable Planning Act* (2009) The establihsment cost is expressed in current cost terms as at June 2014[2].
Estimated timing	means the date the future trunk infrastructure item is estimated to be supplied, as identified in the schedule of works stated in Appendix C.
Existing demand	means the demand as at the base date.
Existing trunk infrastructure	means the trunk infrastructure existing as at the base date.
Fair average land	means land that: i. Is representative of the type of land to be developed; ii. Is not required for stormwater infrastructure such as an overland flow path or detention basin; iii. Is not subject to cut and fill with a batter slope that exceeds a grade of 10 percent;

[1] Section 627, *Sustainable Planning Act* (2009)

Desired standard of service, for a network of development infrastructure, means the standard of performance stated in an adopted infrastructure charges resolution or the local government infrastructure plan.

[2] Section 627, *Sustainable Planning Act* (2009)

Establishment cost, for a provision about trunk infrastructure, means the following –

(a) For existing infrastructure –
  (i) The current replacement cost of the infrastructure as reflected in the relevant local government's asset register; and
  (ii) The current value of the land acquired for the infrastructure;

(b) For future infrastructure – all costs of land acquisition, financing, and design and construction, for the infrastructure.

	iv. Is not less than 20 metres wide; v. Is not required to serve primarily as a buffer to an existing development or a major source of noise; vi. Has 60 percent of its area not subject to an encumberance such as an access easement, services easement, maintenance corridor, or a powerline easment.
Future trunk infrastructure	means the trunk infrastructure planned to be provided from the base date to the planning horizon, also referred to as capital works.
Land cost	means the cost of acquiring land for a future trunk infrastructure item.
Local government infrastructure plan	see section 627 in the *Sustainable Planning Act* (2009)[3].
Non-residential developments	see section 2.2.
Plan for trunk infrastructure	see Part 4.
Planned demand	means the amount of demand for a trunk infrastructure network assumed for the development of a premises.
Planning assumptions	means assumptions about the type, scale, location and timing of future growth. See Part 2.
Planning horizon	means the year up to which a trunk infrastructure network has been planned.
Priority infrastructure area	see section 627 in the *Sustainable Planning Act* (2009)[4]
Producer price index	means the prodcer price index for construction 6427.0 (ABS PPI) index number 3101 – Road and Bridge construction index for Queensland published by the Australian Bureau of Statistics.
Residential developments	see section 2.2.

[3] Section 627, *Sustainable Planning Act* (2009)

LGIP means that part of the a local government's planning scheme that, to the extent applicable, does any or all of the following:

(a) Identifies the PIA;

(b) States assumptions about –

(c) Population and employment growth; and

(d) The type, scale, location and timing of future development;

(e) Includes plans for trunk infrastructure;

(f) States the desired standard of service for development infrastructure.

[4] Section 627, *Sustainable Planning Act* (2009)

The priority infrastructure area means an area:

(a) Used, or approved for use, for non-rural purposes; and

(b) Serviced, or intended to be serviced, with development infrastructure networks; and

(c) That will accommodate at least 10 (but no more than 15) years of growth for non-rural purposes.

Service catchment	Means an area serviced by an infrastructure network. An infrastructure network is made up of more than one service catchments. Service catchments are determined by the network type and how it has been designed to operate and provide service to the urban areas. Note – for example: • Stormwater network service catchments can be delineated to align with watershed boundaries • Open space network service catchments can be determined using local government accessibility standards • Water network service catchments can be established as the area serviced by a particular reservoir
Trunk infrastructure	see section 627 in the Sustainable Planning Act (2009)[5].
Ultimate development	means the realistic extent of development anticipated to be achieved when a site (or projection area or infrastructure service catchment) is fully developed.

[5] Section 627, Sustainable Planning Act (2009)

Trunk infrastructure, for a provision about a local government, means all of the following –

(a) Development infrastructure identified in the LGIP as trunk infrastructure;

(b) Development infrastructure that, because of a conversion application, becomes trunk infrastructure;

(c) Development infrastructure that is required to be provided under a condition imposed under condition 647(2).

ABBREVIATIONS

ABS	Australian Bureau of Statistics
ARI	Average recurrence interval
CPTED	Crime prevention through environmental design
CPI	Consumer Price Index
DSS	Desired Standard of Service
EP	Equivalent person
GFA	Gross floor area
Ha	Hectares
LCC	Logan City Council
LDPM	Logan development projection model
LGA	Local government area
LGIP	Local government infrastructure plan
PFTI	Plan for trunk infrastructure
PIA	Priority infrastructure area
PPI	Producer price index
RSA	Revenue sufficiency analysis
SoW	Schedule of work

Part 1 Introduction

1.1 Background

(1) The Local Government Infrastructure Plan (LGIP) forms part of Council's planning scheme and identifies Council's plans for trunk infrastructure (PFTI) that are necessary to service urban development at the desired standard of service (DSS) in a coordinated, efficient and financially sustainable manner. Only trunk infrastructure is identified in the LGIP. The purpose of the LGIP is to:

- (a) Integrate infrastructure planning with the land use planning identified in the planning scheme;
- (b) Provide transparency regarding Council's intentions for the provision of trunk infrastructure;
- (c) Enable Council to estimate the cost of infrastructure provision to assist its long term financial planning;
- (d) Ensure that trunk infrastructure is planned and provided in an efficient and orderly manner; and
- (e) Provide a basis for the imposition of conditions about infrastructure on development approvals.

(2) The planned trunk infrastructure is provided in a coordinated, efficient and orderly way to encourage urban development in areas where infrastructure already exists or can be provided efficiently. This will reduce the cost of providing infrastructure to service urban development.

1.2 Purpose

(1) The purpose of this report is to summarise the methodology and assumptions used to conduct the planning and prepare the schedule of work (SoW) for the parks component of the parks and land for community facilities network.

1.3 Parks network

(1) Logan has divided the range of parks according to their function as follows:

- (a) Recreation Parks
- (b) Sport Parks
- (c) Environmental Parks
- (d) Constrained Parks
- (e) Unallocated Parks.

(2) A Recreation Park can further be classified according to its hierarchy (role) as follows:

- (a) Metropolitan
- (b) District
- (c) Local
- (d) Local - Civic
- (e) Corridor.

(3) A Sport Park is further classified according to a district or metropolitan hierarchy based on its size and catchment area it services.

- (a) Metropolitan
- (b) District

(4) Table 1.3.1 provides an overview of the various parks in terms of their primary function and role.

Table 1.3.1—Primary function and hierarchy of parks

Column 1 Park function	Column 2 Primary function	Column 3 Park hierarchy
Recreation	These parks provide a wide range of opportunities and facilities for informal or passive recreation. They also provide opportunities to protect and enhance the environment, the visual and scenic amenity and identity of the community and have varied landform. Corridor parks provide recreation and commuter connections and include parks along waterways. These parks provide links between residential areas and community destinations such as schools, shops and sport and recreation parks.	Local Local - Civic District Metropolitan Corridor
Sport	These parks provide for a range of formal facilities for practicing and playing structured or organisation based sports for teams or individuals.	District Metropolitan
Environmental	These parks primarily have an ecological purpose being the protection of an area of significant environmental value. These parks are planned and managed to protect environmental values, but are often also embellished to enable recreational use, such as pathway or a cycleway.	
Constrained	These parks may contribute to public open space or recreation opportunities but have limited functionality due to constraints such as: Small size Utility easements Detention basins and drainage corridors Contaminated land Steep slope / topography Lack of road frontage / access.	
Unallocated	The function of these parks is undetermined at this time. These parks represent a future supply of land that could be developed or embellished for some other function, as demand arises.	

Part 2 Planning assumptions

2.1 Demand units

(1) Demand for parks infrastructure is population based and is expressed in equivalent persons (EP). One EP equates to the demand for parks generated by an average person. The population projections contained in the Logan Development Projections Model (LDPM) were converted into demand for parks infrastructure using this assumption of one EP per person.

2.2 Development projections

(1) Logan City Council has prepared the Logan Development Projections Model (LDPM) which projects existing and future development for the local government area (LGA) of Logan. The details are contained in the report called *Summary of Logan City Council Planning Assumptions and Priority Infrastructure Area (2010)*.

(2) The LDPM contains lot level projections for the residential and non-residential development as per development type contained in Column 2, and planning scheme use as contained in Column 3 of Table 2.2.1. These projections are stated in terms of population, dwellings, employment and non-residential gross floor area (GFA) for each development type, for the following time periods:

(a) June 2009 (base date) – mid 2011

(b) mid 2011 – mid 2016

(c) mid 2016 – mid 2021

(d) mid 2021 – mid 2026

(e) mid 2026 – mid 2031

(f) mid 2031 – mid 2051

(g) mid 2051 – ultimate development (nominally 2061).

(3) The planning period for the LGIP is 2014 to 2016, which means the LDPM time periods have been amended as follows:

(a) 30 June 2014 (base date) – mid 2016;

(b) mid 2016 – mid 2021; and

(c) mid 2021 – mid 2026.

(4) Whilst the growth projections are derived from the best available information, they are themselves based on a number of broad assumptions concerning the propensity and manner in which lots are expected to develop. At the highest level of granularity (i.e. lot level), it is accepted that the some assumptions made for individual premises may prove unlikely. However, when aggregated across larger geographic areas, errors at the lot level are levelled out and greater confidence can therefore be placed in the projections. Hence, the LDPM provides a suitable basis for undertaking master planning of the trunk networks.

(5) The development projections are stated for the development categories being the types of residential development and non-residential development in column 2 which include the defined uses under the proposed planning scheme in column 3 of Table 2.2.1.

Table 2.2.1—Relationship between development categories, development types and defined uses

Column 1 Development category	Column 2 Development type	Column 3 Planning scheme uses
Residential development	Attached Dwelling	Dual occupancy, multiple dwelling.
	Detached Dwelling	Dwelling house.

Column 1 Development category	Column 2 Development type	Column 3 Planning scheme uses
	Other Dwelling	Caretaker's accommodation, community residence, dwelling unit, hostel, hotel (short-term accommodation), relocatable home park, residential care facility, retirement facility, short-term accommodation, tourist park.
Non-residential development	Retail and Service	Adult store, food & drink outlet, health care services, hotel (other than short term accommodation), indoor sport and recreation, theatre, night club, major sport recreation and entertainment facility, service station, shop, shopping centre, veterinary services.
	Retail Showroom	Showroom, garden centre, hardware and trade supplies, outdoor sales.
	Commercial	Office, funeral parlour, function facility, home office.
	Light Industry	Utility installations, transport depot, warehouse, low impact industry, research and technology industry, service industry.
	General/Heavy Industry	High impact industry, medium impact industry, noxious and hazardous industry.
	Education	Educational establishment, Child care centre
	Health	Hospital
	Community	Club, community care centre, community use, emergency services, outdoor sport and recreation, place of worship.
	Other (Rural/Transient)	Animal husbandry, animal keeping, car park, extractive industry, rural industry, bulk landscape supplies, aquaculture, agriculture supply store, cemetery, wholesale nursery.

2.3 Planned demand rates

Table 2.3.1 provides the planned demand rate per development type used when planning the parks network. These rates differ from the occupancy rates used in the Logan Development Projection Model (LDPM, 2010). The rates in the LDPM were adjusted on advice from the Queensland Government Statistician, to align with that used in the Queensland Government household projections (2013). The occupancy rates used by the Queensland Government Statistician show an increase from the rates used when planning the parks network, to reflect recent demographic and household changes (e.g. the occupancy rate for a detached dwelling used when planning the parks network was 2.8, which has since increased to about 2.9).

Table 2.3.1—Parks network - Planned demand rates

Column 1 Development type	Column 2 Planned demand rate (EP / dwelling)
Detached	2.8
Attached	1.78
Other Dwelling	1.78

2.4 Planned demand summary

(1) The parks network has been planned to service the existing and projected demand generated by premises within the LGA of Logan.

(2) For the purpose of planning the parks network, the planning scheme area has been divided into three planning regions, nine planning sectors, and 22 planning precincts. These planning regions, planning sectors and planning precincts equate to the parks service catchments.

(3) The boundaries of the parks planning regions are shown on Figure 2.4.1, planning sectors on Figure 2.4.2, and planning precincts on Figure 2.4.3.

Figure 2.4.1—Planning regions of Logan City Council (parks network)

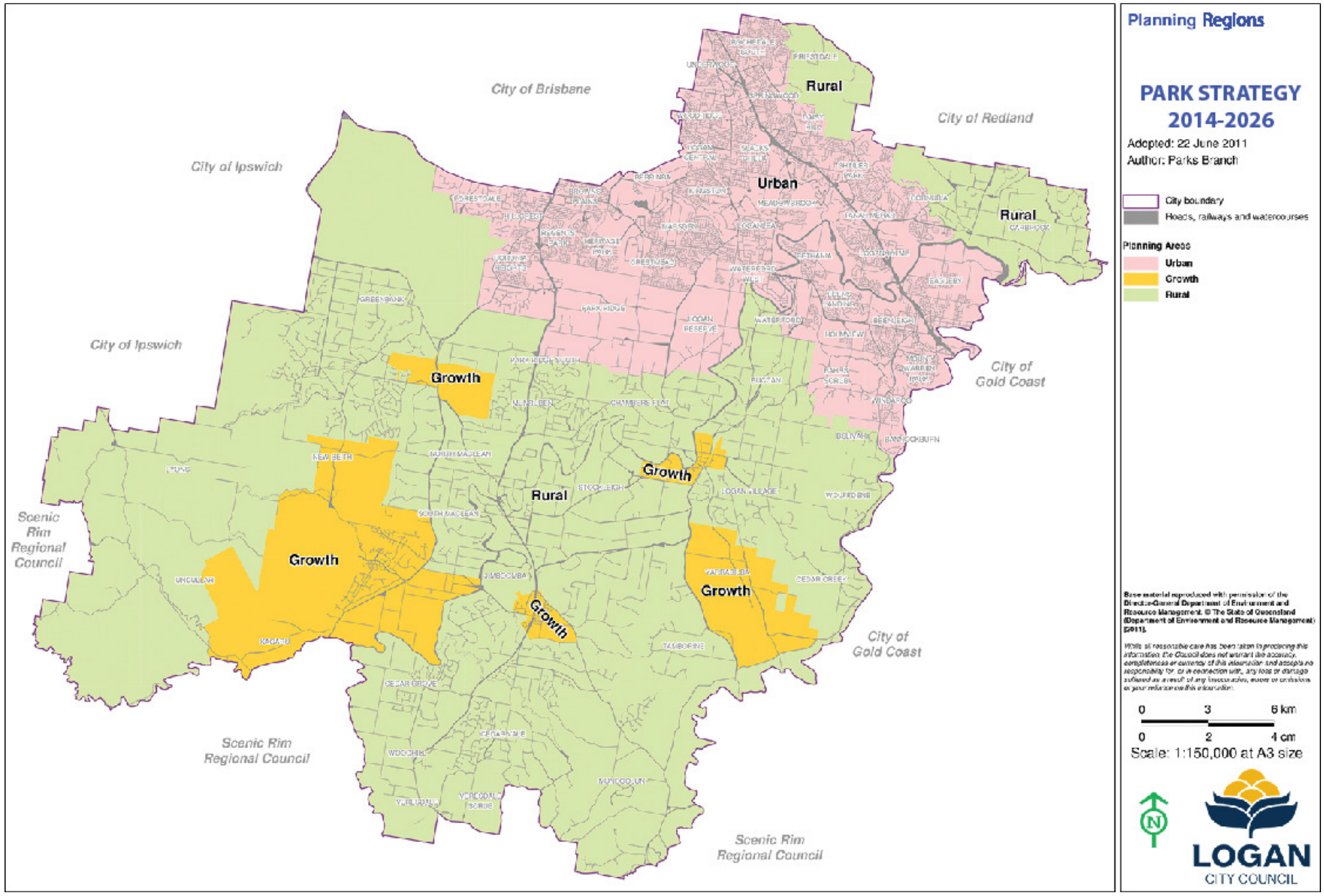


Figure 2.4.2—Planning sectors of Logan City Council (parks network)

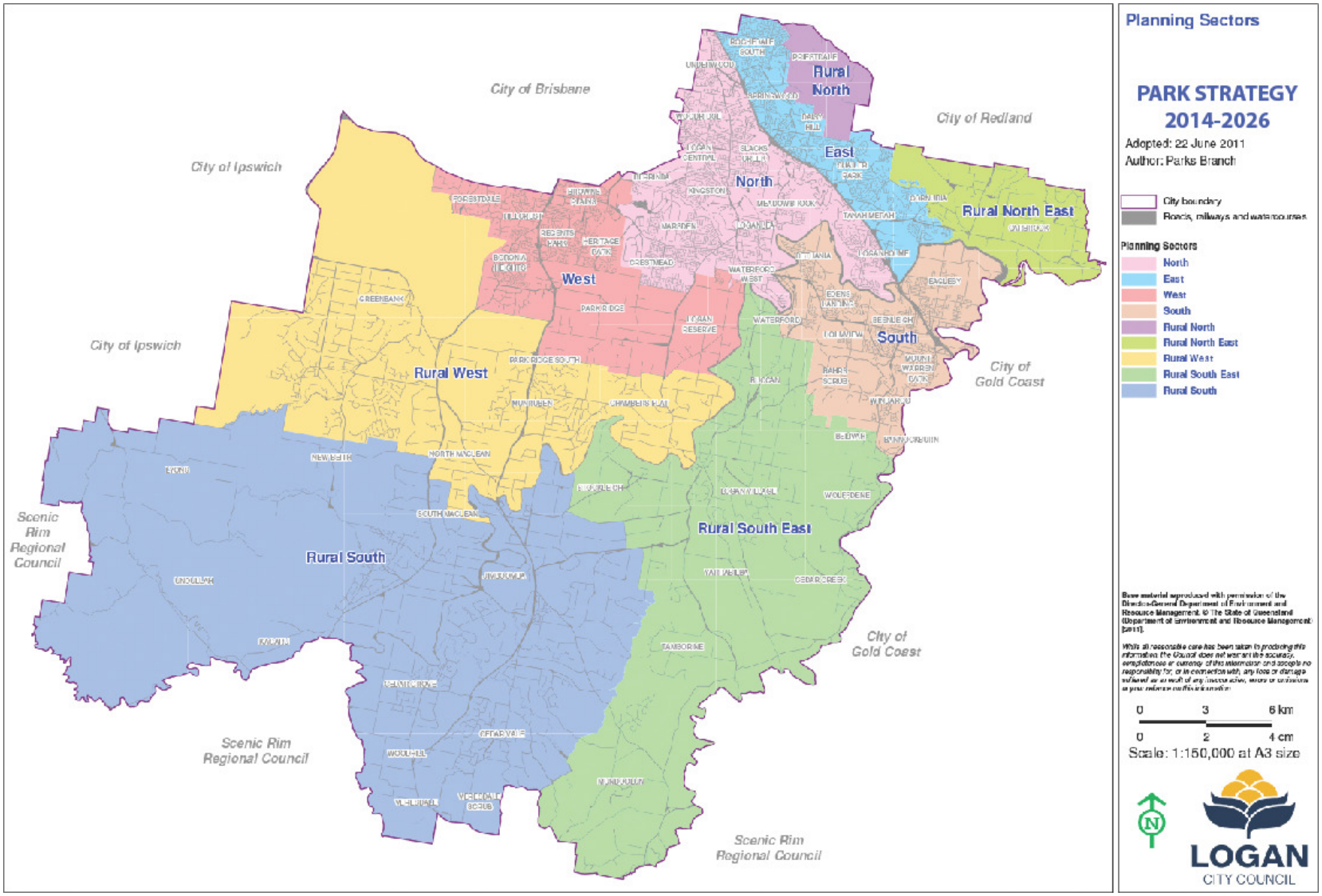
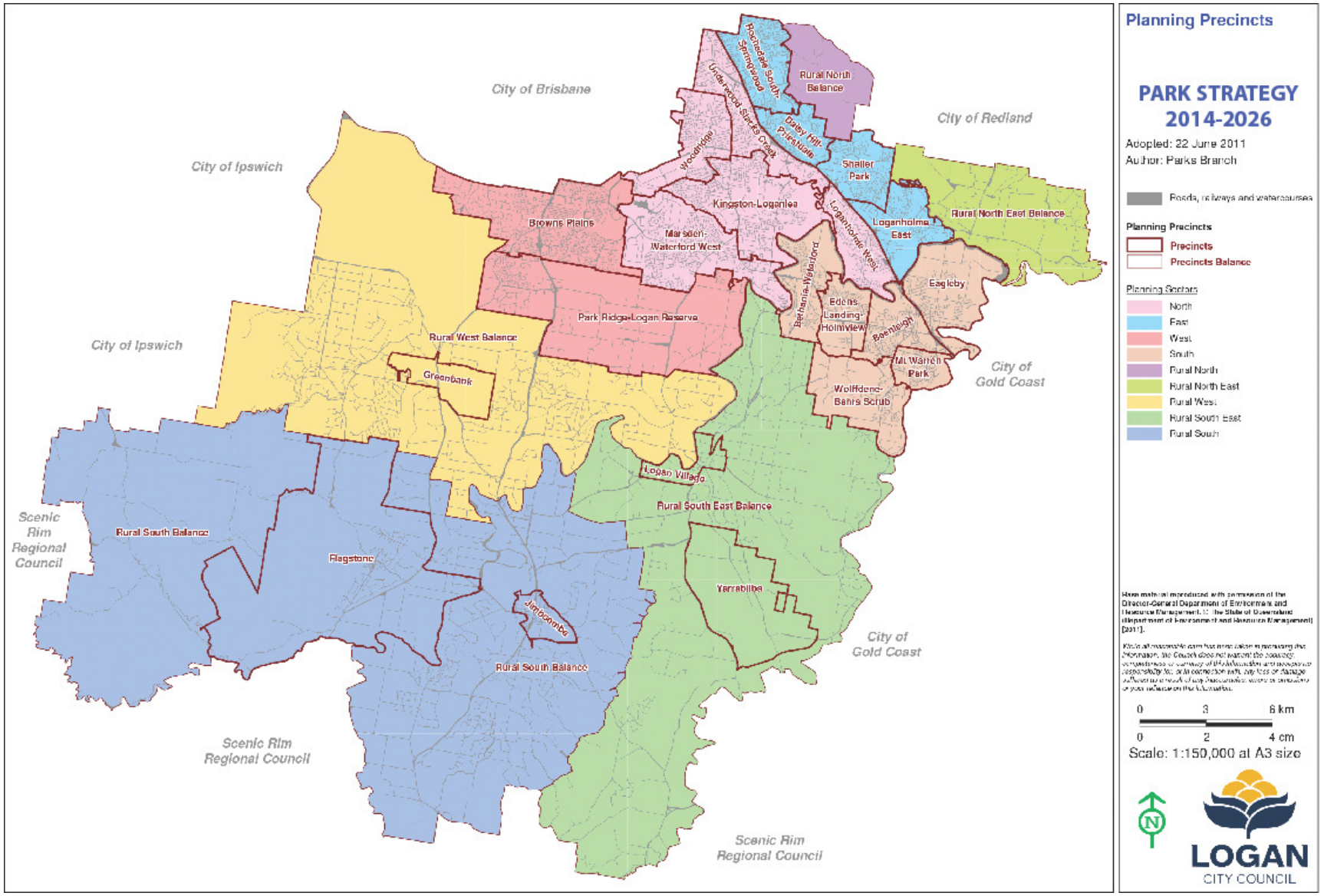


Figure 2.4.3—Planning precincts of Logan City Council (parks network)



(4) Table 2.4.1 presents an overview of the relationship between planning regions, sectors and precincts for the parks network.

Table 2.4.1—Planning Units - Planning regions, sectors and precincts (service catchments)

Column 1 Planning Region	Column 2 Sector	Column 3 Precinct
Urban	East	Daisy Hill-Priestdale
		Loganholme East
		Rochedale South-Springwood
		Shailer Park
	North	Kingston-Loganlea
		Loganholme West
		Marsden-Waterford West
		Underwood-Slacks Creek
		Woodridge
	South	Beenleigh
		Bethania-Waterford
		Eagleby
		Edens Landing-Holmview
		Mt Warren Park
		Wolffdene-Bahrs Scrub
	West	Browns Plains
		Park Ridge-Logan Reserve
Rural	Rural North	Rural North Balance
	Rural North East	Rural North East Balance
	Rural South	Rural South Balance
	Rural South East	Rural South East Balance
	Rural West	Rural West Balance
Growth	Rural South	Flagstone
	Rural South	Jimboomba
	Rural South East	Logan Village
	Rural South East	Yarrabilba
	Rural West	Greenbank

(5) Table 2.4.2 presents the existing and future demand projected for each service catchment (planning precinct) from the base date up to the planning horizon and at ultimate development.

Table 2.4.2—Parks network - Planned demand summary

Service catchment	Planning precinct	Planning sector	Planning region	Planned demand (EP)				
				2014 (base date)	2016	2021	2026	Ultimate development
1	Rochedale South-Springwood	East	Urban	23,507	24,305	24,428	25,536	30,006
2	Daisy Hill-Priestdale	East	Urban	10,150	10,296	10,534	10,541	12,849
3	Shailer Park	East	Urban	11,965	12,114	12,136	12,136	14,634
4	Loganholme East	East	Urban	7,391	7,716	9,222	9,604	11,434
5	Eagleby	South	Urban	13,343	13,585	14,315	15,385	18,187
6	Beenleigh	South	Urban	9,939	10,640	11,666	12,340	14,440
7	Mt Warren Park	South	Urban	6,175	6,256	6,267	6,267	6,732
8	Wolffdene-Bahrs Scrub	South	Urban	5,594	6,019	7,473	7,703	15,299
9	Edens Landing-Holmview	South	Urban	7,668	8,772	10,561	10,626	11,731
10	Bethania-Waterford	South	Urban	10,650	12,039	12,361	12,429	14,188
11	Loganholme West	North	Urban	10,101	10,371	10,705	10,705	11,497
12	Underwood-Slacks Creek	North	Urban	12,350	12,751	13,378	13,378	18,422
13	Woodridge	North	Urban	20,136	20,637	21,521	22,228	26,394
14	Kingston-Loganlea	North	Urban	22,322	22,825	23,351	23,678	25,727
15	Marsden-Waterford West	North	Urban	26,984	27,361	29,673	29,673	31,849
16	Browns Plains	West	Urban	31,531	32,362	35,208	36,478	41,108
17	Park Ridge-Logan Reserve	West	Urban	13,848	14,978	18,931	29,862	52,769

18	Greenbank	Rural West	Growth	1,565	1,934	4,583	6,505	10,019
20	Yarrabilba	Rural South East	Growth	1,963	3,241	8,126	15,389	44,326
19	Logan Village	Rural South East	Growth	1,317	1,622	1,958	2,101	2,101
22	Flagstone	Rural South	Growth	6,432	8,086	15,149	25,617	105,999
21	Jimboomba	Rural South	Growth	1,379	1,495	1,915	2,855	5,984
25	Rural North Balance	Rural North	Rural	193	195	195	195	195
26	Rural North East Balance	Rural North East	Rural	1,970	1,988	1,988	1,988	1,988
27	Rural West Balance	Rural West	Rural	14,710	15,037	16,079	16,154	16,190
28	Rural South Balance	Rural South	Rural	11,903	12,298	12,298	12,298	12,584
29	Rural South East Balance	Rural South East	Rural	8,022	8,109	8,109	8,109	8,109
TOTAL				**293,108**	**307,032**	**342,130**	**379,780**	**564,761**

Part 3 Desired Standard of Service (DSS)

3.1 Purpose

(1) The purpose of the desired standard of service (DSS) is to state the key design and planning desired standards of performance for a network. The DSS for the parks network has been determined giving consideration to a range of factors such as sustainability, health and safety, affordability, the existing level of service and community expectations.

(2) A spatial framework of planning regions across Logan was developed based on primary land use and projected future development. Unique standards of service are applied to each of the three planning regions, urban, growth, and rural, to optimise the provision of parks infrastructure based on current level of urbanisation, and existing and planned population growth. This spatial framework was developed as part of the *Park Strategy 2014-2026* (LCC Doc. No 9878548).

(3) The parks network DSS were developed with consideration of benchmarking against other Local Government rates of provision, and Statutory Guideline 01/09 – Priority Infrastructure Plans and Infrastructure Charges Schedule. The Statutory Guideline 01/09 states a maximum rate of provision for land for public parks and community purposes of 4.8 hectares per 1000 people per charge area.

(4) The DSS for the parks network are outlined in section 3.2 and are also found in Planning Scheme Policy 5–Infrastructure of the Logan Planning Scheme 2015.

3.2 Desired Standard of Service

The desired standard of service for the parks network is to:

(1) Plan the network to:

- (a) service development in accordance with the:
  - (i) rate of land provision stated in Table 3.2.1—Rate of land provision for the parks network; and
  - (ii) accessibility standard stated in Table 3.2.2—Accessibility standard for parks;
- (b) integrate with, protect and enhance the parks network;
- (c) provide parks network connectivity;
- (d) protect and enhance ecologically significant areas and environmental values; and
- (e) have regard to the planning of the pedestrian network and cycle network.

(2) Design the parks network to:

- (a) ensure land for park permits its use for the intended purpose in accordance with the criteria stated in Table 3.2.3—Design standards for parks;
- (b) contain a range of embellishments in accordance with Table 3.2.7—Typical embellishments for recreation and environmental parks and Table 3.2.8—Typical embellishments for sport parks;
- (c) accommodate adequate facilities to meet the needs of the community;
- (d) provide a range of safe and accessible recreation opportunities for the public;
- (e) create an attractive urban environment setting and focal point;
- (f) establish a clear relationship between the public recreation area and adjoining uses; and
- (g) ensure parks are cost effective to maintain.

Table 3.2.1—Rate of land provision for the parks network (Area Standard)

Column 1 Park classification	Column 2 Rate of land provision (hectare / 1,000 persons)		
	Urban Planning Region	**Growth Planning Region**	**Rural Planning Region**
Local Recreation Local Recreation Park area standards include provision for Local Recreation - Civic Parks.	0.8	0.5	0
District Recreation	1.2	1.5	1.5
Metropolitan Recreation	0.7	0.7	0.7
Corridor Recreation	N/A	N/A	N/A
Total Recreation Parks	**2.7**	**2.7**	**2.2**
District Sport	1.3	0.9	0.9
Metropolitan Sport	0.5	0.9	0.9
Total Sport Parks	**1.8**	**1.8**	**1.8**
Total Parks	**4.5**	**4.5**	**4**

Table 3.2.2—Accessibility standard for parks (Distribution Standard)

Column 1 Park classification	Column 2 Accessibility Standard		
	Urban Planning Region	**Growth Planning Region**	**Rural Planning Region**
Local Recreation Local Recreation Park area standards include provision for Local Recreation - Civic Parks.	400m catchment	400m catchment	Not applicable
District Recreation	1.2km catchment	800m catchment and within 400m radius of public transport station	3km catchment and within 1.5km radius of a centre
Metropolitan Recreation	3km catchment	3km catchment and within 800m radius of public transport station	5km distribution and city-wide catchment
Corridor Recreation	N/A	N/A	N/A
District Sport	2km catchment	2km catchment and within 800m radius of public transport station	4km catchment and within 1.5km radius of a centre
Metropolitan Sport	City-wide catchment	City-wide catchment and within 800m radius of public transport station	City-wide catchment

Table 3.2.3—Design standards for parks

Column 1 Park classification	Column 2 Design Standards
Local Recreation	Local Recreation Parks: a. is fair average land; b. is on an urban access road in a residential area; c. is easily accessible for pedestrians and cyclists in accordance with Table 3.2.2—Accessibility standard for parks (Distribution Standard); d. is configured such that the land can be expanded by the addition of adjoining land; e. has an area in accordance with Table 3.2.4—Minimum size of parks; f. is of a compact shape free of irregular boundaries; g. has a post development flood immunity in accordance with Table 3.2.5—Minimum post development flood immunity for parks; h. has a post development grade in accordance with Table 3.2.6—Maximum post development grade for parks; i. has road frontage of not less than 50 percent; j. has vehicular access for maintenance and management purposes; k. has clear and visible lines of sight from formalised park entries and pedestrian crossings; l. provides for casual surveillance to and from the park. Planning scheme policy 1–CPTED provides additional guidance; m. provides embellishments in accordance with Table 3.2.7—Typical embellishments for recreation and environmental parks.
Local Recreation - Civic Parks (Village Green, Town Square and Plaza)	Local Recreation - Civic Parks: a. is fair average land; b. has a minimum area in accordance with Table 3.2.4—Minimum size of parks; c. is square, rectangular or semicircular in shape with a minimum width of 20 metres; d. has a post development flood immunity in accordance with Table 3.2.5—Minimum post development flood immunity for parks; e. has a post development grade in accordance with Table 3.2.6—Maximum post development grade for parks; f. has a minimum 50 per cent road frontage, or 25 per cent road frontage where it is integrated with premises with an active frontage; g. has vehicular access for maintenance and management purposes; h. has clear and visible lines of sight from formalised park entries and pedestrian crossings; i. provides for casual surveillance to and from the park. Planning Scheme Policy 1–CPTED provides additional guidance; j. provides embellishments in accordance with Table 3.2.7—Typical embellishments for recreation and environmental parks.
District Recreation	District Recreation Parks: a. is fair average land; b. is adjacent to a trunk road; c. is easily accessible for pedestrians and cyclists in accordance with Table 3.2.2—Accessibility standard for parks (Distribution Standard); d. has an area in accordance with Table 3.2.4—Minimum size of parks; e. is of a compact shape free of irregular boundaries;

Table 3.2.3—Design standards for parks

Column 1 Park classification	Column 2 Design Standards
	f. has a post development flood immunity in accordance with Table 3.2.5—Minimum post development flood immunity for parks; g. has a post development grade in accordance with Table 3.2.6—Maximum post development grade for parks; h. has a minimum 40 per cent road frontage; i. has an area above the defined flood event for locating buildings, structures and facilities liable to damage by flooding; j. has clear and visible lines of sight from formalised park entries and pedestrian crossings; k. provides for casual surveillance to and from the park. Planning scheme policy 1–CPTED provides additional guidance; l. has vehicular access for maintenance and management purposes; m. provides embellishments in accordance with Table 3.2.7—Typical embellishments for recreation and environmental parks.
Metropolitan Recreation	Metropolitan Recreation Parks: a. is fair average land; b. is adjacent to a trunk road; c. is easily accessible for pedestrians and cyclists in accordance with Table 3.2.2—Accessibility standard for parks (Distribution Standard); d. has an area in accordance with Table 3.2.4—Minimum size of parks; e. is of a compact shape, free of irregular boundaries; f. has a post development flood immunity in accordance with Table 3.2.5—Minimum post development flood immunity for parks; g. has a post development grade in accordance with Table 3.2.6—Maximum post development grade for parks; h. has a minimum 40 per cent road frontage; i. has clear and visible lines of sight from formalised park entries and pedestrian crossings; j. provides for casual surveillance to and from the park. Planning Scheme Policy 1–CPTED provides additional guidance; k. has an area above the defined flood events for locating buildings, structures and facilities liable to damage by flooding; l. has vehicular access for maintenance and management purposes; m. provides typical embellishments in accordance with Table 3.2.7—Typical embellishments for recreation and environmental parks.
Corridor Recreation	Corridor Recreation Parks: a. is part of a safe, linked open space and parks network; b. is suitable for cycle and pedestrian paths; c. has a minimum 40 per cent road frontage; d. has clear and visible lines of sight from formalised park entries and pedestrian crossings; e. provides for casual surveillance to and from the park. Planning Scheme Policy 1–CPTED provides additional guidance; f. has vehicular access for maintenance and management purposes; g. does not include: (i) land subject to cut and fill with a batter slope that compromises the provisions of (a) to (h); (ii) any land required for stormwater infrastructure;

Table 3.2.3—Design standards for parks

Column 1 Park classification	Column 2 Design Standards
	(iii) any areas of land less than 20 metres wide; h. provides embellishments in accordance with Table 3.2.7—Typical embellishments for recreation and environmental parks.
Environmental	Environmental Parks: a. contributes to the environmental network; b. has vehicular access for maintenance and management purposes; c. has clear and visible lines of sight from formalised park entries and pedestrian crossings; d. incorporates a buffer between adjoining residential uses; e. has a minimum 25 per cent road frontage, unless where approved by Council that the environmental park is compensated by good visibility and casual surveillance opportunities; f. provides for native plants endemic to the area; and g. provides for embellishments in accordance with Table 3.2.7—Typical embellishments for recreation and environmental parks.
Metropolitan and District Sport	Metropolitan and District Sport Parks: a. is fair average land; b. is adjacent to a trunk road; c. is easily accessible for pedestrians and cyclists in accordance with Table 3.2.2—Accessibility standard for parks (Distribution Standard); d. has an area in accordance with Table 3.2.4—Minimum size of parks; e. is of a compact shape, free of irregular boundaries; f. has a post development flood immunity in accordance with Table 3.2.5—Minimum post development flood immunity for parks; g. has a post development grade in accordance with Table 3.2.6—Maximum post development grade for parks; h. has a minimum 40 per cent road frontage; i. has a minimum 60 per cent of the area suitable for sports fields or courts; j. is connected to infrastructure including power, water and sewerage; k. has vehicular access for maintenance, management and emergency vehicle purposes; l. has clear and visible lines of sight from formalised park entries and pedestrian crossings; m. provides for casual surveillance to and from the park. Planning Scheme Policy 1 - CPTED provides additional guidance; n. has an area above the defined flood event for locating buildings, structures and facilities susceptible to damage by flooding; o. provides embellishments in accordance with Table 3.2.8—Typical embellishments for sport parks.

Table 3.2.4—Minimum size of parks

Column 1 Park classification	Column 2 Minimum size of parks (hectares)		
	Urban planning region	Growth planning region	Rural planning region
Local Recreation	1	1	Not applicable
Local Recreation - Civic Parks (Town Square)	0.2	0.2	Not applicable
Local Recreation - Civic Parks (Village Green)	0.2	0.2	Not applicable
Local Recreation - Civic Parks (Plaza)	0.04	0.04	Not applicable
District Recreation	5	10	10
Metropolitan Recreation	10	20	20
District Sport	5	10	10
Metropolitan Sport	10	20	20
Corridor Recreation	Not applicable	Not applicable	Not applicable
Environmental	Not applicable	Not applicable	Not applicable

The network service catchments that comprise the Urban, Growth and Rural planning regions for the parks network are identified in Table 2.4.2—Parks network - Planned demand summary.

Table 3.2.5—Minimum post development flood immunity for parks

Column 1 Park classification	Column 2 Post development flood immunity (percentage of minimum size of parks)		
	10 year ARI flood event	50 year ARI flood event	100 year ARI flood event
Local Recreation	100	75	10
Local Recreation - Civic Parks (Town Square / Village Green / Plaza)	100	100	100
District Recreation	100	50	10
Metropolitan Recreation	100	50	10
District Sport	100	75	10
Metropolitan Sport	100	50	10
Corridor Recreation	Not applicable	Not applicable	Not applicable
Environmental	Not applicable	Not applicable	Not applicable

Table 3.2.6—Maximum post development grade for parks

Column 1 Park classification	Column 2 Maximum grade (percent)	Column 3 Percentage of minimum size of parks having a post development grade less than the maximum grade		
		Urban planning region	Growth planning region	Rural planning region
Local Recreation	5	50	50	Not applicable
Local Recreation - Civic Parks (Town Square / Village Green / Plaza)	2	75	75	Not applicable
District Recreation	5	30	30	30
Metropolitan Recreation	5	25	25	25
District Sport	2	60	60	60
Metropolitan Sport	2	60	60	60

Table 3.2.7—Typical embellishments for recreation and environmental parks

Column 1 Embellishment type	Column 2 Recreation Parks					Column 3 Environ-mental Parks
	Local	District	Metropolitan	Corridor	Local - Civic (Town Square / Village Green / Plaza)	
Activity areas	Yes 1[1]	Yes 4[2]	Yes 8[2]	No	Yes 1[3]	No
	1. Local recreation parks should desirably provide a limited number of discrete activity areas for basic recreation, allowing for a few separate groups to safely share the facility. 2. District and metropolitan recreation parks provide several discrete activity areas allowing numerous separate groups to safely share the facility. Activity areas cater for specific recreational pursuits including but not limited to young play, major barbeque and picnics, skating/freestyle biking, informal court sport, kick-about, dog off leash and special events. 3. Civic parks provide formalised spaces in an urbanised environment. Structured activity areas are designed to integrate with internal and external pathways and the surrounding community facilities. Activity areas are formalised through landscaping and the inclusion of purpose designed event space including but not limited to outdoor stages or auditoriums and hard surface spaces.					
Artwork	No site specific on merit	Yes	Yes	No	Yes major interactive	No
Barbeque	No	Yes	Yes	No	Yes Village green only	No
Bins	Yes 2 units	Yes 6 units	Yes 20 units	Yes 1 unit	Yes Plaza 1 unit; Village green or Town square 2 units	No
Ceremonial space	No	No Site specific	Yes 1 unit	No	No Site specific on merit	No

		on merit				
Covered seating and table	Yes	Yes	Yes	No	Yes	No
Dog off-leash	No Site specific on merit	Yes	Yes	No	No	No
Potable water	Yes 1 unit	Yes 4 units	Yes 8 units	Yes 1 unit / 5km	Yes Plaza 1 unit; Village green or Town square 2 units	Yes 2 units
Fencing / bollards / locking rail	Yes	Yes	Yes	Yes	Yes	Yes
Fitness equipment	Yes	Yes	Yes	Yes	No	No
Half court	Yes	Yes	Yes	No	No	No
Internal roads	No	Yes	Yes	No	No	Yes
Interpretative signage	Yes	Yes	Yes	Yes	Yes	Yes
Landscaping	Yes	Yes	Yes	Yes	Yes	Yes revegetation
Lighting	Yes minor 4 units	Yes moderate 12 units	Yes major 80 units	Yes pathway	Yes Major Plaza 2 units; Village Green or Town Square 4 units	No
Parking	Yes kerbside	Yes moderate 40 bays	Yes Major 120 bays including bus parking and turnaround or pull through	No	Yes kerbside	Yes minor
Pathways/ bikeways / trails	Yes	Yes	Yes	Yes	Yes	Yes
Platforms / pontoons	No	Yes	Yes	No Site specific on merit	No	Yes
Multi-activity Play space	Yes 300m² soft fall footprint	Yes 450m² soft fall footprint	Yes 600m² soft fall footprint	No	No	No
Seating	Yes 3 units	Yes 6 units	Yes 15 units	Yes	Yes 4m² / 500m²	Yes 5 units
Shading	Yes	Yes	Yes	Yes	Yes	Yes
Signage	Yes	Yes	Yes	Yes	Yes	Yes

Skate bowls	No	Yes	Yes	No	No	No
Surveillance cameras	Yes mobile	Yes 1 facility	Yes 2 facilities	No Site specific on merit	Yes 1 facility	No
Toilets	No	Yes 1 facility	Yes 2 facilities	No	Yes Village Green and Town Square only 2 facilities	No

Table 3.2.8—Typical embellishments for sport parks

Column 1 **Embellishment type**	**Column 2** **Sport parks**	
	District	**Metropolitan**
Artwork	No site specific on merit	Yes interactive
BBQ	No	Yes 3 facilities
Drainage	Yes	Yes
Potable Water	Yes 6 units	Yes 25 units (2 connections)
Fencing/Bollards/ Locking Rail	Yes	Yes
Fields / Courts	Yes 2 rectangular fields and 1 oval	Yes 5 rectangular fields, 2 ovals and 6 courts
	District and metropolitan sport parks provide several discrete playing fields and court facilities allowing numerous separate sporting groups to safely share the facility.	
Field / Court Lighting	Yes 2 rectangular fields; and 1 oval - competition standard	Yes 6 courts; 5 rectangular fields; 3 rectangular fields; and 2 ovals
	The standard of lighting to be provided at sport parks will be commensurate with the level of use and standard of competition. Where necessary this lighting may be provided to a national competition standard.	
Goal Posts / Line Marking	Yes	Yes
Internal Roads	Yes	Yes
Irrigation	Yes	Yes
Landscaping & Earthworks	Yes	Yes major
Lighting (Path / Activity Areas)	Yes 8 units	Yes 20 units
Parking	Yes 80 bays	Yes 400 bays

Table 3.2.8—Typical embellishments for sport parks

Column 1 Embellishment type	Column 2 Sport parks	
	District	**Metropolitan**
	including bus parking and turnaround or pull through	including bus parking and turnaround or pull through
Paths (Pedestrian / Cycle / Trails)	Yes	Yes
Multi-activity Play Space	Yes 300m² soft fall footprint	Yes 450m² soft fall footprint
Safety Fencing	Yes	Yes
Scoreboard	Yes 2 units	Yes 3 units
Signage	Yes	Yes
Spectator Seating	Yes 20 units	Yes 100 units and grandstand seating
	The standard of spectator seating to be provided will be commensurate with the level of demand and standard of competition. Sufficient spectator seating will be provided where required to cater for a regional level sporting competition.	
Sports Club Facility	Yes	Yes
Surveillance Cameras	Yes 1 unit	Yes 2 units
Toilets	Yes 1 facility	Yes 2 facilities

Part 4 Plan for trunk infrastructure (PFTI)

4.1 Base date and planning horizon

(1) The plan for trunk infrastructure (PFTI) for each network identifies the existing trunk infrastructure at the base date (30 June 2014) and the future trunk infrastructure intended to service the assumed development up to the end of the LGIP planning period (June 2026).

(2) The plan for trunk infrastructure is shown Map 4 (Appendix 1).

4.2 Definition of trunk infrastructure

(1) Trunk infrastructure is higher order or shared development infrastructure which services a network of users. Adopted infrastructure charges may be levied for trunk infrastructure.

(2) Figure 4.2.1 presents a classification of parks as trunk or non-trunk infrastructure by park function and role. Recreation and sport parks are considered trunk parks infrastructure with both the land and embellishment of recreation and sport parks being funded by adopted infrastructure charges (refer Figure 4.2.1).

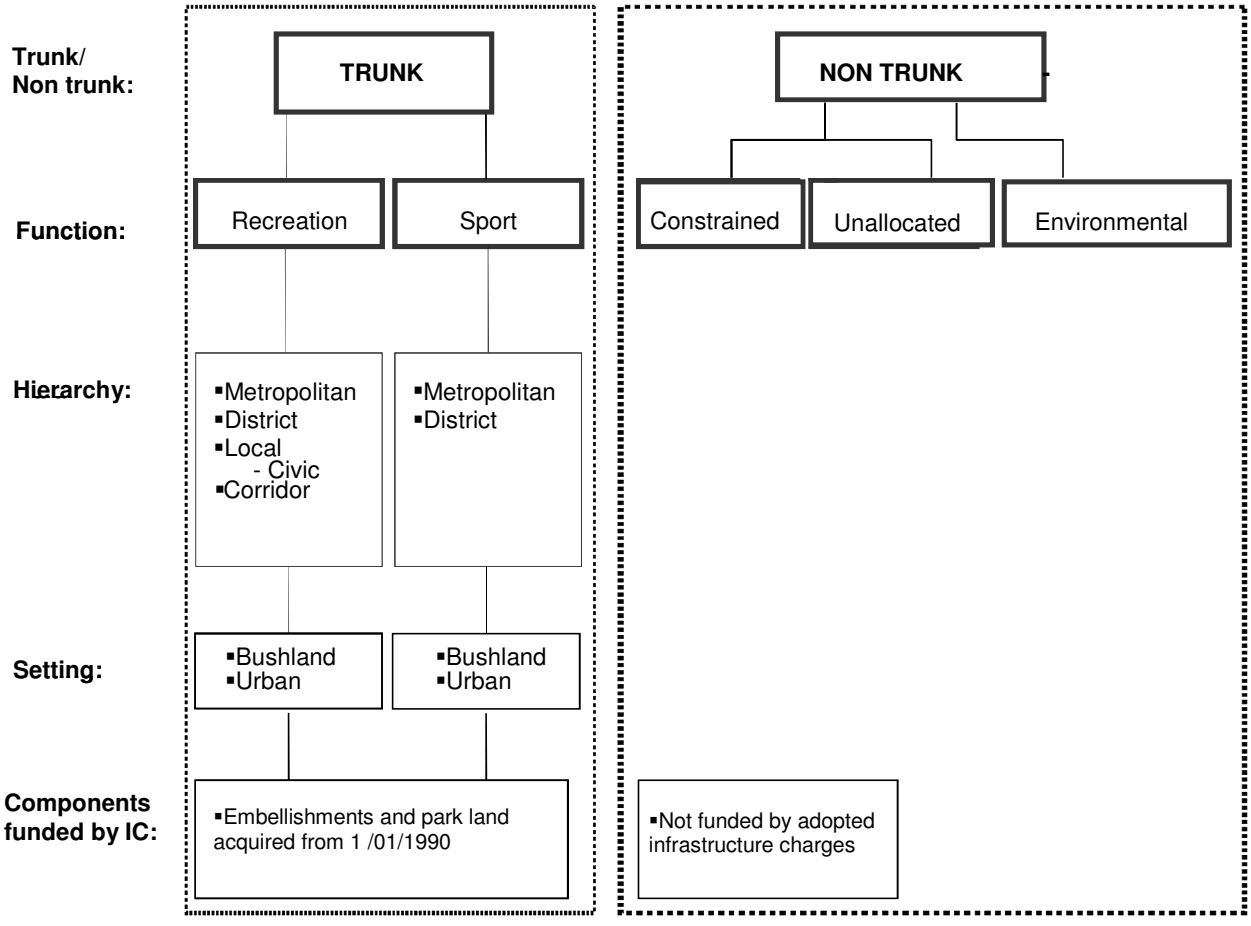
(3) The following types of parks are considered as non-trunk infrastructure (refer Figure 4.2.1):

(a) Environmental parks

(b) Constrained parks

(c) Unallocated parks

Figure 4.2.1—Classification of parks infrastructure



4.3 Existing trunk infrastructure

(1) Table 4.3.1 provides a summary of existing trunk parks infrastructure identified by the plan for trunk parks infrastructure shown on Figure AP1.1 in Appendix 1.

Table 4.3.1—Existing trunk parks infrastructure at base date

Park function	Park hierarchy	Total number	Total area (ha)
Recreation	Local	309	340ha
	Local - Civic	5	2ha
	District	42	289ha
	Metropolitan	12	251ha
	Corridor	132	525ha
Sport	District	50	306ha
	Metropolitan	8	150ha
Environmental [1]		266	5144ha
Constrained [1]		140	109ha
Unallocated [1]		9	165ha
Total		**973**	**7281ha**

Notes: 1. Non-trunk infrastructure.

4.4 Future trunk infrastructure

4.4.1 Affordability of the schedule of work

(1) Council must be able to afford the trunk infrastructure identified in the LGIP. This requires Council to perform a revenue sufficiency analysis (RSA). The first step in performing the RSA was to project the future income derived from infrastructure charges. This was done using the projected development, as per the LDPM, and by applying the charge rates as provided in Council's Adopted Infrastructure Charges Resolution (No 5, 2015). An allowance was also made to borrow funds up to a maximum of 20% of the annual income. Combined, this resulted in a projected annual income stream per network over the LGIP planning period (2014 to 2026).

(2) The networks used this income stream to schedule the future items in such a way as to minimise significant cost overruns in any period (i.e. that will require significant borrowing), and secondly to ensure total expenditure at the end of the LGIP planning period does not exceed the total projected income.

4.4.2 Parks network

(1) The planning for future parks is based on *Logan City Council Park Strategy 2014-2026* (LCC Doc. No 9878548). This Strategy identifies the range of future parks, based on the gap between the DSS and existing levels of service, taking into account predicted future population growth in terms of the provisions of the Logan Planning Scheme 2015.

(2) Table 4.4.2.1 summarises the future trunk parks infrastructure to 2026 as identified in the *Logan City Council Park Strategy 2014-2026.*

Table 4.4.2.1—Projected future trunk parks infrastructure at the planning horizon (2026)

Park function	Park hierarchy	Total number	Total area (ha)
Recreation	Local	315	346ha
	Local - Civic	7	3ha
	District	47	301ha
	Metropolitan	14	285ha
	Corridor	132	525ha
Sport	District	52	323ha
	Metropolitan	9	191ha
Environmental [1]		266	5144ha
Constrained [1]		140	109ha
Unallocated [1]		9	165ha
Total		**991**	**7392ha**

Notes: 1. Non-trunk infrastructure.

(3) Table AP2.1 in Appendix 2 provides the schedule of works. The plan for trunk parks infrastructure shown on Figure AP1.1 in Appendix 1 identifies this future trunk parks infrastructure.

Part 5 Establishment cost

5.1 Establishment cost of existing infrastructure

(1) The establishment cost of existing infrastructure takes into consideration all Logan City Council owned land assets, up to the date of 30 June 2014.

(2) The existing status of all parks asset properties has been confirmed through use of historic Logan City Council data records and undertaking land title searches for new individual park properties.

5.1.1 Existing park land values

(1) Land values for existing park were estimated using a methodology developed by a qualified land valuer (refer *Methodology Mass Land Appraisal Valuation of Park Trunk Infrastructure*, LCC Doc. No. 9874499). The methodology provides a $/m2 rate as at June 2009, which was multiplied by the size of the park to arrive at a total land value.

(2) This value was indexed to the base date (June 2014) using the actual CPI over this period.

5.1.2 Existing park embellishment values

(1) Park classifications and levels of embellishment have been assigned to all existing park unique entries in accordance with the *Park Embellishment Plan Methodology* (LCC Doc. No. 9878380).

(2) Embellishment costs for existing parks have been estimated based on the Desired Standards of Service for each park classification. Table 5.1.2.1 presents a summary of the embellishment cost at full development by park classification and hierarchy expressed as current cost as at a valuation base date of 2009. These establishment costs are based on 2009 industry rates for the cost of facilities constructed by Council projects and landscape reference manuals including the *Landscape Queensland Costing Guide*.

Table 5.1.2.1—Estimated embellishment cost for trunk parks – valuation date 2009 and indexed to network base date 2014

Column 1 Park classification and hierarchy	Column 2 Estimated total cost – valuation base date 2009	Column 3 Estimated total cost – network base date 2014
Recreation		
Recreation Local	$474,129	$532,897
Recreation District	$2,095,295	$2,355,006
Recreation Metropolitan	$6,160,241	$6,923,800
Recreation Corridor (*linear metre rate*)	$533	$599
Recreation Local - Civic (Plaza)	$404,761	$454,931
Recreation Local - Civic (Village Green)	$582,231	$654,398
Recreation Local - Civic (Town Square)	$1,396,790	$1,569,922
Sport		
Sport District	$4,281,190	$4,811,842
Sport Metropolitan	$13,831,388	$15,545,783

(3) Column 3 of Table 5.1.2.1 provides the unit rates as at June 2014. These unit rates were calculated by indexing the unit rates stated in column 2 with the actual PPI rates over the period June 2009 to June 2014.

(4) Further detail of the workings to determine these park embellishment costs is contained in the *Parks Typical Embellishment Cost Calculations - Procedure and Working document (LCC Doc No. 10130137).*

(5) The embellishment costs have then been scaled by the projected level of embellishment for each unique park entry (level 1, 2, 3, 4, 0), as outlined in the *Park Embellishment Plan Methodology* (LCC Doc No. 9878380), to provide the cost of embellishment figure.

5.1.3 Apportionment of values

(1) All land and embellishment values for existing parks have been apportioned between the relevant charge areas, in accordance with the apportionment of benefit methodology outlined in the *Park Strategy 2014-2026* (LCC Doc. No 9878548).

(2) These existing park entries and related land and embellishment values have been included in the on-line model.

5.2 Establishment cost of future infrastructure

5.2.1 Future park land values

(1) The land acquisition cost associated with the supply of a future trunk park has been determined using a methodology developed by a qualified land valuer (refer *Methodology Mass Land Appraisal Valuation of Park Trunk Infrastructure*, LCC Doc. No. 9874499). The methodology provides a $/m2 rate as at June 2010, which was multiplied by the size of the planned park to arrive at a total land value.

(2) This cost was indexed from June 2010 to the base date (June 2014) using the actual CPI over this period.

(3) Two planned parks in the schedule of works have a land value zero ($0) namely:

(a) 5184.R.L.C.I.x Logan Central Town Square; and

(b) 1230.R.L.C.F.x Springwood Boulevard Town Square.

These two future parks are located on land that is currently Crown Reserve for Educational Purposes, having schools on them. In accordance with the intent of the Logan Central and Springwood Local Plans, both schools will be relocated. As part of this process, the intention is that the land will be transferred to Council by State Department of Education, free of charge. However, this will be confirmed at a later stage.

5.2.2 Future park embellishment values

(1) The embellishment cost of sport and recreation parks as at 30 June 2014 is included in the establishment cost of the park. The document *Park Embellishment Plan Methodology* (LCC Doc No. 9878380) provides a detailed description of the methodology utilised to determine the appropriate level of embellishment of facilities provided in Logan City Council parks.

(2) Table 5.1.2.1 (Column 2) presents a summary of the embellishment cost at full development by park classification and hierarchy expressed as current cost as at a valuation base date of 2009. These establishment costs are based on 2009 industry rates for the cost of facilities constructed in Council projects and cost pricings in landscape reference manuals including the *Landscape Queensland Costing Guide*.

(3) Column 3 of Table 5.1.2.1 provides the unit rates as at June 2014. These unit rates were calculated by indexing the unit rates stated in column 2 with the actual PPI rates over the period June 2009 to June 2014.

(4) Further detail of the workings to determine these park embellishment costs is contained in the *Parks Typical Embellishment Cost Calculations - Procedure and Working document (LCC Doc No. 10130137).*

(5) An allowance of 20% has been applied to the base rates listed in Table 5.1.2.1, in the on-line model for on-costs for planning and design. The base rate figures provided in Table 5.1.2.1 do not include this allowance.

(6) The on-line mode makes the following allowance for contingency:

(a) Project delivered in 0 to 5 years – 10%

(b) Project delivered in 5 to 10 years – 20%

(c) Project delivered in 10 to 20 years – 25%

(d) Project delivered in 20+ years – 30%

This allowance falls within the range as prescribed in Appendix C of the Guideline (03/14).

(7) The embellishment costs have then been scaled by the projected level of embellishment for each unique park entry (level 1, 2, 3, 4, 0), as outlined in the *Park Embellishment Plan Methodology*, to provide the cost of embellishment figure.

(8) The establishment cost of future parks was calculated as at 2009, using the methodology described above. The cost as at 2009 was indexed to 2014 using the actual PPI over this period to arrive at the current cost.

5.3 Estimated timing

(1) The timing of future infrastructure has been estimated through scheduling of acquisition priorities, and the anticipated timing of development, in accordance with the LDPM planning assumptions.

(2) Embellishment timing is scheduled to follow after acquisition, in accordance with the timeframes described in the *Park Embellishment Plan Methodology* (LCC Doc No. 9878380).

(3) Timing of park land acquisitions and scheduled embellishment have also been assessed against affordability modelling criteria to ensure items listed on the schedule of works are scheduled across the overall timeframes of the LGIP, in accordance with anticipated funding streams.

Part 6 List of Extrinsic Material

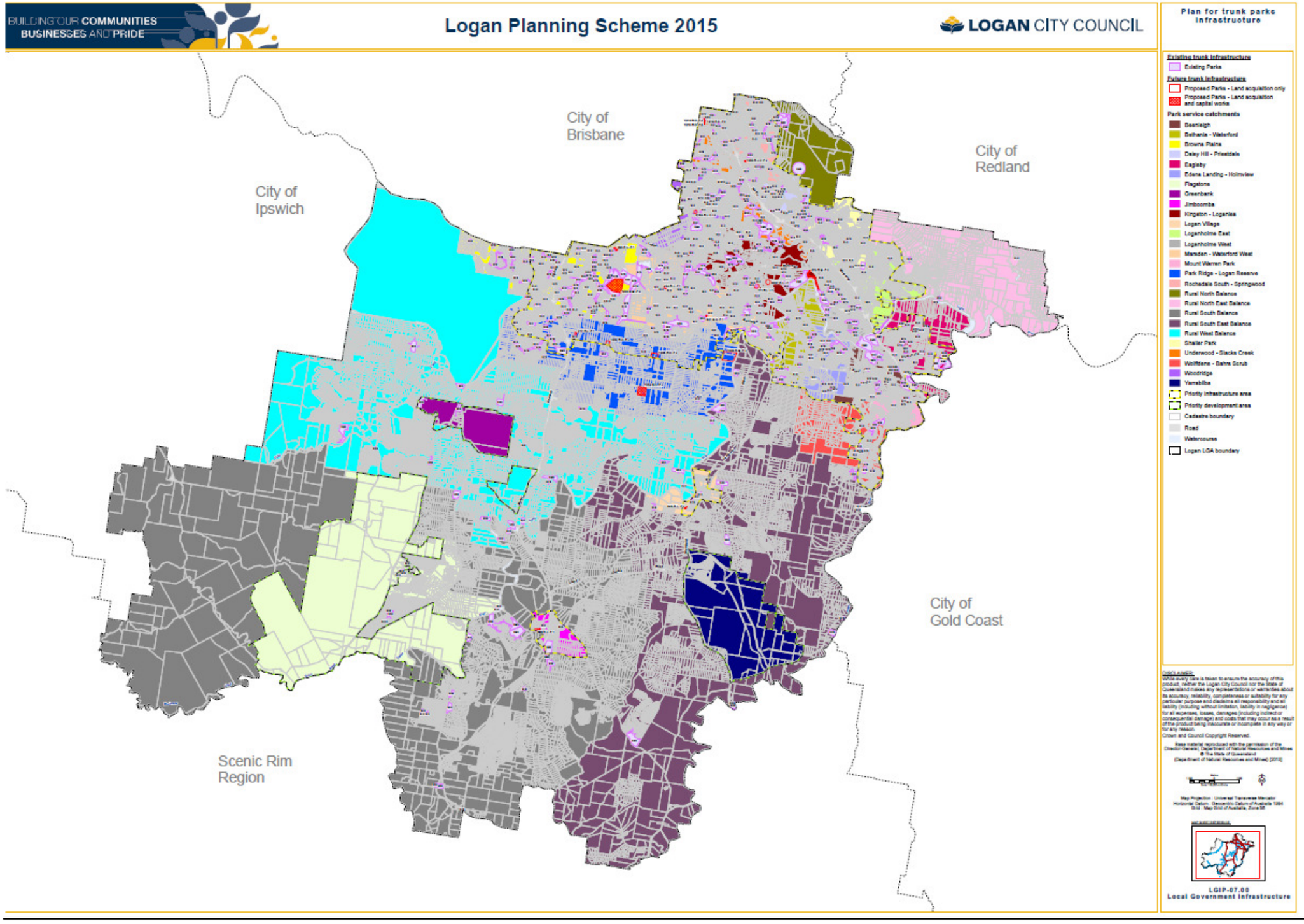
(1) The documents identified in Table 6.1—Parks network - extrinsic material are extrinsic material under the Statutory Instruments Act 1992 which assist in the interpretation of the Local Government Infrastructure Plan.

Table 6.1—Parks network - extrinsic material

Column 1 **Document reference**	**Column 2** **Document title**
Logan City Council Parks Branch: September 2015 (LCC doc no: 9878548)	*Logan City Council Park Strategy 2014-2026*
Logan City Council Parks Branch: 2015 (LCC doc no: 9878380)	*Park Embellishment Plan Methodology*
William John Crothers Registered Valuer No. 1942: 10 November 2011 (LCC doc no: 9874499)	*Methodology Mass Land Appraisal Valuation of Park Trunk Infrastructure*
Logan City Council Parks Branch: February 2016 (LCC doc no: 10130137)	*Parks Typical Embellishment Cost Calculations - Procedure and Working*

Appendix 1: Plan for trunk parks infrastructure

Figure AP1.1–Plan for trunk parks infrastructure



Appendix 2: Schedule of works for the parks network

(1) The future trunk parks infrastructure planned up to the planning horizon is identified in Table AP2.1–Parks network - Schedule of works.

Table AP2.1–Parks network - Schedule of works

Column 1 Map Reference	Column 2 Trunk infrastructure	Column 3 Estimated timing		Column 4 Establishment cost		
		Land acquisition	Infrastructure	Land acquisition	Infrastructure	Total
1202.S.M..F.x	Logan Metro Sport Park	2019-2021	2019-2020	$0	$5,052,379	$5,052,379
1206.R.D..F.x	Park Ridge East District Recreation Park	2017-2020		$4,499,726	$0	$4,499,726
1209.R.D..F.x	Park Ridge Central District Park	2017-2020		$1,202,379	$0	$1,202,379
1210.R.D..F.2	Glindemann Park	2016-2019		$451,200	$0	$451,200
1210.R.D..F.4	Glindemann Park	2016-2019		$733,142	$0	$733,142
1210.R.D..F.5	Glindemann Park	2016-2019		$1,190,134	$0	$1,190,134
1228.R.M..F.x	Logan Reserve East Metro Park	2024-2027		$1,770,523	$0	$1,770,523
1230.R.L.C.F.x	Springwood Boulevard Town Square	2019-2021		$0	$0	$0
1234.S.D..F.x	Koplick District Sport Park	2016-2019	2019-2020	$1,075,076	$3,127,697	$4,202,773
217.R.L..F.1	Jedfire Park	2023-2025	2019-2020	$1,738,009	$0	$1,738,009
293.R.L..F.1	Michelle Johnston Park	2019-2021		$1,187,246	$0	$1,187,246

Column 1 Map Reference	Column 2 Trunk infrastructure	Column 3 Estimated timing		Column 4 Establishment cost		
		Land acquisition	Infrastructure	Land acquisition	Infrastructure	Total
372.R.M..F.2	Riverdale Park	2023-2026		$6,570,469	$0	$6,570,469
424.R.L..F.1	Third Park	2016-2018		$474,362	$0	$474,362
521.S.D..F.1	Waterford West District Sport Park	2017-2020	2021-2022	$540,615	$1,684,145	$2,224,759
699.R.L..F.1	Rotary Park (Jimboomba)	2024-2026		$1,263,368	$0	$1,263,368
111.R.L..I.1	Coral Park	2016-2018		$1,015,667	$0	$1,015,667
5027.R.L..I.1	Bernice Park	2016-2018		$1,416,220	$0	$1,416,220
5184.R.L.C.I.x	Logan Central Town Square	2019-2021		$0	$0	$0
854.R.L..F.x	Towns park	2015		$34,752	$0	$34,752
TOTAL				**$25,162,888**	**$9,864,221**	**$35,027,108**