

1.0 Development Contribution Plan 3 – Casuarina

The development contribution area is shown on the Local Planning Scheme No. 2 (LPS2) scheme map as Development Contribution Area 3 (DCA3). The area is replicated in Figure 1 below however, should there be any discrepancies between the area shown below and the area of DCA3 shown on the scheme map, the scheme map shall prevail.

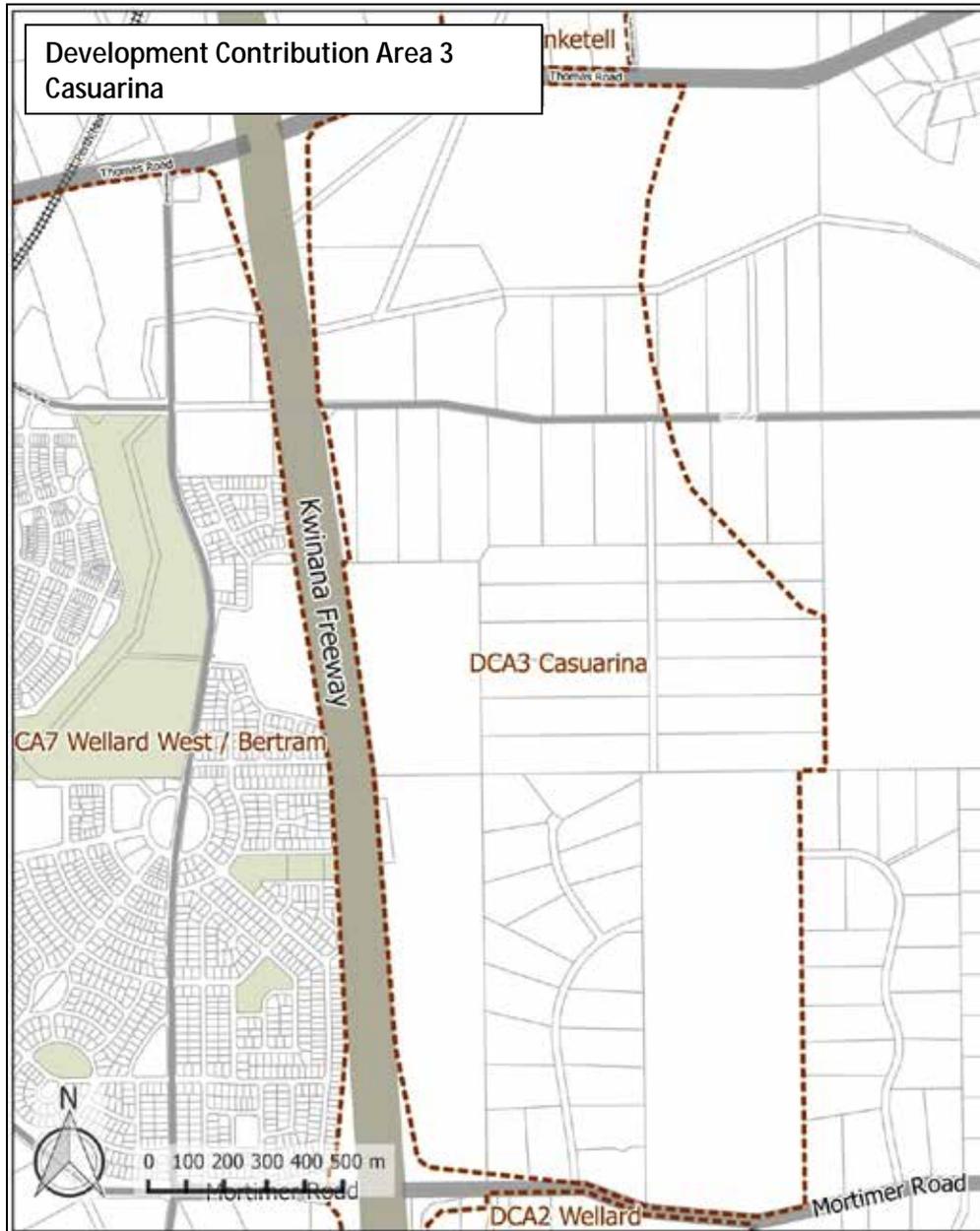


Figure 1: Development Contribution Area 3 – Casuarina

2.0 Purpose

The purpose of this development contribution plan report is to:

- a) Enable the application of development contributions for the development of new, and the upgrade of existing infrastructure which is required as a result of increased demand generated in the development contribution area;

- b) Provide for the equitable sharing of the costs of infrastructure and administrative items between owners;
- c) Ensure that cost contributions are reasonably required as a result of the subdivision and development of land in the development contribution area; and
- d) Coordinate the time provision of infrastructure.

This report expands on the LPS2 provisions for DCA3 (see Appendix 1).

3.0 Relevant plans and documents

While preliminary structure planning work has been undertaken for DCA3, nothing has been formally advertised or adopted to date. Therefore the land area within DCA3 (both gross subdivisible area and developable area) is based on estimates. These estimated land areas may change upon adoption of any future structure plan over DCA3, which will therefore effect the cost contributions under the proposed DCP.

Nonetheless, development within DCA3 and the identification of infrastructure items within this plan are guided contextually by the following plans and documents:

- WAPC Jandakot Structure Plan 2007
- City of Kwinana Eastern Residential Intensification Concept 2005 (draft)
- Lifting of Urban Deferment: Casuarina Cell, Jandakot Structure Plan Area, Rowe Group 2012
- Council-adopted Local Structure Plan – Casuarina Cell Northern Precinct and Concept Plan (Aigle Royal Properties Pty Ltd 2018)
- Draft Concept Plan – Casuarina Cell Central Precinct (TBB 2018)
- Local Structure Plan – Anketell South, Lots 1, 2, 3 & 17 Thomas Road & Portion Lot 13 Treeby Road, Anketell (approved May 2014, Rowe Group)
- Local Structure Plan Amendments 1, 2, 3 and 4 – Anketell North (2017/2018)
- Local Structure Plan - Anketell North (approved December 2015, Rowe Group)
- Wellard East Local Structure Plan (last amended April 2014) – prepared by Cardno/Roberts Day for the Sunrise Estate development (Armana P/L)
- Wellard East (Lot 90 and part Lot 378 Millar Road) Local Structure Plan (May 2014) – prepared by Cardno for the Wellard Glen development (DJ MacCormack Property Group)
- Amended Wellard East Local Structure Plan to include Lot 601 Millar Road (prepared by Michael Swift and Associates, 2015)
- Lot 64 Woolcoat Road, Wellard East Local Structure Plan (Rowe Group 2015)
- Lot 59 Mortimer Road Local Structure Plan (Peter D Webb and Associates 2016)
- Part Lot 9001 and Lot 379 Millar Road – Sunrise Estate southern extension (Lorraine Elliott Planning Services on behalf of Armana P/L 2015)

- State Planning Policy 3.6: Development Contributions for Infrastructure, WAPC
- Liveable Neighbourhoods 2009, WAPC
- Development Control Policy 1.7: General Road Planning, WAPC
- Development Control Policy 2.3: Public Open Space in Residential Areas, WAPC

4.0 Period of the Plan

This plan will operate for 10 years from 3 October 2017 to 3 October 2027, in accordance with Local Planning Scheme No. 2.

5.0 Operation of Development Contribution Plan

This plan has been prepared in accordance with *State Planning Policy 3.6: Development Contributions for Infrastructure* and operates in accordance with the provisions of section 6.16.5 Development Contribution Areas of LPS2.

6.0 Application Requirements

Where a subdivision, strata subdivision or development application or an extension of land use is lodged which relates to land to which this plan applies, Council shall take the provisions of the plan into account in making a recommendation on or determining that application, in accordance with Part 6.16.5 of LPS2.

7.0 Compliance with the principles underlying Development Contributions outlined in *SPP3.6: Development Contributions for Infrastructure*

7.1 Need and the nexus

The need for the items of standard infrastructure arises directly from the urban development of the land made possible by the rezoning of the land. The need and nexus will be discussed separately for each item of infrastructure later in this report.

7.2 Transparency

The costs for each infrastructure item are apportioned on a land area basis, taking into account the constraints on the land's development potential and are consistent with the adopted local structure plan for the western portion of the Casuarina North Precinct and current draft local structure plans/concept plans for the remainder of the Casuarina North Precinct and the Casuarina Central Precinct of the DCA, where applicable.

These estimated land areas may change upon adoption of any future structure plan over DCA3, which will therefore effect the cost contributions under the proposed DCP.

The costs for each infrastructure item have been independently reviewed by consultants on behalf of the City. A further break down of the estimated costs is available upon request.

The cost apportionment schedule will be reviewed and updated annually as per the LPS2 provisions. This process will include a review of the infrastructure costs against current industry standards by an independent qualified consultant and will be publically available.

7.3 Equity

The costs of each item of infrastructure are shared by landowners on a land area basis, taking into account limitations of the land affecting development, such as wetland areas, transmission easements, 1:1 drainage areas and the like. The resulting area of land able to be developed is determined with reference to the adopted local structure plan or concept plan in place for the DCA.

7.4 Certainty

It is anticipated that most of the items of infrastructure included in this DCP will be provided by developers within the DCA as part of their subdivision works. Where this will not occur, this DCP report provides an indication of the likely delivery of infrastructure items, however it will largely depend on the level of uptake of development within this and, where applicable, the adjoining DCA.

7.5 Efficiency

Development contributions reflect the initial up-front capital cost, including the two year establishment cost.

7.6 Consistency

Development contributions for this DCA will be applied uniformly across the whole DCA area on a land area basis, where the land has been identified to contribute to the infrastructure item.

7.7 Right of consultation and arbitration

The DCP provisions under LPS2 afford landowners the right to review a Cost Contribution and provide for resolution through arbitration.

7.8 Accountability

The costs for each infrastructure item are to be reviewed annually and the Cost Apportionment Schedule updated accordingly. All documents will be publically available on the City's website following adoption by Council.

As per LPS2, a Statement of Accounts showing all revenue and expenditure for the DCP is to be prepared for each financial year and audited by the City's auditors. The audited statements will be publically available.

8.0 Characteristics of Development Contribution Area

As stated previously, limited local structure planning has occurred within DCA3 and therefore the land areas shown in Table 1 below are estimated and will be subject to change depending on the final configuration of local structure plans for DCA3.

Table 1 presents the key characteristics of DCA3:

Total land area	267.6251 ha
Gross subdivisible area ¹	147.167 ha
Developable area ²	184.9001 ha

Table 1: Characteristics of future development within DCA3

9.0 Items included in the plan

¹ Gross subdivisible area is defined as per Liveable Neighbourhoods and is the total site area less deductions for non-residential uses such as school sites, commercial land, drainage sites and related land uses and community facilities etc, which also includes EPP Wetlands to be ceded and any restricted Public Open Space (POS) not calculated in a Local Structure Plan contribution.

² Developable area is defined as the total site area less areas for schools, community facilities, dedicated drainage reserves, regional open space, Environment Protection Policy areas, transmission and infrastructure corridors, and land for regional roads.

This section of the DCP report identifies the infrastructure and land to be funded by development contributions collected from landowners within DCA3. The land valuation prepared by Colliers International, based on the Static Feasibility model contained within Schedule 8 of the City's LPS2, notes a per/hectare land valuation for DCA3 of \$580,000.

9.1 Roads

Figure 2 below indicates the road infrastructure to be coordinated and funded by DCP3.

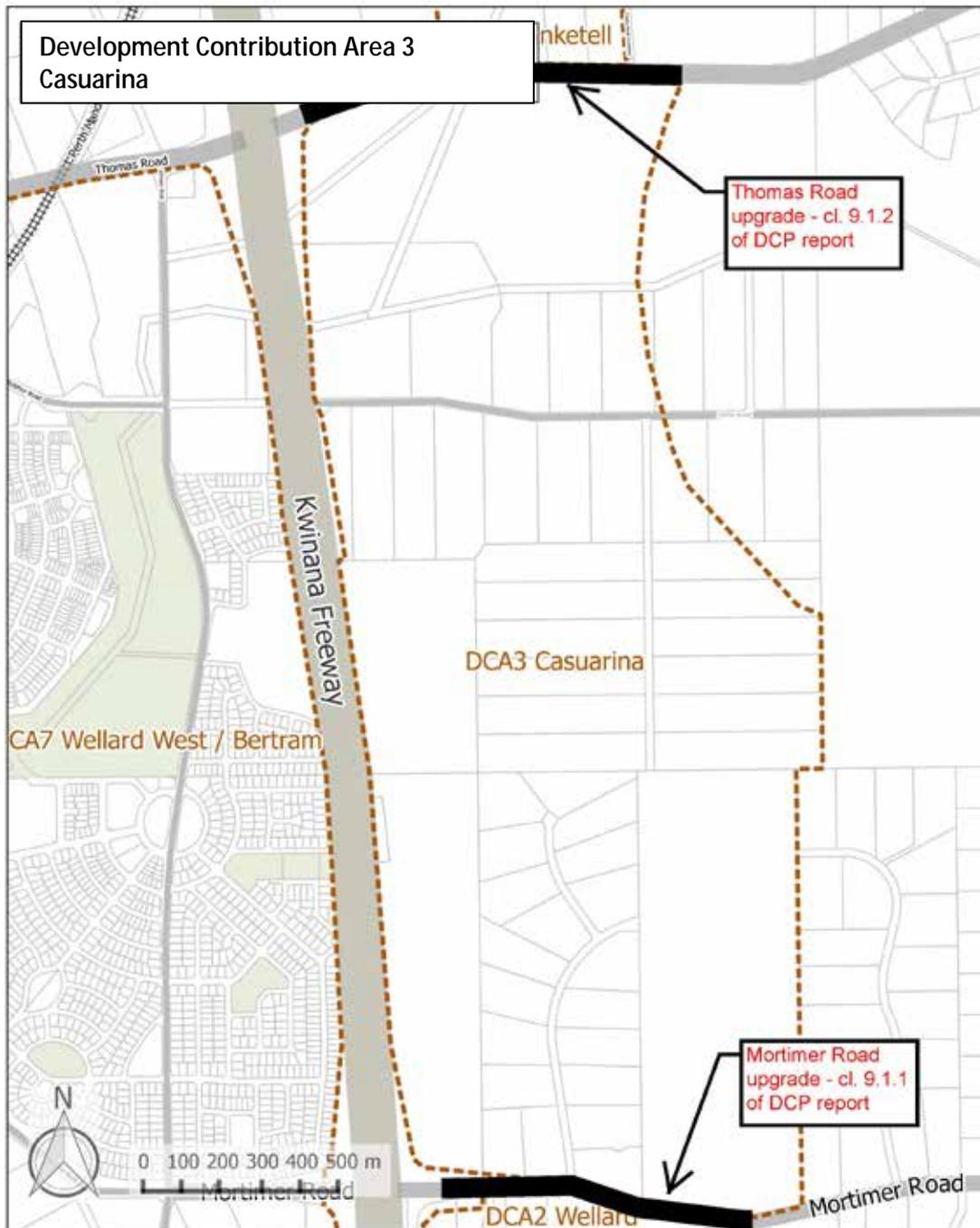


Figure 2: Road infrastructure

9.1.1 Mortimer Road

Mortimer Road is a District Distributor (B) with direct freeway access from both directions and an estimated 2,200 vpd³. Mortimer Road is a two lane unkerbed road that operates at a zoned speed of 80kmph.

It is estimated that traffic volumes on Mortimer Road will increase to 3,120 vpd (west of Woolcoat Road) and to 8,450 vpd (west of Wake Way) as a result of additional traffic generated from development within the southern adjoining cell, Development Contribution Area 2 – Wellard East.⁴ Furthermore, the development of at least 2,000 dwellings in DCA3, will generate more traffic to Mortimer Road⁵. Due to the significant increase in traffic, there is a need to upgrade Mortimer Road to improve the capacity of the road and to contribute to overall traffic network efficiency.

Whilst under Liveable Neighbourhoods a District Distributor B (Integrator Arterial B) would ordinarily require a 25.2m wide reservation and consist of 2 x 7.5 metre carriageways with on street parking, the upgrades to Mortimer Road will be limited to realignment and reconstruction of the current road to a 7.4m pavement width, as well as the installation of a 2.5m wide dual use path. Additional items include:

- Construction of two roundabouts at the junctions of Woolcoat Road and the Neighbourhood Connector (within DCA2);
- Drainage to both sides of Mortimer Road;
- Street lighting; and
- The undergrounding of power.

The cost contribution for DCA3 towards the Mortimer Road upgrade, including land acquisition (1,361m²), traffic management, design, construction, landscaping and contingency (20%) is **\$2,854,504**. Mortimer Road will also be used by new development within the southern adjoining development cell, DCA 2 – Wellard East, so the costs of the upgrades have been distributed based on a proportionate land area basis; demonstrated in the following table:

Development Contribution Area	Developable Land Area	Proportion	Contribution
2 – Wellard	88.8675ha	32.46%	\$1,371,944
3 – Casuarina	184.9001ha	67.54%	\$2,854,504
Total	273.7676ha	100%	\$3,993,960 (road costs)+ \$153,550 (landscaping costs)+\$78,938 (land acquisition) = \$4,226,448

Table 2: Apportionment of Mortimer Road upgrade costs between DCA2 and DCA3

Due to the connectivity provided by the Neighbourhood Connector to Mortimer Road and Mortimer Road's access to the Kwinana Freeway, it is anticipated that Mortimer Road will be used by all new development within DCA3. Therefore development within all of DCA3 will contribute to the Mortimer Road upgrade.

9.1.2 Thomas Road

³ Wellard East Local Structure Plan August 2011, Appendix D: Traffic Assessment Report, Shawmac, page 11.

⁴ Ibid, page 27.

⁵ A traffic assessment of the anticipated development of the Casuarina cell has not yet been undertaken, however it is reasonable to estimate additional traffic on Mortimer Road from the Casuarina cell in the magnitude of 1,000 – 5,000 additional vpd based on a similar methodology as that used for the Wellard East LSP Traffic Assessment Report.

Thomas Road is classified as a District Distributor A Road and is constructed as a single carriageway road in the vicinity of DCA3. The current posted speed on Thomas Road in this vicinity is 90km/h. Traffic data from Main Roads WA indicates about 9,600 vpd east of the Kwinana Freeway (2008) and about 16,600 vpd at the bridge over Kwinana Freeway (2007)⁶.

The development of at least 2,000 dwellings in DCA3, will generate considerably more traffic to Thomas Road⁷. It is further estimated that traffic volumes on Thomas Road will increase by approximately 4,200 vpd as a result of additional traffic generated from development within DCA4 (700 vpd from Anketell North LPS and 3,500 vpd from Anketell South LSP)^{8&9}.

Thomas Road is required to be upgraded to an urban standard as approved and required by Main Roads WA for a length of approximately 1,100m – to the Urban boundary near Bombay Boulevard - to join the existing dual carriageway to the west of DCA3. Further details of the Thomas Road upgrade include:

- Construction of a four way roundabout at the junction of the Integrator B from Anketell South and future northern connection from Casuarina;
- Three intersections with Access Streets (left in, left out);
- Drainage;
- Street lighting;
- Undergrounding of power;
- Dual use paths to both sides; and
- Landscaping to medians and swales.

The total cost of the Thomas Road upgrade, including traffic management, design, construction, landscaping and contingency (20%), is estimated to be **\$6,607,287.20**.

The costs of the Thomas Road upgrades have been distributed between DCA3 and DCA4 based on a proportionate land area basis, demonstrated in the following table:

Development Contribution Area	Developable Area	Proportion	Contribution
<i>DCA 3 - Casuarina</i> **	184.9001	61.28%	\$4,048,974.15
DCA 4 - Anketell	116.83	38.72%	\$2,558,313.05
Total	301.7278	100%	\$5,904,000 (road costs)+ \$703,287 (landscaping costs) = \$6,607,287.20
** largely estimated figures as only a partial LSP has been adopted by Council			

Table 3: Apportionment of Thomas Road upgrade costs between DCA3 and DCA4

9.2 Drainage

Within DCA3, there are four portions of the Peel sub drain system which are generally in an unsuitable state for a residential area. Upgrading of these sub drains is necessary to improve their appearance, safety and to better integrate the sub drains into any adjoining public open space. Due

⁶ Anketell (South) Local Structure Plan January 2014, Appendix 10: Traffic Report (Transcore), Oct 2013, page 4.

⁷ A traffic assessment of the anticipated development of the Casuarina cell has not yet been undertaken, however it is reasonable to estimate additional traffic on Thomas Road from the Casuarina cell in the magnitude of 5,000 additional vpd based on a similar methodology as that used for the Wellard East LSP Traffic Assessment Report, page 18.

⁸ Ibid, page 9.

⁹ Anketell (North) Local Structure Plan July 2010, Appendix 5: Traffic Report (Transcore), June 2010, page 10.

to the sub drains crossing various landholdings, the upgrade costs shall be collected as part of the DCP.

The location of the sub drains are shown in Figure 2 below:

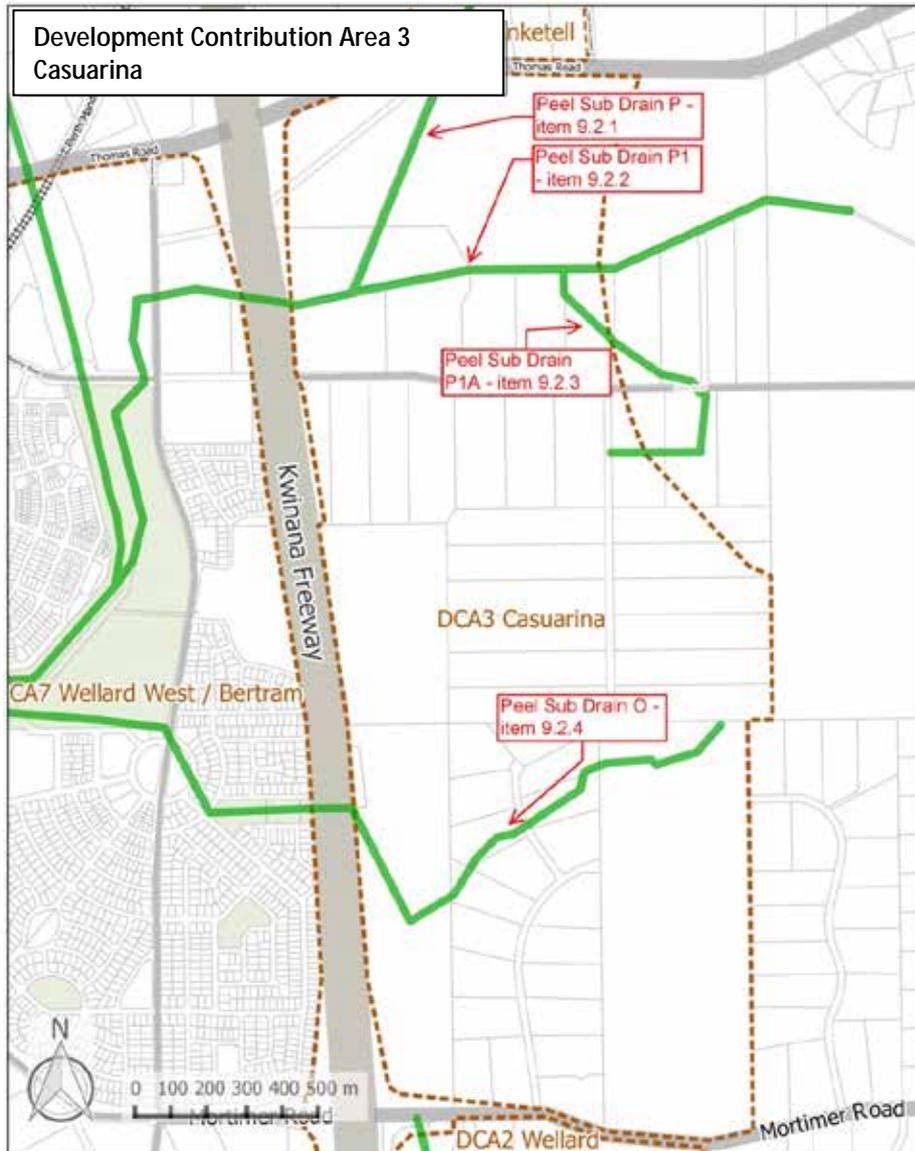


Figure 2: Location of Peel sub drains

While a number of potential treatments for the sub drains had previously been assessed, it was considered that the Living Stream treatment is the most cost-effective and contextually appropriate treatment for areas adjacent to future proposed residential land and POS, with piped sections of the sub-drains considered most appropriate within non-residential areas, including proposed commercial land.

9.2.1 Peel Sub Drain P

Sub Drain P extends 810m through DCA3 and is between 1000 and 1500mm deep. The estimate for the treatment of this sub-drain was originally for a Living Stream, however given the land use surrounding the sub-drain is approved for commercial land, it is more contextually appropriate for

the sub-drain to be piped. The cost to undertake piping works is **\$1,040,000**, with the estimate as follows:

Proposed Piping of Portions of Peel Sub P Drain, Casuarina M16718 31.01.19					
Opinion of Probable Cost					
Description	Unit	QTY	\$/unit	Cost	Ref
Preliminaries	Item	1	\$ 40,000	\$ 40,000	
Remove Existing Headwall at Thomas Road incl traffic management	No.	1	\$ 15,000	\$ 15,000	
Clean out existing open drain	m	810	\$ 50	\$ 41,000	
Dispose of material/vegetation	Item	1	\$ 12,000	\$ 12,000	
Grade Invert	m	810	\$ 5	\$ 5,000	
Supply and Install 900 Dia Class 3 RC RRJ pipe	m	646	\$ 494	\$ 320,000	
Supply and Install 1500 Dia Class 3 RC RRJ pipe	m	169	\$ 1,685	\$ 285,000	
Backfill with clean sand and compact for 900 Dia pipe	m3	1390	\$ 25	\$ 35,000	SIZE 3.0 x 1.0m
Backfill with clean sand and compact for 1500 Dia pipe	m3	665	\$ 25	\$ 17,000	SIZE 4.8 x 1.3m
Construct manhole structure to connect culverts under Thomas Road	Item	1	\$ 15,000	\$ 15,000	
Supply and install manhole to suit 900dia pipe	No.	2	\$ 5,000	\$ 10,000	
Supply and Install manhole to suit 1500dia pipe	No.	1	\$ 5,000	\$ 5,000	
Supply and install splay bend to 1500 dia pipe	No.	1	\$ 1,000	\$ 1,000	
Supply and install headwall to suit 1500 dia pipe	No.	1	\$ 2,000	\$ 2,000	
Connect existing drainage from 45 Orton Road:					
225 dia pipe	Item	1	\$ 1,000	\$ 1,000	
375 dia pipe	Item	1	\$ 1,000	\$ 1,000	
450 dia pipe	Item	1	\$ 1,000	\$ 1,000	
Sub -total				\$ 806,000	
Engineering and Surveying				\$ 60,000	
Contingency 20%				\$ 174,000	
TOTAL				\$ 1,040,000	Plus GST

BPA Engineering - 2019

9.2.2 Peel Sub Drain P1

Sub Drain P1 extends 580m through DCA3 (from the P Sub-Drain to the west to the interface with the Urban/Rural-Water Resource Protection Zones to the east) and is between 1000mm and 1500mm deep. The estimated cost to improve the drain is **\$948,311** and comprises two separate components – piping proposed from the P Sub-Drain to the eastern edge of the Powerline Easement (185m) and Living Stream treatment from the eastern edge of the Powerline Easement to the interface with the Urban/Rural-Water Resource Protection Zones to the east (395m). The cost of the Living Stream portion is **\$688,311** and includes the 20 metre-wide reserve and includes bulk earthworks, fine grading, rockpitching, tubestock, advanced tree planting and a 10% contingency.

Key matters to note in relation to this drain include the location of the District POS. The LSP for the remaining Casuarina North Precinct is yet to be prepared and/or adopted by Council. This LSP will inform the approach necessary for Sub Drain P1.

The cost to undertake piping works for the western component of the P1 Sub-Drain is **\$260,000**, with the estimate as follows:

Proposed Piping of Portions of Peel Sub P1 Drain, Casuarina M16718 31.01.29					
Opinion of Probable Cost					
Description	Unit	QTY	\$/unit	Cost	Ref
Preliminaries	Item	1	\$ 15,000	\$ 15,000	
				\$ -	
Remove existing pipe culvert	No.	1	\$ 1,000	\$ 1,000	
Clean out existing open drain	m	185	\$ 50	\$ 10,000	
Dispose of material/vegetation	Item	1	\$ 3,000	\$ 3,000	
Grade Invert	m	185	\$ 5	\$ 1,000	
Supply and Install 1200 Dia Class 3 RC RRJ pipe	m	185	\$ 739	\$ 137,000	
Backfill with clean sand and compact for 1200 Dia pipe	m3	890	\$ 25	\$ 23,000	SIZE 4.8 x 1.3m
Supply and install headwall to suit 1200 dia pipe	No.	1	\$ 1,000	\$ 1,000	
Sub -total				\$ 191,000	
Engineering and Surveying				\$ 25,000	
Contingency 20%				\$ 43,200	
TOTAL				\$ 260,000	Plus GST

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The cost to undertake the Living Stream treatment for the eastern component of the P1 Sub-Drain is **\$688,311**, with the estimate as follows:

Establishment cost per 10 m section	Rate	unit	area	December 2018 JBA Estimate (200m ²)
\$1.50 per m ² per annum	\$1.50	m2	200	\$300.00
Two Year Establishment Cost				\$600.00
Construction cost per 10 m section <1000mm deep				
	Rate	unit	area	cost
bulk earthworks (cut to spoil, compact and final grade)	\$53.00	m3	140	\$7,420.00
fine grading	\$1.38	m2	200	\$276.00
rockpitching	\$120.00	m2	10	\$1,200.00
Tubestock x 3/m2	\$10.50	m2	200	\$2,100.00
advanced tree planting (no.)	\$350.00	each	3	\$1,050.00
10% Contingency				\$1,204.60
total construction cost per 10 metres				\$13,250.60
Total Establishment Cost per 10 m section				\$600.00
TOTAL COST PER 10 M SECTION				\$13,850.60
Construction cost per 10 m sections 1000 - 1500mm deep				
	Rate	unit	area	cost

bulk earthworks (cut to spoil, compact and final grade)	\$53.00	m3	240	\$12,720.00
fine grading	\$1.38	m2	200	\$276.00
rockpitching	\$120.00	m2	20	\$2,400.00
tubestock	\$10.50	m2	200	\$2,100.00
advanced tree planting (no.)	\$350.00	m2	3	\$1,050.00
10% Contingency				\$1,854.60
total construction cost per 10 metres				\$20,400.60
Total Establishment Cost per 10 m section				\$600.00
TOTAL COST PER 10 M SECTION				\$21,000.60

The above cost does not include tip fees or the preparation of a geotechnical report and includes a two year standard establishment cost. The rate per 10 metres is averaged between the two profiles (that is, between the <1000mm deep and 1000 – 1500mm deep), equating to \$17,425.60 per 10 lineal metres.

9.2.3 Peel Sub Drain P1A

Sub Drain P1A extends 220m north of Orton Road through the Urban zoned land within DCA3 and is between 1000mm and 1500mm deep. The estimated cost to improve the drain with Living Stream treatment is **\$383,363**. This includes the 20 metre-wide reserve and includes bulk earthworks, fine grading, rockpitching, tubestock, advanced tree planting and a 10% contingency.

It should be noted the section south of Orton Road, outside of the Urban zone, will remain open rural drain. At the very end of the drain, where it commences near Landgren Road, will become redundant as it will be Urban zoned land, thus no rural land to drain. North of Orton Road, the section closest to Orton Road remaining in the Rural zoned land can remain open. Thus the only section subject to the Living Stream treatment is the northern section P1A where it meets sub-drain P1.

Additional matters to note in relation to this drain include the location of the District POS. When an LSP for the remaining Casuarina North Precinct indicates this information, then piping this northern section of the P1A Sub-Drain may be a necessary consequence.

Establishment cost per 10 m section	Rate	unit	area	December 2018 JBA Estimate (200m ²)
\$1.50 per m ² per annum	\$1.50	m2	200	\$300.00
Two Year Establishment Cost				\$600.00
Construction cost per 10 m section <1000mm deep				
	Rate	unit	area	cost
bulk earthworks (cut to spoil, compact and final grade)	\$53.00	m3	140	\$7,420.00
fine grading	\$1.38	m2	200	\$276.00
rockpitching	\$120.00	m2	10	\$1,200.00
Tubestock x 3/m2	\$10.50	m2	200	\$2,100.00

advanced tree planting (no.)	\$350.00	each	3	\$1,050.00
10% Contingency				\$1,204.60
total construction cost per 10 metres				\$13,250.60
Total Establishment Cost per 10 m section				\$600.00
TOTAL COST PER 10 M SECTION				\$13,850.60
Construction cost per 10 m sections 1000 - 1500mm deep				
	Rate	unit	area	cost
bulk earthworks (cut to spoil, compact and final grade)	\$53.00	m3	240	\$12,720.00
fine grading	\$1.38	m2	200	\$276.00
rockpitching	\$120.00	m2	20	\$2,400.00
tubestock	\$10.50	m2	200	\$2,100.00
advanced tree planting (no.)	\$350.00	m2	3	\$1,050.00
10% Contingency				\$1,854.60
total construction cost per 10 metres				\$20,400.60
Total Establishment Cost per 10 m section				\$600.00
TOTAL COST PER 10 M SECTION				\$21,000.60

The above cost does not include tip fees or the preparation of a geotechnical report and includes a two year standard establishment cost. The rate per 10 metres is averaged between the two profiles (that is, between the <1000mm deep and 1000 – 1500mm deep), equating to \$17,425.60 per 10 lineal metres.

9.2.4 Peel Sub Drain O

Sub Drain O extends 500m through DCA3 and is approximately 1000mm deep. The estimated cost to improve the drain with Living Stream treatment is **\$871,280**. This includes the 20 metre-wide reserve and includes bulk earthworks, fine grading, rockpitching, tubestock, advanced tree planting and a 10% contingency.

Establishment cost per 10 m section	Rate	unit	area	December 2018 JBA Estimate (200m²)
\$1.50 per m ² per annum	\$1.50	m2	200	\$300.00
Two Year Establishment Cost				\$600.00
Construction cost per 10 m section <1000mm deep				
	Rate	unit	area	cost
bulk earthworks (cut to spoil, compact and final grade)	\$53.00	m3	140	\$7,420.00
fine grading	\$1.38	m2	200	\$276.00
rockpitching	\$120.00	m2	10	\$1,200.00

Tubestock x 3/m2	\$10.50	m2	200	\$2,100.00
advanced tree planting (no.)	\$350.00	each	3	\$1,050.00
10% Contingency				\$1,204.60
total construction cost per 10 metres				\$13,250.60
Total Establishment Cost per 10 m section				\$600.00
TOTAL COST PER 10 M SECTION				\$13,850.60
Construction cost per 10 m sections 1000 - 1500mm deep				
	Rate	unit	area	cost
bulk earthworks (cut to spoil, compact and final grade)	\$53.00	m3	240	\$12,720.00
fine grading	\$1.38	m2	200	\$276.00
rockpitching	\$120.00	m2	20	\$2,400.00
tubestock	\$10.50	m2	200	\$2,100.00
advanced tree planting (no.)	\$350.00	m2	3	\$1,050.00
10% Contingency				\$1,854.60
total construction cost per 10 metres				\$20,400.60
Total Establishment Cost per 10 m section				\$600.00
TOTAL COST PER 10 M SECTION				\$21,000.60

The above cost does not include tip fees or the preparation of a geotechnical report and includes a two year standard establishment cost. The rate per 10 metres is averaged between the two profiles (that is, between the <1000mm deep and 1000 – 1500mm deep), equating to \$17,425.60 per 10 lineal metres.

9.3 Public Open Space

Land acquisition and improvement costs for the provision of POS will be collected and coordinated within DCA3 as the future Local Structure Plan will seek to consolidate POS for at least 1 local sports ground (4.6ha), as per the City's CIP 2018. It must be noted that the total POS required excludes the 3ha portion of District POS, for which all DCAs are liable. Costs will be apportioned on a pro rata gross subdivisible area basis for all landowners within DCA3.

The estimated costs for the POS (provision of 10% of the GSA = 14.7168ha) is **\$8,535,744 + \$17,679,292 = \$26,215,036**, based upon:

Land acquisition: \$580,000 per hectare¹⁰

Standard improvement costs (including establishment costs for 2 years): \$1,201,300 per hectare¹¹

¹⁰ Colliers International land valuation March 2019

¹¹ As per CoK improvement POS cost schedules and comprises an average rate across Local Parks and Neighbourhood Parks, which encompass differing rates

POS is likely to be comprised of both Local and Neighbourhood Parks. **Local Parks** are those less than 1 hectare in area, with a rate for improvements and two years' establishment of \$132.3 per m². **Neighbourhood Parks** are greater than 1 hectare in area, with a per m² rate for improvements and two years' establishment of \$103.85 per m². These rates have been independently verified by a landscape architecture firm.

The improvement costs associated with POS include earthworks, drainage, turfing, reticulation, lighting, fencing, basic furniture and establishment costs for two years.

9.4 District Sporting Ground

The City's CIP 2018 identifies the need for a District Sporting Ground to service Districts A and B as defined in the CIP 2018. DCA3 is located within District B.

The land acquisition and land improvement costs for this facility are to be shared across development within Districts A and B (DCAs 2-7) on a pro rata gross subdivisible area basis. The costs of buildings on the site will be administered and collected under the City's community contribution development contribution plans (DCAs 8-15). The improvement costs associated with DCAs 2-7 include earthworks, drainage, turfing, reticulation, lighting, fencing, basic furniture and establishment costs for two years.

The costs for DCA3 for the District Sporting Ground are estimated at **\$418,475.59** with the proportionate sharing of costs over DCAs 2-7 shown below:

Cost Schedule for District Sporting Ground - DCAs 2 - 7

Development Contribution Area	Total site area (ha)	Deductions for GSA	GSA	District Sporting Ground for DCA
DCA 2 - Wellard	136.389	47.522	88.868	\$252,698.49
DCA 3 - Casuarina**	267.63	120.46	147.17	\$418,475.59
DCA 4 - Anketell	150.854	41.263	109.591	\$311,625.51
DCA 5 - Wandi	188.630	59.579	129.052	\$366,963.56
DCA 6 - Mandogalup	110.925	20.360	90.565	\$257,525.41
DCA 7 - Wellard West/ Bertram	508.044	101.087	406.957	\$1,157,199.44
Total	1,362.47	390.27	972.20	\$2,764,488 (land acquisition 3ha @\$580,000 plus basic land improvements at \$1,024,488)

Table 4: Cost schedule for District Sporting Ground

9.5 Community Facilities

The City's CIP 2018 includes three community facilities to be provided within the Wandi District Centre however as the Wandi District Centre will likely be zoned commercial, there may not be a ready 'trigger' for land for these facilities to be provided through the standard POS processes (as is the case for community facilities within residential subdivision). Consequently it does seem prudent that land for these facilities be provided through development contribution plans.

The three community facilities to be located within the Wandi District Centre are:

Local Community Centre

- conceptual land requirement as a stand-alone facility of 0.5ha
- serves the future population of Wandi and Anketell North only

District Youth Centre

- Conceptual land requirement as a stand alone facility of 0.7ha
- Serves the population of District A only (Wandi, Anketell North and Mandogalup)

Branch Library (serves Districts A and B)

- Conceptual land requirement as a stand alone facility of 0.8ha
- Serves the population of Districts A and B (Wandi, Anketell North, Mandogalup, Anketell South, Casuarina, Wellard East and Wellard West / Bertram)

The City has explored the opportunity to provide the local community centre and branch library on a combined site, potentially within a two storey building. Conceptual designs for the Wandi District Centre have included a ‘main street’ from Anketell Road through to Cordata Avenue (southern extension of Honeywood Ave). The main street would have retail and entertainment uses at ground level and a two storey community facility building along this street could be an excellent attractor and focus for the area. The additional benefit is that there is a reduced cost to the applicable DCPs for the land acquisition component.

Whilst the City is in the process of engaging an architectural firm to design the local community centre and branch library combined facility, conceptual drawings for the facility indicate the buildings and parking could be built on approximately 1.61ha of land. The area within the power line easements could potentially be used for car parking, although this will require more detailed design and consultation with Western Power.

As mentioned above, the three facilities serve different purposes and have three different catchments. The cost apportionment for the land acquisition therefore needs to reflect the different catchments in order to satisfy the need and nexus relationship. The recommended way to apportion these costs is demonstrated in the table below:

Facility	Land component as a stand alone facility	Proposed combined facility proportion of land component
Local community centre	0.5ha	0.35ha
District Youth Centre	0.7ha	0.7ha
Branch Library (serves Districts A and B)	0.8ha	0.56ha
Total	2.0ha	1.61ha

The City’s most recent land valuation within Wandi valued land at \$1.26 million per hectare. Applying this rate indicates the total value of land (1.61ha) to be acquired is approximately \$2,028,600.

DCA3 will proportionately contribute towards the Branch Library component of the combined community facility, as follows:

Branch Library (serves Districts A and B)

Development Contribution Area	Total site area (ha)	Deductions for GSA	GSA	Branch Library for DCA
DCA 2 - Wellard	136.389	47.522	88.868	\$64,498.04
DCA 3 - Casuarina**	267.63	120.46	147.17	\$106,810.51
DCA 4 - Anketell	150.854	41.263	109.591	\$79,538.40
DCA 5 - Wandi	188.630	59.579	129.052	\$93,662.73
DCA 6 - Mandogalup	110.925	20.360	90.565	\$65,730.05
DCA 7 - Wellard West/ Bertram	508.044	101.087	406.957	\$295,360.27
Total	1,362.47	390.27	972.20	\$705,600
** largely estimated figures as only a partial LSP has been adopted by Council				

9.6 Administrative costs

Administrative costs included in the DCP area generally consist of:

- Land valuations and advice
- Administrative expenses
- General legal expenses
- Preparation of management tools

Administrative costs will be charged at a flat rate of 2% of the total infrastructure costs for the DCP.

10.0 Development contribution

Development contributions will be apportioned on a land area basis – either Developable area or Gross Subdivisible Area. This allows for a simple, predictable method of apportioning costs which reduces the administrative burden on the DCP and enables the City to accurately advise prospective developers of the DCP costs.

Gross subdivisible area is defined as per Liveable Neighbourhoods, Western Australian Planning Commission.

Developable area is defined as the total site area less areas for schools, community facilities, dedicated drainage reserves, regional open space, Environmental Protection Policy areas, transmission and infrastructure corridors, and land for regional roads.

11.0 Priority and timing of infrastructure delivery

Due to the fragmented land ownership of DCA3 it is difficult to accurately predict the delivery of infrastructure within the cell. Nonetheless, the Table 5 estimates the timing of development.

Priority	Infrastructure item	Anticipated timing	Comment
1	Public Open Space	1-8 years	Will be provided during subdivisional works.
2	Peel Sub Drains	1-8 years	May be provided by developers with POS adjoining the sub drains during subdivisional works

3	Thomas Road	1-5 years	May be provided in part during subdivision of lots adjoining Thomas Road, in conjunction with Main Roads WA.
4	District Sporting Ground (land component – acquisition and basic improvements)	5-8 years	Required prior to and to tie-in with the City's Community Infrastructure Plan Capital Expenditure Schedule (2018). Community infrastructure construction currently scheduled for 2028-2030.
5	Community Facilities (land component – acquisition and basic improvements)	5-8 years	Required prior to and to tie-in with the City's Community Infrastructure Plan Capital Expenditure Plan (2018). Community infrastructure construction currently scheduled for 2029-2031.
6	Mortimer Road	6-8 years	Is likely to be provided during subdivision works, in conjunction with the City.

Table 5: Estimated timing of infrastructure delivery

12.0 Payment of contributions

12.1 Payment of contributions

The landowners' liability for cost contributions will arise in accordance with clause 6.16.5.13 of LPS2 and Local Planning Policy 4: Administration of Development Contributions.

The Cost Apportionment Schedule will determine the cost of each infrastructure item as follows:

Total estimate/actual cost of infrastructure item **less** any payments made from developers in the DCA area **less** any interest earned for the DCA area where there are surplus funds and interest has been earned = total liability of undeveloped lots payable

The **total liability of undeveloped lots payable for each infrastructure item** will then be divided by the total gross subdivisible area or developable area (depending on the basis of the infrastructure calculation) to calculate a per hectare rate for the infrastructure item.

The landowner's liability for cost contributions is calculated based on the total gross subdivisible area or developable area (whichever is applicable) multiplied by the per hectare rate for the total liability of undeveloped lots payable for each infrastructure item.

12.2 Pre-funded infrastructure works

LPS2 allows for development contributions to be paid for in the form of works in kind provided that the contribution is provided in accordance with the Priority of Works, at the standard and costs, pre-approved by the City of Kwinana. This provision allows the dedication of land, construction of capital works or other service in lieu of a monetary contribution for future urban development. Refer to the City's Local Planning Policy 4: Administration of Development Contributions for the procedures and required information.

It must be noted that all “works in kind” to be undertaken by the landowner/developer that relate to an infrastructure item within the DCP will only be accepted on the proviso that the City has approved the scope, cost estimate and detail of the works in accordance with Clause 6.16.5.14.1(c) of LPS2 prior to the works occurring and has entered into a Letter of Agreement with the relevant landowner/developer. Any reimbursement of DCP funds will occur in line with section 12.3.4 of this DCP Report.

12.3 Other Matters

12.3.1 Grant Funding

Generally, DCP infrastructure items do not attract grant funding. As part of the formulation of the liability of road infrastructure, developers are liable for costs based on the traffic they generate and only to an urban standard. All other liability falls with the City and the City is responsible for this share of the infrastructure works. Therefore, in the event that the grant funds relate to works carried out over and above the developer contribution requirements, the developer will not benefit from this. The developer will not receive a reduction in liability. The City’s contribution for constructing the road infrastructure over and above the urban standard will be reduced based on any grants received.

Such circumstances would be demonstrated via traffic modelling and the like, whereby existing and external users of a particular road may necessitate the need for a higher order road, but the need and nexus of proposed users within the respective DCA would justify the need for an urban standard, lower order road.

Where the City receives a grant for DCP infrastructure where the developer is liable to contribute to the works, the developer will receive a reduced liability for that DCP infrastructure item when the grant has been formally approved and the CAS has been adjusted accordingly as undertaken on an annual basis.

12.3.2 CPI for Infrastructure Constructed within DCA

As a result of the CAS being reviewed annually, there is no requirement to include CPI in any infrastructure items that have not been constructed. The cost of the infrastructure works is reviewed annually which would factor in any price increases or decreases of all future works and the amount required to be collected will be applied across the remaining lots to be developed.

For works already constructed, no CPI will be applied to any infrastructure works that a developer has carried out as an in-kind contribution, as the development company generally ceases to operate once development has occurred.

12.3.3 Interest

a) *Interest applied across the DCA infrastructure items*

Interest earned as part of funds in the DCA area is to be applied across all of the infrastructure items based on a pro rata amount paid towards each infrastructure item. The interest applied will be the actual interest earned for that period for the DCA area.

b) *Interest applied to an infrastructure item where there are insufficient funds in the DCA to refund the developer who has carried out the works in kind*

If there are insufficient funds in the DCA to refund the developer as a result of being approved credits for any works carried out, interest will only commence being calculated once the next Cost Apportionment Schedule review has been undertaken and approved by Council. A Cost Apportionment Schedule is reviewed annually and therefore once both the City of Kwinana and the Developer agree on the credit provided and determine whether there are sufficient funds to refund the developer, will interest commence calculating. Interest will be calculated and credited to the developer using the Reserve Bank of Australia Cash Rate Target monthly average rate, which is the volume-weighted average interbank overnight interest rate on a per annum basis, and commence after Council has reviewed the Cost Apportionment Schedule for credits claimed after the previous Cost Apportionment Schedule approved by Council and the latest Cost Apportionment Schedule approved by Council. Interest will be calculated monthly using the previous month's released monthly average rate divided by 12 months and multiplied by the amount outstanding to the developer (the amount due to be refunded to the developer). The interest calculated will be included in the cost of the relevant infrastructure item and updated in the CAS annually for the remaining developers in the DCA area to contribute to. The developer that is due the refund will not receive the interest calculated until such time as there is sufficient funds in the DCA account.

12.3.4 Reimbursement of DCP funds

Any reimbursement of DCP funds to the relevant landowner – in respect of agreements entered into between the City and the landowner for payment of cost contributions and the adjustment of final cost contributions thereof, or reimbursement to the landowner for approved DCP works undertaken – will only occur if sufficient funds are available within the relevant DCP account.

Once a DCP has been gazetted, the accompanying cost apportionment schedule adopted and all legal agreements for the particular DCP reconciled, then no further reimbursement(s) of DCP funds shall occur until all stages of the development are completed in instances where a particular development comprises several stages.

In addition, no interest earned on funds to be reimbursed shall apply to individual claims for reimbursement once the DCP has been finalised, the accompanying cost apportionment schedule adopted and all legal agreements for the particular DCP reconciled. Instead, all interest earned within the individual DCP account will serve to reduce the total cost contribution liability for the respective DCA as a whole.

12.3.5 Claims on Actuals

The costing attributable to a particular DCP item is comprised of either an estimate (where works for the item have not commenced or claims on actuals have not been received, and are reviewed and updated annually by independent, professional technical experts) and/or an actual amount for the approved works that have been undertaken.

Prior to works proposed to be undertaken on any approved infrastructure item as per this DCP, all plans and cost estimates are firstly to be approved by the relevant City Officer(s). A Deed of Agreement or Exchange Letter may first be required to be entered into between the City and the landowner(s) for this purpose.

To assist in the timely preparation of the annual cost apportionment schedule review by the City, all claims on actuals for approved works undertaken for DCP items must be received by the City by the end of December in any calendar year for inclusion as actuals against costings of the relevant DCP item.

Claims on actuals are required to be presented with the following information:

- A coversheet summary of the approved works undertaken for the relevant item;
- An itemised spreadsheet of claims relevant to the works undertaken detailing specific costs (GST exclusive) vis a vis works undertaken and the dates on which the works were undertaken; and
- Copies of the invoices relevant to the works undertaken.

It must be noted that the costing of actuals, if greater than the City's estimate for the particular item of infrastructure, will only be credited or reimbursed to the extent of the City's estimate as included in the CAS.

12.3.6 Two Year Establishment Cost

A two-year establishment period is applicable to all landscaping works for DCP items, including landscaping to roads, POS areas and Living Streams in the context of Sub-drains.

Similar to claims on actuals, actuals attributable to the two year establishment period are to be provided to the City annually by the end of December in any calendar year, in order to be included in the ensuing annual update of the CAS.

Further, and similarly to claims on actuals, actuals attributable to two year establishment costs are to be presented with the following information:

- A coversheet summary of the two years' establishment costs incurred to date;
- An itemised spreadsheet of claims relevant to the two years' establishment detailing specific costs (GST exclusive), establishment works undertaken and the date on which the specific establishment work was undertaken; and
- Copies of the invoices relevant to the works undertaken.

13.0 Review

The DCP will be reviewed when considered appropriate, though not exceeding a period of five years from the date of gazettal of Amendment 100A to Local Planning Scheme No. 2, having regard to the rate of subsequent development in the catchment areas since the last review and the degree of development potential still existing.

The estimated infrastructure costs contained in the Infrastructure Cost Contribution Schedule will be reviewed at least annually to reflect changes in funding and revenue sources.

Appendix 1 – Development Contribution Plan 3 as per LPS2

	DEVELOPMENT CONTRIBUTION PLAN 3
Reference No.	DCP3
Area Name:	Development Contribution Area 3 - Casuarina – Standard Infrastructure
Relationship to other planning instruments:	The development contribution plan generally aligns with the district and/or local structure plans prepared for the development contribution area.
Infrastructure and administrative items to be funded:	<p>1. Roads</p> <p>1.1 Mortimer Road – 100% of the full cost of design, realignment, construction and land acquisition of Mortimer Road to a single carriageway urban standard between Kwinana Freeway to Woolcoot Road. Includes full earthworks, carriageway, drainage, landscaping, undergrounding of power and all treatments (including intersections, roundabouts, lighting, kerbing and footpaths). Costs will be shared between Owners in Development Contribution Area 2 and Development Contribution Area 3 on a pro rata developable area basis.</p> <p>1.2 Thomas Road – 100% of the full cost of design, construction of Thomas Road to an urban standard as approved and required by Main Roads WA between Kwinana Freeway and the boundary of the Urban zone near Bombay Boulevard. Includes full earthworks, carriageway, drainage, landscaping, undergrounding of power and all treatments (including intersections, lighting, kerbing and footpaths). Costs will be shared between Owners in Development Contribution Area 3 and Development Contribution Area 4 on a pro rata developable area basis</p> <p>2. Drainage – Peel Sub Drains (as identified by the Water Corporation’s “Jandakot Drainage and Water Management Plan 2009”)</p> <p>2.1 Peel Sub P Drain – 100% of the cost of the upgrade of the Sub P Drain to an appropriate urban standard.</p> <p>2.2 Peel Sub P1 Drain – 100% of the cost of the upgrade of the Sub P1 Drain to an appropriate urban standard and piping under the district open space as per the structure plan.</p> <p>2.3 Peel Sub P1A Drain - 100% of the cost of the upgrade of the Sub P1A Drain to an appropriate urban standard.</p> <p>2.4 Peel Sub O Drain - 100% of the cost of the upgrade of the Sub O Drain to an appropriate urban standard.</p> <p>3. Public open space</p> <p>3.1 100% of the land acquisition costs to acquire public open space in accordance with the structure plan or public open space strategy prepared for the development contribution area, including land for community purposes.</p>

	<p>3.2 100% of the costs to improve the public open space to an appropriate standard for use in accordance with the structure plan prepared for the development contribution area.</p> <p>3.3 Only creditable public open space as per Liveable Neighbourhoods forms part of items 3.1 and 3.2.</p> <hr/> <p>4. District Sporting Ground</p> <p>4.1 Costs associated with the acquisition, site works and basic servicing of land for a District Sporting Ground to be located within Casuarina as per the City of Kwinana Community Infrastructure Plan 2011-2031 as revised. Costs will be shared between Owners in Development Contribution Areas 2-7 inclusive.</p> <hr/> <p>5. Community Facilities</p> <p>5.1 Costs associated with the acquisition of land for a Branch Library (serves Districts A and B) as part of a combined community facility to be located within the Wandi District Centre as per the City of Kwinana Community Infrastructure Plan 2011-2031 as revised. Costs will be shared between Owners in Development Contribution Areas 2-7 inclusive.</p> <hr/> <p>1. Administration costs</p> <p>1.1 Administration costs associated with administering the development contribution plan.</p>
<p>Method for calculating contributions:</p>	<p>Contributions for item 1 on a pro rata developable area basis. <i>Developable area</i> is defined as the total site area less areas for schools, community facilities, dedicated drainage reserves, regional open space, Conservation Category Wetland Areas, transmission and infrastructure corridors, and land for regional roads.</p> <p><u><i>Infrastructure Item per hectare calculation for Developable Area</i></u> Infrastructure Item per hectare calculation = Cost of infrastructure item for DCA / (divide) total Developable Area for the total DCA area (ha)</p> <p><u><i>Contributions based on pro rata Developable Area</i></u> Developable Area (ha) of land parcel = Total Site Area (ha) of land parcel - (minus/subtract) Deductions for Developable Area (ha)</p> <p><u><i>Cost Contribution for Developable Area</i></u> Cost Contribution = Developable Area (ha) of land parcel x infrastructure item per hectare calculation</p> <p>Contributions for items 2, 3, 4 and 5 will be calculated on a pro rata gross subdivisible area basis. <i>Gross subdivisible area</i> is defined as per <i>Liveable Neighbourhoods</i> (Western Australian Planning Commission).</p>

	<p><u>Infrastructure Item per hectare calculation for Gross Subdivisible Area</u> Infrastructure Item per hectare calculation = Cost of infrastructure item for DCA / (divide) total GSA for the total DCA area (ha)</p> <p><u>Contributions based on pro rata Gross Subdivisible Area</u> Gross Subdivisible Area (GSA) (ha) of land parcel = Total Site Area (ha) - (minus/subtract) Deductions for Gross Subdivisible Area (ha)</p> <p><u>Cost Contribution for Gross Subdivisible Area</u> Cost Contribution = GSA (ha) of land parcel x infrastructure item per hectare calculation</p> <p><u>Cost Contribution for Administration Costs</u> Contributions for item 6 are applicable across all infrastructure items and will be apportioned to each landholding based on 2% of the total infrastructure item costs for that DCP area.</p> <p>Cost Contribution = Sum of the total Capital Infrastructure Costs for the Development Contribution Area x 2%</p> <p><u>Total Contribution</u> Total Contribution = Cost Contribution Infrastructure items calculated using Gross Subdivisible Area + (plus) Cost Contribution Infrastructure items calculated using Developable Area + (plus) Cost Contribution for Administration Costs</p>
<p>Period of operation:</p>	<p>10 years from the date of gazettal.</p>
<p>Priority and timing:</p>	<p>The development contribution plan report to be prepared as per clause 6.16.5.10.1 will outline the priority and timing of the infrastructure items nominated in the development contribution plan. Generally the priority and timing of the infrastructure items will be determined by the rate of development growth within the development contribution area and will be reviewed when considered appropriate.</p>
<p>Review process:</p>	<p>The plan will be reviewed when considered appropriate, though not exceeding a period of five years duration, having regard to the rate of subsequent development in the catchment areas since the last review and the degree of development potential still existing.</p> <p>The estimated infrastructure costs contained in the Infrastructure Cost Contribution Schedule will be reviewed at least annually to reflect changes in funding and revenue sources.</p>