MAROOCHY SHIRE COUNCIL PLANNING SCHEME
POLICY NO. DC1
WATER SUPPLY & SEWERAGE INFRASTRUCTURE

DC 1.1 INTRODUCTION

(1) From an infrastructure planning and charging perspective, the development of the water supply and sewerage infrastructure strategy has been generally based on a number of community outcomes or objectives outlined in the customer services standards for Maroochy Water Services (the commercialised business unit of Council).

(2) For water supply infrastructure, Maroochy Water Services is to provide water that:

- is a of a quality that maintains the health of the community;
- is clear and free from objectionable odour and taste;
- is reliably supplied to each property within the water service area;
- performs an effective and affordable service in relation to:
  - delivering water to a desirable pressure and flow
  - ensuring fire fighting can be undertaken with the supply
  - optimising the network and operating conditions to reduce whole of life costs and provide an efficient service
- fosters sustainable water consumption, including:
  - ensuring that potable water supply methods are applied in the context of water sensitive urban design
  - managing the collection and use of water on-site
  - allowing for the efficient development of land through innovative use of on-site storage where appropriate.

(3) For sewerage infrastructure, Maroochy Water Services is to provide sewerage services that:

- effectively and efficiently remove wastewater from premises located within the sewerage service area;
- appropriately treat wastewater to maintain the health of the community and reduce the impact on the natural environment including contaminant and nutrient loading on waterways;
- reduce odours from the sewerage system and improve the amenity of premises;
- perform an effective and affordable service in relation to:
  - Conveying sewage at adequate velocity to limit blockages and detention times
  - Limiting surcharging of the network
  - Reducing whole of life costs
  - Treating wastewater from industry and the community
- ensure wastewater disposal methods (including effluent reuse) are applied in the context of water sensitive urban design.

(4) Council is committed to ensure that the water supply & sewerage network provides an effective, efficient and quality service to the community.

(5) This Planning Scheme Policy is the mechanism to partially fund, via developer contributions, the construction of water supply & sewerage trunk infrastructure.

(6) Infrastructure contributions are to be provided towards the establishment costs incurred or to be incurred in providing existing and future water supply truck infrastructure and sewerage truck infrastructure in accordance with this planning scheme policy.

(7) The scope of water supply & sewerage infrastructure for which funding is obtained via this planning scheme policy is limited to water supply & sewerage trunk infrastructure.

(8) This planning scheme policy –

(a) specifies the methodology for determining contributions for water supply headworks or sewerage headworks;
(b) specifies the works, structures or equipment determined to be water supply headworks or sewerage headworks.

NOTE DC 1.1 INTERNAL WATER SUPPLY & SEWERAGE INFRASTRUCTURE

1) The 'internal' water supply & sewerage infrastructure (eg. water supply or sewerage reticulation mains) is the responsibility of the Developer and will be applied as a condition in any development approval.

2) For the purpose of clarity it is recorded that the Council is not responsible for the construction or the cost of any part of internal water supply & sewerage infrastructure.

3) Infrastructure contributions payable by a Developer pursuant to this Planning Scheme Policy are additional to the 'internal' infrastructure that the Developer is required to provide as part of a development.

(9) The provisions in this planning scheme policy relate to the Infrastructure Contributions for water supply & sewerage trunk infrastructure as follows -

a) The existing water supply & sewerage trunk infrastructure (see section DC 1.2);
b) The future water supply & sewerage trunk infrastructure (see section DC 1.3);
c) The desired standard of service for water supply & sewerage trunk infrastructure (see section DC 1.4);
d) The estimated establishment cost of water supply & sewerage trunk infrastructure (see section DC 1.5);
e) The estimated establishment cost of water supply & sewerage trunk infrastructure to be funded by the contribution (see section DC 1.6); and
f) Infrastructure contributions and calculations (see sections DC 1.7 and Schedule DC 1).

DC 1.2 EXISTING WATER SUPPLY & SEWERAGE TRUNK INFRASTRUCTURE

NOTE DC 1.2 A

Water Supply

1) The Local Government operates an integrated water supply scheme for the Image Flat/Landers Shute Scheme and a localised scheme for the Town of Kenilworth.

2) For the Image Flat/Landers Shute Scheme treated water supplied is purchased in bulk from the Caloundra –Maroochy Water Supply Board by agreement, with the remainder being supplied from the Local Government's own dams and treatment plant at Image Flat.

3) For the Kenilworth Scheme water is sourced from bores and a well adjacent to the Mary River and treated at its own treatment plant.

Sewerage

4) The Local Government operates the following sewerage schemes -

(a) Maroochydore;

(b) Nambour;

(c) Coolum;

(d) Suncoast;

(e) Yandina;

(f) Kenilworth;

(g) Eumundi.

(1) The existing water supply trunk infrastructure is generally shown on DC1 Figure 1 including reference to the detailed drawings (refer Appendix 1).

(2) The existing sewerage trunk infrastructure is generally shown on DC1 Figure 2 including reference to the detailed drawings (refer Appendix 2).

NOTE DC 1.2 B
Further details in relation to existing water supply & sewerage trunk infrastructure, can be found in the 'Water and Sewerage Network Analysis 2004 including supporting detailed drawings', that forms part of this planning scheme policy.

DC 1.3 FUTURE WATER SUPPLY & SEWERAGE TRUNK INFRASTRUCTURE

(1) The future trunk infrastructure to be provided for—

(a) District and zonal water supply trunk infrastructure is generally shown on DC1 Figure 1 including reference to the detailed drawings (refer Appendix 1).
(b) District and sub–catchment sewerage trunk infrastructure is generally shown on DC1 Figure 2 including reference to the detailed drawings (refer Appendix 2).

NOTE DC 1.3
Further details in relation to future water supply & sewerage trunk infrastructure, can be found in the 'Water and Sewerage Network Analysis 2004 including supporting detailed drawings' that forms part of this planning scheme policy.

DC 1.4 DESIRED STANDARD OF SERVICE FOR WATER SUPPLY & SEWERAGE TRUNK INFRASTRUCTURE

(1) The desired standard of service for water supply & sewerage trunk infrastructure is outlined in Table DC 1.4.1 (refer Appendix 3).

NOTE DC 1.4
1) It is acknowledged that in some cases, due to local circumstances, the desired standard of service may not be met.
2) In these situations, water supply & sewerage trunk infrastructure aims to meet the standards to the greatest degree practicable.

DC 1.5 ESTIMATED COST OF WATER SUPPLY AND SEWERAGE TRUNK INFRASTRUCTURE

(1) The estimated establishment costs for water supply & sewerage trunk infrastructure is outlined in Table DC 1.5.

TABLE DC 1.5 WATER SUPPLY & SEWERAGE TRUNK INFRASTRUCTURE COSTS ($)

Infrastructure Works	Existing Trunk Infrastructure	Future Trunk Infrastructure	Total
Water Supply			
District	$173,065,019	$283,693,155	$456,758,175
Zonal	$86,768,044	$48,743,145	$135,511,190
Sewerage			
District	$138,183,123	$422,026,189	$560,209,312
Sub-catchment	$106,864,117	$46,150,050	$153,014,168
Total	$504,880,304	$800,612,540	$1,305,492,844

NOTE DC 1.5
1) Further details in relation to the estimated establishment costs for future water supply & sewerage trunk infrastructure for the various water supply zones and sewerage sub-catchments can be found in the 'Water and Sewerage Network Analysis 2004 including supporting detailed drawings', that forms part of this planning scheme policy.
2) Within the water supply and sewerage trunk infrastructure categories, connecting works have not been costed as these works are generally not planned in the overall network analysis.

DC 1.6 PROPORTION OF WATER SUPPLY & SEWERAGE TRUNK INFRASTRUCTURE ESTABLISHMENT COSTS TO BE FUNDED BY INFRASTRUCTURE CONTRIBUTIONS

(1) The proportion of water supply & sewerage trunk infrastructure costs attributable to infrastructure contributions is outlined in Table DC 1.6.

TABLE DC1.6 PROPORTION OF WATER SUPPLY & SEWERAGE TRUNK INFRASTRUCTURE ESTABLISHMENT COSTS SUBJECT TO INFRASTRUCTURE CONTRIBUTIONS ($)

TYPE OF WORKS	COSTS NOT SUBJECT TO INFRASTRUCTURE CONTRIBUTIONS	COSTS SUBJECT TO INFRASTRUCTURE CONTRIBUTIONS
WATER SUPPLY DISTRICT	$148,562,113	$308,196,062
WATER SUPPLY ZONAL	$48,418,707	$87,092,482
SEWERAGE DISTRICT	$148,634,678	$411,574,634
SEWERAGE SUB-CATCHMENT	$48,068,396	$104,945,772
TOTAL	**$393,683,894**	**$911,808,950**

DC1.7 INFRASTRUCTURE CONTRIBUTIONS AND CALCULATIONS

(1) Those areas of the Shire and the type of development applications subject to water supply and sewerage trunk infrastructure contributions together with the method of calculating the contribution is outlined in Schedule DC 1.

SCHEDULE DC 1: WATER SUPPLY & SEWERAGE TRUNK INFRASTRUCTURE CONTRIBUTIONS SCHEDULE

AREAS WHERE INFRASTRUCTURE CONTRIBUTIONS APPLY

(1) For the purpose of determining infrastructure contributions towards water supply and sewerage trunk infrastructure, water supply and sewerage trunk infrastructure has been generally categorised as outlined in Table 1 —

Table 1: Water Supply & Sewerage Trunk Infrastructure Categories

Infrastructure Category	Area	Type of Work
Water Supply	District	Dams, water treatment plants, raw water mains to water treatment plants, treated water mains to Council bulk supply points, trunk delivery mains from bulk supply points and water treatment plants, pump stations, reservoirs, associated telemetry systems and monitoring instrumentation.
Water Supply	Zonal	Zonal raw water mains and raw water pumping stations (eg Kenilworth), zonal water treatment plants (eg Kenilworth), Distribution mains, elevated and non-District reservoirs, Distribution pump stations, associated telemetry systems and monitoring instrumentation.
Sewerage	District	Sewage Treatment Plants, effluent and biosolids reuse and disposal systems, trunk sewers, pressure mains, pump stations, associated telemetry systems, instrumentation and odour control systems.
Sewerage	Sub-catchment	Trunk collection sewers and pressure mains, pump stations, associated telemetry systems, instrumentation and odour control systems.

(2) Those areas of the Shire that are to be provided with District trunk infrastructure are to be subject to a District trunk infrastructure contribution, which is that part of the Water Supply & Sewerage Trunk Infrastructure Contribution used to provide District facilities.

(3) Those areas of the Shire that are to be provided with Zonal or Sub-catchment trunk infrastructure are to be subject to a Zonal or Sub-catchment trunk infrastructure contribution, which is that part of the Water Supply & Sewerage Trunk Infrastructure Contribution used to provide respectively Zonal and Sub-catchment facilities.

(4) Those areas of the Shire subject to trunk infrastructure contributions and the boundaries of the various infrastructure categories are, for water supply zones shown on DC1 Figure 3 (refer Appendix 4) and for sewerage sub-catchments shown on DC1 Figure 4 (refer Appendix 5).

APPLICATION OF CONTRIBUTION

(5) Subject to clause (5A), Water Supply & Sewerage Trunk Infrastructure Contributions apply to every development application that involves –

(a) Reconfiguring a lot; or
(b) A material change of use

(5A) The following uses are exempt from paying water supply and sewerage infrastructure contributions –

(a) all uses defined within the 'Rural Use' category as defined in the Planning Scheme (unless a connection to the water supply or sewerage network is required);
(b) uses defined in the Planning Scheme as 'Car Park', 'Extractive Industry' (unless a connection to the water supply or sewerage network is required) or 'Home-based business' (provided equivalent demand for a detached house is not exceeded);
(c) a material change of use for a detached house, except where the lot is not connected to the reticulated water supply or sewerage network or where the lot is not subject to a vacant water supply or sewerage charge. In this regard, the water supply and sewerage networks are to be treated as separate systems, subject to separate determinations about infrastructure charges; or
(d) Non-complying Self-Assessable Development as defined in Planning Scheme Policy DCA – Administration.

DETERMINATION OF WATER SUPPLY & SEWERAGE TRUNK INFRASTRUCTURE UNIT RATES

(6) The Water Supply & Sewerage Trunk Infrastructure Unit Rates for the purposes of calculating Water Supply & Sewerage Trunk Infrastructure Contributions is to be determined for each area in respect of each category of Water Supply & Sewerage trunk infrastructure set out in Table 1.

(7) The Water Supply & Sewerage Trunk Infrastructure Unit rate has been calculated as follows –

Rate = A + B

Where

A is the district rate determined by the relevant district establishment costs ÷ equivalent population for the area serviced by the district infrastructure.

B is the zonal or sub-catchment rate determined by the relevant establishment costs for each applicable zone or sub-catchment ÷ equivalent population for each applicable zone or sub-catchment.

(8) The water supply & sewerage trunk infrastructure unit rates for the various zones or sub-catchments, based on the calculation in paragraph (7), are contained in Table 3 (Water Supply) and Table 4 (Sewerage).

DETERMINATION AND CALCULATION OF WATER SUPPLY OR SEWERAGE TRUNK INFRASTRUCTURE CONTRIBUTIONS

(9) The water supply or sewerage trunk infrastructure contribution for any proposed development is to be calculated as follows –

[(A – B) – C] x D x E

Where

A (being proposed demand) is –

i. For reconfiguring a lot the water supply or sewerage demand factor for the Land or lots (excluding any Dedicated Lots) included in the development application based on the method creating the higher level of demand calculated using the rates outlined in Table 2 (a) and Table 2 (b).
ii. For a material change of use the water supply or sewerage demand factor for the use or Land included in the development application based on the method creating the higher level of demand calculated using the rates outlined in Table 2 (a) and Table 2 (b).
iii. For a material change of use where an existing building or existing work is proposed to be changed or extended or a new building or work is proposed to be erected on land occupied by an existing use the water supply or sewerage demand factor for the use included in the development application calculated using the rates outlined in Table 2 (b).

B (being existing use demand entitlements) is –

i. For vacant land, the water supply or sewerage demand factor allowed for a single detached house (3.2 EP)[1] or where previous infrastructure contributions have been paid to Council the demand on which the previous contributions were based[2].
ii. Otherwise, the existing use demand entitlement[3].

C is any applicable infrastructure credit for the land (granted as a result of providing advanced funding for the construction of trunk infrastructure or contributing trunk infrastructure) as outlined in the register of Infrastructure Contributions and Credits.

D is the applicable water supply or sewerage trunk infrastructure unit rate as outlined respectively in Tables 3 or 4 for the zone or sub-catchment in which the land is situated.

E is the applicable water supply or sewerage trunk infrastructure unit charge at the date of payment (refer to Section 3.5 Infrastructure Unit Charges in Planning Scheme Policy DCA – Administration for details of the water supply or sewerage trunk infrastructure unit charge currently in force).

NOTE 1 SCHEDULE DC 1
UNIT CHARGES
(1) For convenience, the trunk infrastructure unit charge for water supply trunk infrastructure or sewerage trunk infrastructure is contained in the Local Government's Scale of Fees and Charges.

[1] For water supply and sewerage trunk infrastructure contributions, any equivalent population (EP) for a single detached house only applies where the lot or dwelling is already connected to the reticulated water supply or sewerage network or where the lot is subject to a vacant water supply or sewerage charge. In this regard the water supply and sewerage networks are to be treated as separate systems, subject to separate determinations about infrastructure.

[2] The onus is upon the applicant to provide evidence of any previous infrastructure contributions paid to Council.

[3] Refer to Division 10 – Glossary of Terms in Planning Scheme Policy DCA – Administration for an explanation of the term "existing use demand entitlement".

NOTE 2 SCHEDULE DC1

EXAMPLES

(1) (a) It is proposed to reconfigure 3 hectares of land at Coolum Beach on the boundaries of Precincts 4 and 9 into:-

(A): 1 lot (8000m²) for future unspecified shops;

(B): 1 lot (5000m²) for future house sites (unspecified number of lots) and

(C): 19 residential lots on 1.7 hectares comprising 15 traditional house lots and 4 courtyard lots

(b) No previous water supply contributions were paid nor is the land subject to infrastructure credits. The land is subject to a vacant water rate.

(c) The water supply infrastructure demand for the proposed development using the rates outlined in Table 2(a) and Table 2 (b) is as follows:-

A	**B**	**C**
8000 m^2 As this proposed lot is a 'Management Lot' the water supply demand factor is equivalent to a single detached house – refer Table 2(a) or Table 2(b)	5000 m^2 As this proposed lot is a 'Management Lot' the water supply demand factor is equivalent to a single detached house – refer Table 2(a) or Table 2(b)	1.7 ha As there is a 'residential lot' proposal for the land use both Table 2 (a) and Table 2 (b) to determine the demand factor and choose whichever Table calculates the highest demand factor (i.e. EP)
The demand for a single detached house = 3.2 EP ✓	The demand for a single detached house = 3.2 EP ✓	30 EP/ha x 1.7 ha = 51 EP ✗ OR 15 trad. lots x 3.2 EP = 48 EP 4 c'yard lots x 3.2 EP = 12.8 EP = 60.8 EP ✓

(d) The water supply demand for the development (A) = 67.2 EP

(e) As the land is not subject to infrastructure credits nor the subject of previous water supply contributions but is subject to a vacant water rate the existing demand is that allowed for a single detached house (refer to 'B' in the calculation formula).

(f) The demand for a single detached house is 3.2 EP (refer to 'B' in the calculation formula).

B = 3.2EP

(g) The increase in demand is A – B = 64 EP

(h) The infrastructure contribution is –

64 x 2,081 (from Table 3 Zone 12-Coolum Int)
133,184 x $1.0762 (Infrastructure Unit Charge)

= $143,332.62

(2) (a) It is proposed to extend by 500m^2 an existing 1000m^2 shopping centre at Kuluin / Kunda Park.

(b) As this is an extension to an existing use infrastructure contributions only apply to the proposed extension.

(c) No previous water supply contributions were paid nor is the land subject to infrastructure credits.

(d) The water supply infrastructure demand for the proposed development using the rates outlined in Table 2(b) is as follows:-

Use Table 2 (b) (Defined Uses) to determine the demand factor for a 'Shopping Complex'.

$$\frac{1500m^2}{100m^2} \times 1.25 \text{ EP}$$

= 18.75 EP

(e) The water supply demand for the development (A) = 18.75 EP

(f) The existing water supply infrastructure demand for the shopping centre is as follows –

$$\frac{1000m^2 \times 1.25 \text{ EP}}{100m^2}$$ B = 12.5EP

(g) The increase in infrastructure demand is A-B which equals 6.25EP.

(h) The infrastructure contribution is-

6.25 x 1,538 (from Table 3 Zone 17 – Kunda)

9,612.50 x $1.0762 (Infrastructure Unit Charge)

= $10,344.97

(3) (a) In this example assume the same parameters as outlined in example (2) except that previous contributions of $5,200 were paid for the existing centre.
(b) The water supply demand for the development (A) = 18.75 EP (refer example 2).
(c) The existing EP demand is to be equal to the EP on which the previous payment was determined. It was ascertained that the $5,200 previous payment was determined using 5.5 EP. The 5.5 EP becomes the existing use demand factor.
(d) The increase in infrastructure demand is A-B which equals 13.25 EP.
(e) The infrastructure contribution is –

13.25 x 1,538 (from Table 3 Zone 17 - Kunda)
20,378.50 x $1.0762 (Infrastructure Unit Charge)

= $21,931.34

(4) (a) It is proposed to demolish an existing fabrication industry workshop (2000m^2 GFA) to construct a 2500m^2 shopping centre at Kunda Park.
(b) The land is 8000m^2 within the 'Local Centre' Precinct.
(c) No previous water supply contributions were paid nor is the land subject to infrastructure credits.
(d) The water supply infrastructure demand for the proposed development using the rates outlined in Table 2(a) and Table 2 (b) is as follows -

Use both Table 2(a) and Table 2 (b) to determine the demand factor and choose whichever Table calculates the highest demand factor (i.e. EP)

Using Table 2(a), the demand is:

$$\frac{35 \text{ EP / ha} \times 8000\text{m}^2}{10000\text{m}^2}$$

= 28 EP ✘

OR

Using Table 2 (b), the demand for a 'shopping complex' is:

$$\frac{2500\text{m}^2}{100\text{m}^2} \times 1.25 \text{ EP}$$

= 31.25 EP ✓

(e) The water supply demand for the development (A) = 31.25 EP.
(f) The existing water supply infrastructure demand for the fabrication industry ('General Industry') is as follows –

$$\frac{2000\text{m}^2 \times 0.75 \text{ EP}}{100\text{m}^2}$$ B = 15 EP

(g) The increase in infrastructure demand is A – B which equals 16.25 EP.
(h) The infrastructure contribution is –

16.25 x 1,538 (from Table 3 Zone 17 – Kunda)
24,992.50 x $1.0762 (Infrastructure Unit Charge)

= $26,896.93

(5) (a) It is proposed to demolish existing shops (2000m^2 GFA) and construct 120 two bedroom dwelling units and 1000m^2 shops at Maroochydore.
(b) The land is 8000 m^2 within the 'Multi-storey Residential' Precinct.
(c) No previous water supply contributions were paid nor is the land subject to infrastructure credits.
(d) The water supply infrastructure demand for the proposed development using the rates outlined in Table 2(a) and Table 2 (b) is as follows:–

Use both Table 2(a) and Table 2 (b) to determine the demand factor and choose whichever Table calculates the highest demand factor (i.e. EP)

Using Table 2 (a), the demand is:

$$\frac{300 \text{ EP} \times 8000 \text{m}^2}{10000 \text{ m}^2}$$

= 240 EP ✓

OR

Using Table 2 (b), the demand for 'Multiple Dwelling Units' (2 bedroom/unit) and 'Shops' is:

120 units x 1.5 EP / du = 180 EP

$$\frac{1000 \text{ m}^2}{100 \text{ m}^2} \times 1.25 \text{ EP} = 12.5 \text{ EP}$$

= 192.5 EP ✘

(e) The water supply demand for the development (A) = 240 EP.
(f) The existing water supply infrastructure demand for the shops is as follows –

$$\frac{2000 \text{ m}^2 \times 1.25 \text{ EP}}{100 \text{m}^2}$$ B = 25 EP

(g) The increase in infrastructure demand is A – B which equals 215 EP.
(h) The infrastructure contribution is –

215 x 1,396 (from Table 3 Zone 18 – Maroochy South)
300,140 x $1.0762 (Infrastructure Unit Charge)

= $323,010.66

Notes:
EP = Equivalent Population
du = dwelling unit
GFA = Gross Floor Area
ha = hectare

Water Supply and Sewerage Demand Factor Rates

(10) The water supply and sewerage demand factor rates for the various precinct classes within each Planning Area outlined in Volume 3 of this Planning Scheme is shown in Table 2 (a).

(11) The water supply and sewerage demand factor rates for the various uses outlined in section 3.3 (Use Definitions) Volume 1 of this Planning Scheme are shown in Table 2 (b).

(12) Where calculating the proposed demand requires the use of both Table 2 (a) and Table 2 (b) for determining the water supply or sewerage demand factor rate, the table that calculates the highest demand factor rate is to be used as the water supply or sewerage demand factor.

Table 2 (a): Water Supply and Sewerage Demand Factor Rates for General or Specific Precincts

Precinct*	No	Planning Area	Water Supply Demand Factor**	Sewerage Demand Factor**
Business and Industry	All Precincts		25EP/ha	35EP/ha
Core Industry	All Precincts		25EP/ha	35EP/ha
General Rural Lands	All Precincts		N/A	N/A
Hill slope Residential	All Precincts		15EP/ha	15EP/ha
Local Centre	22	Maroochydore	45EP/ha	90EP/ha
	All other precincts		35EP/ha	70EP/ha
Master Planned Community	9	Maroochydore	110EP/ha	121EP/ha
	10	Maroochydore	110EP/ha	121EP/ha
	11	Maroochydore	110EP/ha	121EP/ha
	15	Maroochydore	90EP/ha	99EP/ha
	28	Nambour	35EP/ha	38.5EP/ha
	4	Sippy Downs	40EP/ha	44EP/ha
	5	Sippy Downs	40EP/ha	44EP/ha
	8	Sippy Downs	40EP/ha	44EP/ha
	11	Sippy Downs	40EP/ha	44EP/ha
	15	North Shore	30EP/ha	33EP/ha
	16	North Shore	190EP/ha	209EP/ha
	8	Mt. Coolum	100EP/ha	133EP/ha
	9	Mt. Coolum	35EP/ha	38.5EP/ha
	16	Eudlo Creek Valley	50EP/ha	55EP/ha
	All other precincts		30EP/ha	30EP/ha
Mixed Housing	13	Maroochydore	135EP/ha	180EP/ha
	17	Maroochydore	120EP/ha	160EP/ha
	20	Maroochydore	120EP/ha	160EP/ha
	23	Maroochydore	110EP/ha	146EP/ha
	25	Maroochydore	135EP/ha	180EP/ha
	27	Maroochydore	120EP/ha	160EP/ha
	3	Nambour	80EP/ha	106EP/ha
	4	Nambour	80EP/ha	106EP/ha
	7	Mooloolaba	135EP/ha	180EP/ha
	8	Mooloolaba	135EP/ha	180EP/ha
	13	Mooloolaba	140EP/ha	186EP/ha
	2	Buderim	85EP/ha	113EP/ha
	5	Alexandra Headland/ Cotton Tree	120EP/ha	160EP/ha
	8	Alexandra Headland/ Cotton Tree	140EP/ha	186EP/ha

Precinct*	No	Planning Area	Water Supply Demand Factor**	Sewerage Demand Factor**
	10	Alexandra Headland/ Cotton Tree	120EP/ha	160EP/ha
	11	Alexandra Headland/ Cotton Tree	135EP/ha	180EP/ha
	4	Kuluin/Kunda Park	70EP/ha	93EP/ha
	13	North Shore	70EP/ha	93EP/ha
	2	Mt. Coolum	140EP/ha	186EP/ha
	3	Coolum Beach	200EP/ha	266EP/ha
	2	Woombye	60EP/ha	80EP/ha
	6	Eumundi	60EP/ha	80EP/ha
	All other precincts		100EP/ha	133EP/ha
Multi-storey Residential	5	Mooloolaba	240EP/ha	384EP/ha
	6	Mooloolaba	240EP/ha	384EP/ha
	2	Alexandra Headland/Cotton Tree	320EP/ha	512EP/ha
	2	North Shore	200EP/ha	320EP/ha
	All other precincts		300EP/ha	480EP/ha
Neighbourhood Residential	All Precincts		30EP/ha	30EP/ha
Special Purpose	3	Sippy Downs	150EP/ha	150EP/ha
	All Other Precincts		To determine demand factor rates, use the precinct or precincts from this table that most closely align with the proposed development	To determine demand factor rates, use the precinct or precincts from this table that most closely align with the proposed development
Sustainable Cane Lands	All Precincts		N/A	N/A
Sustainable Horticultural Lands	All Precincts		N/A	N/A
Sustainable Pastoral Lands	All Precincts		N/A	N/A
Sustainable Rural Residential	All Precincts		5EP/ha	N/A
Town Centre Core	1	Maroochydore	300EP/ha	600EP/ha
	2	Maroochydore	200EP/ha	400EP/ha
	3	Maroochydore	110EP/ha	220EP/ha
	4	Maroochydore	300EP/ha	600EP/ha
	1	Nambour	50EP/ha	100EP/ha
	1	Sippy Downs	60EP/ha	120EP/ha
	1	Mooloolaba	300EP/ha	600EP/ha
	All other precincts		50EP/ha	100EP/ha
Town Centre Frame	5	Maroochydore	40EP/ha	80EP/ha
	6	Maroochydore	35EP/ha	70EP/ha
	7	Maroochydore	150EP/ha	300EP/ha
	8	Maroochydore	200EP/ha	400EP/ha
	2	Nambour	45EP/ha	90EP/ha
	2	Sippy Downs	80EP/ha	160EP/ha
	2	Mooloolaba	200EP/ha	400EP/ha
	3	Mooloolaba	200EP/ha	400EP/ha
	4	Mooloolaba	100EP/ha	200EP/ha
	1	Kuluin/Kunda Park	35EP/ha	70EP/ha
	All other precincts		50EP/ha	100EP/ha

Precinct*	No	Planning Area	Water Supply Demand Factor**	Sewerage Demand Factor**
Village Centre	1A	Buderim	45EP/ha	90EP/ha
	1B	Buderim	45EP/ha	90EP/ha
	1	Coolum Beach	200EP/ha	400EP/ha
	All other precincts		35EP/ha	70EP/ha
Water Resource Catchment Area	All Precincts		N/A	N/A

*Where contained in an urban or service area and requires service of the infrastructure network
**For a 'Management Lot' the Water Supply Demand Factor and Sewerage Demand Factor is 3.2EP/Lot.

Notes:

EP = Equivalent Person
ha = hectare

Table 2 (b): Water Supply and Sewerage Demand Factor Rates for Defined Uses*

Defined Uses and Use Classes	Assessment Unit	Water Supply Ep/Unit**	Sewerage Ep/Unit**
RESIDENTIAL USES			
Accommodation Building	Bed	1.28	1.28
Bed and Breakfast	Lettable Room	0.9	0.9
Caravan Park	Caravan Site	1.28	1.6
	Relocatable home site	1.72	2.52
Caretakers Residence	1 bedroom	1.44	1.92
	2 bedroom	1.92	2.56
	3 or more bedrooms	2.4	3.2
Detached House	Lot	3.2	3.2
Display Home	As per detached house or dual occupancy or multiple dwelling units, depending on nature of development		
Dual Occupancy	1 bedroom	1.44	1.92
	2 bedroom	1.92	2.56
	3 or more bedrooms	2.4	3.2
Home-Based Business	Lot	Exempt provided equivalent demand for a detached house is not exceeded, otherwise to be assessed on use.	
Institutional Residence	Bed	1.28	1.28
Integrated Tourist Facility	Bed	1.28	1.28
	For permanent residential accommodation as per detached house or dual occupancy or multiple dwelling units, depending on nature of development.		
Motel (includes hotel accommodation)	Per unit	1.2	1.8
Multiple Dwelling Units	1 bedroom	0.9	1.5
	2 bedroom	1.5	2.4
	3 or more bedrooms	2.0	3.2
Residential Care facility	Per self contained dwg	2.0	3.2
	Per hostel unit	1.8	2.4
	Per nursing care bed	1.8	1.8
Retirement Village	1 bedroom	0.9	1.5
	2 bedroom	1.5	2.4
	3 or more bedrooms	2.0	3.2
RURAL USES			
Agriculture, Animal Keeping, Animal Husbandry, Aquaculture, Forestry, Intensive Animal Husbandry, Roadside stall, Stables	Exempt, unless a connection to the water supply or sewerage network is required in which case demand is to be determined by Council assessed on use.		
Rural Service Industry	Exempt, unless connection to network required then as determined by Council assessed on use		
Winery			

Defined Uses and Use Classes		Assessment Unit	Water Supply Ep/Unit**		Sewerage Ep/Unit**
COMMERCIAL USES					
Adult Product Shop		Per 100m^2 (GFA)	1.25		1.25
Art & Craft Centre		Per 100m^2 (GFA)	1.25		1.25
Convenience Restaurant		Per 100m^2 (GFA)	4.0		4.0
Fast Food Store		Per 100m^2 (GFA)	7.5		7.5
Funeral Parlour		Per 100m^2 (GFA)	0.5		0.5
Garden Centre		Per 100m^2 Site area	0.8		0.16
Hotel (excluding hotel accommodation)		Per flushing unit, WC or Urinal	3.52		3.52
Market		As determined by Council			
Medical Centre		Per Consultation Room	0.96		0.96
Office		Per 100m^2 (GFA)	1.25		1.25
Restaurant		Per 100m^2 (GFA)	4.0		4.0
Shop (including General Store)		Per 100m^2 (GFA)	1.25		1.25
Shopping Complex		Per 100m^2 (GFA)	1.25		1.25
Showroom		Per 100m^2 (GFA)	1.25		1.25
Veterinary Clinic		Per 100m^2 (GFA)	1.25		1.25
INDUSTRIAL USES					
Car Washing Station		Per wash bay	8.0		11.84
Environmentally Assessable Industry		Per 100m^2 (GFA)	0.75		0.75
Extractive Industry		Exempt, unless connection to network required then as determined by Council			
General Industry		Per 100m^2 (GFA)	0.75		0.75
Landscape Supplies		As determined by Council			
Light Industry	Laundromat	Per 100m^2 (GFA)	19.2		28.8
	Hot bread kitchen/retail bakery	Per 100m^2 (GFA)	0.75		0.75
	All other uses	Per 100m^2 (GFA)	0.75		0.75
Sales or Hire Yard		As determined by Council			
Service Station		Per lot	6.4		6.4
Storage Yard		As determined by Council			
Transport Station		As determined by Council			
Vehicle Depot		As determined by Council			
Vehicle Repair workshop		Per 100m^2 (GFA)	0.75		0.75
Warehouse			Per 100m^2 (GFA)	0.25	0.25
OTHER USES					
COMMUNITY USE		Child Care Centre	Staff/pupil	0.15	0.15
		Local Utility	As determined by Council		
		Major Utility	As determined by Council		
		Telecommunications Facility	As determined by Council		
SPECIAL USE		Cemetery		As determined by Council	
		Church	Per 100m^2 (GFA)	6.4	9.6
		Community Meeting Hall	Per 100m^2 (GFA)	5.12	5.12
		Crematorium	Per 100m^2 (GFA)	1.25	1.25
		Educational Establishment	Per enrolment	0.15[(1)]	0.25[(1)]
		Emergency Services	As determined by Council		
		Hospital	Bed	2.4	2.4

Defined Uses and Use Classes			Assessment Unit	Water Supply Ep/Unit**	Sewerage Ep/Unit**
RECREAT–IONAL USES	INDOOR RECREATION	Amusement Centres	per flushing unit, WC or Urinal	1.175	1.175
		Gyms	per flushing unit, WC or Urinal	1.175	1.175
		Indoor Sports Centre	per flushing unit, WC or Urinal	1.175	1.175
		Licensed Club	per flushing unit, WC or Urinal	3.52	3.52
		Unlicensed Club	per flushing unit, WC or Urinal	1.175	1.175
		Night Club	per flushing unit, WC or Urinal	3.52	3.52
		Theatre / Cinema	per flushing unit, WC or Urinal	3.52	3.52
		All other uses	As determined by Council		
	OUTDOOR RECREATION		As determined by Council		
OTHER USES	CAR PARK			Exempt	Exempt

(1) For boarding schools add an additional 1.28ep per bed.

*These rates do not apply to water intensive establishments that are likely to significantly exceed the specified Ep/Unit rate. For water intensive establishments, an individual Ep/Unit rate is to be calculated based on the anticipated actual water usage or effluent discharge. Also, the local government may approve a lower estimated demand rate than the specified Ep/Unit rate where it can be demonstrated that water saving/recycling initiatives can be sustainably integrated into a development.

** For a 'Management Lot' the Water Supply Ep/Unit and Sewerage Ep/Unit is 3.2 EP/Lot.

Schedule of Infrastructure Unit Rates

(13) The water supply and sewerage infrastructure unit rates for the various water supply zones (refer Figure 3) or sewerage sub-catchments (refer Figure 4) are shown in the following Tables for water supply (Table 3) or sewerage (Table 4).

TABLE 3: Schedule of Water Supply Trunk Infrastructure Unit Rates

Zonal Name	Zone Number	District (Per EP)	Zonal (Per EP)	Infrastructure Unit Rate per Equivalent Person (EP)
Atkinson Rd	01	1,849	2,532	4,380
Bli Bli	02	1,636	234	1,870
BT1 / Pringle R	03	869	0	869
Buderim - H	04	1,384	323	1,707
Buderim - Int	05	1,439	406	1,845
Buderim - LL	06	1,599	584	2,183
Cathedral	07	1,413	414	1,827
Coes Creek	08	1,184	297	1,481
Coolum	09	1,627	330	1,958
Coolum - H	10	1,588	648	2,236
Coolum - Ind	11	1,746	201	1,946
Coolum - Int	12	1,677	404	2,081
Craigs Hill	13	941	586	1,527
Eumundi	14	1,823	415	2,238
Harbour Hill	15	1,070	494	1,564
Kiel Mountain W	16	1,044	2,690	3,733
Kunda	17	926	612	1,538
Maroochy South	18	992	404	1,396
Mountain Creek	19	1,268	294	1,562
Nambour West	20	1,057	455	1,512
North Arm	21	1,501	2,880	4,381
Panorama	22	1,037	525	1,563
Peregian	23	1,891	304	2,196
Pringle Hill	24	1,288	198	1,486
Rosemount	25	1,210	3,731	4,941
Sippy Downs	26	795	125	920
Woombye	27	1,419	604	2,023
Yandina - H	28	1,190	620	1,810
Yandina - L	29	1,574	325	1,899
Yandina - S1	30	1,493	321	1,814
Yandina - S2	31	1,298	88	1,386
Kenilworth Scheme	32	-	692	692

TABLE 4: Schedule of Sewerage Trunk Infrastructure Unit Rates

Catchment	District (Per EP)	Sub-Catchment (Per EP)	Infrastructure Unit Rate per Equivalent Person (EP)
Sub-catchment (M01)	1,131	164	1,295
Sub-catchment (M02)	1,213	294	1,506
Sub-catchment (M03)	1,367	410	1,777
Sub-catchment (M04)	1,172	116	1,288
Sub-catchment (M05)	1,262	392	1,654
Sub-catchment (M06)	1,387	690	2,077
Sub-catchment (M07)	1,394	111	1,505
Sub-catchment (M08)	1,441	216	1,657
Sub-catchment (M09)	1,441	192	1,633
Sub-catchment (M10)	1,092	461	1,553
Sub-catchment (M11)	1,089	266	1,356
Sub-catchment (M12)	1,195	385	1,580
Sub-catchment (M13)	1,373	157	1,530
Sub-catchment (M14)	1,402	802	2,204
Sub-catchment (M15)	1,064	1,273	2,336
Sub-catchment (N01)	1,134	800	1,935
Sub-catchment (N02)	1,196	290	1,486
Sub-catchment (N03)	1,294	324	1,618
Sub-catchment (N04)	1,294	524	1,818
Sub-catchment (N05)	1,581	367	1,948
Sub-catchment (N06)	1,590	727	2,317
Sub-catchment (N07)	1,188	458	1,646
Sub-catchment (N08)	1,025	637	1,662
Eumundi (N09)	1,669	1,314	2,983
Yandina (N10)	1,862	551	2,413
Sub-catchment (C01)	1,200	434	1,634
Sub-catchment (C02)	1,293	374	1,667
Sub-catchment (C03)	1,298	251	1,549
Sub-catchment (C04)	1,442	489	1,930
Sub-catchment (C05)	1,442	877	2,318
Sub-catchment (C06)	1,541	89	1,629
Sub-catchment (C07)	1,693	309	2,003
Sub-catchment (S01)	1,304	296	1,600
Sub-catchment (S02)	1,179	759	1,939
Sub-catchment (S03)	1,084	859	1,943
Sub-catchment (S04)	1,207	371	1,579
Kenilworth (K01)	2,155	2,000	4,156

APPENDIX 1
DC1 FIGURE 1. WATER SUPPLY TRUNK INFRASTRUCTURE

DC1 Figure 1 Water Supply Trunk Infrastructure generally shows the existing and future water supply trunk infrastructure and has been compiled from the following Drawings –

Drawing No.	Title	Date
2838/12/01 – WA	Overall Key Layout Plan	03-05-2005
2838/12/01 – WB	Layout Plan – Eumundi and North Arm Districts	03-05-2005
2838/12/01 – WD	Layout Plan – Peregian District	03-05-2005
2838/12/01 – WE	Layout Plan – North Arm and Yandina Districts	03-05-2005
2838/12/01 – WF	Layout Plan – Coolum District	03-05-2005
2838/12/01 – WG	Layout Plan – Coolum District	03-05-2005
2838/12/01 – WH	Layout Plan – Yandina and Nambour Districts	03-05-2005
2838/12/01 – WJ	Layout Plan – Atkinson Road and Bli Bli Districts	03-05-2005
2838/12/01 – WK	Layout Plan – Coolum District	03-05-2005
2838/12/01 – WL	Layout Plan – Nambour District	03-05-2005
2838/12/01 – WM	Layout Plan – Bli Bli, Keil Mountain and Coolum Districts	03-05-2005
2838/12/01 – WN	Layout Plan – Coolum and Maroochydore Districts	03-05-2005
2838/12/01 – WP	Layout Plan – Woombye and Nambour Districts	03-05-2005
2838/12/01 – WQ	Layout Plan – Keil Mountain and Buderim Districts	03-05-2005
2838/12/01 – WR	Layout Plan – Maroochydore and Buderim Districts	03-05-2005
2838/12/01 – WS	Layout Plan – Landers Shute and Eudlo Districts	03-05-2005
2838/12/01 – WT	Layout Plan – Sippy Downs District	03-05-2005
2838/12/01 – WU	Layout Plan – Sippy Downs District	03-05-2005
2838/12/01 – WV	Layout Plan – Kenilworth District	03-05-2005
2838/12/01 – WX	Layout Plan – Yandina and Nambour Districts	03-05-2005

The abovementioned drawings, whilst part of this planning scheme policy, have been collated separately from this document for ease of use. These drawings are available from the Council.

APPENDIX 2
DC1 FIGURE 2. SEWERAGE TRUNK INFRASTRUCTURE

DC1 Figure 2 Sewerage Trunk Infrastructure generally shows the existing and future sewerage trunk infrastructure and has been compiled from the following Drawings –

Drawing No.	Title	Date
2838/12/01 – SA	Key Plan	03-05-2005
2838/12/01 – SB	Eumundi Sewerage Catchment	03-05-2005
2838/12/01 – SC	Yandina Sewerage Catchment	03-05-2005
2838/12/01 – SD	Nambour Sewerage Catchment	03-05-2005
2838/12/01 – SE	Nambour Sewerage Catchment	03-05-2005
2838/12/01 – SF	Nambour Sewerage Catchment	03-05-2005
2838/12/01 – SG	Coolum Sewerage Catchment	03-05-2005
2838/12/01 – SH	Coolum Sewerage Catchment	03-05-2005
2838/12/01 – SJ	Suncoast Sewerage Catchment	03-05-2005
2838/12/01 – SK	Maroochydore Sewerage Catchment	03-05-2005
2838/12/01 – SL	Maroochydore Sewerage Catchment	03-05-2005
2838/12/01 – SM	Maroochydore Sewerage Catchment	03-05-2005
2838/12/01 – SN	Maroochydore Sewerage Catchment	03-05-2005
2838/12/01 – SP	Maroochydore Sewerage Catchment	03-05-2005
2838/12/01 – SQ	Kenilworth Sewerage Catchment	03-05-2005

The abovementioned drawings, whilst part of this planning scheme policy, have been collated separately from this document for ease of use. These drawings are available from the Council.

APPENDIX 3 WATER SUPPLY AND SEWERAGE DESIRED STANDARDS OF SERVICE

TABLE DC 1.4.1

Water Supply	Sewerage
▪ Provide a service of potable water that meets the performance standards outlined in the Australian Drinking Water Guidelines (1996) issued by the National Health and Medical Research Council (NHMRC)	▪ Provide a service of sanitary drainage that meets the Environmental Protection Authority (EPA) requirements with respect to the containment of sewage and effluent disposal.
▪ Design of the water supply network is to comply with established codes and standards including: - Water Services Association of Australia Code for Water Supply - Queensland Water Resources Commission "Guidelines for Planning and Design of Urban Water Supply Schemes" - Water Act 2000 (N.B. Community expectations should be reflected where codes or standards can be interpreted to the contrary)	▪ Design of the sewerage network is to comply with established codes and standards including: - Water Services Association of Australia Code for Sewerage Services - Queensland Water Resources Commission "Guidelines for Planning and Design of Sewerage Schemes" - Water Act 2000 and the Plumbing and Drainage Act 2002 - EPA approval conditions and standards (N.B. Community expectations should be reflected where codes or standards can be interpreted to the contrary)
▪ The water supply distribution system is to be designed generally in accordance with State Government Guidelines with: - The minimum pressure expectation at a property boundary being 22 metres head - Average Day Demand (AD) = 370L/EP/day - Design of any non-conventional system will reflect the precepts of the Queensland Water Recycling Strategy and best appropriate practices that achieve the desired outcomes for the potable water supply.	▪ The sewerage system is to be designed generally in accordance with State Government Guidelines and requirements with: - For gravity sewers a per capita flow based on Average Dry Weather Flow (ADWF) = 225L/EP/day

APPENDIX 4
DC1 FIGURE 3. WATER SUPPLY ZONAL HEADWORKS AREAS

APPENDIX 5
DC1 FIGURE 4. SEWERAGE SUB-CATCHMENT HEADWORKS AREAS