



Development Servicing Plan

Retail Water Supply

November 2022

Public Exhibition

This DSP has been prepared by Hydrosphere Consulting on behalf of Rous County Council.

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**22-031: ROUS DEVELOPMENT SERVICING PLANS
RETAIL WATER SUPPLY DSP**

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SUMMARY

This Development Servicing Plans (DSP) covers retail water supply developer charges for the development areas served by the Rous County Council (RCC) retail water supply network.

In preparing the DSP, Council has considered the 2016 *Developer Charges Guidelines for Water Supply, Sewerage and Stormwater* (DPI Water, 2016) issued by the Minister for Lands and Water, pursuant to section 306 (3) of the *Water Management Act 2000*.

The area covered by this DSP is shown on the map attached in Appendix 1.

The timing and expenditure for works serving the areas covered by this DSP are shown in the DSP Background Document (Appendix 2). Future capital works expenditure included in RCC's Total Asset Management Plan (TAMP) have been applied to the DSP including asset renewals and upgrades. The TAMP is updated annually by RCC.

System design and operation in the DSP area are based on RCC's levels of service summarised in Section 5 including restrictions during drought conditions and water quality.

The water supply developer charge for the area covered by this DSP is given in Table 1.

Table 1: Developer charges (2022\$)

DSP Area	Service Area	Developer Charge (per ET)
Retail Water DSP	All retail water supply areas	\$356

Additional developer charges for bulk water supply are also levied by RCC for development within the retail DSP area.

Developer charges relating to this DSP document will be reviewed within 4 to 8 years.

In the period between any review, developer charges will be adjusted on 1 July annually (using the 12-month CPI (All Groups) for Sydney), excluding the impact of GST.

Developers are responsible for the full cost of the design and construction of water supply reticulation works within subdivisions.

Background information containing all the critical data including calculation models behind each DSP is available on request.

1. INTRODUCTION

Rous County Council (RCC) is a single purpose bulk water authority constituted as a county council under the *Local Government Act 1993*. RCC provides water supply services to rural and urban connections direct from the bulk supply trunk main system (retail customers) in the local government areas of Ballina Shire Council, Byron Shire Council, Lismore City Council and Richmond Valley Council.

Section 64 of the *Local Government Act, 1993* enables a local government authority to levy developer charges for water supply, sewerage and stormwater. This derives from a cross-reference in that Act to section 306 of the *Water Management Act, 2000*.

A Development Servicing Plan (DSP) details the water supply developer charges to be levied on development areas utilising a water utility's water supply infrastructure.

This document covers developer charges for the development areas serviced by the RCC retail water supply. In preparing the DSP, RCC has considered the 2016 *Developer Charges Guidelines for Water Supply, Sewerage and Stormwater* (DPIE Water, 2016) issued by the Minister for Lands and Water, pursuant to section 306 (3) of the *Water Management Act, 2000*.

RCC may develop or review policies related to the application or administration of developer charges.

2. ADMINISTRATION

2.1 DSP Area

The area covered by this DSP is shown on the map attached in Appendix 1.

The DSP area boundary is defined as the area served by the RCC retail water supply scheme, in the constituent council local government areas of Ballina Shire Council, Byron Shire Council, Lismore City Council and Richmond Valley Council.

The basis for defining the DSP area boundary is the existing and future development serviced by the RCC retail water supply system.

2.2 Application of Developer Charges

RCC will assess the demand for service in terms of equivalent tenements (ET) in accordance with the *Section 64 Determinations of Equivalent Tenements Guidelines* (NSW Water Directorate, 2009) or other related policy or methodology approved by RCC. RCC will levy retail water supply developer charges proportional to the number of ETs (determined using the current average water consumption for an average residential dwelling (181 kL/ET p.a. as discussed in Section 3.1).

The developer charges will apply to new development and re-development (i.e. change of use). This includes the connection of land with existing residences and/or non-residential buildings and the internal developments and community asset developments of the constituent councils if retail water supply developer charges have not been paid previously.

RCC may also develop or review other policies related to the application or administration of developer charges.

2.3 Timing and Payment of Developer Charges

On receipt of a Development Application or a Water Service Application, RCC will advise the charges payable under this DSP.

Developer charges will be determined and levied in accordance with the provisions of this DSP at the time of considering an application for a compliance certificate under section 305 of the *Water Management Act 2000* or a construction certificate under section 109 of the *Environmental Planning and Assessment Act 1979* or at the time of issuing a notice or other form of written advice e.g. under the *SEPP (Exempt and Complying Development Codes) 2008* or approval under section 68 of the *Local Government Act 1993*. The time limit for payment of developer charges will be included in the notice of determination or will be advised to the developer by a separate notice. The developer contribution will be at the rate that applies at the time of payment i.e. the rate may increase (through indexation or review of this DSP) from the time the condition appears on the notice of development consent until the payment is received.

A Subdivision Certificate, Occupancy Certificate, Complying Development Certificate or, where so conditioned the approval of a Section 68 Application, will not be issued until the conditions of the Certificate of Compliance have been fulfilled.

Dispute resolution procedures are discussed in the 2016 *Developer Charges Guidelines for Water Supply, Sewerage and Stormwater*. RCC is not a member of the Electricity and Water Ombudsman.

Payment of developer charges must be made in the form of a cash payment to RCC.

2.4 Review

The developer charge relating to this DSP document will be reviewed within 4 to 8 years. A shorter review period may be appropriate if a major change in circumstances occurs.

If the review indicates that the developer charge in the DSP remains valid, the DSP will apply for a further five years after RCC releases a public notice to this effect. However, if it is considered that a new DSP is warranted, a new DSP shall be prepared, audited, exhibited and registered.

2.5 Indexation

In the period between any review, developer charges will be adjusted on 1 July annually (using the 12-month CPI (All Groups) for Sydney), excluding the impact of GST.

2.6 Exemption

Under section 306 (4) and (5) of the *Water Management Act 2000*, the Minister for Planning may make a determination in regard to developer charges levied on Crown development. Crown developments for essential community services (education, health, community services, and law and order) are exempt from general developer charges. Water utilities may charge these developments only for that portion of the direct connection cost (e.g. for a lead-in main) relating to Crown development.

RCC may also apply other exemptions for developer charges.

2.7 Waiver of Charges

RCC may waive developer contributions where the proponent demonstrates to RCC's satisfaction that it is a non-profit and charitable organisation, which by virtue of carrying out such development, is considered by RCC to be making a significant and positive contribution to the community and is unable to recover the charge from the end user. Charges will be applicable for any commercial operation that is part of the development.

2.8 Deferral of Charges

RCC may consider deferring charges payable by a developer. RCC will assess the merit of any request to defer developer charges with consideration of any policy available at that time. Only RCC has the authority to approve deferred payment arrangements for RCC developer contributions.

3. LAND USE PLANNING

3.1 Growth Projections

Growth projections have been developed from data provided by the constituent councils for future development within the retail water supply area. The data shown in the following table have been derived from the future demand forecast prepared by RCC in association with the constituent councils (Hydrosphere Consulting, 2020) and is presented as the number of retail water supply ETs. An ET is the demand a development will have on infrastructure in terms of the water consumption for an average residential dwelling in the RCC water supply area. The current average demand is 181 kL/a (average residential demand across the RCC supply area over the five years 2016 - 2020) and represents 1 ET.

Table 2: Growth projections

Year	Total number of water supply ETs
1996	1,936
2000	2,560
2005	3,285
2010	3,950
2015	4,554
2020	5,097
2023	5,394
2025	5,580
2030	6,001
2035	6,363
2040	6,663
2045	6,903

Year	Total number of water supply ETs
2050	7,083
2052	7,137

3.2 Land Use Information

This DSP should be read in conjunction with the constituent council Local Environmental Plans and Development Control Plans.

4. WATER SUPPLY INFRASTRUCTURE

4.1 Existing Assets

All existing assets servicing the retail water supply area are included in the capital charge calculations except for the following:

- Assets which will be more than 30 years old at the commencement of the DSP (i.e. commissioned pre-1993).
- Assets which are unlikely to be fully utilised over the planning horizon for calculating developer charges.
- Reticulation pipes (≤ 80 mm) which are typically paid for directly by developers.
- Gifted assets which were built by developers and later transferred to RCC.

Existing assets have been valued on the basis of Modern Engineering Equivalent Replacement Asset (MEERA) excluding contingencies. The existing assets servicing the area covered by the DSPs are listed in the DSP Background Document (Appendix 2).

4.2 Future Capital Works

The RCC capital works program is developed and reviewed annually through asset management planning (review of asset capacity, level of service and asset renewal requirements) as part of RCC's Total Asset Management Plan (TAMP) development. Future assets have been valued on the basis of MEERA including contingencies.

The DSP includes 10 years (2023 – 2032) of future capital works where these works will service the growth areas or where existing assets that service the growth areas will require replacement within 10 years (and the original asset has not been included in the calculation). Where possible, the construction of new assets servicing a development has been timed to match expected staging of the development. Similarly, the timing of the replacement of these assets has been estimated from the predicted remaining life and renewal requirements.

Capital works of \$2.4 million (2022\$) will be required over the next 10 years (between 2023 and 2032) to provide retail water supply services. The future capital works included in the DSP are required for servicing of growth as well as renewal of assets over the next 10 years. The timing and expenditure for water supply capital works serving the areas covered by this DSP are shown in the DSP Background Document

(Appendix 2) and presented in Figure 1. Works to improve levels of service for existing customers are not included in the DSP. Any capital works in addition to those identified in this plan will be funded by developers.

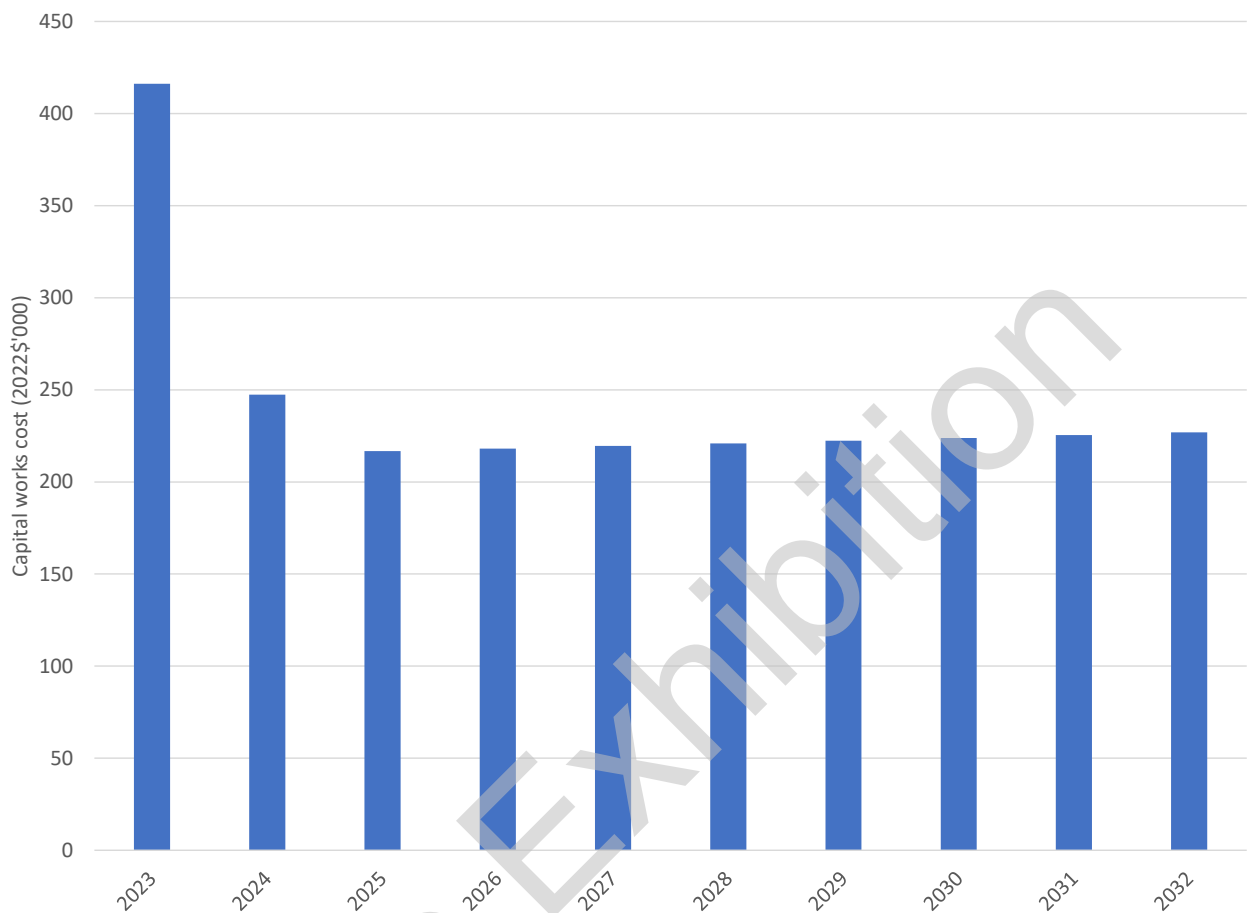


Figure 1: Future capital works costs included in the DSP

4.3 Reticulation Works

The developer shall be responsible for the full cost of the design and construction of water supply reticulation works within developments/subdivisions.

5. LEVELS OF SERVICE

Retail water supply system design and operation are based on providing the levels of service (LOS) developed as part of the *Future Water Project 2060* adopted following public consultation in 2021 and 2022 (Table 3). The LOS applied to RCC's water supply systems are the targets that RCC aims to achieve. They are not a customer contract.

Table 3: Levels of service – retail water supply

Description	Units	Target level of service
Water availability		
Average annual water to be supplied for one detached residential dwelling (1 ET)	kL/a	181
Consumption restrictions in droughts		
Maximum duration of restrictions	months per 10-year period	6 (i.e. 5% of the time)
Maximum frequency of restrictions	number of times per 10 years	1 (i.e. 10% of years)
Ability to supply demand through the worst drought on record	% of water demand	90 (i.e. a 10% reduction in average consumption)
Interruptions to supply (per year per supply)		
<i>Planned</i>		
Maximum duration	hours	12
Notice given to domestic customers	days	7
<i>Unplanned</i>		
Maximum duration	hours	24
Water quality		
Potable water quality	-	Meets Australian Drinking Water Guidelines

6. DESIGN PARAMETERS

Investigation, design and construction of water supply components are based on:

- RCC's levels of service and asset management planning.
- *Northern Rivers Local Government Development Design and Construction Manual*.
- *Water Supply Investigation Manual* (1986).
- Water Services Association of Australia water supply codes and standards.

7. DEVELOPER CHARGES METHODOLOGY

Developer charges are up-front charges levied to recover part of the infrastructure costs incurred in servicing new developments or additions/changes to existing developments. Developer charges serve two related functions:

- They provide a source of funding for infrastructure required for new urban development.
- They provide signals regarding the cost of urban development and thus encourage less costly forms and areas of development.

The developer charges calculation is based on the net present value (NPV) approach adopted by the Independent Pricing and Regulatory Tribunal (IPART) for the metropolitan water utilities. The fundamental principle of the NPV approach is that the investment in assets for serving a development area is fully recovered from the development. The investment is recovered through up-front charges (i.e. developer charges) and the present value (PV) of that part of annual bills received from the development in excess of operation, maintenance and administration (OMA) costs.

$$\text{Developer Charge} = \text{Capital Charge (cost of providing the assets)} - \text{Reduction Amount (cost recovered through annual bills).}$$

In setting the developer charges, RCC may consider financial, social and environmental factors to determine a level of developer charges that is balanced, fair and meet RCC's objectives.

The capital charge and reduction amount are discussed further in the following sections. The developer charges process is described fully in the 2016 *Developer Charges Guidelines for Water Supply, Sewerage and Stormwater*.

7.1 Capital Charge

The capital charges were calculated for RCC retail water supply service area based on the existing and future assets providing the services in this area. The capital charge is calculated by dividing the present value (PV) of the cost of the assets by the PV of the number of new ETs.

The capital charge represents the efficient capital cost of assets used in providing water related services in a DSP area. This includes the cost of both existing and future assets that will be used to service the DSP area. In addition, because local water utilities provide the upfront funding for constructing these assets, the capital charge also includes a commercial return on this investment.

7.2 Reduction Amount

The reduction amount represents the portion of the cost of assets that RCC expects to recover through water supply revenue. RCC has adopted the NPV of annual bills method to calculate the reduction amount. This method calculates the reduction amount as the NPV for 30 years of the future net income from water supply charges (revenue from charges less operation, maintenance and administration costs) for the RCC development areas.

8. DEVELOPER CHARGE CALCULATION

The capital charge, reduction amount and developer charge for the water supply area covered by this DSP are shown in the following tables. The charges are shown in 2022\$. RCC will apply the maximum developer charge with no cross-subsidy payable by existing customers.

Capital charge, agglomeration and reduction amount calculations for each service area are shown in Appendix 2.

Table 4: Capital charge and developer charge – retail water supply (2022\$)

DSP Area	Capital Charge (\$ per ET)	Reduction Amount (\$ per ET)	Calculated Maximum Developer Charge (\$ per ET)	Proposed Developer Charge (\$ per ET)
Retail water supply area	\$877	\$521	\$356	\$356

Table 5: Reduction amount – all RCC water supply (2022\$)

Year	Total ETs	New ETs	Net income from new ETs (\$)¹
2022	69,753		
2023	70,547	795	32,443
2024	71,326	779	64,258
2025	72,090	764	95,445
2026	72,838	748	126,003
2027	73,571	733	155,933
2028	74,289	718	185,234
2029	74,991	702	213,907
2030	75,678	687	241,952
2031	76,349	671	269,368
2032	77,005	656	296,156
2033	77,646	641	322,316
2034	78,271	625	347,847
2035	78,881	610	372,750
2036	79,476	594	397,024
2037	80,055	579	420,670
2038	80,618	564	443,688
2039	81,167	548	466,077
2040	81,700	533	487,838

Year	Total ETs	New ETs	Net income from new ETs (\$)¹
2041	82,217	518	508,970
2042	82,719	502	529,474
2043	83,206	487	549,350
2044	83,677	471	568,597
2045	84,133	456	587,216
2046	84,574	441	605,207
2047	84,999	425	622,569
2048	85,409	410	639,303
2049	85,803	394	655,408
2050	86,182	379	670,885
2051	86,546	364	685,734
2052	86,894	348	699,954
<i>Present value</i>		10,100	5,259,650
<i>Reduction amount (\$ per ET)</i>			521

1. Calculated from RCC water supply financial planning outputs (income and operating expenses less depreciation and borrowing costs) for the whole RCC water supply system. Differences in operating costs between the bulk water supply and retail water supply areas have not been considered in the reduction amount.

9. OTHER DSPS AND RELATED CONTRIBUTION PLANS

The following DSPs and contribution plans may also apply to development within the retail water supply area:

- Constituent council developer contributions plans.
- RCC Bulk Water Supply Development Servicing Plan.

REFERENCES

DPI Water (2016) *Developer Charges Guidelines for Water Supply Sewerage and Stormwater*.

Hydrosphere Consulting (2020) *Rous County Council Bulk Water Supply Demand Forecast: 2020 – 2060*, October 2020.

Hydrosphere Consulting (2022) *Rous Regional Supply: Future Water Project 2060 Integrated Water Cycle Management Strategy*. April 2022.

Water Directorate (2017) *Section 63 Determinations of Equivalent Tenement Guidelines*.

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GLOSSARY AND ABBREVIATIONS

CPI	consumer price index
DSP	Development Servicing Plan
ET	equivalent tenement
IPART	NSW Independent Pricing and Regulatory Tribunal
Kilolitre (kL)	1,000 litres
LWU	Local Water Utility
MEERA	Modern Engineering Equivalent Replacement Asset
ML	megalitre (1,000,000 litres, or 1,000 kilolitres)
NPV	net present value
OMA	operation, maintenance and administration (cost)
p.a.	per annum
PV	present value. The current value of future money or ETs
RCC	Rous County Council

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APPENDIX 1 DSP AREA MAP

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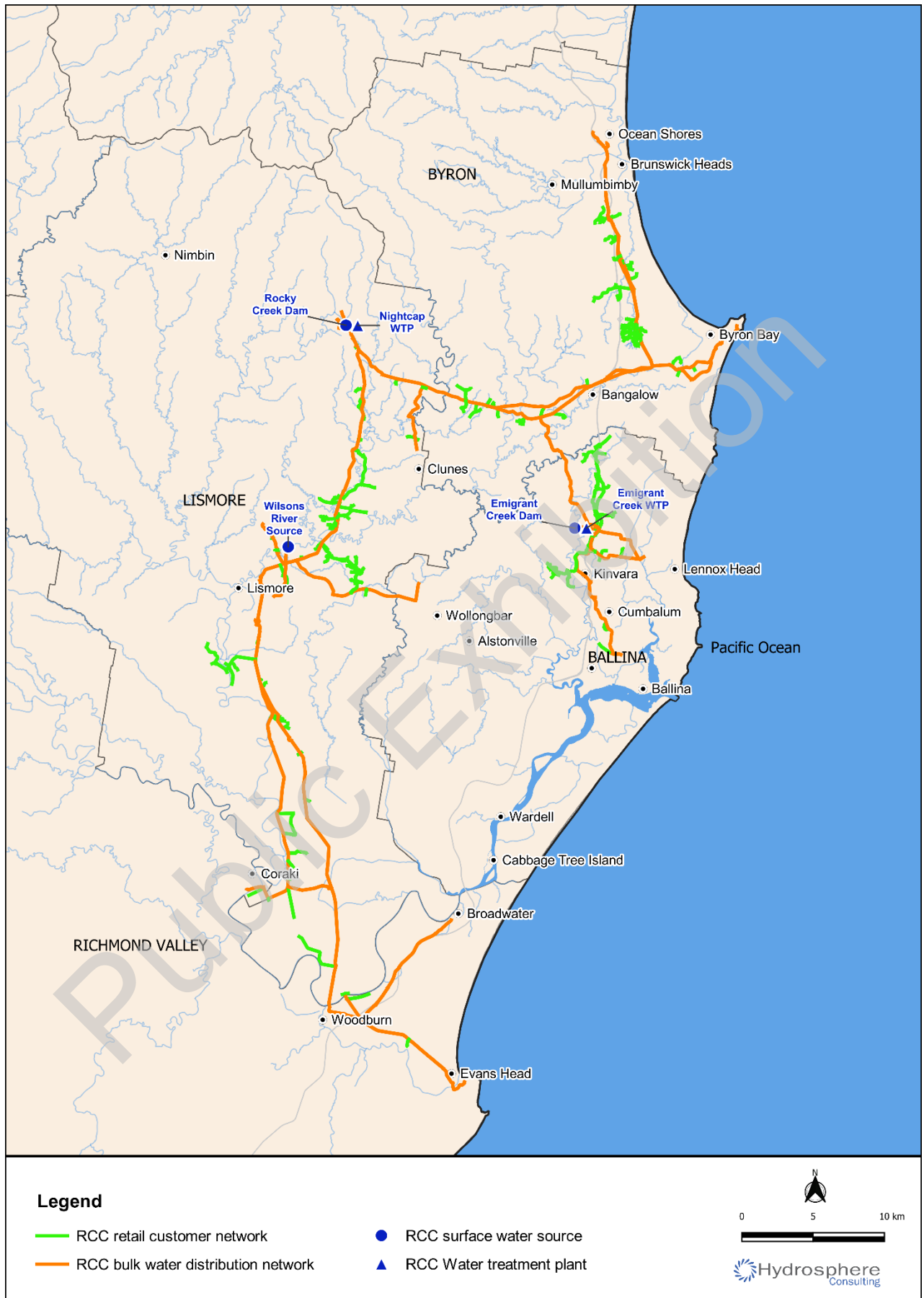


Figure 2: DSP area – RCC retail water supply

APPENDIX 2 DSP BACKGROUND DOCUMENT

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Table 6: Existing retail water supply assets included in the capital charge (2022 \$)

Asset ID	Description	Value	Install year
72	Pipework/Fitting	\$6,900	1996
3259	Distribution Main	\$48,010	2006
3306	Distribution Main	\$22,828	2006
3342	Distribution Main	\$11,310	1994
3370	Distribution Main	\$278,132	1995
3386	Distribution Main	\$126,863	2007
3390	Distribution Main	\$17,934	2006
3391	Distribution Main	\$41,621	2006
3392	Distribution Main	\$55,155	2006
3427	Distribution Main	\$165,581	2000
3443	Distribution Main	\$15,054	2007
3464	Distribution Main	\$6,841	1994
3465	Distribution Main	\$76,947	2005
3466	Distribution Main	\$26,845	2005
3467	Distribution Main	\$8,488	1997
3498	Distribution Main	\$71,013	1998
3500	Distribution Main	\$35,502	1999
3530	Distribution Main	\$37,277	1996
3531	Distribution Main	\$24,945	2001
3541	Distribution Main	\$546,860	2008
3551	Distribution Main	\$37,564	2010
3552	Distribution Main	\$75,442	2010
3834	Pressure Reducing Valve	\$1,000	2010
4321	Pressure Reducing Valve	\$3,200	2010
6233	Distribution Main	\$22,288	2011
6234	Distribution Main	\$18,327	2011
6235	Distribution Main	\$36,888	2011
6236	Distribution Main	\$50,880	2011
6262	Auto-Valve	\$3,200	1997
6268	Auto-Valve	\$3,200	1995
6274	Pressure Reducing Valve	\$8,600	2004
6277	Pressure Reducing Valve	\$3,200	2011
6279	Pressure Reducing Valve	\$3,200	2008
6301	Storage Tank	\$5,800	2010
6302	Storage Tank	\$5,800	2011
6323	Building	\$2,603	1996
6365	Pressure Reducing Valve	\$5,100	2012
6378	Distribution Main	\$3,737	2011
6382	Distribution Main	\$11,357	2011

Retail Water Supply DSP

Asset ID	Description	Value	Install year
6383	Distribution Main	\$19,907	2011
6384	Distribution Main	\$60,750	2011
6385	Distribution Main	\$92,664	2011
6502	Pressure Reducing Valve	\$2,800	2008
6565	Distribution Main	\$27,030	2012
6567	Distribution Main	\$39,273	2012
6706	Distribution Main	\$15,729	2014
6853	Distribution Main	\$13,747	2014
6860	Distribution Main	\$23,182	2014
6863	Distribution Main	\$44,997	2014
6864	Distribution Main	\$26,319	2014
6865	Distribution Main	\$15,245	2014
6878	Level Sensor	\$4,300	2012
6897	Level Sensor	\$4,300	2004
6915	Telemetry	\$13,000	2015
6928	Telemetry	\$13,000	2015
6938	Telemetry	\$13,139	2015
6941	Telemetry	\$13,000	2015
6964	Building	\$35,346	2015
6965	Switchboard	\$120,000	2015
6966	Centrifugal Pump	\$42,400	2015
6967	Centrifugal Pump	\$42,400	2015
6968	VSD	\$25,500	2015
6969	VSD	\$25,500	2015
6972	Bulk Meter	\$7,600	2015
6985	Distribution Main	\$70,200	2015
6991	Bulk Meter	\$6,400	2015
7022	Distribution Main	\$129,149	2016
7165	Distribution Main	\$22,791	2016
7166	Distribution Main	\$24,300	2016
7167	Distribution Main	\$8,560	2016
7430	Centrifugal Pump	\$5,500	2016
7431	Centrifugal Pump	\$5,500	2016
7432	Centrifugal Pump	\$5,500	2016
7433	VSD	\$4,400	2016
7434	VSD	\$4,400	2016
7435	VSD	\$4,400	2016
7436	Process Flow Meter	\$5,600	2016
7437	Switchboard	\$5,800	2016
7488	Switchboard	\$38,500	2016
7496	Pit	\$12,924	2010

Asset ID	Description	Value	Install year
7497	Pit	\$12,924	2010
7498	Pit	\$12,924	2010
7506	Pipework/Fitting	\$24,400	2004
7507	Pipework/Fitting	\$56,000	2004
7509	Pipework/Fitting	\$48,000	2005
7581	Roof	\$2,642	1996
7602	Services - Electrical	\$12,748	2015
7609	Sub-Structure	\$1,593	1996
7622	Services - Mechanical	\$1,159	2015
7666	Services - Electrical	\$932	1996
7667	Services - Hydraulics	\$7,533	2015
7683	Sub-Structure	\$22,019	2015
7811	Walkway & Ladder	\$11,000	2018
7829	Distribution Main	\$368,424	2018
7978	Distribution Main	\$45,424	2019
8031	Pressure Reducing Valve	\$2,500	2019
8059	Pressure Reducing Valve	\$3,200	2019
8912	Pressure Reducing Valve	\$2,500	2020
8930	Distribution Main	\$30,629	2020
8931	Distribution Main	\$64,126	2020
8932	Distribution Main	\$78,020	2020
8938	Distribution Main	\$183,180	2020
8939	Distribution Main	\$33,712	2020
9217	Power Supply and Cabling	\$3,400	2020
9242	Distribution Main	\$97,760	2021
9244	Distribution Main	\$55,460	2021

Note: Distribution mains are the RCC retail mains and do not include mains constructed by developers. Reticulation mains (≤ 80 mm) are excluded from the capital charge calculation.

Table 7: Future capital works program (2022 \$'000)

Year/Project	ILOS	New asset	Renewal	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Distribution mains		100%		100			148	148	148	148	148	148	148	148
Mains Renewal - Delivery Carney Place			100%			100								
Mains Renewal - Delivery Muldoon Rd			100%			80								
Mains Renewal - Kahala Place, Laihana Crescent Place and Kaanapahali Avenue, and Ridgeland Close, Richmond Hill			100%	313										
Mains Renewal - Grace Road			100%		350									
Indoor Staff Salaries Capitalised			100%	63	66	67	69	70	72	73	74	76	77	79
Total new assets and renewals				476	416	247	217	218	220	221	222	224	225	227

Works to improve levels of service (ILOS) are not included in the developer charge calculation.

Table 8: Capital charge calculation (2022\$)

Year	Total ET	New ET	Capital Cost	Effective capital cost serving post 1996 ETs	PV Factor @3%	PV Factor @ 5%	PV pre 1996 assets @ 3%	PV post 1996 assets @ 5%	PV New ETs for pre 1996 assets (@3%)	PV New ETs for post 1996 assets (@5%)
1996	1,925	156	\$351	\$264	1.00	1.00	\$264		156	156
1997	2,084	159	\$12	\$9	0.97	0.95		\$8	154	151
1998	2,240	156	\$71	\$53	0.94	0.91		\$48	147	142
1999	2,394	154	\$36	\$27	0.92	0.86		\$23	141	133
2000	2,546	151	\$166	\$124	0.89	0.82		\$102	135	125
2001	2,695	149	\$25	\$19	0.86	0.78		\$15	129	117
2002	2,841	147			0.84	0.75			123	109
2003	2,986	144			0.81	0.71			117	103
2004	3,127	142	\$93	\$70	0.79	0.68		\$47	112	96
2005	3,267	139	\$152	\$114	0.77	0.64		\$73	107	90
2006	3,404	137	\$186	\$139	0.74	0.61		\$86	102	84
2007	3,539	135	\$142	\$107	0.72	0.58		\$62	97	79
2008	3,671	132	\$553	\$415	0.70	0.56		\$231	93	74
2009	3,801	130			0.68	0.53			88	69
2010	3,928	127	\$162	\$121	0.66	0.51		\$61	84	64
2011	4,053	125	\$326	\$245	0.64	0.48		\$118	80	60
2012	4,175	123	\$76	\$57	0.62	0.46		\$26	76	56
2013	4,296	120			0.61	0.44			73	52
2014	4,413	118	\$139	\$105	0.59	0.42		\$43	69	49
2015	4,529	115	\$471	\$354	0.57	0.40		\$140	66	46
2016	4,641	113	\$264	\$199	0.55	0.38		\$75	63	43
2017	4,752	110			0.54	0.36			59	40
2018	4,860	108	\$379	\$285	0.52	0.34		\$97	56	37
2019	4,966	106	\$51	\$38	0.51	0.33		\$12	54	34
2020	5,069	103	\$396	\$297	0.49	0.31		\$92	51	32
2021	5,170	101	\$153	\$115	0.48	0.30		\$34	48	30
2022	5,268	98	\$476	\$357	0.46	0.28		\$100	46	28
2023	5,364	96	\$416	\$312	0.45	0.27		\$84	43	26
2024	5,458	94	\$247	\$186	0.44	0.26		\$47	41	24
2025	5,549	91	\$217	\$163	0.42	0.24		\$40	39	22
2026	5,638	89	\$218	\$164	0.41	0.23		\$38	37	21
2027	5,724	86	\$220	\$165	0.40	0.22		\$36	35	19
2028	5,808	84	\$221	\$166	0.39	0.21		\$35	33	18
2029	5,889	82	\$222	\$167	0.38	0.20		\$33	31	16
2030	5,968	79	\$224	\$168	0.37	0.19		\$32	29	15
2031	6,045	77	\$225	\$169	0.36	0.18		\$31	27	14
2032	6,119	74	\$227	\$170	0.35	0.17		\$29	26	13
2033	6,191	72			0.33	0.16			24	12
2034	6,261	69			0.33	0.16			23	11
2035	6,328	67			0.32	0.15			21	10
2036	6,392	65			0.31	0.14			20	9
2037	6,455	62			0.30	0.14			19	8
2038	6,514	60			0.29	0.13			17	8
2039	6,572	57			0.28	0.12			16	7
2040	6,627	55			0.27	0.12			15	6
2041	6,679	53			0.26	0.11			14	6
2042	6,729	50			0.26	0.11			13	5
2043	6,777	48			0.25	0.10			12	5
2044	6,822	45			0.24	0.10			11	4
2045	6,865	43			0.23	0.09			10	4
2046	6,906	40			0.23	0.09			9	4
2047	6,944	38			0.22	0.08			8	3
2048	6,979	36			0.22	0.08			8	3
2049	7,013	33			0.21	0.08			7	3
2050	7,044	31			0.20	0.07			6	2
2051	7,072	28			0.20	0.07			6	2
2052	7,098	26			0.19	0.07			5	2
Totals		5,329	\$7,116	\$5,342			\$264	\$1,901	3,128	2,398
				pre-1996			\$84	per ET		
				post-1996			\$793	per ET		
				Capital charge			\$877	per ET	2022\$	

Table 9: Reduction amount calculation (2022 \$)

<i>RCC LTFP - Bulk Water and Retail Water Operations (all RCC service areas)</i>				
Year	2022 Budget estimates			
Bulk supply income	\$22,542,100	User charges and fees		
OMA cost	\$19,693,800	Operating expense less depreciation and borrowing costs		
Net income p.a.	\$2,848,300			
Net income per ET	\$40.83			
Year	Total ET	New ET p.a.	Cumulative new ET p.a.	Net Income from new ETs (2022\$)
2022	69,753			
2023	70,547	795	795	32,443
2024	71,326	779	1,574	64,258
2025	72,090	764	2,337	95,445
2026	72,838	748	3,086	126,003
2027	73,571	733	3,819	155,933
2028	74,289	718	4,536	185,234
2029	74,991	702	5,238	213,907
2030	75,678	687	5,925	241,952
2031	76,349	671	6,597	269,368
2032	77,005	656	7,253	296,156
2033	77,646	641	7,893	322,316
2034	78,271	625	8,519	347,847
2035	78,881	610	9,128	372,750
2036	79,476	594	9,723	397,024
2037	80,055	579	10,302	420,670
2038	80,618	564	10,866	443,688
2039	81,167	548	11,414	466,077
2040	81,700	533	11,947	487,838
2041	82,217	518	12,464	508,970
2042	82,719	502	12,966	529,474
2043	83,206	487	13,453	549,350
2044	83,677	471	13,925	568,597
2045	84,133	456	14,380	587,216
2046	84,574	441	14,821	605,207
2047	84,999	425	15,246	622,569
2048	85,409	410	15,656	639,303
2049	85,803	394	16,050	655,408
2050	86,182	379	16,429	670,885
2051	86,546	364	16,793	685,734
2052	86,894	348	17,141	699,954
PV New ET @ 5%		10,100		
PV Net Income		\$5,259,650		
Reduction Amount		\$521	per ET	