



DEVELOPMENT SERVICING PLAN FOR WATER SUPPLY AND SEWERAGE 2017

Upper Hunter Shire Council



Document Control

Revision	1	Date	15 November 2016
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Audit date			
Document	UHSC_DSP_Draft_Rev2.docx		

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Document Details:

Revision	Public exhibition dates	Adoption dates	Effective dates
Original	15/3/2017 – 12/4/2017	24 April 2017	25 April 2017



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EXECUTIVE SUMMARY

These Development Servicing Plans (DSPs) cover water supply and sewerage developer charges for the areas serviced by Upper Hunter Shire Council (UHSC) as shown in the maps in Appendices A and B.

This document comprises five water supply DSPs and three sewerage DSPs. The developer charges per equivalent tenement (ET) in each DSP area are summarised in the table below.

DSP Area	Calculated Developer Charge per ET		Current Developer Charge per ET	Proposed Developer Charge per ET
	2015/16	2016/17	2016/17	2016/17
Water Supply				
Murrurundi	\$55,097	\$55,648	\$3,304	\$7,000
Middlebrook	\$17,345	\$17,518	N/A	N/A
Scone & Aberdeen	\$6,625	\$6,692	\$7,216	\$7,000
Cassilis	\$1,644	\$1,660	\$660	\$1,660
Merriwa	\$0	\$0	\$3,304	\$7,000
Sewerage				
Cassilis	\$28,798	\$29,086	N/A	N/A
Scone & Aberdeen	\$10,777	\$10,885	\$1,608	\$10,800
Merriwa & Murrurundi	\$2,331	\$2,355	\$1,652	\$2,300

The charges will be indexed on 1st July each year on the basis of movements in the consumer price index (CPI) for Sydney. These DSPs will be reviewed after 5 to 6 years.

The DSPs have been prepared in accordance with the 2016 Developer Charges Guidelines for Water Supply, Sewerage and Stormwater.

The existing assets serving the DSP areas and the timing and expenditures for new water supply and sewerage works that will serve the DSPs areas are shown in section 5.

Water supply and sewerage levels of service are included in section 6.

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

CONTENTS

1. INTRODUCTION	4
2. GLOSSARY	5
3. ADMINISTRATION	7
3.1 DSP Boundaries	7
3.2 Application of Developer Charges	7
3.3 Indexation of Developer Charge	7
3.4 Payment of Developer Charges	7
3.5 Development outside the Boundaries of the DSP	8
3.6 Exemption from Developer Charges	8
3.7 Review of DSPs	8
4. DEMOGRAPHIC & LAND USE PLANNING INFORMATION	9
4.2 Water ETs	9
4.3 Sewerage ETs	11
4.4 Land Use Information	12
5. INFRASTRUCTURE	13
5.2 Shared Assets	13
5.3 Existing Assets	13
5.4 Future Capital Works Program	14
5.5 Sewerage	15
5.6 Existing Assets	15
5.7 Future Capital Works Program	16
6. LEVELS OF SERVICE	17
6.1 Water Supply	17
6.2 Sewerage	19
7 DESIGN PARAMETERS	21
8. DEVELOPER CHARGES METHODOLOGY	21
8.1 Capital Charge	21
8.2 Exclusions	22
8.3 Reduction Amount	22
8.4 Developer Charges and Implementation	22
8.5 Levying Lower Charges	22
9 WATER SUPPLY DSPs	22
9.1 Scope	22
9.2 Capital Charge	22
9.3 Developer Charge	24
9.4 Water Supply Cross-Subsidy	25
10 SEWERAGE DSPs	25
10.1 Scope	25
10.2 Capital Charge	25
10.3 Developer Charge	26
10.4 Sewerage Cross-Subsidy	27

11. REVIEWING/UPDATING OF CALCULATED DEVELOPER CHARGES	27
12. BACKGROUND DOCUMENTS	28
13 OTHER DSPs & RELATED CONTRIBUTION.....	28
 APPENDICES	 29
APPENDIX A	30
WATER SUPPLY SERVICE AREA MAP	30
APPENDIX B	36
SEWERAGE SERVICE AREA MAP	36
APPENDIX C	42
BACKGROUND DOCUMENT FOR WATER SUPPLY DSP	42
APPENDIX D	77
BACKGROUND DOCUMENT FOR SEWERAGE DSP	77
APPENDIX E	119
OUTLINE OF LEGISLATION	119

List of Tables & Figures

Table 1: 2014/15 Water ETs	9
Table 2: Water ETs Projection	9
Table 3: 2014/15 Sewerage ETs	11
Table 4: Sewerage ETs Projection	11
Table 5: Water Supply Existing Assets.....	14
Table 6: Summary of Water Supply 10 Year Capital Works.....	14
Figure 1: UHSC Water Supply 10 Year Capital Works Program.....	15
Table 7: Sewerage Existing Assets	16
Table 8: Summary of Sewerage 10 Year Capital Works (2015/16 \$'000)	16
Figure 2: UHSC Sewerage 10 Year Capital Works Program	17
Table 9: Levels of Service for Water Supply	17
Table 10: Levels of Service for Sewerage	19
Table 11: Discount Rates Used in the Capital Charge Calculation.....	22
Table 12: Water Supply Effective Capital Cost	23
Table 13: Water Supply Capital Charge	23
Table 14: Water Supply Calculated Developer Charge (2015/16).....	24
Table 15: Water Supply Council Proposed Developer Charge (2016/17)	24
Table 16: Sewerage Effective Capital Cost.....	25
Table 17: Sewerage Capital Charge	26
Table 18: Sewerage Weighted Capital Charge	26
Table 19: Sewerage Developer Charge (2015/16)	27
Table 20: Sewerage Developer Charge (2016/17)	27

1. INTRODUCTION

Upper Hunter Shire Council (UHSC) provides water supply and sewerage services within the Upper Hunter Local Government Area in NSW as a local water utility.

Developer charges cover part of the cost of providing water supply and sewerage infrastructure to new development and redevelopment. Developer charges have two related functions:

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

Section 64 of the Local Government Act 1993 enables a local government council to levy developer charges for water supply and sewerage. This section refers to Section 306 of the Water Management Act 2000. Outline of relevant legislation is provided in Appendix E.

A DSP is a document which details the water supply and/or sewerage developer charges to be levied on development utilising a water utility's water supply and/or sewerage infrastructure.

These DSPs cover water supply and sewerage developer charges for UHSC service areas. The

DSP areas are shown in Appendices A and B. These DSPs have the following objectives:

- Allow UHSC to require an equitable monetary contribution for the provision of water supply and sewerage services to meet the demands generated by new development and redevelopment
- Facilitate the provision of a water supply and sewerage services which meet the levels of service Set out the schedule and program of proposed works to meet increasing demands for water supply and sewerage services generated by development and redevelopment
- Detail the contribution rates and UHSC's payment policies

These DSPs have been prepared in accordance with the 2016 Developer Charges Guidelines for Water Supply, Sewerage and Stormwater. This document is to be registered with DPI Water (formerly NSW Office of Water).

These DSPs supersede previous water supply and sewerage development contributions plans. The DSPs take precedence over any of Council's codes or policies where there are any inconsistencies relating to water supply and sewerage developer charges.

2. GLOSSARY

Below is a list of some terms DSPs.

Abbreviations	Definitions
Asset	An asset (or part of an asset) including land and headwork's assets that directly provides, or will provide, the developer services to developments within the DSP area for which the Developer Charge is payable
ADWF	Average dry weather flow. One of the design parameters for flow in sewers.
Capital Charge	Capital cost of assets per ET x Return on Investment (ROI) factor
Capital Cost	The current replacement cost (MEERA basis) of assets used to service the development
CPI	Consumer Price Index
Developer Charge	A charge levied on developers to recover part of the capital cost incurred in providing services to new development and redevelopment
Development Area	That part of a water utility area covered by a particular DSP. Also referred to as a DSP Area
DPI Water	Department of Primary Industries Water. The regulator of LWUs.
DSP	Development Servicing Plan
EP	Equivalent Person
ET	Equivalent Tenement
Guidelines	Developer Charges Guidelines for Water Supply, Sewerage and Stormwater (2016)
LEP	Local Environment Plan
LGA	Local Government Area
LWU	Local water utility (NSW), a local or county council operating as water utility. In this document LWU has the same meaning as a council operating under the Local Government Act 1993
M	million
MEERA	Modern Equivalent Engineering Replacement Asset
N/A	Not Applicable
NPV	Net Present Value
OMA	Operation, maintenance and administration (costs)

Abbreviations	Definitions
Post Asset	An Asset that was commissioned on or after 1st January of the specified year or that is yet to be commissioned
Pre-Asset	An Asset that was commissioned by a water utility before 1st January of the specified year
PS	Pumping Stations
PV	Present Value
Reduction Amount	The amount by which the capital charge is reduced to arrive at the developer charge. This amount reflects the present value of the capital contribution that will be paid by the occupier of a development as part of future annual charges
ROI	Return on investment. Represents the income that is, or could be, generated by investing money
Service Area	An area serviced by a separate water supply and sewerage system, a separate small town or village, or a new development of over 500 lots (Note: this is standard terminology from the Guidelines)
STP	Sewage Treatment Plant
TBL	Triple Bottom Line. TBL reports are annual performance report issued by DPI Water.
TBA	To be Advised
TRB	Typical residential bill, which is the principal indicator of the overall cost of a water supply or sewerage system. It is the bill paid by a residential customer using the utility's average annual residential water supplied per connected property, and is not a pensioner
UHSC	Upper Hunter Shire Council
WSS	Water Supply System
WTP	Water Treatment Plant

3. ADMINISTRATION

3.1 DSP Boundaries

These DSPs apply to all land in the UHSC LGA that is within the water and/or sewerage service areas and will be connected to the water supply and/or sewerage systems after development (subdivision and/or building) or redevelopment (change of use).

These include connection of land with existing residences and/or non-residential building if water and/or sewerage developer charges have not been paid previously, or where redevelopment will increase the demand on the water supply and/or sewerage infrastructure.

3.2 Application of Developer Charges

When assessing the developer charges applicable to a development or redevelopment, UHSC will assess the additional demand that the proposed development will place on the relevant water supply and/or sewerage systems in terms of ETs and will levy developer charges proportional to the number of ETs.

One ET is the demand of a standard detached residential dwelling. The minimum demand for each development is 1 ET.

3.3 Indexation of Developer Charge

The developer charges will be adjusted on 1 July each year on the basis of movements in the Consumer Price Index (CPI) for Sydney as published by the Australian Bureau of Statistics.

3.4 Payment of Developer Charges

Developer charges apply to all building and development activities where UHSC determines that these activities increase the demand for water supply and/or sewerage services, whether or not such activities require development consent.

When a development application or a building application is lodged, UHSC will assess the water supply and sewerage developer charges payable for the development as described in Section 3.2 and will issue a notice of payment. The notice may be a condition of the development consent, or a separate notice.

If payment is not received by Council within 3 months of the date of notice of payment, the charge will be adjusted in accordance with the developer charges current at the time of payment.

For the subdivision of land, contributions must be paid prior to the issue of the Subdivision Certificate and/or release of linen plan.

For the erection or extension of commercial/industrial buildings or multiple residential dwelling units etc., contributions must be paid prior to the issue of the Construction Certificate.

Payment of a developer charge is a precondition to granting 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, which must be obtained to complete a development.

3.5 Development outside the Boundaries of the DSP

If a development occurs outside the boundaries of the DSP, Council may take any of the actions described below.

- Apply the developer charges adopted for any DSP within UHSC to the development.
- Prepare a new DSP for the development.
- Enter a special agreement with the developer.

3.6 Exemption from Developer Charges

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.

3.7 Review of DSPs

These DSPs shall be reviewed every 5 to 6 years. A shorter review period is permitted if a major change in circumstances occurs.

4. DEMOGRAPHIC & LAND USE PLANNING INFORMATION

4.2 Water ETs

The average water demand of a single detached residential property is defined as the demand for one equivalent tenement (ET). For other types of development, the number of ETs is determined as the ratio of the estimated annual water demand for the development divided by the average water demand of 1 ET.

The UHSC's water services are divided into five service areas. The 2014/15 ETs are estimated based on 2014/15 water consumption data provided by Council as summarised in Table 1. Middlebrook is not currently serviced with drinking water, however Council has included provision of water infrastructure to Middlebrook in its 10 year capital works program. Council's adopted growth rates used to estimate the future ETs are listed in Table 2.

Table 1: 2014/15 Water ETs

Service Areas	2014/15 Total Water Demand (ML/year)*	Average Annual Water Demand per ET (kL/year/ET)**	2014/15 ETs
Scone & Aberdeen	1,766	306	5,771
Merriwa	294	306	960
Cassilis	12	306	39
Murrurundi	78	306	255
Middlebrook	N/A		72***

(Source: *2014/15 Consumption data provided by Council, 7 November 2016; **2014/15 TBL report; ***email from Council 19 October 2016)

Table 2: Water ETs Projection

Service Area	Scone & Aberdeen	Merriwa	Cassilis	Murrurundi	Middlebrook
Annual Growth Rate*	0.32%	0.45%	1 ET every 5 years	0.18%	2 ETs per year
2014/15	5771	960	39	255	72
2015/16	5790	964	39	255	74
2016/17	5808	969	39	256	76
2017/18	5827	973	39	256	78
2018/19	5845	977	39	257	80
2019/20	5864	982	40	257	82

Service Area	Scone & Aberdeen	Merriwa	Cassilis	Murrurundi	Middlebrook
Annual Growth Rate*	0.32%	0.45%	1 ET every 5 years	0.18%	2 ETs per year
2020/21	5883	986	40	258	84
2021/22	5902	991	40	258	86
2022/23	5921	995	40	259	88
2023/24	5940	1000	40	259	90
2024/25	5959	1004	41	260	92
2025/26	5978	1009	41	260	94
2026/27	5997	1013	41	260	96
2027/28	6016	1018	41	261	98
2028/29	6035	1022	41	261	100
2029/30	6055	1027	42	262	102
2030/31	6074	1031	42	262	104
2031/32	6093	1036	42	263	106
2032/33	6113	1041	42	263	108
2033/34	6132	1045	42	264	110
2034/35	6152	1050	43	264	112
2035/36	6172	1055	43	265	114
2036/37	6191	1060	43	265	116
2037/38	6211	1064	43	266	118
2038/39	6231	1069	43	266	120
2039/40	6251	1074	44	267	122
2040/41	6271	1079	44	267	124
2041/42	6291	1084	44	268	126
2042/43	6311	1089	44	268	128
2043/44	6332	1093	44	269	130
2044/45	6352	1098	45	269	132
Total new ETs in 30 years	581	138	6	14	60

(Source:* Data provided by Council, 17 March 2016)

4.3 Sewerage ETs

The UHSC's sewerage services are divided into five service areas. The 2014/15 ETs are estimated as a ratio of total average dry weather flow (ADWF) in each service area and the volume of sewage collected per property. The sewage discharge from a single detached residential property is defined as the sewage discharge from one ET.

UHSC 2014/15 estimated sewerage ETs are summarised in Table 3. Cassilis is not currently serviced with sewer, however Council has included provision of sewer infrastructure to Cassilis in its 10 years capital works program. Council's adopted growth rates used to estimate the future ETs are listed in Table 4.

Table 3: 2014/15 Sewerage ETs

Service Area	2014/15 Total ADWF* (ML/year)	2014/15 Sewage Discharge per ET** (kL/year/ET)	2014/15 ETs
Scone	587	210	2,796
Aberdeen	178	210	848
Merriwa	65	210	310
Murrurundi	70	210	333
Cassilis	N/A		61***

(Source: *sewer inflow data provided by Council, 17 March 2016; **2014/15 TBL Report; *** Number of residential and non-residential ETs provided by Council, 26 October 2016)

Table 4: Sewerage ETs Projection

Service Area	Scone	Aberdeen	Merriwa	Murrurundi	Cassilis
Annual Growth Rate*	0.34 %	0.23%	0.45%	0.18%	1 ET every 5 years
2014/15	2796	848	310	333	61
2015/16	2806	850	311	334	61
2016/17	2815	852	312	335	61
2017/18	2825	853	314	335	61
2018/19	2834	855	315	336	61
2019/20	2844	857	317	336	62
2020/21	2854	859	318	337	62
2021/22	2863	861	319	338	62
2022/23	2873	863	321	338	62
2023/24	2883	865	322	339	62
2024/25	2893	867	324	339	63

Service Area	Scone	Aberdeen	Merriwa	Murrurundi	Cassilis
Annual Growth Rate*	0.34 %	0.23%	0.45%	0.18%	1 ET every 5 years
2025/26	2903	869	325	340	63
2026/27	2912	871	327	341	63
2027/28	2922	873	328	341	63
2028/29	2932	875	330	342	63
2029/30	2942	877	331	342	64
2030/31	2952	879	333	343	64
2031/32	2962	881	334	344	64
2032/33	2972	883	336	344	64
2033/34	2982	885	337	345	64
2034/35	2993	887	339	346	65
2035/36	3003	890	340	346	65
2036/37	3013	892	342	347	65
2037/38	3023	894	343	347	65
2038/39	3034	896	345	348	65
2039/40	3044	898	346	349	66
2040/41	3054	900	348	349	66
2041/42	3065	902	349	350	66
2042/43	3075	904	351	351	66
2043/44	3085	906	353	351	66
2044/45	3096	908	354	352	67
Total new ETs in 30 years	300	60	45	18	6

(Source: * Data provided by Council, 17 March 2016)

4.4 Land Use Information

These DSPs for water supply and sewerage should be read in conjunction with the Local Environment Plan (LEP), Development Control Plan (DCP) and other planning instruments used by UHSC.

5. INFRASTRUCTURE

UHSC operates four water supply systems. Council is developing plans to supply drinking water to Middlebrook. These DSPs include five water supply service areas as listed below.

- Scone and Aberdeen
- Merriwa
- Cassilis
- Murrurundi
- Middlebrook

The current and future areas serviced by UHSC WSSs are shown in the maps included in Appendix A.

5.2 Shared Assets

Currently, each water supply system operates individually. However, Council is in the process of connecting Murrurundi WSS with the Scone & Aberdeen WSS. The pipeline connecting Murrurundi to Scone & Aberdeen is expected to be completed by 2017/18. Therefore Scone & Aberdeen headwork facilities (i.e. pipeline from Glenbawn Dam, chlorination system, balance tank, etc.) will be shared with Murrurundi.

Council's capital works program includes servicing Middlebrook within the next 10 years. Water will be transferred from Scone & Aberdeen WSS to Middlebrook. Some assets in the Scone & Aberdeen WSS will be shared with Middlebrook WSS.

The capital charge per ET from the shared assets is applied to all the areas served by the shared asset.

5.3 Existing Assets

All the existing assets servicing UHSC water supply service areas are included in the capital charge calculations except for the following:

Assets that are more than 30 years old at the commencement of the DSP

Reticulation assets which are typically paid for by developers. Reticulation assets are defined as the local pipes providing water supply to individual properties.

The existing assets servicing the areas covered by the water supply DSPs are listed in Table 1 of Appendix C (UHSC 2016 DSP Background Document for Water Supply). A summary of the existing assets is provided in Table 5.

Table 5: Water Supply Existing Assets

Service Areas	Current Replacement Cost (2015/16 \$'000)	
	Total Assets Value	Assets Value Included in DSPs*
Scone & Aberdeen	33,459	14,989
Merriwa	6,928	1,591
Cassilis	2,067	0
Murrurundi	9,922	3,295
Shared 1 – Scone/Aberdeen, Murrurundi and Middlebrook	14,568	14,189
Shared 2 – Scone/Aberdeen and Middlebrook	5,562	3,933

Note: *Excluding reticulation and assets older than 30 years
(Source: UHSC Water and Sewerage Asset Registers, October 2016)

5.4 Future Capital Works Program

According to the Guidelines, the calculation of capital charge includes the cost for new works planned within the next 10 years, excluding reticulation. If Council has developed detailed plans beyond 10 years, capital cost of those items can be considered for the capital charge calculation. In these DSPs, 10 years of new works are included in the calculations.

Capital works for renewals planned within the next 10 years may be included if the existing asset is older than 30 years and/or have been removed from the asset register. For this DSP it has been assumed that the capital works for renewals are assigned to assets older than 30 years and are therefore included in the calculation.

The 10 year capital works program required to provide water supply services to the UHSC service areas are provided in Table 2 of Appendix C (UHSC 2016 DSP Background Document for Water Supply).

A summary of the water supply capital works program is provided in Table 6.

Table 6: Summary of Water Supply 10 Year Capital Works

Service Area	Estimated Cost (2015/16 \$'000)		
	Renewals	New Work	Total
Scone & Aberdeen	6,166	431	6,597
Merriwa	749	82	831
Cassilis	176	80	256
Murrurundi	687	10,039	10,726
Middlebrook	0	2,390	2,390
Shared 1 – Scone/Aberdeen, Murrurundi and Middlebrook	0	15,180	15,180
Shared 2 – Scone/Aberdeen and Middlebrook	0	0	0

(Source: UHSC Water Capital Works Program, October 2016)

The 10 year capital works program for water supply is shown in Figure 1. Timing of works and expenditure is to be reviewed and updated when required.

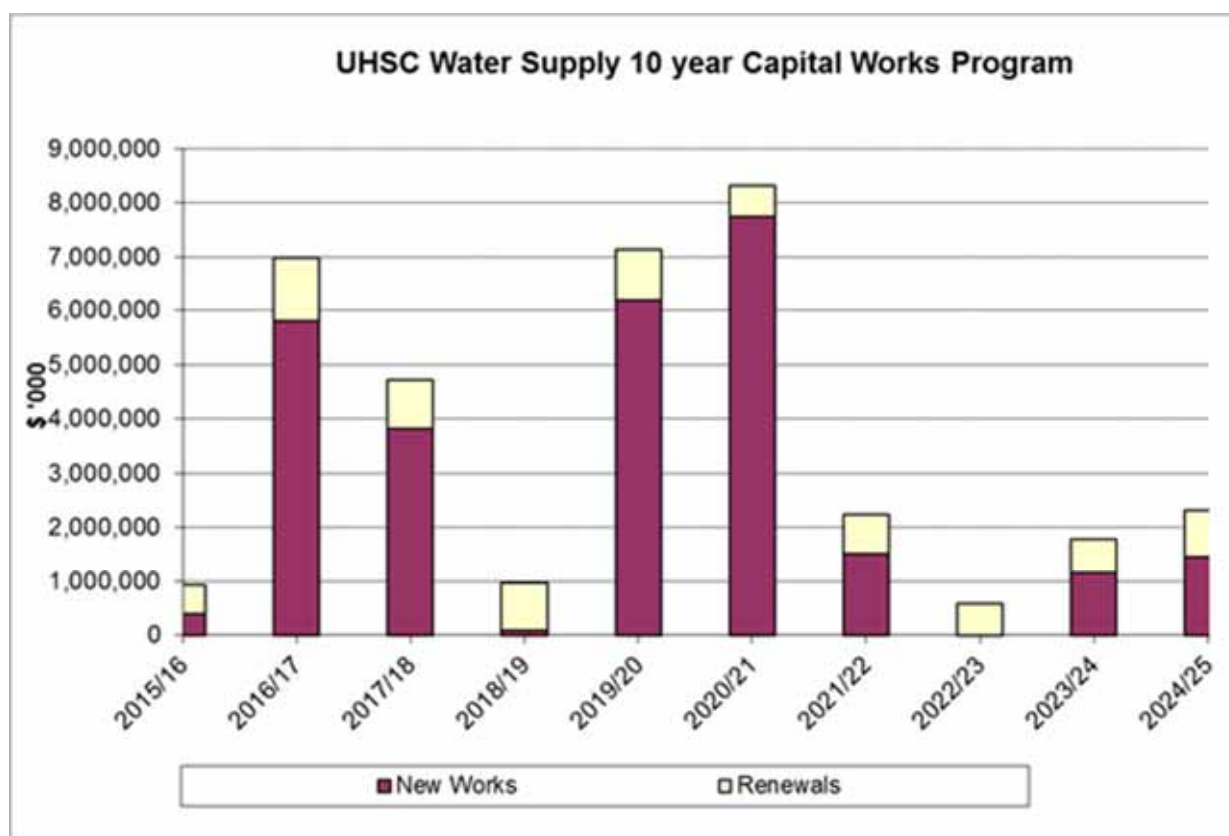


Figure 1: UHSC Water Supply 10 Year Capital Works Program

5.5 Sewerage

UHSC operates four sewerage systems. Council plans to provide sewerage services in Cassilis within the next 10 years. These DSPs include five sewerage service areas as listed below.

- Scone
- Aberdeen
- Merriwa
- Murrurundi
- Cassilis

The current and future areas serviced by UHSC sewerage systems are shown in maps included in Appendix B.

5.6 Existing Assets

All the existing assets serving UHSC sewerage service areas are included in the capital charge calculations except for the following:

- Assets more than 30 years old at the commencement of the DSP
- Reticulation assets which are typically paid for by developers. Reticulation assets are defined as the local pipes connecting individual properties.

The existing assets servicing the area covered by the sewerage DSPs are listed in Table 1 of Appendix D (UHSC 2016 DSP Background Document for Sewerage). A summary of the existing assets is provided in Table 7.

Table 7: Sewerage Existing Assets

Service Areas	Current Replacement Cost (2015/16 \$'000)	
	Total Assets Value	Assets Value Included in DSPs*
Scone	37,901	14,293
Aberdeen	12,626	5,360
Merriwa	8,417	192
Murrurundi	7,892	569

Note: * Excluding reticulation and assets older than 30 years
(Source: UHSC Water and Sewerage Asset Registers, October 2016)

5.7 Future Capital Works Program

According to the Guidelines, the calculation of capital charge includes capital cost for new works planned within the next 10 years, excluding reticulation. If Council has developed detailed plans beyond 10 years, capital cost of those items can be considered for the capital charge calculation. In these DSPs, 10 years of new works are included in the calculations.

Capital works for renewal planned within the next 10 years may be included if the existing asset is older than 30 years and/or have been removed from the asset register. For these DSPs it has been assumed that the capital works for renewals are assigned to assets older than 30 years and are therefore included in the calculation.

The 10 year capital works program required to provide sewerage services to the UHSC sewerage service areas are provided in Table 2 of Appendix D (UHSC 2016 DSP Background Document for Sewerage).

A summary of sewerage capital works program is provided in Table 8.

Table 8: Summary of Sewerage 10 Year Capital Works (2015/16 \$'000)

Service Area	Estimated Cost (2015/16 \$'000)		
	Renewals	New Works	Total
Scone	4,586	6,250	10,836
Aberdeen	1,482	85	1,567
Merriwa	882	32	914
Murrurundi	816	50	866
Cassilis	0	2,200	2,200

(Source: UHSC Sewerage Capital Works Program, October 2016)

The 10 year capital works program for sewerage is shown in Figure 2. Timing of works and expenditure are to be reviewed and updated when required.

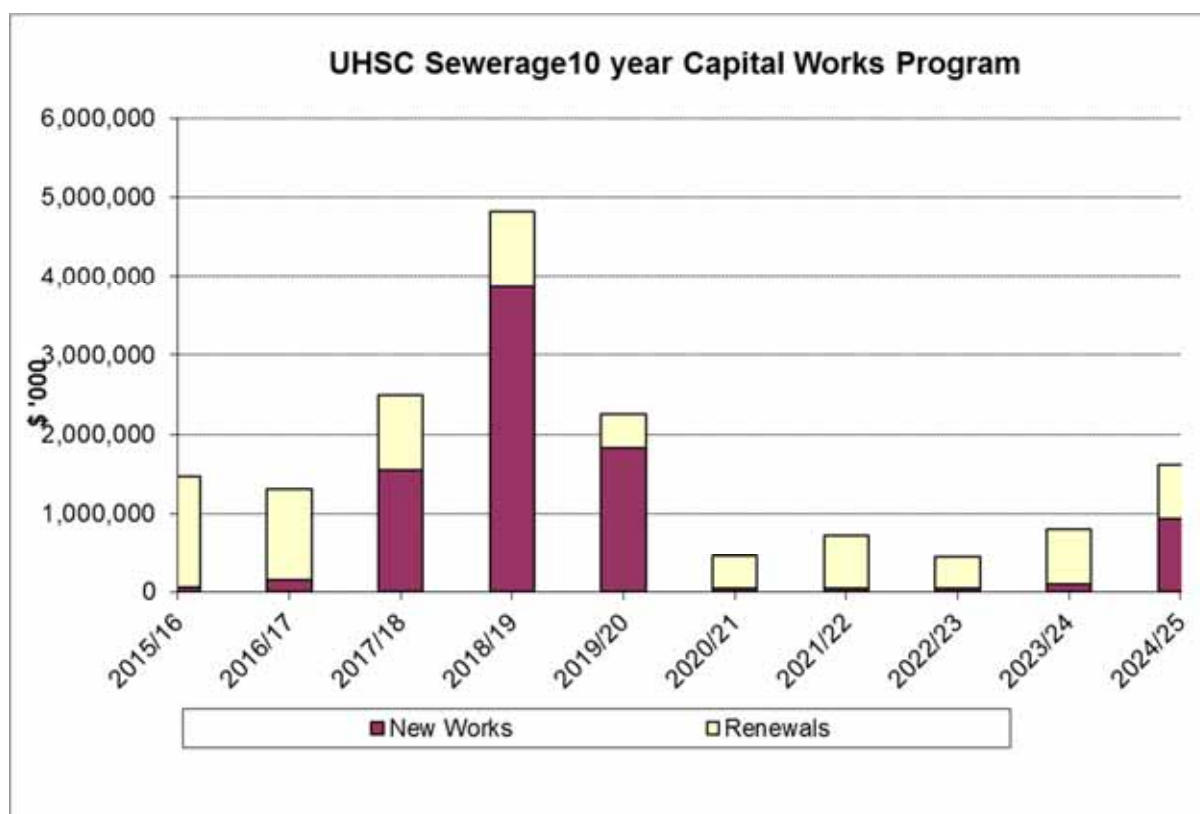


Figure 2: UHSC Sewerage 10 Year Capital Works Program

6. LEVELS OF SERVICE

6.1 Water Supply

The target levels of service (LOS) applied to UHSC's water supply schemes are listed in Table 9.

Table 9: Levels of Service for Water Supply

Description	Unit	Level of Service Target
Service Area		
Connection time for a new service in serviced areas (90% of the time)	Days	15
Availability of Supply		
Pressure:		
Min. pressure when delivering 6 L/min	Meters head	12
Max. static pressure	Meters head	90

Demand:		
Full Supply	L/ Tenement/ day	4,000
Reduced Supply	L/ Tenement/ day	1,000
Consumption Restrictions in Drought:		
Average duration of restrictions	% of time/10 years	< 5% of the time (6 months)
Average frequency of restrictions	No./10 years	1
Provision of 80 % of normal demand though a repeat of the worst drought on record	Restriction as % of normal usage	20%
Fire Fighting: Water will be available from the reticulation fire hydrants for the purpose of fire fighting in accordance with local Government guidelines and NSW fire brigade conditions for specific developments	% of area serviced	100%
Supply Interruption		
Description	Unit	Level of Service Target
Planned (95% of time):		
Notice given to domestic customers	Hours	24
Notice given to commercial customers	Hours	24
Notice given to major industrial customers	Days	7
Unplanned:		
Duration (don't last longer than)	Hours	12
Frequency	No./year	10
Response Times to Supply Failures (commence rectification after notification)		
All Customers:		
During working hours	Hours	1
Out of working hours	Hours	2

Response Time to Complaints and General Inquiries (95%)		
Respond to personal or oral complaints	Working day	1
Respond to written complaints	Working day	10
Water Quality (In accordance with the Drinking Water Quality Guidelines of Australia, 2011, published jointly by the National Health and Medical Research Council (NHMRC) and National Resource Management Ministerial Council)		
Physical and chemical testing	In accordance with NSW Health requirement	
Microbiological Parameters:		
Total coliforms – 95% of samples	Cfu/100 ml	0
Maximum in any sample	Cfu/100 ml	10
E.coli (in any sample)	Cfu/100 ml	0
Physico-Chemical Parameters	As required by Health and ADWG	

Note: The Levels of Service are the targets, which Council aims to meet; they are not intended as a formal customer contract.

(Source: UHSC Strategic Business Plan Water Supply and Sewerage, 2010-11)

6.2 Sewerage

The target levels of service (LOS) applied to UHSC's sewerage schemes are listed in Table 10.

Table 10: Levels of Service for Sewerage

Description	Unit	Level of Service Target	
Availability of Service			
Connections for domestic sewage should be provided to all houses, units or businesses within the defined service area.	% Designated service area	100%	
System Failures			
Category One: Failure due to rainfall and deficient capacity (overflows)	No/5 year	5	

Category Two: Failure due to pump or other breakdown including power failure	No/year	2
Category Three: Failure due to main blockages and collapses (e.g. tree roots)	No/year	200
Response Times for System Failures (commence rectification after notification)		
Priority 1: defined as Major spill, significant environmental or health impact or affecting large number of customers i.e. a major main		
Respond time during working hours	Minutes	60
Respond time during after working hours	Minutes	120
Priority 2: defined as Moderate spill, some environmental or health impact or affecting number of customers		
Respond time during working hours	Minutes	60
Description	Unit	Level of Service Target
Respond time during after working hours	Minutes	120
Priority 3: defined as 'Minor spill, little environmental impact or affecting a couple of customers		
Respond time during working hours	Hours	24
Respond time during after working hours	Hours	24
Response Times to Complaints & General Inquiries (95%)		
Written complaints	Working days	5
Oral complaints	Working days	1
Odour Complaints		

Treatment works	No/year	<2
Pumping stations	No/year	<4
Effluent discharge and sludge management failure to meet licence limit and statutory requirement	No of samples/year	<2

Note: The Levels of Service are the targets, which Council aims to meet; they are not intended as a formal customer contract.

(Source: UHSC Strategic Business Plan Water Supply and Sewerage, 2010-11)

7 DESIGN PARAMETERS

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

- Council's levels of service (Refer to section 6 above)
- Water Supply Investigation Manual (1986)
- WSAA water supply code of Australia – WSA 03 2002
- AUSPEC design specifications for water supply

Investigation, design and construction of sewerage components are based on:

- Council's levels of service (Refer to section 6 above)
- Manual of Practice: Sewer Design (1984)
- Manual of Practice: Sewage Pumping Station Design (1986)
- WSAA Sewerage Code of Australia – WSA 02-2002
- WSAA Sewerage Pumping Code of Australia – WSA 04 - 2001
- WSAA Pressure Sewerage Code of Australia – WSA 07 - 2007

8. DEVELOPER CHARGES METHODOLOGY

8.1 Capital Charge

The capital charges are based on the existing and future assets providing the services in these areas. The capital charge is calculated per ET by dividing Present Value (PV) of the effective capital cost of the assets by the PV of new ETs. Effective capital cost is the percentage of capital cost utilised by the post 1995/96 ETs.

$$\text{Capital Charge} = \text{PV of Effective Capital Cost} / \text{PV of New ETs}$$

The outcomes of water supply capital charges calculation are provided in Table 3 in Appendix C and summarised in section 9. The outcomes of sewerage capital charges calculations are provided in Table 3 in Appendix D and summarised in section 10.

Generally, the capacity of an asset would not be fully utilised until some years after construction of the asset. The capital charge calculation takes account of the period to full take-up of the capacity of the asset.

The Return on Investment (ROI) is based on the holding cost of early investment and recovery of the cost over time. The annual payments have to provide a return on the investment to reflect the

discounting of future payments. In accordance with IPART's Determination 9, 2000, the capital charges are calculated based on the discount rates listed in Table 11.

Table 11: Discount Rates Used in the Capital Charge Calculation

Assets	Discount Rate
Pre-1996 assets	3% pa
Post 1996 assets	5% pa

8.2 Exclusions

The developer charges do not cover the costs of reticulation and assets more than 30 years old.

UHSC does not levy charges for the construction of reticulation pipework upon completion of the development.

8.3 Reduction Amount

The reduction amount represents the portion of the cost of assets that UHSC expects to recover through its annual bills to the new developments.

Council has adopted the Net Present Value (NPV) of annual bills method to calculate the reduction amount. This method calculates the reduction amount as the NPV of 30 years net income from annual charges (revenue from annual bills less OMA) for the development area.

8.4 Developer Charges and Implementation

Developer charge is the capital charge minus the reduction amount. The outcomes of the water supply and sewerage developer charges calculations are included in sections 9 and 10 respectively.

$$\text{Developer Charge} = \text{Capital Charge} - \text{Reduction Amount}$$

8.5 Levying Lower Charges

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

Council may adopt developer charges that are lower than the calculated developer charges. UHSC water supply and sewerage adopted developer charges are provided in sections 9.3 and 10.3 respectively.

Adopting developer charges that are lower than the calculated amount means that existing residents subsidise new development. The extent of this cross subsidy needs to be disclosed in the DSP.

9 WATER SUPPLY DSPs

9.1 Scope

The water supply services are divided into five service areas. The boundaries of the water supply service areas considered in this DSP are shown in Appendix A.

9.2 Capital Charge

All the existing assets (excluding assets older than 30 years and reticulation) and future capital works (10 years) required to service UHSC water service areas have been included in the calculation of the capital charge. The assets (existing and new) that will be shared between two or more service areas have been identified. The capital charge component of the shared assets is the same for the service areas sharing those assets.

The percentage of capital cost of assets utilised by new ETs after 1995/96 are considered for the capital charge calculation. The calculated capital charges for the water supply service areas are summarised in Table 12 and Table 13. Detailed calculation is provided in Table 3 of Appendix C.

Table 12: Water Supply Effective Capital Cost

Service Areas	Capital Cost (2015/16 \$'000)			% of Capital Cost Utilised by New ETs (1995/96 to 2044/45)	Effective Capital Cost (2015/16 \$'000)		
	Pre 1996 Existing Assets	Post 1996 Existing Assets	10 Year Future Capital Works		Pre 1996 Existing Assets	Post 1996 Existing Assets	10 Year Future Capital Works
Scone & Aberdeen	2,259	12,730	6,597	14.8%	334	1,882	975
Merriwa	328	1,263	831	20.1%	66	242	167
Cassilis	0	0	256	21.1%	0	0	54
Murrurundi	2,201	1,094	10,726	9.0%	189	22	923
Middlebrook	0	0	2,390	100%	0	0	2,390
Shared 1*	0	14,189	15,180	15.6%	0	2,020	2,375
Shared 2*	1,625	2,308	0	15.9%	259	368	0

Note: Rounding errors may apply

*Assets that will service more than one area:

Shared 1 – Scone/Aberdeen, Murrurundi and Middlebrook

Shared 2 – Scone/Aberdeen and Middlebrook

Table 13: Water Supply Capital Charge

Service Area	PV of Effective Capital Cost (2015/16 \$000)			PV of new ETs		Capital Charge per ET (2015/16 \$)		
	Pre-1996 Assets (Exist.)	Post 1996 Assets (Exist.)	Post 1996 Assets (New+ Renew-als)	@ 3%	@ 5%	Pre-1996 Assets (Exist.)	Post 1996 Assets (Existing + new)	Total
Scone & Aberdeen	334	986	300	489	350	684	3,680	4,363
Merriwa	66	129	52	114	81	579	2,222	2,801
Cassilis	0	0	16	5	3	0	4,861	4,861
Murrurundi	189	14	321	12	9	15,599	38,411	54,010
Middlebrook	0	0	593	62	39	0	15,083	15,083

Shared 1*	0	979	713	549	393	0	4,305	4,305
Shared 2*	259	265	0	537	384	482	692	1,172
Scone & Aberdeen (including Shared 1 and 2)								9,843
Murrurundi (including Shared 1)								58,315
Middlebrook (including Shared 1 and 2)								20,562

Note: Rounding errors may apply

*Assets that will service more than one area:

Shared 1 – Scone/Aberdeen, Murrurundi and Middlebrook

Shared 2 – Scone/Aberdeen and Middlebrook

9.3 Developer Charge

Where the capital charges of two or more service areas are within 30%, they are agglomerated into a single DSP. No agglomeration applied for UHSC water supply service areas. Hence, UHSC water supply has five DSPs.

Developer charge is the capital charge minus the reduction amount. Developer charge detailed calculation is provided in Table 4 in Appendix C.

The reduction amount calculation methodology is provided in section 8.3 and detailed calculation is provided in Table 5 of Appendix C.

UHSC water supply calculated developer charges are summarised in Table 14 and the proposed developer charges are summarised in Table 15.

Table 14: Water Supply Calculated Developer Charge (2015/16)

DSP	Capital Charge 2015/16	Reduction Amount	Calculated Developer Charge 2015/16	Current Developer Charge 2016/17*
	per ET			
Murrurundi	\$58,315	\$3,217	\$55,097	\$3,304
Middlebrook	\$20,562		\$17,345	N/A
Scone & Aberdeen	\$9,843		\$6,625	\$7,216
Cassilis	\$4,861		\$1,644	\$660
Merriwa	\$2,801		\$0	\$3,304

Note: *This column will be deleted in the final report

Table 15: Water Supply Council Proposed Developer Charge (2016/17)

DSP	Calculated Developer Charge per ET		Council Proposed Developer Charge per ET
	2015/16	2016/17*	2016/17

Murrurundi	\$55,097	\$55,648	\$7,000
Middlebrook	\$17,345	\$17,518	N/A
Scone & Aberdeen	\$6,625	\$6,692	\$7,000
Cassilis	\$1,644	\$1,660	\$1,660
Merriwa	\$0	\$0	\$7,000

Note: *2016/17 Developer Charge is calculated using Sydney CPI for June 2015 to June 2016 of 1% TBA - To be advised by Council

9.4 Water Supply Cross-Subsidy

The calculated developer charges are the maximum values that may be levied. Council may elect to levy less than the calculated amounts. When a LWU elects to levy lower developer charges than the calculated value, the annual charges will need to fund the difference in income.

The cross subsidy from annual charges (i.e. typical residential bill) to developer charges need to be disclosed in the DSP.

10 SEWERAGE DSPs

10.1 Scope

The sewerage services are divided into five service areas. The boundaries of the sewerage service areas considered in this DSP are shown in Appendix B.

10.2 Capital Charge

All the existing assets (excluding more than 30 years old assets and reticulation) and new capital works (10 years) required to provide sewerage services have been included in the capital charge calculation.

The percentage of capital cost of assets utilised by new ETs after 1995/96 are considered for the capital charge calculation. The calculated capital charges for each service area are summarised in Table 16 and Table 17. Detailed calculation is provided in Table 3 of Appendix D.

Table 16: Sewerage Effective Capital Cost

Service Areas	Capital Cost (2015/16 \$'000)			% of Capital Cost Utilised by New ETs (1995/96 to 2044/45)	Effective Capital Cost (2015/16 \$'000)		
	Pre 1996 Existing Assets	Post 1996 Existing Assets	10 Year Future Capital Works		Pre 1996 Existing Assets	Post 1996 Existing Assets	10 Year Future Capital Works
Scone	9,470	4,823	10,836	15.6%	1,480	754	1,694
Aberdeen	5,193	167	1,567	11.1%	574	18	173
Merriwa	46	146	914	20.1%	9	29	184
Murrurundi	7	561	866	9.0%	0.6	48	74
Cassilis	0	0	2,200	100%	0	0	2,200

Note: Rounding errors may apply

Table 17: Sewerage Capital Charge

Service Area	PV of Effective Capital Cost (2015/16 \$000)			PV of new ETs		Capital Charge per ET (2015/16 \$)		
	Pre- 1996 Assets (Exist.)	Post 1996 Assets (Exist.)	Post 1996 Assets (New+ Renew- als)	@ 3%	@ 5%	Pre-1996 Assets (Exist.)	Post 1996 Assets (Existing +new)	Total
Scone	1,480	517	534	251	180	5,886	5,844	11,730
Aberdeen	574	7	56	52	37	11,140	1,713	12,854
Service Area	PV of Effective Capital Cost (2015/16 \$000)			PV of new ETs		Capital Charge per ET (2015/16 \$)		
	Pre- 1996 Assets (Exist.)	Post 1996 Assets (Exist.)	Post 1996 Assets (New+ Renew- als)	@ 3%	@ 5%	Pre-1996 Assets (Exist.)	Post 1996 Assets (Existing +new)	Total
Merriwa	9	18	57	37	26	251	2,849	3,100
Murrurundi	0.6	26	23	16	11	38	4,329	4,368
Cassilis	0	0	721	36	24	0	29,940	29,940

Note: Rounding errors may apply

10.3 Developer Charge

When the capital charges for two or more service areas are within 30%, they are agglomerated into a single DSP. Two agglomerations were required: Scone and Aberdeen are agglomerated into one DSP and Murrurundi and Merriwa were also required to agglomerate into one single DSP.

Developer charge is the capital charge minus the reduction amount. The reduction amount calculation methodology is provided in section 8.3 and the calculation is provided in Table 5 of Appendix D.

UHSC sewerage calculated developer charge is provided in Table 18, Table 19 and Table 20.

Table 18: Sewerage Weighted Capital Charge

Service Area	Capital Charge 2015/16	DSP	PV of New ETs	Weighted Capital Charge for each DSP area 2015/16
	per ET			per ET
Cassilis	\$29,940	SDSP1	61	\$29,940
Aberdeen	\$12,854	SDSP2	31	\$11,920
Scone	\$11,730		152	

Murrurundi	\$4,368	SDSP3	9	\$3,474
Merriwa	\$3,100		23	

* Scone and Aberdeen agglomerated into single DSP area

Table 19: Sewerage Developer Charge (2015/16)

DSP Areas	Weighted Capital Charge	Reduction Amount	Calculated Developer Charge 2015/16	Current Developer Charge 2016/17*
	per ET			
Cassilis	\$29,940	\$1,142	\$28,798	N/A
Scone & Aberdeen	\$11,920		\$10,777	\$1,608
Murrurundi & Merriwa	\$3,474		\$2,331	\$1,652

Note: * This column will be deleted in the final report

Table 20: Sewerage Developer Charge (2016/17)

DSP Areas	Calculated Developer Charge per ET		Council Proposed Developer Charge per ET
	2015/16	2016/17*	2016/17
Cassilis	\$28,798	\$29,086	N/A
Scone & Aberdeen	\$10,777	\$10,885	\$10,800
Murrurundi & Merriwa	\$2,331	\$2,355	\$2,300

Note: *2016/17 Developer Charge is calculated using Sydney CPI for June 2015 to June 2016 of 1%

10.4 Sewerage Cross-Subsidy

According to the Guidelines, the calculated developer charges are the maximum values that may be levied. The utility may elect to levy less than the calculated amounts. When a LWU elects to levy lower developer charges than the calculated value, the annual charges will need to fund the difference in income.

The cross subsidy from annual charges (i.e. typical residential bill) to developer charges need to be disclosed in the DSP.

11. REVIEWING/UPDATING OF CALCULATED DEVELOPER CHARGES

Developer charges relating to these DSPs shall be reviewed every 5 to 6 years. In the period between any reviews, developer charges will be adjusted on 1st July each year on the basis of movements in the CPI for Sydney as required by the Developer Charges Guidelines (excluding the impact of GST). Developer charges will be those charges determined by Council from time to time and will be published in Council's Annual Fees and Charges.

12. BACKGROUND DOCUMENTS

Background information and calculations related to these DSPs are available in the following documents:

- Developer Charges Guidelines for Water Supply, Sewerage and Stormwater - 2016, published by Department of Primary Industries, DPI Water
- UHSC 2016 DSP Background Document for Water Supply (Appendix C)
- UHSC 2016 DSP Background Document for Sewerage (Appendix D)
- UHSC Water Supply Draft TBL Performance Report (2014/15)
- UHSC Sewerage Draft TBL Performance Report (2014/15)
- UHSC Strategic Business Plans for Water Supply and Sewerage Services (2010-11)
- UHSC Development Servicing Plans for Water (2006)
- UHSC Development Servicing Plans for Sewerage (2006)
- UHSC Special Schedules 3 to 6, June 2015

Note: The background documents contain detailed calculations for the capital charges, reduction amount and developer charges, including asset commissioning dates, size/length of assets, MEERA valuation of assets, 10 years capital works program, assets capacities.

13 OTHER DSPs & RELATED CONTRIBUTION

Other related plans include:

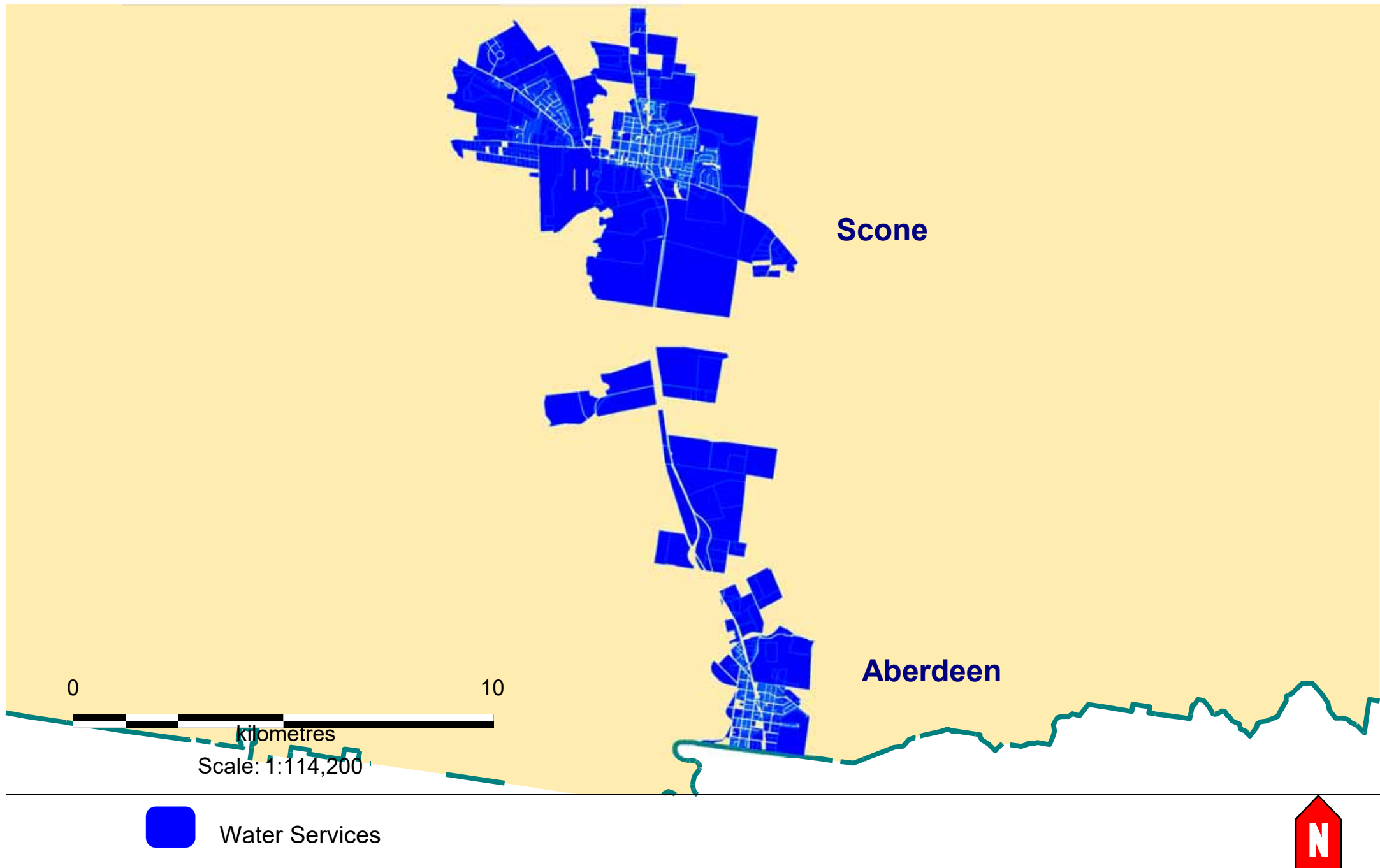
- S94 plans developed by Upper Hunter Shire Council

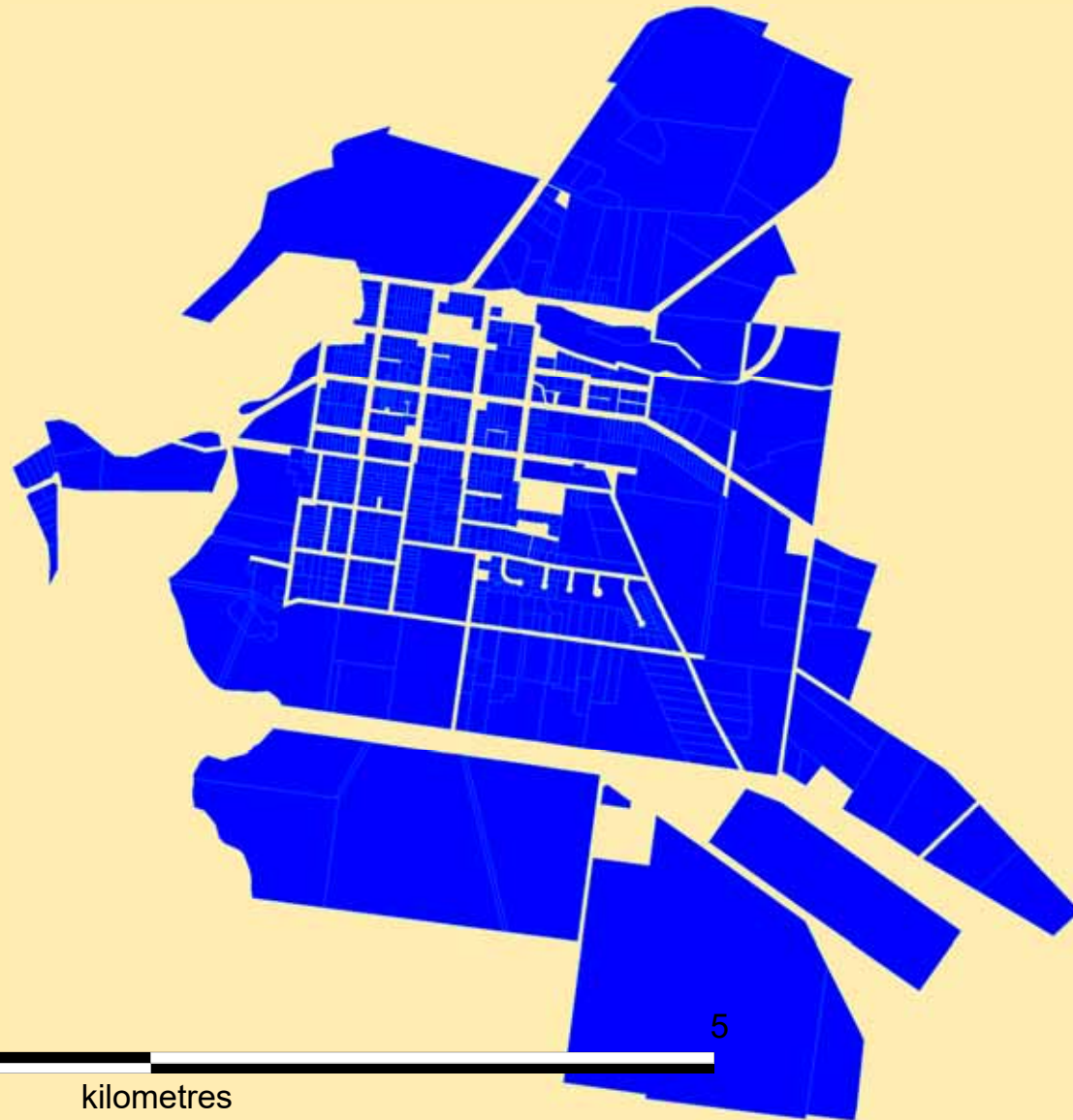
APPENDICES

APPENDIX A

WATER SUPPLY SERVICE AREA MAP

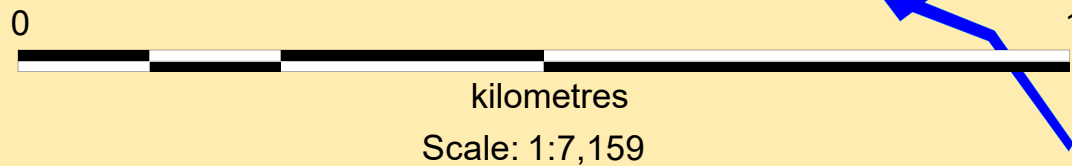
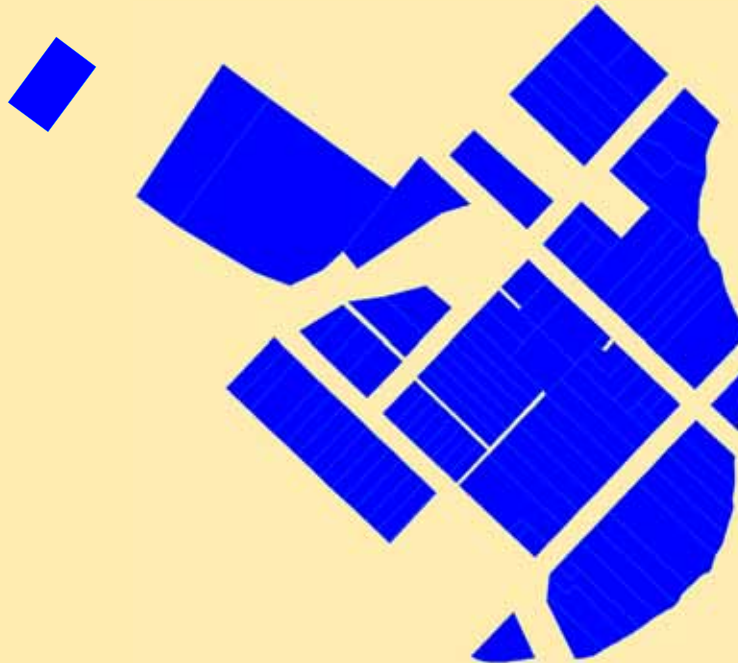
Water Services - Scone & Aberdeen





Water Services





 Water Services



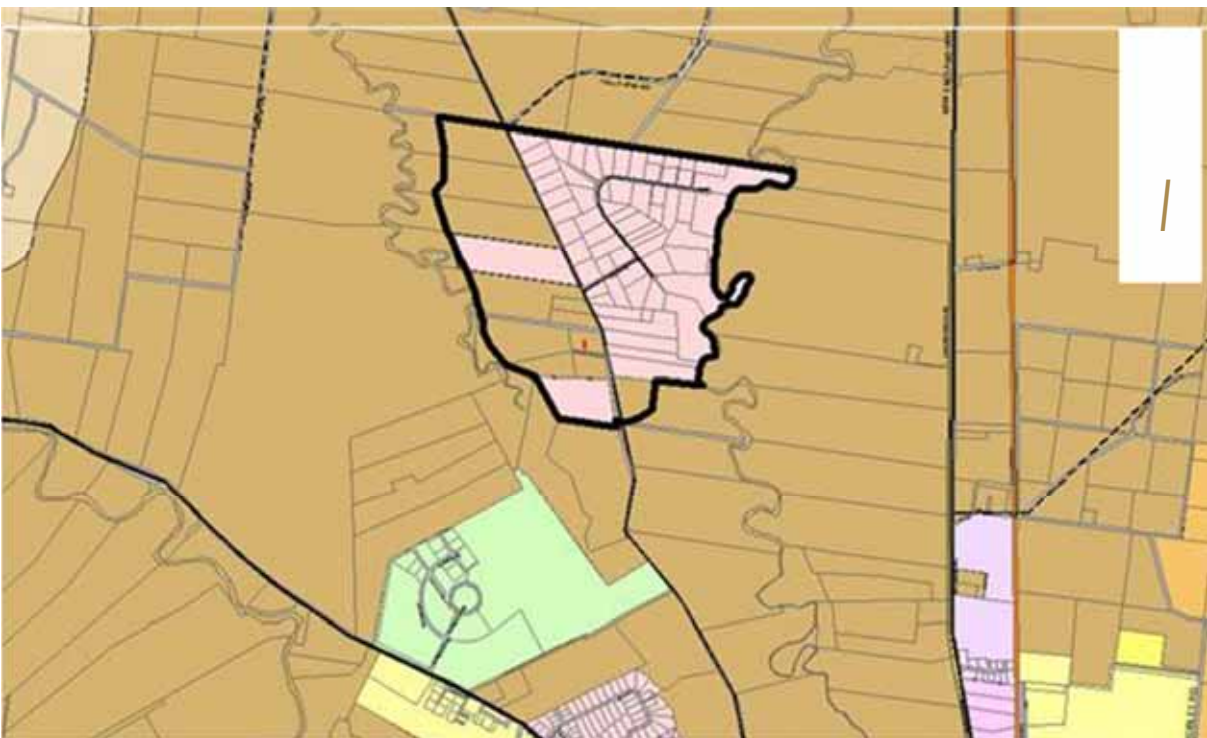
Water Services - Murrurundi



kilometres

Scale:1:21,260

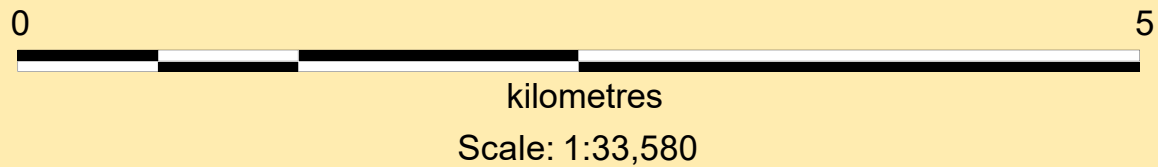




APPENDIX B

SEWERAGE SERVICE AREA MAP

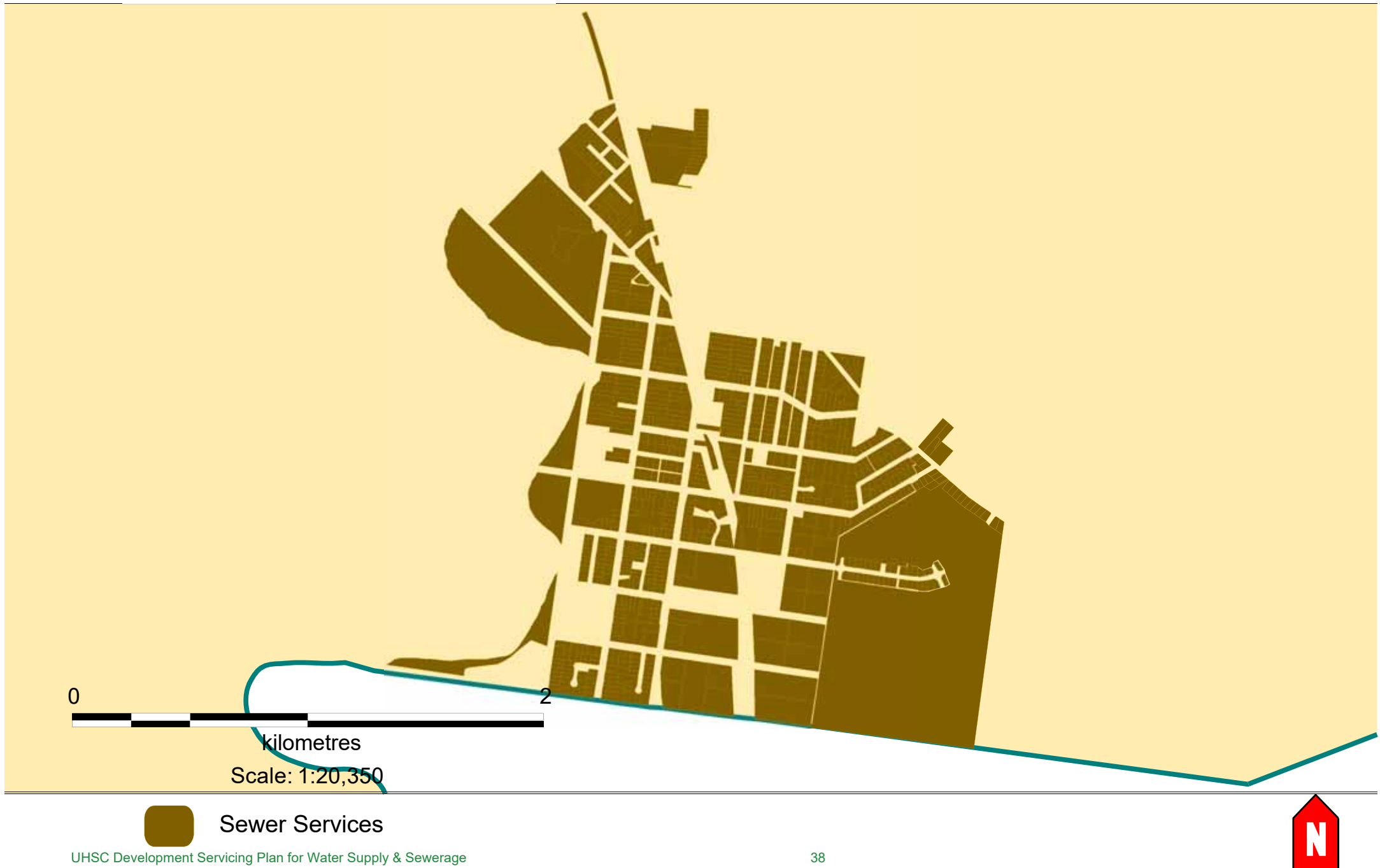
Sewer Services - Scone

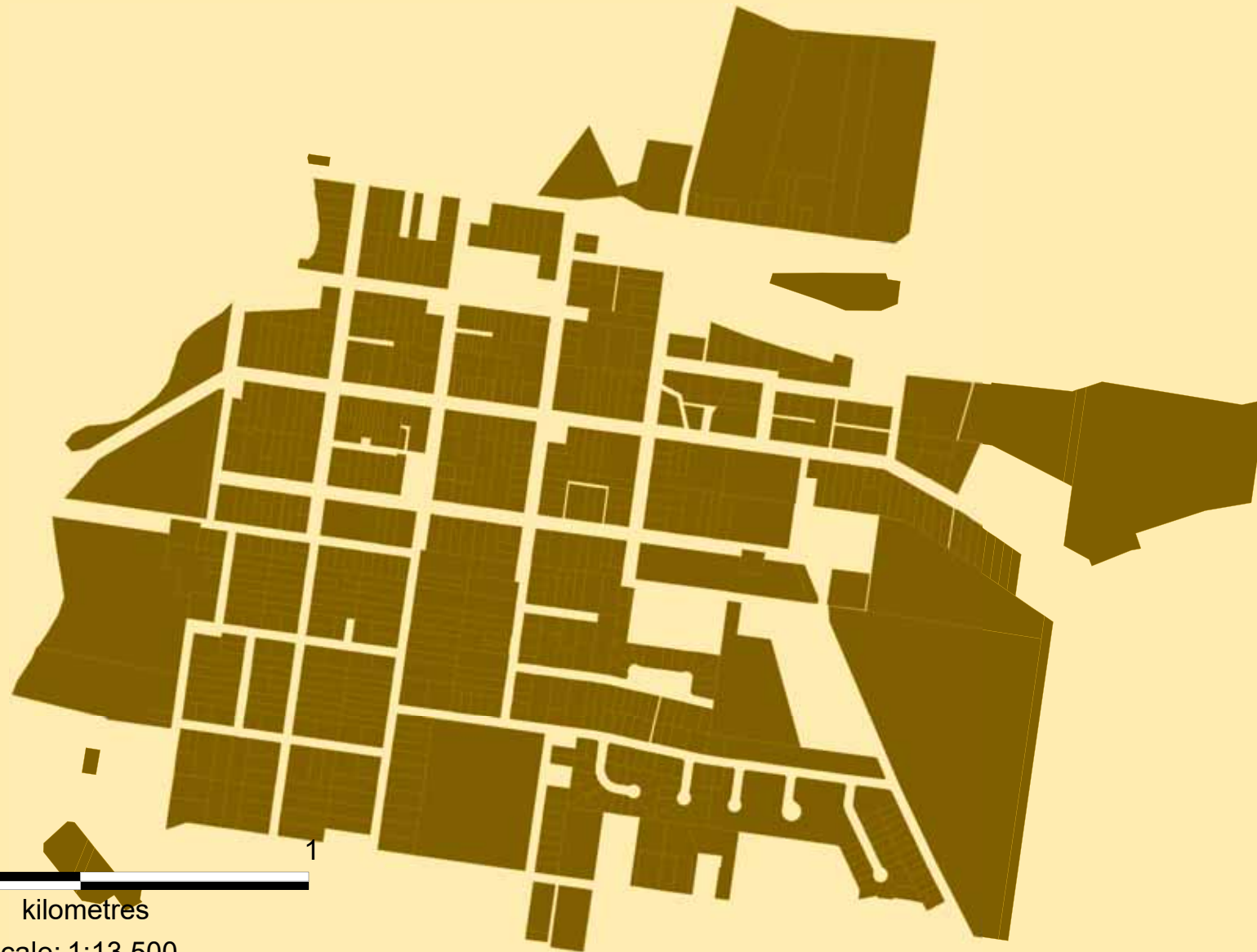


Sewer Services



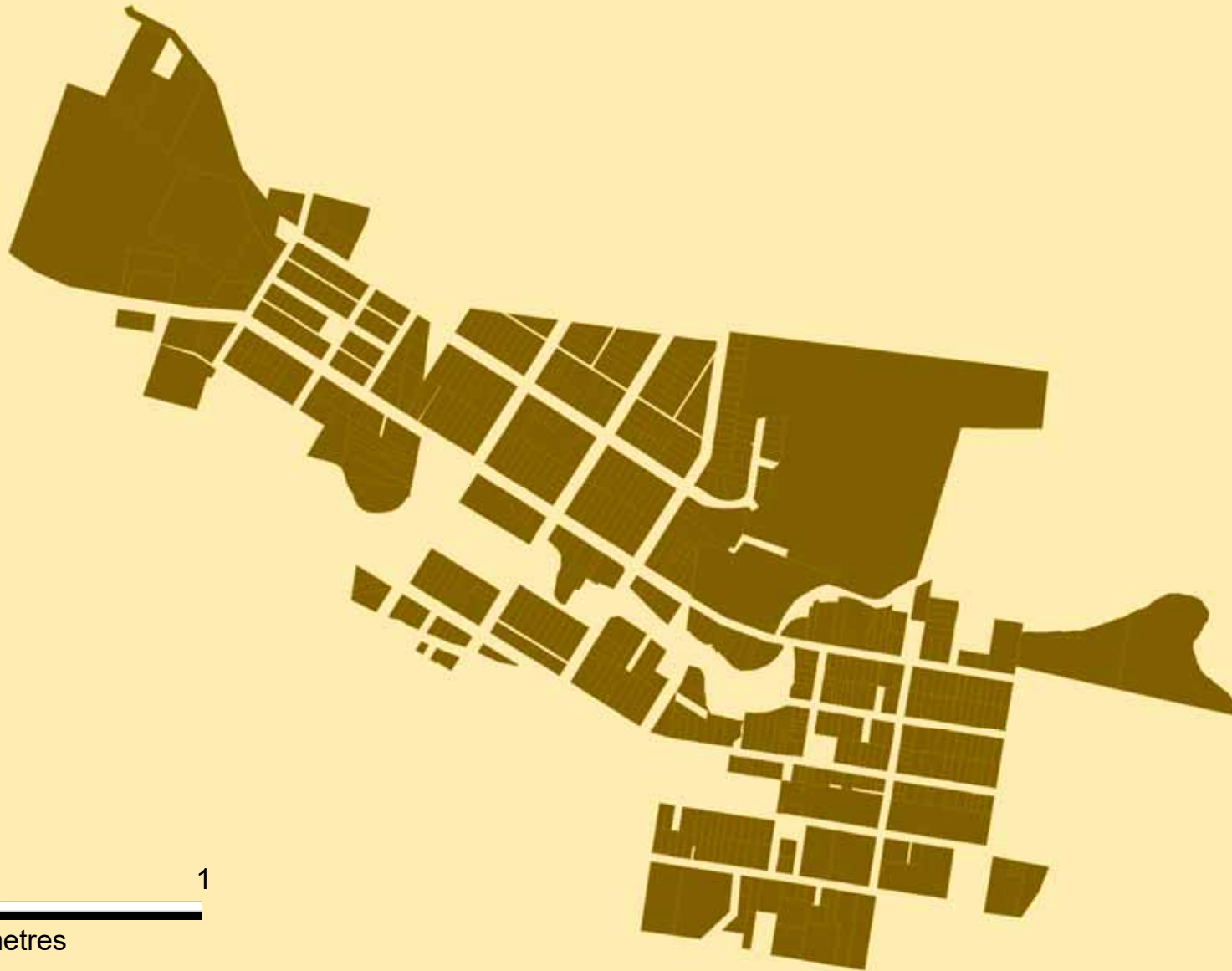
Sewer Services - Aberdeen





Sewer Services

Sewer Services - Murrurundi

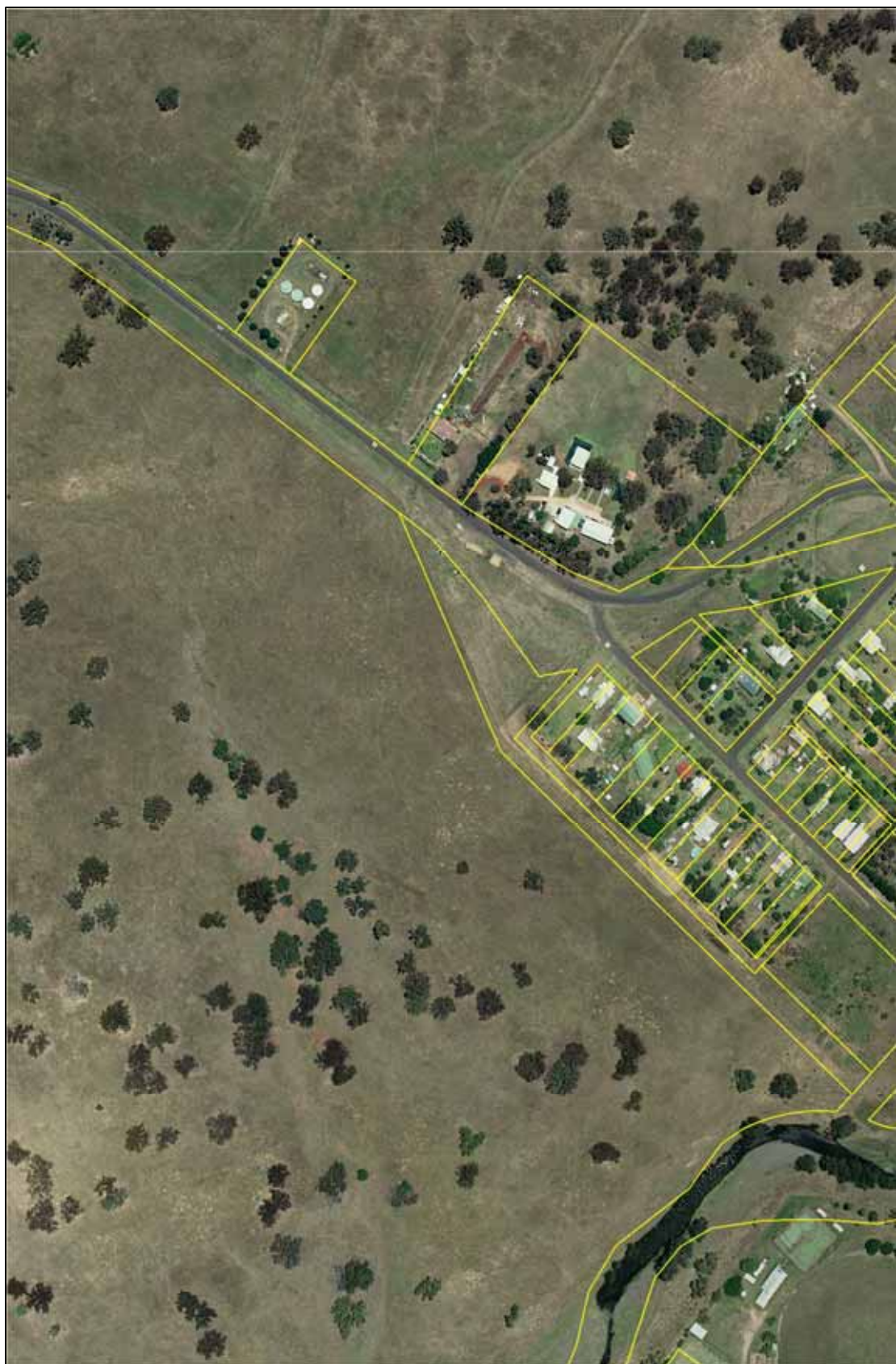


0 1
kilometres
Scale: 1:15,450



Sewer Services





0 200
meters

Scale
1:3,723

Disclaimer: This map is not a precise survey document. Accurate locations can only be determined by a survey on the ground.
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APPENDIX C

BACKGROUND DOCUMENT FOR WATER SUPPLY DSP

Scone &
Aberdeen,
Murrumbidgee
and
Middlebrook
Scone &
Aberdeen and
Middlebrook

Table 1: Upper Hunter Shire Council Existing Water Supply Assets

Service Area	Asset Type	Asset Description	Pipe dia (mm)	Date of Commissioned	Year of Commissioning	Current Replacement Cost 2015 \$	Current Replacement Cost 2015/16 \$	Assets excluding reticulation	Assets excluding pre 1985	Scone & Aberdeen	Merriwa	Cassilis	Murrumbidgee	Shared 1	Shared 2	Assets Excluded
Scone & Aberdeen	Reticulation		100	1/01/1991 00:00:00	1991	\$ 16,066	\$ 16,420	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$16,420
Scone & Aberdeen	Reticulation	115 SATUR RD	100	1/01/1960 00:00:00	1960	\$ 13,329	\$ 13,623	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$13,623
Scone & Aberdeen	Reticulation		100	1/01/1960 00:00:00	1960	\$ 2,453	\$ 2,548	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,548
Scone & Aberdeen	Reticulation	11 GRAY ST	100	1/01/1960 00:00:00	1960	\$ 3,158	\$ 3,227	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,227
Scone & Aberdeen	Reticulation	11 GRAY ST	100	1/01/1960 00:00:00	1960	\$ 21,490	\$ 21,963	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$21,963
Scone & Aberdeen	Reticulation	1 GUNSYND ST	100	1/01/1960 00:00:00	1960	\$ 21,174	\$ 21,640	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$21,640
Scone & Aberdeen	Reticulation	6 GUNSYND	100	1/01/1960 00:00:00	1960	\$ 7,728	\$ 7,898	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,898
Scone & Aberdeen	Reticulation		100	1/01/1991 00:00:00	1991	\$ 2,022	\$ 2,067	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,067
Scone & Aberdeen	Reticulation		100	1/01/1991 00:00:00	1991	\$ 14,681	\$ 15,004	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$15,004
Scone & Aberdeen	Reticulation		100	1/01/1991 00:00:00	1991	\$ 9,075	\$ 9,274	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,274
Scone & Aberdeen	Reticulation		100	1/01/1932 00:00:00	1932	\$ 19,063	\$ 19,483	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$19,483
Scone & Aberdeen	Reticulation		100	1/01/1932 00:00:00	1932	\$ 35,384	\$ 36,163	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$36,163
Scone & Aberdeen	Reticulation		100	1/01/1991 00:00:00	1991	\$ 2,188	\$ 2,236	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,236
Scone & Aberdeen	Reticulation		100	1/01/1991 00:00:00	1991	\$ 20,914	\$ 21,374	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$21,374
Scone & Aberdeen	Reticulation		100	1/01/1991 00:00:00	1991	\$ 1,994	\$ 2,038	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,038
Scone & Aberdeen	Reticulation		100	1/01/1991 00:00:00	1991	\$ 3,878	\$ 3,963	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,963
Scone & Aberdeen	Reticulation		100	1/01/1991 00:00:00	1991	\$ 9,840	\$ 9,852	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,852
Scone & Aberdeen	Reticulation		100	1/01/1991 00:00:00	1991	\$ 7,534	\$ 7,700	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,700
Scone & Aberdeen	Reticulation		100	1/01/1991 00:00:00	1991	\$ 1,717	\$ 1,755	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,755
Scone & Aberdeen	Reticulation		100	1/01/1991 00:00:00	1991	\$ 8,864	\$ 9,059	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,059
Scone & Aberdeen	Reticulation		100	1/01/1991 00:00:00	1991	\$ 33,706	\$ 34,447	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$34,447
Scone & Aberdeen	Reticulation		100	1/01/1960 00:00:00	1960	\$ 2,759	\$ 2,820	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,820
Scone & Aberdeen	Reticulation		100	1/01/1990 00:00:00	1990	\$ 11,113	\$ 11,358	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,358
Scone & Aberdeen	Reticulation		100	1/01/1932 00:00:00	1932	\$ 21,939	\$ 22,421	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$22,421
Scone & Aberdeen	Reticulation	30 SHORT ST	100	1/01/1960 00:00:00	1960	\$ 17,002	\$ 17,376	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$17,376
Scone & Aberdeen	Reticulation		100	1/01/1991 00:00:00	1991	\$ 970	\$ 991	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$991
Scone & Aberdeen	Reticulation		100	1/01/1992 00:00:00	1992	\$ 1,964	\$ 2,038	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,038
Scone & Aberdeen	Reticulation		100	1/01/1992 00:00:00	1992	\$ 11,080	\$ 11,324	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,324
Scone & Aberdeen	Reticulation		100	1/01/1992 00:00:00	1992	\$ 1,994	\$ 2,038	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,038
Scone & Aberdeen	Reticulation		100	1/01/1992 00:00:00	1992	\$ 11,080	\$ 11,324	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,324
Scone & Aberdeen	Reticulation		100	1/01/1960 00:00:00	1960	\$ 14,077	\$ 14,387	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$14,387
Scone & Aberdeen	Reticulation	30 SHORT ST	100	1/01/1960 00:00:00	1960	\$ 19,146	\$ 19,568	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$19,568
Scone & Aberdeen	Reticulation	*COVERED BY 410/4302 SHORT ST*	100	1/01/1960 00:00:00	1960	\$ 35,451	\$ 36,231	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$36,231
Scone & Aberdeen	Reticulation	28 SHORT ST	100	1/01/1960 00:00:00	1960	\$ 1,994	\$ 2,038	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,038
Scone & Aberdeen	Reticulation		100	1/01/1992 00:00:00	1992	\$ 11,080	\$ 11,324	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,324
Scone & Aberdeen	Reticulation		100	1/01/1992 00:00:00	1992	\$ 9,972	\$ 10,191	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,191
Scone & Aberdeen	Reticulation	covered by 4160/4180 5 TULLOCH CL	100	1/01/1960 00:00:00	1960	\$ 6,914	\$ 7,066	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,066
Scone & Aberdeen	Reticulation	4176/4178	100	1/01/1960 00:00:00	1960	\$ 3,324	\$ 3,397	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,397
Scone & Aberdeen	Reticulation	53 GRAY ST	100	1/01/1960 00:00:00	1960	\$ 3,740	\$ 3,822	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,822
Scone & Aberdeen	Reticulation	4 TULLOCH CL	100	1/01/1960 00:00:00	1960	\$ 28,426	\$ 27,007	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$27,007
Scone & Aberdeen	Reticulation	4180/4186 covered by 4180/4200	100	1/01/1960 00:00:00	1960	\$ 3,324	\$ 3,397	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,397
Scone & Aberdeen	Reticulation	1 DERBY CL	100	1/01/1960 00:00:00	1960	\$ 4,820	\$ 4,926	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,926
Scone & Aberdeen	Reticulation		100	1/01/1992 00:00:00	1992	\$ 12,465	\$ 12,739	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,739
Scone & Aberdeen	Reticulation	53 GRAY ST	100	1/01/1960 00:00:00	1960	\$ 4,388	\$ 4,484	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,484
Scone & Aberdeen	Reticulation	6 DERBY CL	100	1/01/1960 00:00:00	1960	\$ 2,626	\$ 2,684	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,684
Scone & Aberdeen	Reticulation	covered by 4186/4200	100	1/01/1960 00:00:00	1960	\$ 16,620	\$ 16,986	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$16,986
Scone & Aberdeen	Reticulation	55 GRAY ST	100	1/01/1960 00:00:00	1960	\$ 499	\$ 510	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$510



Scone &
Aberdeen,
Murrurundi
and
Middlebrook

Scone &
Aberdeen and
Middlebrook

Table 1: Upper Hunter Shire Council Existing Water Supply Assets

Service Area	Asset Type	Asset Description	Pipe dia (mm)	Date of Commissioned	Year of Commissioning	Current Replacement Cost 2015 \$	Current Replacement Cost 2015/16 \$	Assets excluding reticulation	Assets excluding pre 1985	Scone & Aberdeen	Merriwa	Cassilis	Murrurundi	Shared 1	Shared 2	Assets Excluded
Scone & Aberdeen	Reticulation		50	1/01/1978 00:00:00	1978	\$ 2,161	\$ 2,208	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,208
Scone & Aberdeen	Reticulation		100	1/01/1978 00:00:00	1978	\$ 3,878	\$ 3,963	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,963
Scone & Aberdeen	Reticulation		100	1/01/1978 00:00:00	1978	\$ 2,216	\$ 2,265	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,265
Scone & Aberdeen	Reticulation		100	1/01/1978 00:00:00	1978	\$ 20,914	\$ 21,374	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$21,374
Scone & Aberdeen	Reticulation		100	1/01/1988 00:00:00	1988	\$ 8,398	\$ 8,470	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,470
Scone & Aberdeen	Water Vain record Pipes	Susan St Main(Aberdeen - Guernsey)		30/06/2013 00:00:00	2013	\$ 143,391	\$ 146,546	\$ 146,546	\$146,546	\$146,546	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Water Vain record Pipes	W/O 1212 Scn - New St Main (Birrell-New-Park)		30/06/2013 00:00:00	2013	\$ 89,700	\$ 91,673	\$ 91,673	\$91,673	\$91,673	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Water Vain record Pipes	W/O 4041 Oxford Rd, Scn(Susan to Short)		30/06/2013 00:00:00	2013	\$ 158,979	\$ 162,476	\$ 162,476	\$162,476	\$162,476	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Water Vain record Pipes	W/O 4212 Scn - Carlyle St Main		30/06/2013 00:00:00	2013	\$ 76,644	\$ 78,330	\$ 78,330	\$78,330	\$78,330	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Water Vain record Pipes	W/O 4218 Scn - Kingdon St (Guernsey to Aberdeen)		30/06/2013 00:00:00	2013	\$ 91,266	\$ 93,274	\$ 93,274	\$93,274	\$93,274	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Water Vain record Pipes	W/O 4262 Water Valve replacements Scone		30/06/2013 00:00:00	2013	\$ 12,632	\$ 12,910	\$ 12,910	\$12,910	\$12,910	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Water Vain record Pipes	W/O 4276 Scn-Mains Replacement Guernsey St		30/06/2013 00:00:00	2013	\$ 17,706	\$ 18,095	\$ 18,095	\$18,095	\$18,095	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Water Vain record Pipes	W/O 4285 Scn - Waverly St Main		30/06/2013 00:00:00	2013	\$ 117,350	\$ 119,932	\$ 119,932	\$119,932	\$119,932	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Water Vain record Pipes	W/O 4408 Scn-Scott St (Liverpool to Short)		30/06/2013 00:00:00	2013	\$ 51,646	\$ 52,782	\$ 52,782	\$52,782	\$52,782	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Water Vain record Pipes	W/O 4412 Kurrajong Estate		30/06/2013 00:00:00	2013	\$ 135,958	\$ 138,949	\$ 138,949	\$138,949	\$138,949	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Water Vain record Pipes	W/O 4413 Fingtree Estate		30/06/2013 00:00:00	2013	\$ 125,492	\$ 128,253	\$ 128,253	\$128,253	\$128,253	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Water Vain record Pipes	W/O 4414 Industrial Estate		30/06/2013 00:00:00	2013	\$ 167,463	\$ 171,148	\$ 171,148	\$171,148	\$171,148	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Reticulation	Bhima Dr	100	1/01/2007 00:00:00	2007	\$ -	\$ -	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Reticulation	Bhima Dr	100	1/01/2007 00:00:00	2007	\$ -	\$ -	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Reticulation	Widden Cl	100	1/01/2007 00:00:00	2007	\$ -	\$ -	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Reticulation	Widden Cl	100	1/01/2007 00:00:00	2007	\$ -	\$ -	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Reticulation	Widden Cl	100	1/01/2007 00:00:00	2007	\$ -	\$ -	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Reticulation	Redbank Dr - Alabama Dr		1/01/2007 00:00:00	2007	\$ -	\$ -	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Reticulation	Alabama Dr		1/01/2007 00:00:00	2007	\$ -	\$ -	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Reticulation	Alabama Dr - Redbank Dr		1/01/2007 00:00:00	2007	\$ -	\$ -	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Reticulation	Alabama Dr		1/01/2007 00:00:00	2007	\$ -	\$ -	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Reticulation	Bhima Dr		1/01/2007 00:00:00	2007	\$ -	\$ -	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Reticulation	Bhima Dr		1/01/2007 00:00:00	2007	\$ -	\$ -	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Reticulation	Clifflands Rd		1/01/2007 00:00:00	2007	\$ -	\$ -	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Reticulation	Clifflands Rd		1/01/2007 00:00:00	2007	\$ -	\$ -	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Reticulation	Allan Cunningham Dr		1/01/2007 00:00:00	2007	\$ -	\$ -	\$ -	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Water Vain record Pipes	W/O 1212 Scn - New St Main (Birrell-New-Park)		30/06/2014 00:00:00	2014	\$ 194,069	\$ 198,339	\$ 198,339	\$198,339	\$198,339	\$0	\$0	\$0	\$0	\$0	\$0
Shared 2	Water Vain record Pipes	W/O 4039 St Aubins St Scn - Major Mains		30/06/2014 00:00:00	2014	\$ 332,947	\$ 340,272	\$ 340,272	\$340,272	\$0	\$0	\$0	\$0	\$0	\$340,272	\$0
Scone & Aberdeen	Water Vain record Pipes	W/O 4041 Oxford Rd, Scn(Susan to Short)		30/06/2014 00:00:00	2014	\$ 42,067	\$ 42,992	\$ 42,992	\$42,992	\$42,992	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Water Vain record Pipes	W/O 4540 Scn - Gould St Link dead ends		30/06/2014 00:00:00	2014	\$ 13,330	\$ 13,623	\$ 13,623	\$13,623	\$13,623	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Water Vain record Pipes	W/O 1213 Scn - Susan & Main Sts Intersection Main		30/06/2015 00:00:00	2015	\$ 131,361	\$ 134,251	\$ 134,251	\$134,251	\$134,251	\$0	\$0	\$0	\$0	\$0	\$0
Shared 2	Water Vain record Pipes	W/O 4038 Scn - St Aubins Street, Major Mains		30/06/2015 00:00:00	2015	\$ 61,245	\$ 62,592	\$ 62,592	\$62,592	\$0	\$0	\$0	\$0	\$0	\$62,592	\$0
Scone & Aberdeen	Water Vain record Pipes	W/O 4210 Scn - Davies St Main		30/06/2015 00:00:00	2015	\$ 35,579	\$ 36,362	\$ 36,362	\$36,362	\$36,362	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Water Vain record Pipes	W/O 4218 Scn - Scott St Main (Cooper to Liverpool)		30/06/2015 00:00:00	2015	\$ 173,625	\$ 177,445	\$ 177,445	\$177,445	\$177,445	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Water Vain record Pipes	W/O 4291 Scn - Minor Main & Service Replacements		30/06/2015 00:00:00	2015	\$ 30,225	\$ 30,890	\$ 30,890	\$30,890	\$30,890	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Water Vain record Pipes	W/O 4565 Scn - Water valve replacement		30/06/2015 00:00:00	2015	\$ 13,259	\$ 13,551	\$ 13,551	\$13,551	\$13,551	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Water Vain record Pipes	W/O 4703 Scn - Depot standpipe upgrade		30/06/2015 00:00:00	2015	\$ 7,104	\$ 7,260	\$ 7,260	\$7,260	\$7,260	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Water Vain record Pipes	W/O 4710 Scn - Aerodrome water connection		30/06/2015 00:00:00	2015	\$ 9,300	\$ 9,505	\$ 9,505	\$9,505	\$9,505	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Water Vain record Pipes	Somerses Place Subdivision		30/06/2015 00:00:00	2015	\$ 221,346	\$ 226,215	\$ 226,215	\$226,215	\$226,215	\$0	\$0	\$0	\$0	\$0	\$0
Scone & Aberdeen	Water Vain record Pipes	Gundy Road Subdivision		30/06/2015 00:00:00	2015	\$ 389,023	\$ 397,581	\$ 397,581	\$397,581	\$397,581	\$0	\$0	\$0	\$0	\$0	\$0
Shared 2	Water Vain record Pipes	St Aubins St Underbore		30/06/2015 00:00:00	2015	\$ 550,655	\$ 562,769	\$ 562,769	\$562,769	\$0	\$0	\$0	\$0	\$0	\$562,769	\$0
						\$ 70,946,444	\$ 72,507,265	\$ 55,718,314	\$ 37,999,127	\$ 14,989,818	\$ 1,591,171	\$ -	\$ 3,295,128	\$ 14,189,186	\$ 3,933,826	\$ 34,508,138



Table 3: Upper Hunter Shire Council Water Supply Capital Charge Calculations

Year of Commissioning	Effective Year of commissioning	Capital Cost of existing assets (\$)	Capital Cost of renewals only (\$)	Capital Cost of new assets only (\$)	Percentage of capital works utilised by new ETs after 1995/96	Effective Capital Cost (\$)	Rate of Return (%)	PV Factor (2015/16\$)	PV of capital costs
							14.8%		
Existing									
Assets commissioned in	1985	1996	\$175,840			\$25,993.02	3%	1.00	\$25,993
Assets commissioned in	1986	1996	\$96,289			\$14,234	3%	1.00	\$14,234
Assets commissioned in	1987	1996	\$0			\$0	3%	1.00	\$0
Assets commissioned in	1988	1996	\$39,305			\$5,810	3%	1.00	\$5,810
Assets commissioned in	1989	1996	\$79,459			\$11,746	3%	1.00	\$11,746
Assets commissioned in	1990	1996	\$1,087,433			\$160,746	3%	1.00	\$160,746
Assets commissioned in	1991	1996	\$0			\$0	3%	1.00	\$0
Assets commissioned in	1992	1996	\$0			\$0	3%	1.00	\$0
Assets commissioned in	1993	1996	\$0			\$0	3%	1.00	\$0
Assets commissioned in	1994	1996	\$11,006			\$1,627	3%	1.00	\$1,627
Assets commissioned in	1995	1996	\$770,082			\$113,835	3%	1.00	\$113,835
Subtotal (Assets pre-1996)			\$ 2,293,415			\$ 333,991			\$ 333,991
Assets commissioned in	1996	1996	\$0			\$0	5%	1.00	\$0
Assets commissioned in	1997	1997	\$0			\$0	5%	0.95	\$0
Assets commissioned in	1998	1998	\$1,178,707			\$174,236.55	5%	0.91	\$158,039
Assets commissioned in	1999	1999	\$0			\$0	5%	0.86	\$0
Assets commissioned in	2000	2000	\$1,417,761			\$209,576	5%	0.82	\$172,419
Assets commissioned in	2001	2001	\$0			\$0	5%	0.78	\$0
Assets commissioned in	2002	2002	\$0			\$0	5%	0.75	\$0
Assets commissioned in	2003	2003	\$0			\$0	5%	0.71	\$0
Assets commissioned in	2004	2004	\$0			\$0	5%	0.68	\$0
Assets commissioned in	2005	2005	\$0			\$0	5%	0.64	\$0
Assets commissioned in	2006	2006	\$0			\$0	5%	0.61	\$0
Assets commissioned in	2007	2007	\$85,126			\$12,583	5%	0.58	\$7,357
Assets commissioned in	2008	2008	\$0			\$0	5%	0.56	\$0
Assets commissioned in	2009	2009	\$0			\$0	5%	0.53	\$0
Assets commissioned in	2010	2010	\$21,095			\$3,118	5%	0.51	\$1,575
Assets commissioned in	2011	2011	\$1,654,667			\$244,596	5%	0.48	\$117,655
Assets commissioned in	2012	2012	\$0			\$0	5%	0.46	\$0
Assets commissioned in	2013	2013	\$6,097,099			\$901,283.98	5%	0.44	\$393,227
Assets commissioned in	2014	2014	\$937,406			\$138,569.04	5%	0.42	\$57,578
Assets commissioned in	2015	2015	\$1,338,543			\$197,865.72	5%	0.40	\$78,302
Future			\$ 12,730,403			\$ 1,661,831			
Assets planned in 2015/16	2016	2016		\$300,000	\$2,500	\$44,716	5%	0.38	\$16,853
Assets planned in 2016/17	2017	2017		\$1,027,420	\$2,500	\$152,245	5%	0.36	\$54,647
Assets planned in 2017/18	2018	2018		\$709,700	\$2,500	\$105,279	5%	0.34	\$35,989
Assets planned in 2018/19	2019	2019		\$753,800	\$2,500	\$111,798	5%	0.33	\$36,398
Assets planned in 2019/20	2020	2020		\$834,900	\$177,500	\$149,655	5%	0.31	\$46,403
Assets planned in 2020/21	2021	2021		\$333,100	\$243,600	\$85,249	5%	0.30	\$25,174
Assets planned in 2021/22	2022	2022		\$622,600	\$0	\$92,034	5%	0.28	\$25,884
Assets planned in 2022/23	2023	2023		\$464,700	\$0	\$68,693	5%	0.27	\$18,399
Assets planned in 2023/24	2024	2024		\$319,800	\$0	\$47,273	5%	0.26	\$12,059
Assets planned in 2024/25	2025	2025		\$800,000	\$0	\$118,257	5%	0.24	\$28,730
Assets planned in 2025/26	2026	2026		\$0	\$0	\$0	5%	0.23	\$0
Assets planned in 2026/27	2027	2027		\$0	\$0	\$0	5%	0.22	\$0
Assets planned in 2027/28	2028	2028		\$0	\$0	\$0	5%	0.21	\$0
Assets planned in 2028/29	2029	2029		\$0	\$0	\$0	5%	0.20	\$0
Assets planned in 2029/30	2030	2030		\$0	\$0	\$0	5%	0.19	\$0
Assets planned in 2030/31	2031	2031		\$0	\$0	\$0	5%	0.18	\$0
Assets planned in 2031/32	2032	2032		\$0	\$0	\$0	5%	0.17	\$0
Assets planned in 2032/33	2033	2033		\$0	\$0	\$0	5%	0.16	\$0
Assets planned in 2033/34	2034	2034		\$0	\$0	\$0	5%	0.16	\$0
Assets planned in 2034/35	2035	2035		\$0	\$0	\$0	5%	0.15	\$0
Assets planned in 2035/36	2036	2036		\$0	\$0	\$0	5%	0.14	\$0
Assets planned in 2036/37	2037	2037		\$0	\$0	\$0	5%	0.14	\$0
Assets planned in 2037/38	2038	2038		\$0	\$0	\$0	5%	0.13	\$0
Assets planned in 2038/39	2039	2039		\$0	\$0	\$0	5%	0.12	\$0
Assets planned in 2039/40	2040	2040		\$0	\$0	\$0	5%	0.12	\$0
Assets planned in 2040/41	2041	2041		\$0	\$0	\$0	5%	0.11	\$0
Assets planned in 2041/42	2042	2042		\$0	\$0	\$0	5%	0.11	\$0
Assets planned in 2042/43	2043	2043		\$0	\$0	\$0	5%	0.10	\$0
Assets planned in 2043/44	2044	2044		\$0	\$0	\$0	5%	0.10	\$0
Assets planned in 2044/45	2045	2045		\$0	\$0	\$0	5%	0.09	\$0
Subtotal (Assets post-1996)			\$ 6,166,020	\$ 431,100		\$ 975,198			\$ 1,286,690

Total ET	New ETs per year	PV of new ETs	PV of Capital Costs
5396			
5413	17	17	17
5430	17	17	17
5448	17	17	17
5465	17	16	16
5483	18	16	15
5500	18	16	14
5518	18	15	14
5536	18	15	13
5553	18	14	13
5571	18	14	12
5589	18	14	12
5607	18	13	11
5625	18	13	11
5643	18	13	10
5661	18	12	10
5679	18	12	9
5698	18	12	9
5716	18	11	8
5734	18	11	8
5753	18	11	8
5771	18	11	7
5790	19	10	7
5808	19	10	7
5827	19	10	6
5845	19	9	6
5864	19	9	6
5883	19	9	6
5902	19	9	5
5921	19	9	5
5940	19	8	5
5959	19	8	5
5978	19	8	4
5997	19	8	4
6016	19	7	4
6035	19	7	4
6055	19	7	4
6074	19	7	4
6093	19	7	3
6113	19	7	3
6132	20	6	3
6152	20	6	3
6172	20	6	3
6191	20	6	3
6211	20	6	3
6231	20	6	2
6251	20	5	2
6271	20	5	2
6291	20	5	2
6311	20	5	2
6332	20	5	2
6352	20	5	2
581			
939	489	350	\$ 3,680
TOTAL CAPITAL CHARGE PER ET \$4,363			
CAPITAL CHARGE PER ET (including shared 1 and 2) \$9,843			

TOTAL



Table 3: Upper Hunter Shire Council Water Supply Capital Charge Calculations

UHSC Development Servicing Plan for Water Supply & Sewerage 72



Table 3: Upper Hunter Shire Council Water Supply Capital Charge Calculations

	Year of	Effective Year of	Capital Cost of existing assets (\$)	Capital Cost of renewals only (\$)	Capital Cost of new assets only (\$)	Percentage of capital works utilised by new ETs after 1995/96	Effective Capital Cost (\$)	Rate of Return (%)	PV Factor	PV of capital costs (2015/16\$)
	Commissioning	commissioning								

	New ETs per	PV of new ETs	PV of	Capital Charge
Total ET	year	(@3%)	new ETs (@5%)	per ET (2015/16\$)

Casstlis				21.1%							
Existing											
Assets commissioned in	1985	1996	\$0			\$0	3%	1.00	\$0		
Assets commissioned in	1986	1996	\$0			\$0	3%	1.00	\$0		
Assets commissioned in	1987	1996	\$0			\$0	3%	1.00	\$0		
Assets commissioned in	1988	1996	\$0			\$0	3%	1.00	\$0		
Assets commissioned in	1989	1996	\$0			\$0	3%	1.00	\$0		
Assets commissioned in	1990	1996	\$0			\$0	3%	1.00	\$0		
Assets commissioned in	1991	1996	\$0			\$0	3%	1.00	\$0		
Assets commissioned in	1992	1996	\$0			\$0	3%	1.00	\$0		
Assets commissioned in	1993	1996	\$0			\$0	3%	1.00	\$0		
Assets commissioned in	1994	1996	\$0			\$0	3%	1.00	\$0		
Assets commissioned in	1995	1996	\$0			\$0.00	3%	1.00	\$0		
Subtotal (Assets pre-1996)			\$ -			\$ -			\$ -		
Assets commissioned in	1996	1996	\$0			\$0.00		1.00	\$0		
Assets commissioned in	1997	1997	\$0			\$0	5%	0.95	\$0		
Assets commissioned in	1998	1998	\$0			\$0	5%	0.91	\$0		
Assets commissioned in	1999	1999	\$0			\$0	5%	0.86	\$0		
Assets commissioned in	2000	2000	\$0			\$0	5%	0.82	\$0		
Assets commissioned in	2001	2001	\$0			\$0	5%	0.78	\$0		
Assets commissioned in	2002	2002	\$0			\$0	5%	0.75	\$0		
Assets commissioned in	2003	2003	\$0			\$0	5%	0.71	\$0		
Assets commissioned in	2004	2004	\$0			\$0	5%	0.68	\$0		
Assets commissioned in	2005	2005	\$0			\$0	5%	0.64	\$0		
Assets commissioned in	2006	2006	\$0			\$0	5%	0.61	\$0		
Assets commissioned in	2007	2007	\$0			\$0	5%	0.58	\$0		
Assets commissioned in	2008	2008	\$0			\$0	5%	0.56	\$0		
Assets commissioned in	2009	2009	\$0			\$0	5%	0.53	\$0		
Assets commissioned in	2010	2010	\$0			\$0	5%	0.51	\$0		
Assets commissioned in	2011	2011	\$0			\$0	5%	0.48	\$0		
Assets commissioned in	2012	2012	\$0			\$0	5%	0.46	\$0		
Assets commissioned in	2013	2013	\$0			\$0	5%	0.44	\$0		
Assets commissioned in	2014	2014	\$0			\$0	5%	0.42	\$0		
Assets commissioned in	2015	2015	\$0			\$0	5%	0.40	\$0		
Future			\$ -			\$ -			\$ -		
Assets planned in 2015/16	2016	2016	\$18,500	\$15,000		\$7,068	5%	0.38	\$2,664		
Assets planned in 2016/17	2017	2017	\$5,600	\$0		\$1,182	5%	0.36	\$424		
Assets planned in 2017/18	2018	2018	\$50,700	\$20,000		\$14,917	5%	0.34	\$5,099		
Assets planned in 2018/19	2019	2019	\$20,800	\$0		\$4,389	5%	0.33	\$1,429		
Assets planned in 2019/20	2020	2020	\$6,900	\$0		\$1,456	5%	0.31	\$451		
Assets planned in 2020/21	2021	2021	\$32,000	\$0		\$6,752	5%	0.30	\$1,994		
Assets planned in 2021/22	2022	2022	\$7,100	\$0		\$1,498	5%	0.28	\$421		
Assets planned in 2022/23	2023	2023	\$7,200	\$0		\$1,519	5%	0.27	\$407		
Assets planned in 2023/24	2024	2024	\$7,300	\$0		\$1,540	5%	0.26	\$393		
Assets planned in 2024/25	2025	2025	\$20,000	\$45,000		\$13,714	5%	0.24	\$3,332		
Assets planned in 2025/26	2026	2026	\$0	\$0		\$0	5%	0.23	\$0		
Assets planned in 2026/27	2027	2027	\$0	\$0		\$0	5%	0.22	\$0		
Assets planned in 2027/28	2028	2028	\$0	\$0		\$0	5%	0.21	\$0		
Assets planned in 2028/29	2029	2029	\$0	\$0		\$0	5%	0.20	\$0		
Assets planned in 2029/30	2030	2030	\$0	\$0		\$0	5%	0.19	\$0		
Assets planned in 2030/31	2031	2031	\$0	\$0		\$0	5%	0.18	\$0		
Assets planned in 2031/32	2032	2032	\$0	\$0		\$0	5%	0.17	\$0		
Assets planned in 2032/33	2033	2033	\$0	\$0		\$0	5%	0.16	\$0		
Assets planned in 2033/34	2034	2034	\$0	\$0		\$0	5%	0.16	\$0		
Assets planned in 2034/35	2035	2035	\$0	\$0		\$0	5%	0.15	\$0		
Assets planned in 2035/36	2036	2036	\$0	\$0		\$0	5%	0.14	\$0		
Assets planned in 2036/37	2037	2037	\$0	\$0		\$0	5%	0.14	\$0		
Assets planned in 2037/38	2038	2038	\$0	\$0		\$0	5%	0.13	\$0		
Assets planned in 2038/39	2039	2039	\$0	\$0		\$0	5%	0.12	\$0		
Assets planned in 2039/40	2040	2040	\$0	\$0		\$0	5%	0.12	\$0		
Assets planned in 2040/41	2041	2041	\$0	\$0		\$0	5%	0.11	\$0		
Assets planned in 2041/42	2042	2042	\$0	\$0		\$0	5%	0.11	\$0		
Assets planned in 2042/43	2043	2043	\$0	\$0		\$0	5%	0.10	\$0		
Assets planned in 2043/44	2044	2044	\$0	\$0		\$0	5%	0.10	\$0		
Assets planned in 2044/45	2045	2045	\$0	\$0		\$0	5%	0.09	\$0		
Subtotal (Assets post-1996)			\$ 176,100	\$ 80,000		\$ 54,024			\$ 16,614		

[illegible]



Table 3: Upper Hunter Shire Council Water Supply Capital Charge Calculations

	New ETs per	PV of new ETs	PV of	Capital Charge
Total ET	year	(@3%)	new ETs (@5%)	per ET (2015/16\$)
1				
2				
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99				
100				

[illegible]

[illegible]

	New ETs per	PV of new ETs	PV of	Capital Charge
Total ET	year	(@3%)	new ETs (@5%)	per ET (2015/16\$)

Growth rate				
2.04%				
0				
0				
	0.0		0.0	0.0
				\$ -
0	0.0		0.0	0.0
0	0.0		0.0	0.0
0	0.0		0.0	0.0
0	0.0		0.0	0.0
0	0.0		0.0	0.0
0	0.0		0.0	0.0
0	0.0		0.0	0.0
0	0.0		0.0	0.0
0	0.0		0.0	0.0
0	0.0		0.0	0.0
0	0.0		0.0	0.0
0	0.0		0.0	0.0
0	0.0		0.0	0.0
0	0.0		0.0	0.0
0	0.0		0.0	0.0
0	0.0		0.0	0.0
0	0.0		0.0	0.0
0	0.0		0.0	0.0
0	0.0		0.0	0.0
0	0.0		0.0	0.0
74	74.0		41.0	27.9
76	2.0		1.1	0.7
78	2.0		1.0	0.7
80	2.0		1.0	0.7
82	2.0		1.0	0.6
84	2.0		1.0	0.6
86	2.0		0.9	0.6
88	2.0		0.9	0.5
90	2.0		0.9	0.5
92	2.0		0.8	0.5
94	2.0		0.8	0.5
96	2.0		0.8	0.4
98	2.0		0.8	0.4
100	2.0		0.8	0.4
102	2.0		0.7	0.4
104	2.0		0.7	0.4
106	2.0		0.7	0.3
108	2.0		0.7	0.3
110	2.0		0.7	0.3
112	2.0		0.6	0.3
114	2.0		0.6	0.3
116	2.0		0.6	0.3
118	2.0		0.6	0.3
120	2.0		0.6	0.2
122	2.0		0.5	0.2
124	2.0		0.5	0.2
126	2.0		0.5	0.2
128	2.0		0.5	0.2
130	2.0		0.5	0.2
132	2.0		0.5	0.2
	132		62	39 \$ 15.08

[illegible]

	New ETs per year	PV of new ETs (@3%)	PV of new ETs (@5%)	Capital Charge per ET (2015/16\$)
Total ET				
TOTAL CAPITAL CHARGE PER ET				\$15,083
TOTAL CAPITAL CHARGE PER ET (including shared 1 and 2)				\$20,562

	0.34%			
	5677			
	5696	19.4	19.4	19.4
				\$ -
	5715	19.5	19.5	19.5
	5735	19.5	19.0	18.6
	5755	19.6	18.5	17.8
	5774	19.7	18.0	17.0
	5794	19.7	17.5	16.2
	5814	19.8	17.1	15.5
	5834	19.9	16.6	14.8
	5854	19.9	16.2	14.2
	5874	20.0	15.8	13.5
	5894	20.1	15.4	12.9
	5914	20.1	15.0	12.4
	5934	20.2	14.6	11.8
	5954	20.3	14.2	11.3
	5975	20.3	13.9	10.8
	5995	20.4	13.5	10.3
	6016	20.5	13.1	9.9
	6036	20.6	12.8	9.4
	6057	20.6	12.5	9.0
	6077	20.7	12.2	8.6
	6098	20.8	11.8	8.2
	6119	20.9	11.6	7.9
	6140	21.0	11.3	7.5
	6161	21.0	11.0	7.2
	6182	21.1	10.7	6.9
	6203	21.2	10.4	6.6
	6225	21.2	10.1	6.3
	6246	21.3	9.9	6.0
	6267	21.4	9.6	5.7
	6289	21.4	9.4	5.5
	6310	21.5	9.1	5.2
	6332	21.5	8.9	5.0
	6353	21.6	8.6	4.8
	6375	21.7	8.4	4.5
	6397	21.7	8.2	4.3
	6418	21.8	8.0	4.1
	6440	21.8	7.8	4.0
	6462	21.9	7.6	3.8
	6484	22.0	7.4	3.6
	6506	22.0	7.2	3.5
	6528	22.1	7.0	3.3
	6550	22.2	6.8	3.1
	6573	22.2	6.6	3.0
	6595	22.3	6.4	2.9
	6617	22.4	6.3	2.7
	6640	22.4	6.1	2.6
	6662	22.5	5.9	2.5
	6685	22.5	5.8	2.4
	6707	22.6	5.6	2.3
	6730	22.7	5.5	2.2
	6753	22.7	5.3	2.1
		655		



Table 3: Upper Hunter Shire Council Water Supply Capital Charge Calculations

Year of	Effective Year of	Capital Cost of	Capital Cost of	Capital Cost of	Percentage of capital				PV of capital costs
Commissioning	commissioning	existing assets	renewals only (\$)	new assets only	works utilised by new	Effective Capital Cost (\$)	Rate of Return (%)	PV Factor	(2015/16\$)
		(\$)		(\$)	ETs after 1995/96				
									\$ 1,692,155

Subtotal (Assets post-1996)

	New ETs per	PV of new ETs	PV of	Capital Charge
Total ET	year	(@3%)	new ETs	per ET
			(@5%)	(2015/16\$)
	1,057	549	395	\$ 4,305
	TOTAL CAPITAL CHARGE PER ET			\$4,305



Water Supply

2016 DSP Background Document for

Table 4: Upper Hunter Shire Council Water Supply Developer Charge Calculation

Table 4: Upper Hunter Shire Council Water Supply Developer Charge Calculation											CPI (Consumer Price Index), Sydney June 15 - June 16 1.00%				
Service area	Capital Charge per ET (2015/16\$)	% of highest	% of highest	% of highest	% of highest	DSP areas	Weighted Average Capital Charge for each DSP area					Reduction Amount (\$/ET)	Calculated Developer Charge (\$/ET) 2015/16	Calculated Developer Charge (\$/ET) 2016/17	Council Proposed Developer Charge (\$/ET) 2016/17
							Total number of new ETs in 30 years	PV of new ET	Proportion of PV of new ETs in each DSP area	Weighted Cap charge for each service area (\$/ET)	Weighted cap charge for each DSP area (\$/ET)				
Murrurundi	\$ 58,315	100%				WDSP1	14	7	100.0%	\$58,315	\$58,315	\$ 3,217	\$ 55,097	\$ 55,648	
Middlebrook	\$ 20,562	35%	100%			WDSP2	132	99	100.0%	\$20,562	\$20,562		\$ 17,345	\$ 17,518	
Scone & Aberdeen	\$ 9,843		48%	100%		WDSP3	581	294	100.0%	\$9,843	\$9,843		\$ 6,625	\$ 6,692	
Cassilis	\$ 4,861			49%	100%	WDSP4	6	3	100.0%	\$4,861	\$4,861		\$ 1,644	\$ 1,660	
Merriwa	\$ 2,801				58%	WDSP5	138	70	100.0%	\$2,801	\$2,801		-\$ 416	\$ (420)	
							473								

Note: The agglomeration approach requires that service areas with capital charge within 30% of the highest capital charge should be agglomerated into one developer charge. No agglomeration is required

Table 5: Upper Hunter Shire Council Water Reduction Amount Calculation

		Current estimated (\$/ET)	
Annual Water Bill per ET		\$ 680	
Annual Water OMA Costs per ET		\$ 408	
Net Income per ET		\$ 271	

Total Charges Income	\$ 4,824,000
Total Ets	7,097
Annual Bill per ET (\$)	680
Total OMA Cost	\$ 2,899,000
OMA per ET (\$)	408

From Special Schedule 2014/15
From ET calculation Tab

From Special Schedule 2014/15

	Year	Total ETs	New ETs	PV Factor	PV of new ETs (@5%)	Cumulative new ETs	Net income from new ETs	PV of Net income from new ETs (@5%)	Reduction Amount (\$/ET)
0	2014/15	7,097							
1	2015/16	7,123	25	1.00	25	25	\$6,847	\$6,847	
2	2016/17	7,148	25	0.95	24	51	\$13,717	\$13,063	
3	2017/18	7,173	25	0.91	23	76	\$20,607	\$18,691	
4	2018/19	7,199	25	0.86	22	101	\$27,519	\$23,772	
5	2019/20	7,226	27	0.82	22	128	\$34,725	\$28,566	
6	2020/21	7,251	26	0.78	20	154	\$41,681	\$32,658	
7	2021/22	7,277	26	0.75	19	179	\$48,658	\$36,310	
8	2022/23	7,303	26	0.71	18	205	\$55,658	\$39,555	
9	2023/24	7,329	26	0.68	18	231	\$62,680	\$42,424	
10	2024/25	7,356	27	0.64	17	258	\$69,995	\$45,120	
11	2025/26	7,382	26	0.61	16	284	\$77,061	\$47,309	
12	2026/27	7,408	26	0.58	15	310	\$84,150	\$49,201	
13	2027/28	7,434	26	0.56	15	336	\$91,261	\$50,817	
14	2028/29	7,460	26	0.53	14	363	\$98,394	\$52,180	
15	2029/30	7,488	27	0.51	14	390	\$105,821	\$53,447	
16	2030/31	7,514	26	0.48	13	417	\$112,999	\$54,355	
17	2031/32	7,541	27	0.46	12	443	\$120,200	\$55,065	
18	2032/33	7,567	27	0.44	12	470	\$127,424	\$55,595	
19	2033/34	7,594	27	0.42	11	497	\$134,671	\$55,959	
20	2034/35	7,622	28	0.40	11	524	\$142,212	\$56,278	
21	2035/36	7,649	27	0.38	10	551	\$149,505	\$56,347	
22	2036/37	7,676	27	0.36	10	578	\$156,820	\$56,289	
23	2037/38	7,703	27	0.34	9	605	\$164,159	\$56,118	
24	2038/39	7,730	27	0.33	9	632	\$171,521	\$55,842	
25	2039/40	7,758	28	0.31	9	661	\$179,178	\$55,557	
26	2040/41	7,785	27	0.30	8	688	\$186,587	\$55,100	
27	2041/42	7,813	27	0.28	8	715	\$194,019	\$54,566	
28	2042/43	7,840	27	0.27	7	743	\$201,475	\$53,965	
29	2043/44	7,868	28	0.26	7	770	\$208,955	\$53,303	
30	2044/45	7,897	29	0.24	7	799	\$216,730	\$52,654	
					425			\$ 1,366,956	\$ 3,217

APPENDIX D

BACKGROUND DOCUMENT FOR SEWERAGE DSP



Table 1: Upper Hunter Shire Council Existing Sewerage Assets

Service Area	Asset Type	Asset Description	Date of Commissioned	Year of Commissioning	Current Replacement Cost 2015 \$	Current Replacement Cost 2015/16 \$	Assets excluding reticulation	Assets excluding pre 1985	Score	Aberdeen	Merriwa	Murrurundi	Assets Excluded
Merriwa	L-Land	Asses 7423L and (Lot 2, 4, 5 DP 244745)	1/01/1970 00:00:00	1970	\$ 70,000	\$ 71,540	\$ 71,540	\$0	\$0	\$0	\$0	\$0	\$71,540
Merriwa	L-Land	Asses 7663E sewer Pump Station 1 Land, Dutton St, Lo	30/06/2012 00:00:00	2012	\$ 12,000	\$ 12,264	\$ 12,264	\$12,264	\$0	\$0	\$12,264	\$0	\$0
Merriwa	L-Land	Asses 7805E sewer Land, Langley St, Lot 2, DP 58306	30/06/2012 00:00:00	2012	\$ -	\$ -	\$ -	\$0	\$0	\$0	\$0	\$0	\$0
Merriwa	Sewer Pump Station	Pump Station 1, Dutton Street	1/01/1970 00:00:00	1970	\$ 239,723	\$ 244,997	\$ 244,997	\$0	\$0	\$0	\$0	\$0	\$244,997
Merriwa	Sewer Pump Station	Pump Station 2	1/01/1970 00:00:00	1970	\$ 28,203	\$ 28,823	\$ 28,823	\$0	\$0	\$0	\$0	\$0	\$28,823
Merriwa	Sewer Pump Station	Pump Station 3	1/01/1970 00:00:00	1970	\$ 2,474	\$ 2,528	\$ 2,528	\$0	\$0	\$0	\$0	\$0	\$2,528
Merriwa	Sewer Pump Station	Pump Station 4	1/01/1970 00:00:00	1970	\$ 2,474	\$ 2,528	\$ 2,528	\$0	\$0	\$0	\$0	\$0	\$2,528
Merriwa	Sewer Rising Main	*Dutton StreetPS1 - A16*	1/07/1970 00:00:00	1970	\$ 17,374	\$ 17,756	\$ 17,756	\$0	\$0	\$0	\$0	\$0	\$17,756
Merriwa	Sewer Rising Main	*Showground to Dutton SPS2 - AB3*	1/07/2002 00:00:00	2002	\$ 30,942	\$ 31,623	\$ 31,623	\$31,623	\$0	\$0	\$31,623	\$0	\$0
Merriwa	Sewer Rising Main	*ShowgroundPS3 - PS2*	1/07/2002 00:00:00	2002	\$ 7,091	\$ 7,247	\$ 7,247	\$0	\$0	\$0	\$7,247	\$0	\$0
Merriwa	Sewer Rising Main	Rotary Park via Caravan Park Golden Hwy PS4 - AF1	1/07/2002 00:00:00	2002	\$ 5,983	\$ 6,115	\$ 6,115	\$6,115	\$0	\$0	\$6,115	\$0	\$0
Merriwa	Sewer Rising Main		30/06/2008 00:00:00	2008	\$ 38,677	\$ 39,528	\$ 39,528	\$39,528	\$0	\$0	\$39,528	\$0	\$0
Merriwa	Sewer Gravity Tunk Mains		1/07/1970 00:00:00	1970	\$ 43,597	\$ 44,556	\$ 44,556	\$0	\$0	\$0	\$0	\$0	\$44,556
Merriwa	Sewer Gravity Tunk Mains		1/07/1970 00:00:00	1970	\$ 43,814	\$ 44,778	\$ 44,778	\$0	\$0	\$0	\$0	\$0	\$44,778
Merriwa	Sewer Gravity Tunk Mains		1/07/1970 00:00:00	1970	\$ 43,651	\$ 44,611	\$ 44,611	\$0	\$0	\$0	\$0	\$0	\$44,611
Merriwa	Sewer Gravity Tunk Mains		1/07/1970 00:00:00	1970	\$ 51,923	\$ 53,065	\$ 53,065	\$0	\$0	\$0	\$0	\$0	\$53,065
Merriwa	Sewer Gravity Tunk Mains		1/07/1970 00:00:00	1970	\$ 51,923	\$ 53,065	\$ 53,065	\$0	\$0	\$0	\$0	\$0	\$53,065
Merriwa	Sewer Gravity Tunk Mains		1/07/1970 00:00:00	1970	\$ 51,988	\$ 53,131	\$ 53,131	\$0	\$0	\$0	\$0	\$0	\$53,131
Merriwa	Sewer Gravity Tunk Mains		1/07/1970 00:00:00	1970	\$ 51,923	\$ 53,065	\$ 53,065	\$0	\$0	\$0	\$0	\$0	\$53,065
Merriwa	Sewer Gravity Tunk Mains		1/07/1970 00:00:00	1970	\$ 51,988	\$ 53,131	\$ 53,131	\$0	\$0	\$0	\$0	\$0	\$53,131
Merriwa	Sewer Gravity Tunk Mains		1/07/1970 00:00:00	1970	\$ 42,430	\$ 43,363	\$ 43,363	\$0	\$0	\$0	\$0	\$0	\$43,363
Merriwa	Sewer Gravity Tunk Mains		1/07/1970 00:00:00	1970	\$ 51,988	\$ 53,131	\$ 53,131	\$0	\$0	\$0	\$0	\$0	\$53,131
Merriwa	Sewer Gravity Tunk Mains		1/07/1970 00:00:00	1970	\$ 52,181	\$ 53,329	\$ 53,329	\$0	\$0	\$0	\$0	\$0	\$53,329
Merriwa	Sewer Gravity Tunk Mains		1/07/1993 00:00:00	1993	\$ 28,721	\$ 29,353	\$ 29,353	\$29,353	\$0	\$0	\$29,353	\$0	\$0
Merriwa	Sewer Gravity Tunk Mains		1/07/1993 00:00:00	1993	\$ 16,145	\$ 16,500	\$ 16,500	\$16,500	\$0	\$0	\$16,500	\$0	\$0
Merriwa	Sewer Gravity Tunk Mains		1/07/1970 00:00:00	1970	\$ 2,777	\$ 2,838	\$ 2,838	\$0	\$0	\$0	\$0	\$0	\$2,838
Merriwa	Sewer Gravity Tunk Mains		1/07/1970 00:00:00	1970	\$ 41,978	\$ 42,901	\$ 42,901	\$0	\$0	\$0	\$0	\$0	\$42,901
Merriwa	Sewer Gravity Tunk Mains		1/07/1970 00:00:00	1970	\$ 21,880	\$ 22,361	\$ 22,361	\$0	\$0	\$0	\$0	\$0	\$22,361
Merriwa	Sewer Gravity Tunk Mains		1/07/1970 00:00:00	1970	\$ 43,705	\$ 44,667	\$ 44,667	\$0	\$0	\$0	\$0	\$0	\$44,667
Merriwa	Sewer Gravity Tunk Mains		1/07/1970 00:00:00	1970	\$ 38,330	\$ 39,174	\$ 39,174	\$0	\$0	\$0	\$0	\$0	\$39,174
Merriwa	Sewer Gravity Tunk Mains		1/07/1970 00:00:00	1970	\$ 7,915	\$ 8,090	\$ 8,090	\$0	\$0	\$0	\$0	\$0	\$8,090
Merriwa	Sewer Gravity Tunk Mains		1/07/1970 00:00:00	1970	\$ 5,477	\$ 5,598	\$ 5,598	\$0	\$0	\$0	\$0	\$0	\$5,598
Merriwa	Sewer Gravity Tunk Mains		1/07/1970 00:00:00	1970	\$ 4,034	\$ 4,123	\$ 4,123	\$0	\$0	\$0	\$0	\$0	\$4,123
Merriwa	Sewer Gravity Tunk Mains		1/07/1970 00:00:00	1970	\$ 6,192	\$ 6,328	\$ 6,328	\$0	\$0	\$0	\$0	\$0	\$6,328
Merriwa	Sewer Gravity Tunk Mains	Bow Street	1/07/1970 00:00:00	1970	\$ 22,525	\$ 23,021	\$ 23,021	\$0	\$0	\$0	\$0	\$0	\$23,021
Merriwa	Sewer Gravity Tunk Mains		1/07/1970 00:00:00	1970	\$ 22,553	\$ 23,050	\$ 23,050	\$0	\$0	\$0	\$0	\$0	\$23,050
Merriwa	Sewer Gravity Tunk Mains		1/07/1970 00:00:00	1970	\$ 27,798	\$ 28,409	\$ 28,409	\$0	\$0	\$0	\$0	\$0	\$28,409
Merriwa	Sewer Gravity Tunk Mains	29 Vennachar St	1/07/1970 00:00:00	1970	\$ 18,982	\$ 19,400	\$ 19,400	\$0	\$0	\$0	\$0	\$0	\$19,400
Merriwa	Sewer Gravity Tunk Mains	113-115 Bettington Street	1/07/1970 00:00:00	1970	\$ 13,700	\$ 14,002	\$ 14,002	\$0	\$0	\$0	\$0	\$0	\$14,002
Merriwa	Reticulation	109-111 Bettington Street	1/07/1970 00:00:00	1970	\$ 11,707	\$ 11,964	-	\$0	\$0	\$0	\$0	\$0	\$11,964
Merriwa	Reticulation	105-107 Bettington Street	1/07/1970 00:00:00	1970	\$ 14,804	\$ 15,129	-	\$0	\$0	\$0	\$0	\$0	\$15,129
Merriwa	Reticulation	103 Bettington Street	1/07/1970 00:00:00	1970	\$ 23,643	\$ 24,163	-	\$0	\$0	\$0	\$0	\$0	\$24,163
Merriwa	Reticulation	101 Bettington Street	1/07/1970 00:00:00	1970	\$ 17,463	\$ 17,847	-	\$0	\$0	\$0	\$0	\$0	\$17,847
Merriwa	Reticulation	95-99 Bettington Street	1/07/1970 00:00:00	1970	\$ 21,235	\$ 21,702	-	\$0	\$0	\$0	\$0	\$0	\$21,702
Merriwa	Reticulation	Bettington Street	1/07/1970 00:00:00	1970	\$ 26,050	\$ 26,623	-	\$0	\$0	\$0	\$0	\$0	\$26,623
Merriwa	Reticulation	Bettington Street	1/07/1970 00:00:00	1970	\$ 17,966	\$ 18,361	-	\$0	\$0	\$0	\$0	\$0	\$18,361
Merriwa	Reticulation	King George V Ave	1/07/1970 00:00:00	1970	\$ 12,115	\$ 12,382	-	\$0	\$0	\$0	\$0	\$0	\$12,382
Merriwa	Reticulation	King George V Ave	1/07/1970 00:00:00	1970	\$ 21,617	\$ 22,092	-	\$0	\$0	\$0	\$0	\$0	\$22,092
Merriwa	Reticulation	King George V Ave	1/07/1970 00:00:00	1970	\$ 11,870	\$ 12,131	-	\$0	\$0	\$0	\$0	\$0	\$12,131
Merriwa	Reticulation	King George V Ave	1/07/1970 00:00:00	1970	\$ 8,304	\$ 8,486	-	\$0	\$0	\$0	\$0	\$0	\$8,486
Merriwa	Reticulation	King George V Ave	1/07/1970 00:00:00	1970	\$ 16,880	\$ 17,251	-	\$0	\$0	\$0	\$0	\$0	\$17,251
Merriwa	Reticulation	King George V Ave	1/07/1970 00:00:00	1970	\$ 19,003	\$ 19,421	-	\$0	\$0	\$0	\$0	\$0	\$19,421
Merriwa	Reticulation	King George V Ave	1/07/1970 00:00:00	1970	\$ 12,850	\$ 13,133	-	\$0	\$0	\$0	\$0	\$0	\$13,133
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 23,643	\$ 24,163	-	\$0	\$0	\$0	\$0	\$0	\$24,163
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 25,511	\$ 26,072	-	\$0	\$0	\$0	\$0	\$0	\$26,072
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 21,916	\$ 22,399	-	\$0	\$0	\$0	\$0	\$0	\$22,399
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 20,827	\$ 21,286	-	\$0	\$0	\$0	\$0	\$0	\$21,286
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 21,944	\$ 22,426	-	\$0	\$0	\$0	\$0	\$0	\$22,426
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 19,956	\$ 20,395	-	\$0	\$0	\$0	\$0	\$0	\$20,395
Merriwa	Reticulation	King George V Ave	1/07/1970 00:00:00	1970	\$ 21,780	\$ 22,259	-	\$0	\$0	\$0	\$0	\$0	\$22,259
Merriwa	Reticulation	Gooch Street	1/07/1970 00:00:00	1970	\$ 15,736	\$ 16,082	-	\$0	\$0	\$0	\$0	\$0	\$16,082
Merriwa	Reticulation	Gooch Street	1/07/1970 00:00:00	1970	\$ 13,123	\$ 13,411	-	\$0	\$0	\$0	\$0	\$0	\$13,411
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 4,955	\$ 5,064	-	\$0	\$0	\$0	\$0	\$0	\$5,064
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 16,063	\$ 16,416	-	\$0	\$0	\$0	\$0	\$0	\$16,416
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 14,892	\$ 15,220	-	\$0	\$0	\$0	\$0	\$0	\$15,220
Merriwa	Reticulation	Hayes Street	1/07/1970 00:00:00	1970	\$ 17,397	\$ 17,780	-	\$0	\$0	\$0	\$0	\$0	\$17,780
Merriwa	Reticulation	Gooch/Langley Sts	1/07/1970 00:00:00	1970	\$ 16,421	\$ 16,782	-	\$0	\$0	\$0	\$0	\$0	\$16,782
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 9,093	\$ 9,293	-	\$0	\$0	\$0	\$0	\$0	\$9,293



Table 1: Upper Hunter Shire Council Existing Sewerage Assets

Service Area	Asset Type	Asset Description	Date of Commissioned	Year of Commissioning	Current Replacement Cost 2015 \$	Current Replacement Cost 2015/16 \$	Assets excluding reticulation	Assets excluding pre 1985	Score	Aberdeen	Merriwa	Murrurundi	Assets Excluded
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 17,261	\$ 17,641	\$ -	\$0	\$0	\$0	\$0	\$0	\$17,641
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 17,833	\$ 18,225	\$ -	\$0	\$0	\$0	\$0	\$0	\$18,225
Merriwa	Reticulation	Langley Street	1/07/1970 00:00:00	1970	\$ 16,254	\$ 16,611	\$ -	\$0	\$0	\$0	\$0	\$0	\$16,611
Merriwa	Reticulation	"Elizabeth StreetOriginal-not split for DA1/DA2"	1/07/1970 00:00:00	1970	\$ 21,862	\$ 22,343	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,343
Merriwa	Reticulation	9 Langley Street	1/07/1970 00:00:00	1970	\$ 10,348	\$ 10,573	\$ -	\$0	\$0	\$0	\$0	\$0	\$10,573
Merriwa	Reticulation	27 Cullingral Street	1/07/1970 00:00:00	1970	\$ 10,427	\$ 10,657	\$ -	\$0	\$0	\$0	\$0	\$0	\$10,657
Merriwa	Reticulation	Cullingral Street	1/07/1970 00:00:00	1970	\$ 13,803	\$ 14,107	\$ -	\$0	\$0	\$0	\$0	\$0	\$14,107
Merriwa	Reticulation	Cullingral Street	1/07/1970 00:00:00	1970	\$ 16,335	\$ 16,695	\$ -	\$0	\$0	\$0	\$0	\$0	\$16,695
Merriwa	Reticulation	Bow Street	1/07/1970 00:00:00	1970	\$ 21,835	\$ 22,315	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,315
Merriwa	Reticulation	Bow Street	1/07/1970 00:00:00	1970	\$ 21,916	\$ 22,399	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,399
Merriwa	Reticulation	55 Bow Street	1/07/1970 00:00:00	1970	\$ 17,642	\$ 18,030	\$ -	\$0	\$0	\$0	\$0	\$0	\$18,030
Merriwa	Reticulation	Langley Street	1/07/1970 00:00:00	1970	\$ 17,098	\$ 17,474	\$ -	\$0	\$0	\$0	\$0	\$0	\$17,474
Merriwa	Reticulation	Langley Street	1/07/1970 00:00:00	1970	\$ 10,563	\$ 10,796	\$ -	\$0	\$0	\$0	\$0	\$0	\$10,796
Merriwa	Reticulation	Langley Street	1/07/1970 00:00:00	1970	\$ 10,563	\$ 10,796	\$ -	\$0	\$0	\$0	\$0	\$0	\$10,796
Merriwa	Reticulation	64-66 Vennacher Street	1/07/1970 00:00:00	1970	\$ 12,115	\$ 12,382	\$ -	\$0	\$0	\$0	\$0	\$0	\$12,382
Merriwa	Reticulation	68-74 Vennacher Street	1/07/1970 00:00:00	1970	\$ 21,916	\$ 22,399	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,399
Merriwa	Reticulation	Vennacher Street	1/07/1970 00:00:00	1970	\$ 13,640	\$ 13,940	\$ -	\$0	\$0	\$0	\$0	\$0	\$13,940
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 13,177	\$ 13,467	\$ -	\$0	\$0	\$0	\$0	\$0	\$13,467
Merriwa	Reticulation	84 Vennacher Street	1/07/1970 00:00:00	1970	\$ 23,414	\$ 23,929	\$ -	\$0	\$0	\$0	\$0	\$0	\$23,929
Merriwa	Reticulation	Vennacher Street	1/07/1970 00:00:00	1970	\$ 13,395	\$ 13,690	\$ -	\$0	\$0	\$0	\$0	\$0	\$13,690
Merriwa	Reticulation	Vennacher Street	1/07/1970 00:00:00	1970	\$ 21,127	\$ 21,592	\$ -	\$0	\$0	\$0	\$0	\$0	\$21,592
Merriwa	Reticulation	68 Vennacher Street	1/07/1970 00:00:00	1970	\$ 13,204	\$ 13,495	\$ -	\$0	\$0	\$0	\$0	\$0	\$13,495
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 21,916	\$ 22,399	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,399
Merriwa	Reticulation	Bow Street	1/07/1970 00:00:00	1970	\$ 22,325	\$ 22,816	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,816
Merriwa	Reticulation	15-19 Cullingral Street	1/07/1970 00:00:00	1970	\$ 18,432	\$ 18,837	\$ -	\$0	\$0	\$0	\$0	\$0	\$18,837
Merriwa	Reticulation	Cullingral Street	1/07/1970 00:00:00	1970	\$ 16,009	\$ 16,361	\$ -	\$0	\$0	\$0	\$0	\$0	\$16,361
Merriwa	Reticulation	Cullingral Street	1/07/1970 00:00:00	1970	\$ 15,464	\$ 15,804	\$ -	\$0	\$0	\$0	\$0	\$0	\$15,804
Merriwa	Reticulation	Vennacher Street	1/07/1970 00:00:00	1970	\$ 10,781	\$ 11,018	\$ -	\$0	\$0	\$0	\$0	\$0	\$11,018
Merriwa	Reticulation	Vennacher Street	1/07/1970 00:00:00	1970	\$ 19,085	\$ 19,505	\$ -	\$0	\$0	\$0	\$0	\$0	\$19,505
Merriwa	Reticulation	Vennacher Street	1/07/1970 00:00:00	1970	\$ 19,548	\$ 19,978	\$ -	\$0	\$0	\$0	\$0	\$0	\$19,978
Merriwa	Reticulation	57-63 Vennacher Street	1/07/1970 00:00:00	1970	\$ 21,835	\$ 22,315	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,315
Merriwa	Reticulation	1 Cullingral Street	1/07/1970 00:00:00	1970	\$ 14,566	\$ 14,886	\$ -	\$0	\$0	\$0	\$0	\$0	\$14,886
Merriwa	Reticulation	50-54 Vennacher Street	1/07/1970 00:00:00	1970	\$ 15,763	\$ 16,110	\$ -	\$0	\$0	\$0	\$0	\$0	\$16,110
Merriwa	Reticulation	56-60 Vennacher Street	1/07/1970 00:00:00	1970	\$ 17,642	\$ 18,030	\$ -	\$0	\$0	\$0	\$0	\$0	\$18,030
Merriwa	Reticulation	55 Bow Street	1/07/1970 00:00:00	1970	\$ 22,888	\$ 23,392	\$ -	\$0	\$0	\$0	\$0	\$0	\$23,392
Merriwa	Reticulation	MacKenzie Street	1/07/1970 00:00:00	1970	\$ 18,187	\$ 18,587	\$ -	\$0	\$0	\$0	\$0	\$0	\$18,587
Merriwa	Reticulation	MacKenzie Street	1/07/1970 00:00:00	1970	\$ 17,506	\$ 17,891	\$ -	\$0	\$0	\$0	\$0	\$0	\$17,891
Merriwa	Reticulation	Bow Street	1/07/1970 00:00:00	1970	\$ 14,157	\$ 14,469	\$ -	\$0	\$0	\$0	\$0	\$0	\$14,469
Merriwa	Reticulation	Bow Street	1/07/1970 00:00:00	1970	\$ 12,251	\$ 12,521	\$ -	\$0	\$0	\$0	\$0	\$0	\$12,521
Merriwa	Reticulation	MacKenzie Street	1/07/1970 00:00:00	1970	\$ 21,916	\$ 22,399	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,399
Merriwa	Reticulation	MacKenzie Street	1/07/1970 00:00:00	1970	\$ 7,596	\$ 7,763	\$ -	\$0	\$0	\$0	\$0	\$0	\$7,763
Merriwa	Reticulation	Vennacher Street	1/07/1970 00:00:00	1970	\$ 14,048	\$ 14,357	\$ -	\$0	\$0	\$0	\$0	\$0	\$14,357
Merriwa	Reticulation	Vennacher	1/07/1970 00:00:00	1970	\$ 14,647	\$ 14,969	\$ -	\$0	\$0	\$0	\$0	\$0	\$14,969
Merriwa	Reticulation	Vennacher Street	1/07/1970 00:00:00	1970	\$ 15,437	\$ 15,776	\$ -	\$0	\$0	\$0	\$0	\$0	\$15,776
Merriwa	Reticulation	MacKenzie Street	1/07/1970 00:00:00	1970	\$ 17,179	\$ 17,557	\$ -	\$0	\$0	\$0	\$0	\$0	\$17,557
Merriwa	Reticulation	MacKenzie Street	1/07/1970 00:00:00	1970	\$ 17,805	\$ 18,197	\$ -	\$0	\$0	\$0	\$0	\$0	\$18,197
Merriwa	Reticulation	MacKenzie Street	1/07/1970 00:00:00	1970	\$ 13,585	\$ 13,884	\$ -	\$0	\$0	\$0	\$0	\$0	\$13,884
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 21,944	\$ 22,426	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,426
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 13,613	\$ 13,912	\$ -	\$0	\$0	\$0	\$0	\$0	\$13,912
Merriwa	Reticulation	Marquet Street	1/07/1970 00:00:00	1970	\$ 17,479	\$ 17,863	\$ -	\$0	\$0	\$0	\$0	\$0	\$17,863
Merriwa	Reticulation	Marquet Street	1/07/1970 00:00:00	1970	\$ 19,058	\$ 19,477	\$ -	\$0	\$0	\$0	\$0	\$0	\$19,477
Merriwa	Reticulation	Marquet Street	1/07/1970 00:00:00	1970	\$ 21,835	\$ 22,315	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,315
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 22,461	\$ 22,955	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,955
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 6,235	\$ 6,372	\$ -	\$0	\$0	\$0	\$0	\$0	\$6,372
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 18,214	\$ 18,614	\$ -	\$0	\$0	\$0	\$0	\$0	\$18,614
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 5,472	\$ 5,593	\$ -	\$0	\$0	\$0	\$0	\$0	\$5,593
Merriwa	Reticulation	Vennacher Street	1/07/1970 00:00:00	1970	\$ 10,456	\$ 10,686	\$ -	\$0	\$0	\$0	\$0	\$0	\$10,686
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 21,916	\$ 22,399	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,399
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 22,107	\$ 22,593	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,593
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 26,984	\$ 27,578	\$ -	\$0	\$0	\$0	\$0	\$0	\$27,578
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 21,317	\$ 21,786	\$ -	\$0	\$0	\$0	\$0	\$0	\$21,786
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 13,204	\$ 13,495	\$ -	\$0	\$0	\$0	\$0	\$0	\$13,495
Merriwa	Reticulation	MacKenzie Street	1/07/1970 00:00:00	1970	\$ 11,498	\$ 11,751	\$ -	\$0	\$0	\$0	\$0	\$0	\$11,751
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 21,127	\$ 21,592	\$ -	\$0	\$0	\$0	\$0	\$0	\$21,592
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 13,994	\$ 14,302	\$ -	\$0	\$0	\$0	\$0	\$0	\$14,302
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 21,918	\$ 22,400	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,400
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 21,481	\$ 21,953	\$ -	\$0	\$0	\$0	\$0	\$0	\$21,953
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 14,293	\$ 14,608	\$ -	\$0	\$0	\$0	\$0	\$0	\$14,608



Table 1: Upper Hunter Shire Council Existing Sewerage Assets

Service Area	Asset Type	Asset Description	Date of Commissioned	Year of Commissioning	Current Replacement Cost 2015 \$	Current Replacement Cost 2015/16 \$	Assets excluding reticulation	Assets excluding pre 1985	Score	Aberdeen	Merriwa	Murrurundi	Assets Excluded
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 12,524	\$ 12,799	\$ -	\$0	\$0	\$0	\$0	\$0	\$12,799
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 21,535	\$ 22,009	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,009
Merriwa	Reticulation	Collins Street	1/07/1970 00:00:00	1970	\$ 16,471	\$ 16,834	\$ -	\$0	\$0	\$0	\$0	\$0	\$16,834
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 17,724	\$ 18,114	\$ -	\$0	\$0	\$0	\$0	\$0	\$18,114
Merriwa	Reticulation	Flags Road	1/07/1970 00:00:00	1970	\$ 30,649	\$ 31,324	\$ -	\$0	\$0	\$0	\$0	\$0	\$31,324
Merriwa	Reticulation	Flags Road	1/07/1970 00:00:00	1970	\$ 15,019	\$ 15,350	\$ -	\$0	\$0	\$0	\$0	\$0	\$15,350
Merriwa	Reticulation	Flags Road	1/07/1970 00:00:00	1970	\$ 28,206	\$ 28,826	\$ -	\$0	\$0	\$0	\$0	\$0	\$28,826
Merriwa	Reticulation	MacKenzie Street	1/07/1970 00:00:00	1970	\$ 22,996	\$ 23,502	\$ -	\$0	\$0	\$0	\$0	\$0	\$23,502
Merriwa	Reticulation	MacKenzie Street	1/07/1970 00:00:00	1970	\$ 18,350	\$ 18,754	\$ -	\$0	\$0	\$0	\$0	\$0	\$18,754
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 13,123	\$ 13,411	\$ -	\$0	\$0	\$0	\$0	\$0	\$13,411
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 12,551	\$ 12,827	\$ -	\$0	\$0	\$0	\$0	\$0	\$12,827
Merriwa	Reticulation	Brisbane/McRae Sts	1/07/1970 00:00:00	1970	\$ 13,259	\$ 13,550	\$ -	\$0	\$0	\$0	\$0	\$0	\$13,550
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 24,757	\$ 25,301	\$ -	\$0	\$0	\$0	\$0	\$0	\$25,301
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 16,390	\$ 16,750	\$ -	\$0	\$0	\$0	\$0	\$0	\$16,750
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 21,918	\$ 22,400	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,400
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 16,471	\$ 16,834	\$ -	\$0	\$0	\$0	\$0	\$0	\$16,834
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 20,746	\$ 21,202	\$ -	\$0	\$0	\$0	\$0	\$0	\$21,202
Merriwa	Reticulation	8 William Street	1/07/1970 00:00:00	1970	\$ 4,411	\$ 4,508	\$ -	\$0	\$0	\$0	\$0	\$0	\$4,508
Merriwa	Reticulation	3-5 William Street	1/07/1970 00:00:00	1970	\$ 25,188	\$ 25,742	\$ -	\$0	\$0	\$0	\$0	\$0	\$25,742
Merriwa	Reticulation	7-15 William Street	1/07/1970 00:00:00	1970	\$ 20,882	\$ 21,341	\$ -	\$0	\$0	\$0	\$0	\$0	\$21,341
Merriwa	Reticulation	Bettington Street	1/07/1970 00:00:00	1970	\$ 29,032	\$ 29,671	\$ -	\$0	\$0	\$0	\$0	\$0	\$29,671
Merriwa	Reticulation	Brisbane Street	1/07/1970 00:00:00	1970	\$ 20,446	\$ 20,896	\$ -	\$0	\$0	\$0	\$0	\$0	\$20,896
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 13,858	\$ 14,163	\$ -	\$0	\$0	\$0	\$0	\$0	\$14,163
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 2,369	\$ 2,421	\$ -	\$0	\$0	\$0	\$0	\$0	\$2,421
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 13,613	\$ 13,912	\$ -	\$0	\$0	\$0	\$0	\$0	\$13,912
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 18,758	\$ 19,171	\$ -	\$0	\$0	\$0	\$0	\$0	\$19,171
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 27,020	\$ 27,615	\$ -	\$0	\$0	\$0	\$0	\$0	\$27,615
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 28,457	\$ 29,083	\$ -	\$0	\$0	\$0	\$0	\$0	\$29,083
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 19,003	\$ 19,421	\$ -	\$0	\$0	\$0	\$0	\$0	\$19,421
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 18,540	\$ 18,948	\$ -	\$0	\$0	\$0	\$0	\$0	\$18,948
Merriwa	Reticulation		1/07/1981 00:00:00	1981	\$ 7,351	\$ 7,513	\$ -	\$0	\$0	\$0	\$0	\$0	\$7,513
Merriwa	Reticulation		1/07/1981 00:00:00	1981	\$ 17,506	\$ 17,891	\$ -	\$0	\$0	\$0	\$0	\$0	\$17,891
Merriwa	Reticulation		1/07/1981 00:00:00	1981	\$ 16,226	\$ 16,583	\$ -	\$0	\$0	\$0	\$0	\$0	\$16,583
Merriwa	Reticulation		1/07/1981 00:00:00	1981	\$ 12,932	\$ 13,217	\$ -	\$0	\$0	\$0	\$0	\$0	\$13,217
Merriwa	Reticulation		1/07/1981 00:00:00	1981	\$ 13,259	\$ 13,550	\$ -	\$0	\$0	\$0	\$0	\$0	\$13,550
Merriwa	Reticulation		1/07/1981 00:00:00	1981	\$ 14,348	\$ 14,663	\$ -	\$0	\$0	\$0	\$0	\$0	\$14,663
Merriwa	Reticulation		1/07/1981 00:00:00	1981	\$ 13,531	\$ 13,829	\$ -	\$0	\$0	\$0	\$0	\$0	\$13,829
Merriwa	Reticulation		1/07/1981 00:00:00	1981	\$ 13,232	\$ 13,523	\$ -	\$0	\$0	\$0	\$0	\$0	\$13,523
Merriwa	Reticulation		1/07/1981 00:00:00	1981	\$ 10,945	\$ 11,185	\$ -	\$0	\$0	\$0	\$0	\$0	\$11,185
Merriwa	Reticulation		1/07/1981 00:00:00	1981	\$ 8,408	\$ 8,593	\$ -	\$0	\$0	\$0	\$0	\$0	\$8,593
Merriwa	Reticulation	38 William Street	1/07/1981 00:00:00	1981	\$ 19,330	\$ 19,755	\$ -	\$0	\$0	\$0	\$0	\$0	\$19,755
Merriwa	Reticulation		1/07/1981 00:00:00	1981	\$ 16,499	\$ 16,862	\$ -	\$0	\$0	\$0	\$0	\$0	\$16,862
Merriwa	Reticulation		1/07/1981 00:00:00	1981	\$ 15,437	\$ 15,776	\$ -	\$0	\$0	\$0	\$0	\$0	\$15,776
Merriwa	Reticulation	27-29 William Street	1/07/1981 00:00:00	1981	\$ 12,251	\$ 12,521	\$ -	\$0	\$0	\$0	\$0	\$0	\$12,521
Merriwa	Reticulation		1/07/1981 00:00:00	1981	\$ 15,165	\$ 15,498	\$ -	\$0	\$0	\$0	\$0	\$0	\$15,498
Merriwa	Reticulation	37-41 William Street	1/07/1981 00:00:00	1981	\$ 14,429	\$ 14,747	\$ -	\$0	\$0	\$0	\$0	\$0	\$14,747
Merriwa	Reticulation	King George V Ave	1/07/1970 00:00:00	1970	\$ 22,025	\$ 22,510	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,510
Merriwa	Reticulation	King George V Ave	1/07/1970 00:00:00	1970	\$ 21,998	\$ 22,482	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,482
Merriwa	Reticulation	King George V Ave	1/07/1970 00:00:00	1970	\$ 21,699	\$ 22,176	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,176
Merriwa	Reticulation	King George V Ave	1/07/1970 00:00:00	1970	\$ 21,916	\$ 22,399	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,399
Merriwa	Reticulation	King George V Ave	1/07/1970 00:00:00	1970	\$ 6,725	\$ 6,873	\$ -	\$0	\$0	\$0	\$0	\$0	\$6,873
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 9,964	\$ 10,184	\$ -	\$0	\$0	\$0	\$0	\$0	\$10,184
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 19,160	\$ 19,582	\$ -	\$0	\$0	\$0	\$0	\$0	\$19,582
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 22,134	\$ 22,621	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,621
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 17,606	\$ 17,994	\$ -	\$0	\$0	\$0	\$0	\$0	\$17,994
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 20,229	\$ 20,674	\$ -	\$0	\$0	\$0	\$0	\$0	\$20,674
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 21,918	\$ 22,400	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,400
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 18,145	\$ 18,544	\$ -	\$0	\$0	\$0	\$0	\$0	\$18,544
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 21,671	\$ 22,148	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,148
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 19,003	\$ 19,421	\$ -	\$0	\$0	\$0	\$0	\$0	\$19,421
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 21,944	\$ 22,426	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,426
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 29,356	\$ 30,002	\$ -	\$0	\$0	\$0	\$0	\$0	\$30,002
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 18,720	\$ 19,132	\$ -	\$0	\$0	\$0	\$0	\$0	\$19,132
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 19,259	\$ 19,683	\$ -	\$0	\$0	\$0	\$0	\$0	\$19,683
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 17,887	\$ 18,281	\$ -	\$0	\$0	\$0	\$0	\$0	\$18,281
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 6,235	\$ 6,372	\$ -	\$0	\$0	\$0	\$0	\$0	\$6,372
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 19,058	\$ 19,477	\$ -	\$0	\$0	\$0	\$0	\$0	\$19,477
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 17,914	\$ 18,308	\$ -	\$0	\$0	\$0	\$0	\$0	\$18,308



Table 1: Upper Hunter Shire Council Existing Sewerage Assets

Service Area	Asset Type	Asset Description	Date of Commissioned	Year of Commissioning	Current Replacement Cost 2015 \$	Current Replacement Cost 2015/16 \$	Assets excluding reticulation	Assets excluding pre 1985	Score	Aberdeen	Merriwa	Murrurundi	Assets Excluded
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 20,120	\$ 20,562	\$ -	\$0	\$0	\$0	\$0	\$0	\$20,562
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 15,594	\$ 15,937	\$ -	\$0	\$0	\$0	\$0	\$0	\$15,937
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 19,654	\$ 20,087	\$ -	\$0	\$0	\$0	\$0	\$0	\$20,087
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 14,974	\$ 15,303	\$ -	\$0	\$0	\$0	\$0	\$0	\$15,303
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 6,316	\$ 6,455	\$ -	\$0	\$0	\$0	\$0	\$0	\$6,455
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 9,801	\$ 10,017	\$ -	\$0	\$0	\$0	\$0	\$0	\$10,017
Merriwa	Reticulation	Macartney Street	1/07/1970 00:00:00	1970	\$ 16,172	\$ 16,528	\$ -	\$0	\$0	\$0	\$0	\$0	\$16,528
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 10,155	\$ 10,378	\$ -	\$0	\$0	\$0	\$0	\$0	\$10,378
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 8,467	\$ 8,653	\$ -	\$0	\$0	\$0	\$0	\$0	\$8,653
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 14,348	\$ 14,663	\$ -	\$0	\$0	\$0	\$0	\$0	\$14,663
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 14,566	\$ 14,886	\$ -	\$0	\$0	\$0	\$0	\$0	\$14,886
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 18,540	\$ 18,948	\$ -	\$0	\$0	\$0	\$0	\$0	\$18,948
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 14,892	\$ 15,220	\$ -	\$0	\$0	\$0	\$0	\$0	\$15,220
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 21,944	\$ 22,426	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,426
Merriwa	Reticulation	Dutton Street	1/07/1970 00:00:00	1970	\$ 4,385	\$ 4,481	\$ -	\$0	\$0	\$0	\$0	\$0	\$4,481
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 18,253	\$ 18,655	\$ -	\$0	\$0	\$0	\$0	\$0	\$18,655
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 18,505	\$ 18,912	\$ -	\$0	\$0	\$0	\$0	\$0	\$18,912
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 16,564	\$ 16,929	\$ -	\$0	\$0	\$0	\$0	\$0	\$16,929
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 30,290	\$ 30,956	\$ -	\$0	\$0	\$0	\$0	\$0	\$30,956
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 6,180	\$ 6,316	\$ -	\$0	\$0	\$0	\$0	\$0	\$6,316
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 18,187	\$ 18,587	\$ -	\$0	\$0	\$0	\$0	\$0	\$18,587
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 21,780	\$ 22,259	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,259
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 14,337	\$ 14,652	\$ -	\$0	\$0	\$0	\$0	\$0	\$14,652
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 28,996	\$ 29,634	\$ -	\$0	\$0	\$0	\$0	\$0	\$29,634
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 21,808	\$ 22,287	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,287
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 9,964	\$ 10,184	\$ -	\$0	\$0	\$0	\$0	\$0	\$10,184
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 8,467	\$ 8,653	\$ -	\$0	\$0	\$0	\$0	\$0	\$8,653
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 6,725	\$ 6,873	\$ -	\$0	\$0	\$0	\$0	\$0	\$6,873
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 7,051	\$ 7,206	\$ -	\$0	\$0	\$0	\$0	\$0	\$7,206
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 3,022	\$ 3,089	\$ -	\$0	\$0	\$0	\$0	\$0	\$3,089
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 13,474	\$ 13,771	\$ -	\$0	\$0	\$0	\$0	\$0	\$13,771
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 13,366	\$ 13,660	\$ -	\$0	\$0	\$0	\$0	\$0	\$13,660
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 7,402	\$ 7,565	\$ -	\$0	\$0	\$0	\$0	\$0	\$7,565
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 22,708	\$ 23,208	\$ -	\$0	\$0	\$0	\$0	\$0	\$23,208
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 25,906	\$ 26,476	\$ -	\$0	\$0	\$0	\$0	\$0	\$26,476
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 22,570	\$ 23,066	\$ -	\$0	\$0	\$0	\$0	\$0	\$23,066
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 19,738	\$ 20,173	\$ -	\$0	\$0	\$0	\$0	\$0	\$20,173
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 4,901	\$ 5,008	\$ -	\$0	\$0	\$0	\$0	\$0	\$5,008
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 5,799	\$ 5,927	\$ -	\$0	\$0	\$0	\$0	\$0	\$5,927
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 14,130	\$ 14,441	\$ -	\$0	\$0	\$0	\$0	\$0	\$14,441
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 5,309	\$ 5,426	\$ -	\$0	\$0	\$0	\$0	\$0	\$5,426
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 9,120	\$ 9,321	\$ -	\$0	\$0	\$0	\$0	\$0	\$9,321
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 17,678	\$ 18,067	\$ -	\$0	\$0	\$0	\$0	\$0	\$18,067
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 11,390	\$ 11,641	\$ -	\$0	\$0	\$0	\$0	\$0	\$11,641
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 21,810	\$ 22,290	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,290
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 29,356	\$ 30,002	\$ -	\$0	\$0	\$0	\$0	\$0	\$30,002
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 25,403	\$ 25,962	\$ -	\$0	\$0	\$0	\$0	\$0	\$25,962
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 8,120	\$ 8,299	\$ -	\$0	\$0	\$0	\$0	\$0	\$8,299
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 20,157	\$ 20,601	\$ -	\$0	\$0	\$0	\$0	\$0	\$20,601
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 24,757	\$ 25,301	\$ -	\$0	\$0	\$0	\$0	\$0	\$25,301
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 21,916	\$ 22,399	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,399
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 7,977	\$ 8,153	\$ -	\$0	\$0	\$0	\$0	\$0	\$8,153
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 14,121	\$ 14,432	\$ -	\$0	\$0	\$0	\$0	\$0	\$14,432
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 13,474	\$ 13,771	\$ -	\$0	\$0	\$0	\$0	\$0	\$13,771
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 7,759	\$ 7,930	\$ -	\$0	\$0	\$0	\$0	\$0	\$7,930
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 17,534	\$ 17,920	\$ -	\$0	\$0	\$0	\$0	\$0	\$17,920
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 12,769	\$ 13,050	\$ -	\$0	\$0	\$0	\$0	\$0	\$13,050
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 8,331	\$ 8,514	\$ -	\$0	\$0	\$0	\$0	\$0	\$8,514
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 15,056	\$ 15,387	\$ -	\$0	\$0	\$0	\$0	\$0	\$15,387
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 15,110	\$ 15,442	\$ -	\$0	\$0	\$0	\$0	\$0	\$15,442
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 12,932	\$ 13,217	\$ -	\$0	\$0	\$0	\$0	\$0	\$13,217
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 10,061	\$ 10,282	\$ -	\$0	\$0	\$0	\$0	\$0	\$10,282
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 17,914	\$ 18,308	\$ -	\$0	\$0	\$0	\$0	\$0	\$18,308
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 16,798	\$ 17,168	\$ -	\$0	\$0	\$0	\$0	\$0	\$17,168
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 5,472	\$ 5,593	\$ -	\$0	\$0	\$0	\$0	\$0	\$5,593
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 4,923	\$ 5,031	\$ -	\$0	\$0	\$0	\$0	\$0	\$5,031
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 4,923	\$ 5,031	\$ -	\$0	\$0	\$0	\$0	\$0	\$5,031
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 11,893	\$ 12,155	\$ -	\$0	\$0	\$0	\$0	\$0	\$12,155



Table 1: Upper Hunter Shire Council Existing Sewerage Assets

Service Area	Asset Type	Asset Description	Date of Commissioned	Year of Commissioning	Current Replacement Cost 2015 \$	Current Replacement Cost 2015/16 \$	Assets excluding reticulation	Assets excluding pre 1985	Scone	Aberdeen	Merriwa	Murrurundi	Assets Excluded
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 17,070	\$ 17,446	\$ -	\$0	\$0	\$0	\$0	\$0	\$17,446
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 7,296	\$ 7,457	\$ -	\$0	\$0	\$0	\$0	\$0	\$7,457
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 20,038	\$ 20,479	\$ -	\$0	\$0	\$0	\$0	\$0	\$20,479
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 2,505	\$ 2,560	\$ -	\$0	\$0	\$0	\$0	\$0	\$2,560
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 5,282	\$ 5,398	\$ -	\$0	\$0	\$0	\$0	\$0	\$5,398
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 7,705	\$ 7,874	\$ -	\$0	\$0	\$0	\$0	\$0	\$7,874
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 9,558	\$ 9,768	\$ -	\$0	\$0	\$0	\$0	\$0	\$9,768
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 8,168	\$ 8,347	\$ -	\$0	\$0	\$0	\$0	\$0	\$8,347
Merriwa	Reticulation		1/07/1975 00:00:00	1975	\$ 20,909	\$ 21,369	\$ -	\$0	\$0	\$0	\$0	\$0	\$21,369
Merriwa	Reticulation		1/07/1975 00:00:00	1975	\$ 10,482	\$ 10,712	\$ -	\$0	\$0	\$0	\$0	\$0	\$10,712
Merriwa	Reticulation		1/07/1975 00:00:00	1975	\$ 20,718	\$ 21,174	\$ -	\$0	\$0	\$0	\$0	\$0	\$21,174
Merriwa	Reticulation		1/07/1975 00:00:00	1975	\$ 15,763	\$ 16,110	\$ -	\$0	\$0	\$0	\$0	\$0	\$16,110
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 11,108	\$ 11,352	\$ -	\$0	\$0	\$0	\$0	\$0	\$11,352
Merriwa	Reticulation		1/07/1970 00:00:00	1970	\$ 9,845	\$ 10,062	\$ -	\$0	\$0	\$0	\$0	\$0	\$10,062
Merriwa	Reticulation		1/07/1976 00:00:00	1976	\$ 12,006	\$ 12,271	\$ -	\$0	\$0	\$0	\$0	\$0	\$12,271
Merriwa	Reticulation		1/07/1976 00:00:00	1976	\$ 10,945	\$ 11,185	\$ -	\$0	\$0	\$0	\$0	\$0	\$11,185
Merriwa	Reticulation		1/07/1985 00:00:00	1985	\$ 11,571	\$ 11,825	\$ -	\$0	\$0	\$0	\$0	\$0	\$11,825
Merriwa	Reticulation		1/07/1985 00:00:00	1985	\$ 1,342	\$ 1,372	\$ -	\$0	\$0	\$0	\$0	\$0	\$1,372
Merriwa	Reticulation		1/07/1994 00:00:00	1994	\$ 21,617	\$ 22,092	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,092
Merriwa	Reticulation		1/07/1994 00:00:00	1994	\$ 6,834	\$ 6,984	\$ -	\$0	\$0	\$0	\$0	\$0	\$6,984
Merriwa	Reticulation		1/07/1994 00:00:00	1994	\$ 16,880	\$ 17,251	\$ -	\$0	\$0	\$0	\$0	\$0	\$17,251
Merriwa	Reticulation	34 Collins St	1/07/1994 00:00:00	1994	\$ 17,424	\$ 17,808	\$ -	\$0	\$0	\$0	\$0	\$0	\$17,808
Merriwa	Reticulation	13-17 Collins St	1/07/1994 00:00:00	1994	\$ 11,707	\$ 11,964	\$ -	\$0	\$0	\$0	\$0	\$0	\$11,964
Merriwa	Reticulation	30-32 Collins St	1/07/1994 00:00:00	1994	\$ 12,660	\$ 12,938	\$ -	\$0	\$0	\$0	\$0	\$0	\$12,938
Merriwa	Reticulation	26-28 Collins St	1/07/1994 00:00:00	1994	\$ 12,850	\$ 13,133	\$ -	\$0	\$0	\$0	\$0	\$0	\$13,133
Merriwa	Reticulation	34-38 Collins St	1/07/1994 00:00:00	1994	\$ 5,990	\$ 6,121	\$ -	\$0	\$0	\$0	\$0	\$0	\$6,121
Merriwa	Reticulation	7-13 Collins St	1/07/1994 00:00:00	1994	\$ 17,315	\$ 17,696	\$ -	\$0	\$0	\$0	\$0	\$0	\$17,696
Merriwa	Reticulation		1/07/1994 00:00:00	1994	\$ 28,205	\$ 28,826	\$ -	\$0	\$0	\$0	\$0	\$0	\$28,826
Merriwa	Reticulation		1/07/1994 00:00:00	1994	\$ 5,527	\$ 5,648	\$ -	\$0	\$0	\$0	\$0	\$0	\$5,648
Merriwa	Reticulation		1/07/1994 00:00:00	1994	\$ 21,045	\$ 21,508	\$ -	\$0	\$0	\$0	\$0	\$0	\$21,508
Merriwa	Reticulation		1/07/1994 00:00:00	1994	\$ 5,826	\$ 5,954	\$ -	\$0	\$0	\$0	\$0	\$0	\$5,954
Merriwa	Reticulation		1/07/1994 00:00:00	1994	\$ 14,811	\$ 15,136	\$ -	\$0	\$0	\$0	\$0	\$0	\$15,136
Merriwa	Reticulation		1/07/1994 00:00:00	1994	\$ 14,838	\$ 15,164	\$ -	\$0	\$0	\$0	\$0	\$0	\$15,164
Merriwa	Reticulation		1/07/1994 00:00:00	1994	\$ 14,974	\$ 15,303	\$ -	\$0	\$0	\$0	\$0	\$0	\$15,303
Merriwa	Reticulation		1/07/1994 00:00:00	1994	\$ 17,696	\$ 18,086	\$ -	\$0	\$0	\$0	\$0	\$0	\$18,086
Merriwa	Reticulation		1/07/1994 00:00:00	1994	\$ 16,335	\$ 16,695	\$ -	\$0	\$0	\$0	\$0	\$0	\$16,695
Merriwa	Reticulation		1/07/1994 00:00:00	1994	\$ 21,559	\$ 22,033	\$ -	\$0	\$0	\$0	\$0	\$0	\$22,033
Merriwa	Reticulation		1/07/1994 00:00:00	1994	\$ 27,225	\$ 27,824	\$ -	\$0	\$0	\$0	\$0	\$0	\$27,824
Merriwa	Reticulation		1/07/1995 00:00:00	1995	\$ 11,271	\$ 11,519	\$ -	\$0	\$0	\$0	\$0	\$0	\$11,519
Merriwa	Reticulation		1/07/1995 00:00:00	1995	\$ 12,251	\$ 12,521	\$ -	\$0	\$0	\$0	\$0	\$0	\$12,521
Merriwa	Reticulation		1/07/1988 00:00:00	1988	\$ 719	\$ 735	\$ -	\$0	\$0	\$0	\$0	\$0	\$735
Merriwa	Reticulation		1/07/1988 00:00:00	1988	\$ 16,262	\$ 16,619	\$ -	\$0	\$0	\$0	\$0	\$0	\$16,619
Merriwa	Reticulation		1/07/1988 00:00:00	1988	\$ 15,273	\$ 15,609	\$ -	\$0	\$0	\$0	\$0	\$0	\$15,609
Merriwa	Reticulation		1/07/1994 00:00:00	1994	\$ 4,566	\$ 4,666	\$ -	\$0	\$0	\$0	\$0	\$0	\$4,666
Merriwa	Reticulation		1/07/1994 00:00:00	1994	\$ 13,428	\$ 13,723	\$ -	\$0	\$0	\$0	\$0	\$0	\$13,723
Merriwa	Reticulation		1/07/1994 00:00:00	1994	\$ 9,243	\$ 9,446	\$ -	\$0	\$0	\$0	\$0	\$0	\$9,446
Merriwa	Reticulation		1/07/1994 00:00:00	1994	\$ 496	\$ 506	\$ -	\$0	\$0	\$0	\$0	\$0	\$506
Merriwa	Reticulation	15-17 Collins St	1/07/1994 00:00:00	1994	\$ 11,911	\$ 12,173	\$ -	\$0	\$0	\$0	\$0	\$0	\$12,173
Merriwa	Reticulation	7-9 Scully Close	1/07/1994 00:00:00	1994	\$ 23,406	\$ 23,921	\$ -	\$0	\$0	\$0	\$0	\$0	\$23,921
Merriwa	Reticulation	5-6 Scully Close	1/07/1994 00:00:00	1994	\$ 19,474	\$ 19,903	\$ -	\$0	\$0	\$0	\$0	\$0	\$19,903
Merriwa	Reticulation		1/07/2007 00:00:00	2007	\$ 24,001	\$ 24,529	\$ -	\$0	\$0	\$0	\$0	\$0	\$24,529
Merriwa	Reticulation		1/07/2005 00:00:00	2005	\$ 12,796	\$ 13,077	\$ -	\$0	\$0	\$0	\$0	\$0	\$13,077
Merriwa	Reticulation		1/07/2006 00:00:00	2006	\$ 11,979	\$ 12,243	\$ -	\$0	\$0	\$0	\$0	\$0	\$12,243
Merriwa	Reticulation		1/07/2007 00:00:00	2007	\$ 26,403	\$ 26,984	\$ -	\$0	\$0	\$0	\$0	\$0	\$26,984
Merriwa	Reticulation		1/07/2007 00:00:00	2007	\$ 17,603	\$ 17,990	\$ -	\$0	\$0	\$0	\$0	\$0	\$17,990
Merriwa	Reticulation	Scully Close/Hall Rd	8/02/2008 00:00:00	2008	\$ 23,005	\$ 23,512	\$ -	\$0	\$0	\$0	\$0	\$0	\$23,512
Merriwa	Reticulation	111 Hall Rd	8/02/2008 00:00:00	2008	\$ 8,168	\$ 8,347	\$ -	\$0	\$0	\$0	\$0	\$0	\$8,347
Merriwa	Sewer Treatment Works	Site Works	1/01/1970 00:00:00	1970	\$ 379,888	\$ 388,246	\$ 388,246	\$0	\$0	\$0	\$0	\$0	\$388,246
Merriwa	Sewer Treatment Works	Prelim treatment non-mec	1/01/1970 00:00:00	1970	\$ 104,469	\$ 106,768	\$ 106,768	\$0	\$0	\$0	\$0	\$0	\$106,768
Merriwa	Sewer Treatment Works	Sludge Lagoons	1/01/1970 00:00:00	1970	\$ 126,629	\$ 129,415	\$ 129,415	\$0	\$0	\$0	\$0	\$0	\$129,415
Merriwa	Sewer Treatment Works	Effluent Ponds	1/01/1970 00:00:00	1970	\$ 237,430	\$ 242,654	\$ 242,654	\$0	\$0	\$0	\$0	\$0	\$242,654
Merriwa	Sewer Treatment Works	Trickle Filter	1/01/1970 00:00:00	1970	\$ 1,424,581	\$ 1,455,922	\$ 1,455,922	\$0	\$0	\$0	\$0	\$0	\$1,455,922
Merriwa	Sewer Treatment Works	Additional Drying Bed (2007)	30/06/2007 00:00:00	2007	\$ 18,710	\$ 19,121	\$ 19,121	\$19,121	\$0	\$0	\$19,121	\$0	\$0
Merriwa	Sewer Treatment Works	2nd Storage Shed at STW site (2009)	30/06/2007 00:00:00	2007	\$ 3,857	\$ 3,941	\$ 3,941	\$3,941	\$0	\$0	\$3,941	\$0	\$0
Merriwa	Sewer Treatment Works	2 x Standby Cutter Pumps (2009)	30/05/2009 00:00:00	2009	\$ 10,499	\$ 10,730	\$ 10,730	\$10,730	\$0	\$0	\$10,730	\$0	\$0
Merriwa	Sewer Treatment Works	Replace Grinder Pumps x2 (2013)	30/06/2013 00:00:00	2013	\$ 7,573	\$ 7,740	\$ 7,740	\$7,740	\$0	\$0	\$7,740	\$0	\$0
Merriwa	Sewer Treatment Works	SPS Pump replacement (2013)	30/06/2013 00:00:00	2013	\$ 7,824	\$ 7,996	\$ 7,996	\$7,996	\$0	\$0	\$7,996	\$0	\$0



30 years Capital Works Program

Table 2: Upper Hunter Shire Council Sewerage Capital

All values are in year 2015/16 (\$)

Project	New Works	Renewals	Project Total	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Scone													
Full Mains Replacements		100%	293,500	43000		45000		48000	50000		52000	55500	
Sewer Relining plus Dig Ups		100%	1,500,000	680000	50000	170000	140000			220000			240000
CCIV Survey sewer pipelines		100%	473,000	61000	61000	61000	30000	30000	30000	80000	40000	40000	40000
Sewer Dig Up Repair Junctions/Pipe		100%	290,000										
Manhole Replacements/Improvements	50%	50%	50,000	50000	50000	50000	50000	18000	18000	18000	18000	18000	
New Main Extensions	100%		195,000		20000	20000	20000	10000	20000	20000	10000	20000	10000
225 mm pipe extension Hill Street Construction	100%		36,500	36500									
Pump Station renewals		100%	585,429		55000	66000	66347	66347	66347	66347	66347	66347	66347
All P/S Concrete Attack & pipework repairs, valves, lids		100%	134,526		22000	15000	13921	13921	13921	13921	13921	13921	14000
Failed Manhole Replacement		100%	12,500		12500								
Internal pipework and corrosion protection		100%	106,768										
Construct temp collection well and pipes		100%	121,347		106768								
Diversion pump, electrical board		100%	37,921		121347								
Rebuild switchboard for pumps inc speed control		100%	61,347		37921								
Pump replacements incl S/S rails, plinth and float switches		100%	97,921		61347								
Moobi Rd Pump station replacement	100%		820,000										820000
Aerator gearboxes and electrical		100%	97,000	45000	52000								
Replacement of Step Screen		100%	80,000			80000							
Other		100%	170,000			50000	30000	30000	20000	10000	10000	10000	10000
Scone new STP	100%		4,383,100		62000	1000000	2321100	1000000					
STP Screenings and grit removal	100%		75,000									75000	
Replace Sewer Rising Mains		100%	500,000				250000					250000	
Pump Station Mag Flow Meters Moobi road	100%		25,000	25000									
Pump Station Mag Flow Meters Aberdeen Street	100%		0										
Pump Station Mag Flow Meters Joan Street	100%		25,000		25000								
Pump Station Mag Flow Meters Gray Street	100%		20,000								20000		
Pump Station Mag Flow Meters Racecourse	100%		0										
Pump Station Mag Flow Meters Airport	100%		0										
Pump Station Mag Flow Minor	100%		0										
Effluent Reuse Schemes	100%		645,000					580000					65000
			0										
Aberdeen													
Full Mains Replacements		100%	68,309	10000		10609.0		11000.0	11500.0		12500.0	12700.0	
Sewer Relining plus Dig Ups		100%	668,800	275000	73,800	90,000	100,000			50,000			80,000
CCIV Survey sewer pipelines		100%	150,000	20000	20000	20000	10000	10000	10000	24000	12000	12000	12000
Sewer Dig Up Repair Junctions/Pipe		100%	84,000	16000.0	16000.0	16000	16000	4000	4000	4000	4000	4000	
Manhole Replacements/Improvements	50%	50%	50,000										
Pump Station renewals		100%	230,000		20000			10000			10000		10000
All P/S Concrete Attack & pipework repairs, valves, lids		100%	86,000		30000	25000	25000	25000	25000	25000	25000	25000	25000
Baffle Replacement for Sludge Lagoons		100%	40,125		8000	8000	10000	10000	10000	10000	10000	10000	10000
Other -STP		100%	130,000	40125.0									
Pump Station Mag Flow Meters-Number 1 Perth Street	100%		20,000					20000					
Pump Station Mag Flow Meters-Number 2 NEHwy	100%		20,000						20000.0				
Pump Station Mag Flow Meters-Number 3 NEWwy	100%		20,000							20000.0			
Merriwa													
Full Mains Replacements		100%	59,018	8500		9018		10000	10000		10500	11000	
Sewer Relining plus Dig Ups		100%	225,000	40000	60000	30000	40000			25000			30000
CCIV Survey sewer pipelines		100%	150,500	27000	27000	27000	8000	8000	8000	15500	10000	10000	10000
Sewer Dig Up Repair Junctions/Pipe		100%	68,000	12000	12000	12000	12000	4000	4000	4000	4000	4000	
Manhole Replacements/Improvements	50%	50%	25,000		10000	15000							
Pump Station renewals		100%	135,000		15000	15000	15000	15000	15000	15000	15000	15000	15000
All P/S Concrete Attack & pipework repairs, valves, lids		100%	61,500		6000	6000	7000	7000	7000	7000	7000	7000	7500
STP Renewals-Other		100%	95,000			5000	20000	20000	20000	7500	7500	7500	7500
Pre feasibility for STP replacement		100%	75,000									75000	
Pump Station Mag Flow Meters	100%		20,000				20000						
Murrumbidgee													
Full Mains Replacements		100%	59,018	8500		9018		10000	10000		10500	11000	
Sewer Relining plus Dig Ups		100%	222,000	37000	60000	30000	40000			25000			30000
CCIV Survey sewer pipelines		100%	150,500	27000	27000	27000	8000	8000	8000	15500	10000	10000	10000
Sewer Dig Up Repair Junctions/Pipe		100%	68,000	12000	12000	12000	12000	4000	4000	4000	4000	4000	
Manhole Replacements/Improvements	50%	50%	60,000		20000								40000
Pump Station renewals		100%	140,000		20000	15000	15000	15000	15000	15000	15000	15000	15000
All P/S Concrete Attack & pipework repairs, valves, lids		100%	61,500		6000	6000	7000	7000	7000	7000	7000	7000	7500
Other -STP		100%	85,000			5000	15000	15000	20000	7500	7500	7500	7500
Pre feasibility for STP replacement		100%	0										
Pump Station Mag Flow Meters-Pages River Park	100%		20,000			20000							
Pump Station Mag Flow Meters-Small Unit near retirement village	100%		0										
Cassilis													
New Sewer Treatment Facility	100%		2,200,000			500000	1500000	200000					
			0										
			16,383,128	1,473,625	1,312,604	2,494,644	4,821,368	2,249,268	451,768	719,268	441,768	806,468	1,612,347

\$'000

New Works	\$ 8,617,100	61,500	157,000	1,547,500	3,861,100	1,830,000	40,000	40,000	50,000	95,000	935,000
Renewals	\$ 7,766,028	1,412,125	1,155,604	947,144	960,268	419,268	411,768	679,268	391,768	711,468	677,347
Total	\$ 16,383,128	\$ 1,473,625	\$ 1,312,604	\$ 2,494,644	\$ 4,821,368	\$ 2,249,268	\$ 451,768	\$ 719,268	\$ 441,768	\$ 806,468	\$ 1,612,347

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	New ETs per	PV of new ETs	PV of	Capital Charge
Total ET	year	(@3%)	new ETs (@5%)	per ET (2015/16\$)

UHSC Development Servicing Plan for Water Supply & Sewerage



	Year of Commissioning	Effective Year of commissioning	Capital Cost of existing assets (\$)	Capital Cost of renewals only (\$)	Capital Cost of new assets only (\$)	works for renewals utilised by new ETs after 1995/96	Effective Capital Cost (\$)	Rate of Return (%)	PV Factor	PV of capital costs (2015/16\$)
1	1995/96	1995/96	1000000	0	0	0	1000000	10.00	0.9091	909100
2	1996/97	1996/97	0	1000000	0	0	1000000	10.00	0.8264	826400
3	1997/98	1997/98	0	0	1000000	0	1000000	10.00	0.7513	751300
4	1998/99	1998/99	0	0	0	1000000	1000000	10.00	0.6806	680600
5	1999/00	1999/00	0	0	0	1000000	1000000	10.00	0.6209	620900
6	2000/01	2000/01	0	0	0	1000000	1000000	10.00	0.5645	564500
7	2001/02	2001/02	0	0	0	1000000	1000000	10.00	0.5131	513100
8	2002/03	2002/03	0	0	0	1000000	1000000	10.00	0.4663	466300
9	2003/04	2003/04	0	0	0	1000000	1000000	10.00	0.4241	424100
10	2004/05	2004/05	0	0	0	1000000	1000000	10.00	0.3858	385800
11	2005/06	2005/06	0	0	0	1000000	1000000	10.00	0.3513	351300
12	2006/07	2006/07	0	0	0	1000000	1000000	10.00	0.3203	320300
13	2007/08	2007/08	0	0	0	1000000	1000000	10.00	0.2921	292100
14	2008/09	2008/09	0	0	0	1000000	1000000	10.00	0.2667	266700
15	2009/10	2009/10	0	0	0	1000000	1000000	10.00	0.2437	243700
16	2010/11	2010/11	0	0	0	1000000	1000000	10.00	0.2227	222700
17	2011/12	2011/12	0	0	0	1000000	1000000	10.00	0.2035	203500
18	2012/13	2012/13	0	0	0	1000000	1000000	10.00	0.1858	185800
19	2013/14	2013/14	0	0	0	1000000	1000000	10.00	0.1695	169500
20	2014/15	2014/15	0	0	0	1000000	1000000	10.00	0.1546	154600
21	2015/16	2015/16	0	0	0	1000000	1000000	10.00	0.1410	141000
22	2016/17	2016/17	0	0	0	1000000	1000000	10.00	0.1286	128600
23	2017/18	2017/18	0	0	0	1000000	1000000	10.00	0.1173	117300
24	2018/19	2018/19	0	0	0	1000000	1000000	10.00	0.1071	107100
25	2019/20	2019/20	0	0	0	1000000	1000000	10.00	0.0979	97900
26	2020/21	2020/21	0	0	0	1000000	1000000	10.00	0.0896	89600
27	2021/22	2021/22	0	0	0	1000000	1000000	10.00	0.0821	82100
28	2022/23	2022/23	0	0	0	1000000	1000000	10.00	0.0753	75300
29	2023/24	2023/24	0	0	0	1000000	1000000	10.00	0.0692	69200
30	2024/25	2024/25	0	0	0	1000000	1000000	10.00	0.0637	63700
31	2025/26	2025/26	0	0	0	1000000	1000000	10.00	0.0588	58800
32	2026/27	2026/27	0	0	0	1000000	1000000	10.00	0.0544	54400
33	2027/28	2027/28	0	0	0	1000000	1000000	10.00	0.0504	50400
34	2028/29	2028/29	0	0	0	1000000	1000000	10.00	0.0468	46800
35	2029/30	2029/30	0	0	0	1000000	1000000	10.00	0.0436	43600
36	2030/31	2030/31	0	0	0	1000000	1000000	10.00</		

	New ETs per	PV of new ETs	PV of	Capital Charge
Total ET	year	(@3%)	new ETs (@5%)	per ET (2015/16\$)

UHSC Development Servicing Plan for Water Supply & Sewerage



Table 3: Upper Hunter Shire Council Sewerage Capital Charge Calculations

[illegible]



Table 3: Upper Hunter Shire Council Sewerage Capital Charge Calculations

Year of Commissioning	Effective Year of commissioning	Capital Cost of existing assets (\$)	Capital Cost of renewals only (\$)	Capital Cost of new assets only (\$)	works for renewals utilised by new ETs after 1995/96	Effective Capital Cost (\$)	Rate of Return (%)	PV Factor	PV of capital costs (2015/16\$)
Murrurundi					9%				
Existing									
Assets commissioned in 1985	1985	\$0				\$0	3%	1.00	\$0
Assets commissioned in 1986	1986	\$0				\$0	3%	1.00	\$0
Assets commissioned in 1987	1986	\$0				\$0	3%	1.00	\$0
Assets commissioned in 1988	1986	\$0				\$0	3%	1.00	\$0
Assets commissioned in 1989	1986	\$0				\$0	3%	1.00	\$0
Assets commissioned in 1990	1986	\$0				\$0	3%	1.00	\$0
Assets commissioned in 1991	1986	\$0				\$0	3%	1.00	\$0
Assets commissioned in 1992	1986	\$0				\$0	3%	1.00	\$0
Assets commissioned in 1993	1986	\$0				\$0	3%	1.00	\$0
Assets commissioned in 1994	1986	\$0				\$0	3%	1.00	\$0
Assets commissioned in 1995	1986	\$7,066				\$608	3%	1.00	\$608
Subtotal (Assets pre-1996)		\$7,066				\$608			\$608
Assets commissioned in 1996	1996	\$0				\$0	5%	1.00	\$0
Assets commissioned in 1997	1997	\$35,987				\$3,097	5%	0.95	\$2,949
Assets commissioned in 1998	1998	\$0				\$0	5%	0.91	\$0
Assets commissioned in 1999	1999	\$0				\$0	5%	0.86	\$0
Assets commissioned in 2000	2000	\$0				\$0	5%	0.82	\$0
Assets commissioned in 2001	2001	\$0				\$0	5%	0.78	\$0
Assets commissioned in 2002	2002	\$0				\$0	5%	0.75	\$0
Assets commissioned in 2003	2003	\$0				\$0	5%	0.71	\$0
Assets commissioned in 2004	2004	\$0				\$0	5%	0.68	\$0
Assets commissioned in 2005	2005	\$0				\$0	5%	0.64	\$0
Assets commissioned in 2006	2006	\$0				\$0	5%	0.61	\$0
Assets commissioned in 2007	2007	\$11,677				\$1,005	5%	0.58	\$588
Assets commissioned in 2008	2008	\$0				\$0	5%	0.56	\$0
Assets commissioned in 2009	2009	\$412,765				\$35,520	5%	0.53	\$18,837
Assets commissioned in 2010	2010	\$0				\$0	5%	0.51	\$0
Assets commissioned in 2011	2011	\$24,543				\$2,112	5%	0.48	\$1,016
Assets commissioned in 2012	2012	\$0				\$0	5%	0.46	\$0
Assets commissioned in 2013	2013	\$35,965				\$3,095	5%	0.44	\$1,350
Assets commissioned in 2014	2014	\$0				\$0	5%	0.42	\$0
Assets commissioned in 2015	2015	\$40,548				\$3,489	5%	0.40	\$1,381
Future		\$61,435				\$4,518			\$
Assets planned in 2015/16	2016		\$84,500	\$0		\$7,272	5%	0.38	\$2,741
Assets planned in 2016/17	2017		\$135,000	\$10,000		\$12,478	5%	0.36	\$4,479
Assets planned in 2017/18	2018		\$104,018	\$20,000		\$10,672	5%	0.34	\$3,648
Assets planned in 2018/19	2019		\$97,000	\$0		\$8,347	5%	0.33	\$2,718
Assets planned in 2019/20	2020		\$59,000	\$0		\$5,077	5%	0.31	\$1,574
Assets planned in 2020/21	2021		\$64,000	\$0		\$5,507	5%	0.30	\$1,626
Assets planned in 2021/22	2022		\$74,000	\$0		\$6,368	5%	0.28	\$1,791
Assets planned in 2022/23	2023		\$54,000	\$0		\$4,647	5%	0.27	\$1,245
Assets planned in 2023/24	2024		\$54,000	\$0		\$4,690	5%	0.26	\$1,196
Assets planned in 2024/25	2025		\$90,000	\$20,000		\$9,466	5%	0.24	\$2,300
Assets planned in 2025/26	2026		\$0	\$0		\$0	5%	0.23	\$0
Assets planned in 2026/27	2027		\$0	\$0		\$0	5%	0.22	\$0
Assets planned in 2027/28	2028		\$0	\$0		\$0	5%	0.21	\$0
Assets planned in 2028/29	2029		\$0	\$0		\$0	5%	0.20	\$0
Assets planned in 2029/30	2030		\$0	\$0		\$0	5%	0.19	\$0
Assets planned in 2030/31	2031		\$0	\$0		\$0	5%	0.18	\$0
Assets planned in 2031/32	2032		\$0	\$0		\$0	5%	0.17	\$0
Assets planned in 2032/33	2033		\$0	\$0		\$0	5%	0.16	\$0
Assets planned in 2033/34	2034		\$0	\$0		\$0	5%	0.16	\$0
Assets planned in 2034/35	2035		\$0	\$0		\$0	5%	0.15	\$0
Assets planned in 2035/36	2036		\$0	\$0		\$0	5%	0.14	\$0
Assets planned in 2036/37	2037		\$0	\$0		\$0	5%	0.14	\$0
Assets planned in 2037/38	2038		\$0	\$0		\$0	5%	0.13	\$0
Assets planned in 2038/39	2039		\$0	\$0		\$0	5%	0.12	\$0
Assets planned in 2039/40	2040		\$0	\$0		\$0	5%	0.12	\$0
Assets planned in 2040/41	2041		\$0	\$0		\$0	5%	0.11	\$0
Assets planned in 2041/42	2042		\$0	\$0		\$0	5%	0.11	\$0
Assets planned in 2042/43	2043		\$0	\$0		\$0	5%	0.10	\$0
Assets planned in 2043/44	2044		\$0	\$0		\$0	5%	0.10	\$0
Assets planned in 2044/45	2045		\$0	\$0		\$0	5%	0.09	\$0
Subtotal (Assets post-1996)			\$816,018	\$50,000		\$74,524			\$49,439

Total ET	New ETs per year	PV of new ETs (@3%)	PV of new ETs (@5%)	Capital Charge per ET (2015/16\$)
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Growth rate	0.18%			
608	321			
	322	0.6	0.6	0.6
	323	0.6	0.6	0.6
	324	0.6	0.5	0.5
	325	0.6	0.5	0.5
	326	0.6	0.5	0.4
	327	0.6	0.5	0.4
	328	0.6	0.5	0.4
	329	0.6	0.4	0.3
	330	0.6	0.4	0.3
	331	0.6	0.4	0.3
	332	0.6	0.4	0.3
	333	0.6	0.4	0.2
	334	0.6	0.3	0.2
26,121	335	0.6	0.3	0.2
	336	0.6	0.3	0.2
	337	0.6	0.3	0.2
	338	0.6	0.3	0.2
	339	0.6	0.3	0.2
	340	0.6	0.3	0.1
	341	0.6	0.2	0.1
	342	0.6	0.2	0.1
	343	0.6	0.2	0.1
	344	0.6	0.2	0.1
	345	0.6	0.2	0.1
	346	0.6	0.2	0.1
	347	0.6	0.2	0.1
	348	0.6	0.2	0.1
	349	0.6	0.2	0.1
	350	0.6	0.2	0.1
	351	0.6	0.2	0.1
	352	0.6	0.1	0.1
23,318	30	16	11	\$4,329
	TOTAL CAPITAL CHARGE PER ET			\$4,368



2016 DSP Background Document for Sewerage

Table 4: Upper Hunter Shire Council Sewerage Developer Charge Calculation

Table 4: Upper Hunter Shire Council Sewerage Developer Charge Calculation											CPI (Consumer Price Index), Sydney June 15 - June 16		1.00%		
Service area	Capital Charge per ET (2015/16\$)	% of highest	% of highest	% of highest	% of highest	DSP areas	Weighted Average Capital Charge for each DSP area				Weighted cap charge for each DSP area (\$/ET)	Reduction Amount (\$/ET)	Calculated Developer Charge (\$/ET) 2015/16	Calculated Developer Charge (\$/ET) 2016/17	Council Proposed Developer Charge (\$/ET) 2016/17
							Total number of new ETs in 30 years	PV of new ET	Proportion of PV of new ETs in each DSP area	Weighted Cap charge for each service area (\$/ET)					
Cassilis	\$ 29,940	100%				SDSP1	67	61	100.0%	\$29,940	\$29,940	\$ 1,142	\$ 28,798	\$ 29,086	
Aberdeen	\$ 12,854	43%	100%			SDSP2	60	31	16.8%	\$2,165	\$11,920		\$ 10,777	\$ 10,885	
Scone	\$ 11,730		91%				300	152	83.2%	\$9,754					
Murrurundi	\$ 4,368		34%	100%		SDSP3	18	9	29.5%	\$1,288	\$3,474		\$ 2,331	\$ 2,355	
Merriwa	\$ 3,100			71%			45	23	70.5%	\$2,186					

Note: The agglomeration approach requires that service areas with capital charge within 30% of the highest capital charge should be agglomerated into one developer charge. 2 agglomerations required

Table 5: Upper Hunter Shire Council Sewerage Reduction Amount Calculation

	Current	estimated (\$/ET)
Sewerage Bill per ET	\$ 543	
Annual OMA per ET	\$ 447	
Net income per ET	\$ 96	

	2014/15
Total Charge Income	\$ 2,361,000
Total assessments	4,348
Annual Bill per ET (\$)	\$ 543
Total OMA Cost	\$ 1,942,000
OMA per ET (\$)	\$ 447

From Special Schedule 2014/15
From ET calculation Tab

From Special Schedule 2014/15

	Year	Total ETs	New ETs	PV Factor	PV of new ETs (@5%)	Cumulative new ETs	Net income from new ETs	PV of Net income from new ETs (@5%)	Reduction Amount (\$/ET)
0	2014/15	4,348							
1	2015/16	4,361	13	1.00	13	13	\$1,298	\$1,298	
2	2016/17	4,375	13	0.95	13	27	\$2,597	\$2,473	
3	2017/18	4,388	14	0.91	12	40	\$3,901	\$3,539	
4	2018/19	4,402	14	0.86	12	54	\$5,210	\$4,501	
5	2019/20	4,416	15	0.82	12	69	\$6,620	\$5,446	
6	2020/21	4,430	14	0.78	11	82	\$7,938	\$6,219	
7	2021/22	4,444	14	0.75	10	96	\$9,259	\$6,910	
8	2022/23	4,458	14	0.71	10	110	\$10,586	\$7,523	
9	2023/24	4,471	14	0.68	9	124	\$11,916	\$8,065	
10	2024/25	4,486	15	0.64	10	138	\$13,348	\$8,604	
11	2025/26	4,500	14	0.61	9	152	\$14,687	\$9,017	
12	2026/27	4,514	14	0.58	8	166	\$16,031	\$9,373	
13	2027/28	4,528	14	0.56	8	180	\$17,379	\$9,677	
14	2028/29	4,542	14	0.53	7	194	\$18,732	\$9,934	
15	2029/30	4,557	15	0.51	8	209	\$20,185	\$10,195	
16	2030/31	4,571	14	0.48	7	224	\$21,547	\$10,364	
17	2031/32	4,585	14	0.46	6	238	\$22,913	\$10,497	
18	2032/33	4,600	14	0.44	6	252	\$24,283	\$10,595	
19	2033/34	4,614	14	0.42	6	266	\$25,658	\$10,662	
20	2034/35	4,629	15	0.40	6	282	\$27,134	\$10,738	
21	2035/36	4,644	14	0.38	5	296	\$28,518	\$10,748	
22	2036/37	4,658	14	0.36	5	310	\$29,907	\$10,735	
23	2037/38	4,672	14	0.34	5	325	\$31,300	\$10,700	
24	2038/39	4,687	15	0.33	5	339	\$32,698	\$10,646	
25	2039/40	4,703	16	0.31	5	355	\$34,197	\$10,603	
26	2040/41	4,717	15	0.30	4	369	\$35,604	\$10,514	
27	2041/42	4,732	15	0.28	4	384	\$37,015	\$10,410	
28	2042/43	4,746	15	0.27	4	399	\$38,432	\$10,294	
29	2043/44	4,761	15	0.26	4	414	\$39,853	\$10,166	
30	2044/45	4,777	16	0.24	4	429	\$41,375	\$10,052	
					228			\$ 260,494	\$ 1,142

APPENDIX E

OUTLINE OF LEGISLATION

OUTLINE OF LEGISLATION

Local Government Act 1993

The power for local government councils to levy developer charges for water supply, sewerage and stormwater derives from section 64 of the Local Government Act 1993 by means of a cross-reference in that Act to the relevant provisions of the Water Management Act 2000.

Section 64 of the Local Government Act states that:

Division 5 of Part 2 of Chapter 6 of the Water Management Act 2000 applies to a council exercising function under this Division in the same way as it applies to a water supply authority exercising functions under that Act.

Environmental Planning and Assessment Act 1979

Prior to the introduction of the Local Government Act in 1993, councils used the provisions of section 94 of the Environmental Planning and Assessment Act 1979 to obtain developer contributions for water supply services. As part of the Local Government (Consequential Provisions) Act 1993, amendment was made to the Environmental Planning and Assessment Act so that section 94 no longer applied for water supply services.

However, Councils can levy developer charges for stormwater under either Local Government Act or Water Management Act.

Water Management Act 2000

Section 305 (1) of the Water Management Act states that:

- (1) A person may apply to a water supply authority for a certificate of compliance for development carried out, or proposed to be carried out, within the water supply authority's area.

Section 306 (2) and (3) of the Water Management Act states that:

(2) as a pre-condition to granting a certificate of compliance for development, a water supply authority may, by notice in writing served on the applicant, require the applicant to do either or both of the following:

- (a) to pay a specified amount to the Authority by way of contribution towards the cost of such water management works as are specified in the notice, being existing works or projected works, or both,
- (b) To construct water management works to serve the development.

(3) In calculating an amount for the purposes of subsection (2) (a):

- (a) the value of existing water management works and the estimated cost of projected water management works may be taken into consideration, and
- (b) the amount of any government subsidy or similar payment is not to be deducted from the relevant value or cost of the water management works, and
- (c) Consideration is to be given to any guidelines issued for the time being for the purposes of this section by the Minister.

In 2011, the Minister for Primary Industries became responsible for non-metropolitan NSW town water services. The Minister is responsible for the issue of guidelines for water utilities on the calculation of water supply, sewerage and stormwater developer charges.

Note: Use of moneys raised from developer charges is discussed in section 2.7 on page 10 of the guidelines.

Local Government (Savings and Transitional) Regulation 1993

The Local Government (Savings and Transitional) Regulation 1993 covers the matter of developer contributions which had previously been obtained by councils under the Environmental Planning and Assessment Act as follows:

(9) Any monetary contribution held by a council immediately before the commencement of this Regulation, being a contribution arising from a condition:

(a) that was imposed under section 94 of the Environmental Planning and Assessment Act 1979; and

(b) that specifies that the contribution is to be applied towards providing specified water or sewerage services or towards providing water or sewerage services generally,

is to be applied towards the construction of works within the meaning of Division 2 of Part 3 of the Water Supply Authorities Act 1987, or towards the repayment of money borrowed for the construction of such works, and is not to be applied towards any other purpose.



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