



Stormwater
Development Servicing Plan
Background Document
for
Wingecarribee Shire Council
2010

Document Control

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1.0 DSP AREAS

1.1. Selection of DSP Areas

The Development Servicing Plan (DSP) covers 13 development areas listed in Appendix A.

The development areas have been determined in conjunction with Council staff based on estimated growth for that area and stormwater infrastructure needs. DSP areas were generally defined on a township basis rather than a catchment basis.

Charges have been agglomerated into a single charge to reduce administrative costs.

Development generally involves a change in land use that increases the imperviousness of the landscape. The quantity of runoff is generally increased and quality generally decreased. This has an impact on conveyance systems and downstream receiving waters which must be managed.

DSP charges are based on the provision, extension and augmentation of assets required, or likely to be required' to provide services to a development area. For the purposes of stormwater management the 'services' to a development are not confined to the specific pipes or drains that carry stormwater within a development site. The 'services' extend beyond the direct drainage to include:

- Transfer of stormwater flows
- Treatment of stormwater and protection on environmental values
- Provision of flood protection for the development and vicinity
- Provision of flood free access for the development and vicinity

The extent of these 'services' extends beyond the immediate sub-catchment that a development may be within, to the broader surrounding catchment and township.

1.2. DSP Schedule 1

DSP Schedule 1 has been completed and is attached with the plans of the DSP areas as Appendix A.

1.3. Monitoring and Review/Update of Developer Charges

The developer charge calculated in this plan is based on Council's population growth projections, the associated development this will generate, the infrastructure required to service this growth and infrastructure upgrades necessary to improve the levels of service within the Shire. Works to improve the level of service of existing infrastructure to bring it up to a satisfactory level (backlog works) are likely to remain as programmed. Works associated with growth should be monitored to ensure that contributions are spent in a manner that provides services in an efficient and effective way.

Changes to population growth projections and development scheduling may require the rescheduling of new works or upgrades. This plan will require review every 5 years to ensure that developer contributions are representative of the works required. If there are major changes in Council's circumstances, such as new capital works, they may carry out a review sooner than 5 years, subject to the Department of Services, Technology and Administration.

Developer charges will be adjusted on 1 July each year on the basis of the change in Consumer Price Index (CPI) for Sydney in the preceding 12 months to December, excluding the impact of GST.

2.0 DSP CALCULATIONS

2.1. Population and Dwelling Growth

Growth projections for the DSP areas for residential land are based on a refinement of the *Sydney-Canberra Corridor Regional Strategy 2006-2031*, published by the NSW Department of Planning. These values were refined as part of a needs study prepared by consultants Parsons & Brinckerhoff (Parsons & Brinckerhoff, 2009). Percentage increases to the DSP areas are based on these refinements.

Growth for the Moss Vale Enterprise Corridor (MVEC) is based on the site being fully developed by 2031. The developable portion of the site is based on capability assessment work undertaken by consultants Connell Wagner. On average, approximately 65% of the total area is able to be developed (510 Ha) (Connell Wagner, 2007).

Table 1 Growth projections for dwellings (PB, 2009).

Township	2006	2031	% Increase
Mittagong	2877	4,277	48.7%
Bowral	4370	4,970	13.7%
Moss Vale	2503	5,003	99.9%
Bundanoon/Exeter	964	1,599	65.9%
Berrima	328	369	12.5%
Robertson	420	500	19.0%
Northern Villages	1354	1,854	36.9%
Rural	2752	4,352	58.1%

2.2. Equivalent Tenement Calculations

An estimate of current Equivalent Tenement (ET) and future ET for each DSP Area is necessary for the calculation of the capital charge and reduction amount.

Council provided rateable assessment information for each DSP area, including the area of each assessment. Assessments were categorised into residential, medium density residential, commercial/industrial and rural land use.

For the purpose of the calculation, 1 ET is assumed to be equivalent to 1 single lot residential assessment. 1 ET is deemed equivalent to 400m² of impervious area.

For areas where the proportion of impervious surface differs significantly from a standard residential lot (e.g. rural residential, medium density or industrial), the corresponding rateable assessment areas are multiplied by the corresponding assumed impervious percentage (Table.2). Future growth in the number of ETs is based on the projected percentage increases in dwelling numbers listed in Table 1. An example calculation is shown in Table Error! No text of specified style in document..3.

Table.2 Land use and impervious %

Land Use / Assessment type	% Impervious
Residential	400m ² per assessment
Strata residential	80
Rural	5
Business, mixed development, strata business and strata mixed.	85

Table Error! No text of specified style in document..3 Bowral Example (2009)

Land Use	Number of Assessments	Area (Ha)	Impervious %	ET (1ET = residential assessment or 400sqm impervious)
Residential	4833	1406	NA	4833
Medium density	841	41	80	822
Rural	14	61	5	75
Commercial/Industrial	538	255	85	5419
Total				11151

Note: Projected dwelling growth for Bowral is 13.7% from 2006 to 2031.

2.3. Growth Projection Schedules

The DSP Schedule 2 Growth Projections were prepared for each of the DSP areas based on the above information. The schedules are included in Appendix B. All growth percentages are based on Table 1 apart from the Moss Vale Enterprise Corridor which is assumed to be developed at full capacity by 2031.

3.0 EXISTING STORMWATER DRAINAGE INFRASTRUCTURE

Wingecarribee Shire Council has provided STORM with a list of existing stormwater infrastructure to be included in the DSP calculation. These are listed in appendix C.

Trunk stormwater drainage has been defined as piped drainage systems with a minimum diameter of 450mm, or a constructed drain or channel that has, at a minimum, an equivalent cross sectional area to that of a 450mm diameter pipe. Ponds, basins and gross pollutant traps and any other stormwater quality infrastructure on Council's asset database are included.

4.0 ASSET VALUATION

4.1. Valuation of Existing Assets

Existing asset values have been provided from Council's asset database. Council uses industry standard rates for estimation of asset value.

4.2. Valuation of Future Assets

The estimated value of future assets were derived from Council experience, industry contracts and price guides. Stormwater quality infrastructure estimates are based on recent life cycle costing estimations compiled by the e-water Cooperative Research Centre.

Based on Council information, an allowance of \$20/sqm has been included where land acquisition is required. This is low as the location of stormwater infrastructure is primarily in low lying areas that are not developable.

All future assets have been valued at 2009/2010 dollars. 65% extra has been applied to construction estimates to cover:

- Survey Investigation and Design
- Public consultation
- Utility adjustment
- Site establishment
- Project Management
- Contingencies

5.0 STANDARD OF SERVICE

Adopted levels of service are contained in Appendix D.

Stormwater system design and operation for the DSP areas are based on the service provision specified in Councils guidelines and planning documents, including:

Wingecarribee Shire Council DCP 41, Development Design Specification D5, Stormwater Drainage Design.

Wingecarribee Shire council Stormwater Management Plan, 2001

Wingecarribee Shire Council Stormwater Management Plan, 2010

Wingecarribee Shire Council Stormwater Drainage Asset Management Plan, 2010

6.0 CAPITAL WORKS PLAN

The Capital Works Plan for each DSP area is listed in Appendix E.

Over time as the DSP is reviewed, Council owned infrastructure will be incorporated into the DSP calculation. Review will occur every 5 years on average.

APPENDIX A

Schedule 1, DSP Areas

Area name	Description of area boundaries	Development characteristics of area
Berrima	Includes the suburbs of Berrima and New Berrima. The area is bounded by Apple Street in the North, Bowen, Wilkinson and Perth Streets in the East, Taylor and Australia Avenues in the South, and Old Hume Highway, Shelley and Sutton streets in the West.	The area zoning includes Industrial (IN1, IN3), Residential (R2,R5), Business (B1), Recreation Corridors (RE1,RE2) Environment Protection Corridors (E1, E2, E3, Clause 7.8), Rural (RU2, RU4), Special Purpose Corridors (SP1, SP2).
Bowral	Includes the suburbs of Bowral and Burradoo. The area is bounded by the ridgeline of hills between Centennial Road and the Wingecarribee River to the West, the Wingecarribee River in the South, Old South and Eridge Park Roads in the East, and the hills between Duke Street and Evans Lane to the North.	The area zoning includes Industrial (IN1, IN2, IN3), Residential (R2, R3, R5), Business (B1, B2, B4), Recreation Corridors (RE1,RE2) Environment Protection Corridors (E1, E2, E3, E4, Schedule 1), Rural (RU2, RU4), Special Purpose Corridors (SP1, SP2).
Bundanoon	Includes the suburb of Bundanoon. The area is bounded by Durham and Quarry Roads in the West, the lots south of Governors Street and Grey Gum Lane in the South, the lots to the east and north east of Garland Road to the East, and Blue Gum Road and the lots bounded by Ellsmore and Greasons Roads to the North.	The area zoning includes Residential (R2, R3, R5), Business (B2), Recreation Corridor (RE1) Environment Protection Corridors (E1, E3, E4), Rural (RU2, RU4), Special Purpose Corridors (SP2).
Burrawang	Includes the suburb of Burrawang. The area is bounded by Church Street in the West, the lots south of Region Street in the South, Region Street and Burrawang Station Road in the East, and the lots north and north east of Harman Street and bounded by Church Street and Burrawang Station Road to the North.	The area zoning includes Residential (R2), Business (B1), Recreation Corridors (RE1) Environment Protection Corridor (E3)
Colo Vale	Includes the suburb of Colo Vale. The area is bounded by lots west of Bignonia Street to the West, Hume Highway and Drapers Road in the South, Hume Highway and Wilson Drive in the East, and Bushland and the Railway line to the North.	The area zoning includes Residential (R2,R5), Business (B1), Recreation Corridor (RE1) Environment Protection Corridors (E1, E2, E3, Schedule 1), Rural (RU2, RU4), Special Purpose Corridor (SP2).
Exeter	Includes the suburb of Exeter. The area is bounded by Ellsmore Road to the West, the lots north of Yarwood Drive and bounded by the Railway Line and Ellsmore Road in the North, the Railway line and the lots north east of School Lane in the East, and the lots south of Norwood Street and Invergowie Lane to the South.	The area zoning includes Residential (R2), Business (B1), Recreation Corridor (RE1), Environment Protection Corridors (E3, Clauses 7.6 & 7.9), Rural (RU4), Special Purpose Corridor (SP2).
Hill Top	Includes the suburb of Hill Top. The area is bounded by Bargo State Conservation Area to the North and West, Bushland to the East, and the Railway Line and Bargo State Conservation Area to the South.	The area zoning includes Residential (R2,R5), Business (B2), Recreation Corridors (RE1) Environment Protection Corridors (E1, E2, E3, Schedule 1), Rural (RU4)
Mittagong	Includes the suburbs of Mittagong and Welby. The area is bounded by Mount Alexandra Reserve and Hume Highway to the North, Gibbergunyah Creek and the Old Hume Highway in the West, Mount Gibraltar Reserve to the South, and Mary Street to the East.	The area zoning includes Industrial (IN2), Residential (R2, R3, R5), Business (B1, B2, B4, B5, B7), Recreation Corridors (RE1,RE2) Environment Protection Corridors (E2, E3, E4, Schedule 1), Rural (RU2, RU4), Special Purpose Corridors (SP1, SP2).
Moss Vale Whites Creek	Includes the suburbs of Moss Vale. The area is bounded by Valetta Street and the Lots north of Berrima Road to the North, Kennedy Close and Caber Street to the West, the Lots to the south of Broughton Street and south of Moss Vale Golf Club, to the South, and Moss Vale Golf Club, Villiers Road and Valetta Street to the East	The area zoning includes, Residential (R2,R3), Business (B1, B2), Recreation Corridors (RE1,RE2), Environment Protection Corridor (Clause 7.8, Schedule 1), Rural (RU2), Special Purpose Corridor (SP2).

Moss Vale Wingecarribee	Includes the suburbs of Moss Vale and Bong Bong. The area is bounded by Bulwer and Gibbons Roads to the West, Valetta Street, the lots to the south of Watsons Road and Garret Street, the lots to the South of Hill Road and the Illawarra Highway to the South, Church Road and the lots to the east of Farnborough Drive to the East, and Braddon Road, Suttor Road and the Railway line to the North.	The area zoning includes Industrial (IN1, IN2), Residential (R2,R3, R5), Business (B4, B5), Recreation Corridors (RE1), Environment Protection Corridors (E3, Schedule 1), Rural (RU2, RU4), Special Purpose Corridors (SP1, SP2).
Moss Vale Enterprise Corridor (MVEC)	Includes the suburb of Moss Vale. The area is bounded by the lots to the north of Douglas Road to the North, Berrima Road to the intersection of the Railway Line in the West, Whites Creek, Bulwer and Braddon Roads to the South, and McCourt Road to the East.	The area zoning includes Industrial (IN1, IN2, IN3), and Special Purpose Corridors (SP1, SP2).
Northern Gateway	Includes the suburbs of Mittagong, Braemar, Aylmerton. The area is bounded by the Hume Highway to the North, Hume Highway and Mittagong Golf Course to the West, the lots to the south of Inkerman Road and Colo Street to the South, and Mary Street and the Railway Line to the East.	The area zoning includes Industrial (IN1), Residential (R2,R5), Business (B1), Environment Protection Corridors (E2, E3, Schedule 1), Rural (RU2, RU4), Special Purpose Corridor (SP2).
Robertson	Includes the suburb of Robertson. The area is bounded by High Street to the North, West Street to the West, the lots to the south of Charlotte Street to the South, and East Street to the East.	The area zoning includes Residential (R2,R5), Business (B2), Recreation Corridor (RE1) Environment Protection Corridors (E2, E3, Schedule 1), Special Purpose Corridors (SP1, SP2).

APPENDIX B

Schedule 2

Wingecarribee population
growth and ET growth

Locality	2006 population	2031 population	Population Difference
Mittagong	7,705	10,385	2,680
Bowral	11,500	11,836	336
Moss Vale	6,723	12,187	5,464
Bundanoon/Exeter	2,433	3,636	1,203
Berrima	869	885	16
Robertson	1,205	1,310	105
Northern Villages	4,049	1,032	1,032
Rural	7,704	3,391	3,391
Total	42,188	56,415	14,227

DSP Area	Relevant Locality	2008 ETs	2031 ETs	Difference
Berrima	Berrima	791	881	90
Bowral	Bowral	11090	12481	1391
Bundanoon	Bundanoon/Exeter	1724	2744	1020
Burrawang	Robertson	190	223	33
Colo Vale	Northern Villages	681	908	227
Exeter	Bundanoon/Exeter	289	459	170
Hill Top	Northern Villages	2430	3244	814
Mittagong	Mittagong	4191	6033	1842
Moss Vale Whites Creek	Moss Vale	3126	5892	2766
Moss Vale Wingecarribee	Moss Vale	2267	4272	2005
Moss Vale Enterprise Corridor (MVEC)	-	4148	11216	7068
Northern Gateway	Northern Villages	3569	4762	1193
Robertson	Robertson	816	958	142
	Total	35312	54073	18761

APPENDIX C
Schedule 3, Existing
Stormwater infrastructure

EXETER - Existing Stormwater Assets included in DSP

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2000/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
<i>Pre 1996 Works</i>							
3775	Reinforced Concrete Pipe - 0525mm dia.	1965	1995/96	26284.5	371	2019/20	25
3776	Reinforced Concrete Pipe - 0525mm dia.	1965	1995/96	4867.5	371	2019/20	25
3771	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	96525	371	2019/20	25
3767	Reinforced Concrete Pipe - 0675mm dia.	1965	1995/96	30373.2	371	2019/20	25
3769	Reinforced Concrete Pipe - 0675mm dia.	1965	1995/96	18691.2	371	2019/20	25
3770	Reinforced Concrete Pipe - 0675mm dia.	1965	1995/96	46728	371	2019/20	25
3766	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	6088.5	371	2019/20	25
3749	Reinforced Concrete Pipe - 0525mm dia.	1972	1995/96	7301.25	371	2019/20	25
3750	Reinforced Concrete Pipe - 0525mm dia.	1972	1995/96	4867.5	371	2019/20	25
3761	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	30030	371	2019/20	25
3762	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	26812.5	371	2019/20	25
3763	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	6435	371	2019/20	25
3757	Reinforced Concrete Pipe - 0675mm dia.	1972	1995/96	11682	371	2019/20	25
3758	Reinforced Concrete Pipe - 0675mm dia.	1972	1995/96	19859.4	371	2019/20	25
3760	Reinforced Concrete Pipe - 0675mm dia.	1972	1995/96	29205	371	2019/20	25
3746	Reinforced Concrete Pipe - 0675mm dia.	1972	1995/96	5841	371	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2000/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
3747	Reinforced Concrete Pipe - 0675mm dia.	1972	1995/96	5841	371	2019/20	25
3748	Reinforced Concrete Pipe - 0675mm dia.	1972	1995/96	44391.6	371	2019/20	25
3742	Reinforced Concrete Pipe - 0750mm dia.	1972	1995/96	7306.2	371	2019/20	25
3743	Reinforced Concrete Pipe - 0750mm dia.	1972	1995/96	18265.5	371	2019/20	25
3744	Reinforced Concrete Pipe - 0750mm dia.	1972	1995/96	7306.2	371	2019/20	25
3745	Reinforced Concrete Pipe - 0750mm dia.	1972	1995/96	28007.1	371	2019/20	25
8259	Brick Lined Culvert - 2100X1200mm	1917	1995/96	246708	371	2019/20	25
3777	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	11797.5	371	2019/20	25
3779	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	40755	371	2019/20	25
3780	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	6435	371	2019/20	25
3781	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	3217.5	371	2019/20	25
Post 1996 Works							
1042	Concrete Box Culvert - 3000X0600mm	1999	1999/00	23873.85	371	2019/20	21
1042	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	17160	371	2019/20	21
1042	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	41827.5	371	2019/20	21
1043	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	3217.5	371	2019/20	21

BOWRAL - Existing Stormwater Assets included in DSP

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
<i>Pre 1996 Works</i>							
4632	Asbestos Cement Pipe - 600mm dia.	1917	1995/96	3217.5	11,816	2019/20	25
4654	Asbestos Cement Pipe - 600mm dia.	1917	1995/96	3217.5	11,816	2019/20	25
4655	Asbestos Cement Pipe - 600mm dia.	1917	1995/96	3217.5	11,816	2019/20	25
4656	Asbestos Cement Pipe - 600mm dia.	1917	1995/96	3217.5	11,816	2019/20	25
4616	Asbestos Cement Pipe - 750mm dia.	1917	1995/96	3653.1	11,816	2019/20	25
4646	Asbestos Cement Pipe - 750mm dia.	1917	1995/96	3653.1	11,816	2019/20	25
2363	Brick Lined Culvert - 1850X1700mm	1917	1995/96	26433	11,816	2019/20	25
2912	Brick Lined Culvert - 4000X2500mm	1917	1995/96	211464	11,816	2019/20	25
58	Brick Lined Culvert - 4000X2500mm	1917	1995/96	176220	11,816	2019/20	25
4621	Brick Lined Culvert - 6100X2950mm	1917	1995/96	237897	11,816	2019/20	25
2513	Concrete Box Culvert - 0300X0900mm	1917	1995/96	9805.95	11,816	2019/20	25
2135	Concrete Box Culvert - 0600X0300mm	1917	1995/96	2640	11,816	2019/20	25
2136	Concrete Box Culvert - 0600X0300mm	1917	1995/96	6864	11,816	2019/20	25
2137	Concrete Box Culvert - 0600X0300mm	1917	1995/96	2640	11,816	2019/20	25
2146	Concrete Box Culvert - 0900X0300mm	1917	1995/96	9088.2	11,816	2019/20	25
2147	Concrete Box Culvert - 0900X0300mm	1917	1995/96	4544.1	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
4614	Concrete Box Culvert - 0900X0550mm	1917	1995/96	3656.4	11,816	2019/20	25
4619	Reinforced Concrete Pipe - 0525mm dia.	1917	1995/96	3894	11,816	2019/20	25
2924	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	48262.5	11,816	2019/20	25
2714	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	2145	11,816	2019/20	25
4639	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	2681.25	11,816	2019/20	25
4663	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	2681.25	11,816	2019/20	25
4664	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	2681.25	11,816	2019/20	25
4665	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	2681.25	11,816	2019/20	25
4713	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	6435	11,816	2019/20	25
4739	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	6435	11,816	2019/20	25
4740	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	6435	11,816	2019/20	25
1820	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	22522.5	11,816	2019/20	25
2527	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	12870	11,816	2019/20	25
2528	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	7507.5	11,816	2019/20	25
1883	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	6435	11,816	2019/20	25
4634	Reinforced Concrete Pipe - 0750mm dia.	1917	1995/96	4870.8	11,816	2019/20	25
4657	Reinforced Concrete Pipe - 0750mm dia.	1917	1995/96	4870.8	11,816	2019/20	25
4658	Reinforced Concrete Pipe - 0750mm dia.	1917	1995/96	4870.8	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
2510	Reinforced Concrete Pipe - 0750mm dia.	1917	1995/96	10959.3	11,816	2019/20	25
2520	Reinforced Concrete Pipe - 0750mm dia.	1917	1995/96	10959.3	11,816	2019/20	25
2521	Reinforced Concrete Pipe - 0750mm dia.	1917	1995/96	10959.3	11,816	2019/20	25
2713	Reinforced Concrete Pipe - 1200mm dia.	1917	1995/96	15264.15	11,816	2019/20	25
4625	Reinforced Concrete Pipe - 1200mm dia.	1917	1995/96	30528.3	11,816	2019/20	25
4651	Reinforced Concrete Pipe - 1200mm dia.	1917	1995/96	30528.3	11,816	2019/20	25
4642	Reinforced Concrete Pipe - 1500mm dia.	1917	1995/96	12424.5	11,816	2019/20	25
4641	Reinforced Concrete Pipe - 1800mm dia.	1917	1995/96	22875.6	11,816	2019/20	25
2484	Reinforced Concrete Pipe - 1800mm dia.	1917	1995/96	34313.4	11,816	2019/20	25
2506	Reinforced Concrete Pipe - 1800mm dia.	1917	1995/96	34313.4	11,816	2019/20	25
2507	Reinforced Concrete Pipe - 1800mm dia.	1917	1995/96	34313.4	11,816	2019/20	25
2416	Trachyte Culvert - 0400X0400mm	1917	1995/96	9652.5	11,816	2019/20	25
2216	Trachyte Culvert - 0600X0300mm	1917	1995/96	1584	11,816	2019/20	25
2233	Trachyte Culvert - 0600X0300mm	1917	1995/96	3168	11,816	2019/20	25
2234	Trachyte Culvert - 0600X0300mm	1917	1995/96	6864	11,816	2019/20	25
720	Trachyte Culvert - 0600X0600mm	1917	1995/96	78015.3	11,816	2019/20	25
721	Trachyte Culvert - 0600X0600mm	1917	1995/96	16599	11,816	2019/20	25
722	Trachyte Culvert - 0600X0600mm	1917	1995/96	27388.35	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
1809	Trachyte Culvert - 0600X0600mm	1917	1995/96	23238.6	11,816	2019/20	25
1819	Trachyte Culvert - 0600X0600mm	1917	1995/96	13279.2	11,816	2019/20	25
2214	Trachyte Culvert - 0750X0300mm	1917	1995/96	3841.2	11,816	2019/20	25
2215	Trachyte Culvert - 0750X0300mm	1917	1995/96	8962.8	11,816	2019/20	25
2205	Trachyte Culvert - 0900X0300mm	1917	1995/96	3786.75	11,816	2019/20	25
2206	Trachyte Culvert - 0900X0300mm	1917	1995/96	3786.75	11,816	2019/20	25
2207	Trachyte Culvert - 0900X0300mm	1917	1995/96	3786.75	11,816	2019/20	25
2208	Trachyte Culvert - 0900X0300mm	1917	1995/96	10602.9	11,816	2019/20	25
2209	Trachyte Culvert - 0900X0300mm	1917	1995/96	26507.25	11,816	2019/20	25
1823	Trachyte Culvert - 1000X0500mm	1917	1995/96	20092.05	11,816	2019/20	25
2911	Unlined Trapezoidal Open Channel 10-15m Base Width	1917	1995/96	40401.9	11,816	2019/20	25
2483	Unlined Trapezoidal Open Channel 10-15m Base Width	1917	1995/96	526449	11,816	2019/20	25
2485	Unlined Trapezoidal Open Channel 10-15m Base Width	1917	1995/96	85701	11,816	2019/20	25
2919	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	97508.4	11,816	2019/20	25
4613	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	20559	11,816	2019/20	25
4615	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	33481.8	11,816	2019/20	25
4617	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	11748	11,816	2019/20	25
4650	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	38768.4	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
4620	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	1762.2	11,816	2019/20	25
4622	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	1174.8	11,816	2019/20	25
4624	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	49929	11,816	2019/20	25
4626	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	32307	11,816	2019/20	25
4627	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	65201.4	11,816	2019/20	25
4629	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	4405.5	11,816	2019/20	25
4630	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	35244	11,816	2019/20	25
4631	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	2937	11,816	2019/20	25
4633	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	26433	11,816	2019/20	25
4635	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	3818.1	11,816	2019/20	25
4636	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	5286.6	11,816	2019/20	25
4640	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	29370	11,816	2019/20	25
4643	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	57271.5	11,816	2019/20	25
4644	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	164472	11,816	2019/20	25
4714	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	1174.8	11,816	2019/20	25
719	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	24964.5	11,816	2019/20	25
723	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	23496	11,816	2019/20	25
2511	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	44055	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
2512	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	27901.5	11,816	2019/20	25
1882	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	4699.2	11,816	2019/20	25
59	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	3818.1	11,816	2019/20	25
190	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	40530.6	11,816	2019/20	25
2508	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	147015	11,816	2019/20	25
2509	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	58806	11,816	2019/20	25
1864	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	4900.5	11,816	2019/20	25
1867	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	100950.3	11,816	2019/20	25
1868	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	42144.3	11,816	2019/20	25
1869	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	31853.25	11,816	2019/20	25
1870	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	47534.85	11,816	2019/20	25
1871	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	7350.75	11,816	2019/20	25
2913	Unlined Trapezoidal Open Channel 6-10m Base Width	1917	1995/96	11756.25	11,816	2019/20	25
2059	Concrete Box Culvert - 0600X0300mm	1960	1995/96	7920	11,816	2019/20	25
2060	Concrete Box Culvert - 0600X0300mm	1960	1995/96	1056	11,816	2019/20	25
1821	Reinforced Concrete Pipe - 0600mm dia.	1960	1995/96	23595	11,816	2019/20	25
1822	Reinforced Concrete Pipe - 0600mm dia.	1960	1995/96	10725	11,816	2019/20	25
4787	Concrete Box Culvert - 0750X0450mm	1962	1995/96	4286.7	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
4789	Concrete Box Culvert - 0750X0450mm	1962	1995/96	4286.7	11,816	2019/20	25
1951	Reinforced Concrete Pipe - 0750mm dia.	1962	1995/96	7306.2	11,816	2019/20	25
4750	Unlined Trapezoidal Open Channel 2-4m Base Width	1962	1995/96	88110	11,816	2019/20	25
4751	Unlined Trapezoidal Open Channel 2-4m Base Width	1962	1995/96	17622	11,816	2019/20	25
512	Asbestos Cement Pipe - 600mm dia.	1965	1995/96	32175	11,816	2019/20	25
513	Asbestos Cement Pipe - 600mm dia.	1965	1995/96	6435	11,816	2019/20	25
215	Brick Lined Culvert - 0900X0370mm	1965	1995/96	8382	11,816	2019/20	25
4711	Concrete Box Culvert - 0600X0300mm	1965	1995/96	3168	11,816	2019/20	25
4736	Concrete Box Culvert - 0600X0300mm	1965	1995/96	3168	11,816	2019/20	25
1945	Concrete Box Culvert - 0600X0300mm	1965	1995/96	60720	11,816	2019/20	25
1946	Concrete Box Culvert - 0600X0300mm	1965	1995/96	7392	11,816	2019/20	25
1916	Concrete Box Culvert - 0600X0600mm	1965	1995/96	12795.75	11,816	2019/20	25
4699	Concrete Box Culvert - 0750X0450mm	1965	1995/96	2857.8	11,816	2019/20	25
342	Concrete Box Culvert - 0850X0550mm	1965	1995/96	12797.4	11,816	2019/20	25
1886	Concrete Box Culvert - 0900X0600mm	1965	1995/96	14625.6	11,816	2019/20	25
1918	Concrete Box Culvert - 0900X0600mm	1965	1995/96	10969.2	11,816	2019/20	25
1919	Concrete Box Culvert - 0900X0600mm	1965	1995/96	10969.2	11,816	2019/20	25
4737	Concrete Box Culvert - 1200X0300mm	1965	1995/96	5553.9	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
4738	Concrete Box Culvert - 1200X0300mm	1965	1995/96	5553.9	11,816	2019/20	25
1932	Concrete Box Culvert - 1200X0600mm	1965	1995/96	27018.75	11,816	2019/20	25
3423	Concrete Box Culvert - 1500X0900mm	1965	1995/96	19562.4	11,816	2019/20	25
3420	Concrete Box Culvert - 1500X0900mm	1965	1995/96	19562.4	11,816	2019/20	25
2277	Reinforced Concrete Pipe - 0525mm dia.	1965	1995/96	4867.5	11,816	2019/20	25
2278	Reinforced Concrete Pipe - 0525mm dia.	1965	1995/96	10708.5	11,816	2019/20	25
2279	Reinforced Concrete Pipe - 0525mm dia.	1965	1995/96	37966.5	11,816	2019/20	25
4723	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	6435	11,816	2019/20	25
4725	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	9116.25	11,816	2019/20	25
4726	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	17696.25	11,816	2019/20	25
4727	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	20377.5	11,816	2019/20	25
4728	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	18232.5	11,816	2019/20	25
4729	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	6435	11,816	2019/20	25
4730	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	15551.25	11,816	2019/20	25
4747	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	9652.5	11,816	2019/20	25
4748	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	9652.5	11,816	2019/20	25
4749	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	9652.5	11,816	2019/20	25
2335	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	6971.25	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
2336	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	20377.5	11,816	2019/20	25
2337	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	2681.25	11,816	2019/20	25
1894	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	9652.5	11,816	2019/20	25
1895	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	8043.75	11,816	2019/20	25
1896	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	13406.25	11,816	2019/20	25
1897	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	11261.25	11,816	2019/20	25
2275	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	41827.5	11,816	2019/20	25
2276	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	22522.5	11,816	2019/20	25
1992	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	38073.75	11,816	2019/20	25
1996	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	6435	11,816	2019/20	25
492	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	30566.25	11,816	2019/20	25
1888	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	18265.5	11,816	2019/20	25
1889	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	9741.6	11,816	2019/20	25
1890	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	13394.7	11,816	2019/20	25
1891	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	10959.3	11,816	2019/20	25
1892	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	10350.45	11,816	2019/20	25
1893	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	12177	11,816	2019/20	25
1933	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	3044.25	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
1934	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	27398.25	11,816	2019/20	25
1935	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	33486.75	11,816	2019/20	25
1936	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	26789.4	11,816	2019/20	25
1937	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	21309.75	11,816	2019/20	25
2272	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	41401.8	11,816	2019/20	25
2274	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	18874.35	11,816	2019/20	25
1987	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	12785.85	11,816	2019/20	25
1988	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	13394.7	11,816	2019/20	25
1989	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	23745.15	11,816	2019/20	25
1990	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	17047.8	11,816	2019/20	25
1991	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	46272.6	11,816	2019/20	25
2010	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	33486.75	11,816	2019/20	25
2012	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	12177	11,816	2019/20	25
2914	Reinforced Concrete Pipe - 0825mm dia.	1965	1995/96	70620	11,816	2019/20	25
2267	Reinforced Concrete Pipe - 0825mm dia.	1965	1995/96	3531	11,816	2019/20	25
2268	Reinforced Concrete Pipe - 0825mm dia.	1965	1995/96	11299.2	11,816	2019/20	25
2269	Reinforced Concrete Pipe - 0825mm dia.	1965	1995/96	22598.4	11,816	2019/20	25
2270	Reinforced Concrete Pipe - 0825mm dia.	1965	1995/96	49434	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
2271	Reinforced Concrete Pipe - 0825mm dia.	1965	1995/96	19067.4	11,816	2019/20	25
1931	Reinforced Concrete Pipe - 0900mm dia.	1965	1995/96	106631.25	11,816	2019/20	25
2262	Reinforced Concrete Pipe - 0900mm dia.	1965	1995/96	5118.3	11,816	2019/20	25
2264	Reinforced Concrete Pipe - 0900mm dia.	1965	1995/96	17061	11,816	2019/20	25
2265	Reinforced Concrete Pipe - 0900mm dia.	1965	1995/96	80186.7	11,816	2019/20	25
2266	Reinforced Concrete Pipe - 0900mm dia.	1965	1995/96	17061	11,816	2019/20	25
1985	Reinforced Concrete Pipe - 0900mm dia.	1965	1995/96	43505.55	11,816	2019/20	25
1986	Reinforced Concrete Pipe - 0900mm dia.	1965	1995/96	44358.6	11,816	2019/20	25
2003	Reinforced Concrete Pipe - 1200mm dia.	1965	1995/96	34691.25	11,816	2019/20	25
2004	Reinforced Concrete Pipe - 1200mm dia.	1965	1995/96	6938.25	11,816	2019/20	25
2005	Reinforced Concrete Pipe - 1200mm dia.	1965	1995/96	222024	11,816	2019/20	25
2006	Reinforced Concrete Pipe - 1200mm dia.	1965	1995/96	117950.25	11,816	2019/20	25
2007	Reinforced Concrete Pipe - 1200mm dia.	1965	1995/96	30528.3	11,816	2019/20	25
2008	Reinforced Concrete Pipe - 1200mm dia.	1965	1995/96	18039.45	11,816	2019/20	25
2009	Reinforced Concrete Pipe - 1200mm dia.	1965	1995/96	24977.7	11,816	2019/20	25
2915	Unlined Trapezoidal Open Channel 2-4m Base Width	1965	1995/96	70488	11,816	2019/20	25
4712	Unlined Trapezoidal Open Channel 2-4m Base Width	1965	1995/96	48460.5	11,816	2019/20	25
4719	Unlined Trapezoidal Open Channel 2-4m Base Width	1965	1995/96	587.4	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
4746	Unlined Trapezoidal Open Channel 2-4m Base Width	1965	1995/96	1468.5	11,816	2019/20	25
1885	Unlined Trapezoidal Open Channel 2-4m Base Width	1965	1995/96	8223.6	11,816	2019/20	25
1915	Unlined Trapezoidal Open Channel 2-4m Base Width	1965	1995/96	13216.5	11,816	2019/20	25
1917	Unlined Trapezoidal Open Channel 2-4m Base Width	1965	1995/96	16153.5	11,816	2019/20	25
1944	Unlined Trapezoidal Open Channel 2-4m Base Width	1965	1995/96	1468.5	11,816	2019/20	25
4703	Unlined Wide Flat Open Channel	1965	1995/96	27650.7	11,816	2019/20	25
493	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	6971.25	11,816	2019/20	25
2224	Concrete Box Culvert - 0600X0300mm	1968	1995/96	6864	11,816	2019/20	25
2364	Concrete Box Culvert - 2300X0700mm	1968	1995/96	17659.95	11,816	2019/20	25
2365	Concrete Box Culvert - 2300X0700mm	1968	1995/96	40365.6	11,816	2019/20	25
2402	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	37966.5	11,816	2019/20	25
2403	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	13629	11,816	2019/20	25
2404	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	42834	11,816	2019/20	25
2432	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	13629	11,816	2019/20	25
2167	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	1460.25	11,816	2019/20	25
2195	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	60843.75	11,816	2019/20	25
2175	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	10708.5	11,816	2019/20	25
2176	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	15576	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
2177	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	8761.5	11,816	2019/20	25
2178	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	3407.25	11,816	2019/20	25
2179	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	9248.25	11,816	2019/20	25
2180	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	7301.25	11,816	2019/20	25
2181	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	20930.25	11,816	2019/20	25
2391	Reinforced Concrete Pipe - 0600mm dia.	1968	1995/96	41827.5	11,816	2019/20	25
2171	Reinforced Concrete Pipe - 0600mm dia.	1968	1995/96	43972.5	11,816	2019/20	25
2203	Reinforced Concrete Pipe - 0600mm dia.	1968	1995/96	56306.25	11,816	2019/20	25
2204	Reinforced Concrete Pipe - 0600mm dia.	1968	1995/96	54161.25	11,816	2019/20	25
2400	Reinforced Concrete Pipe - 0675mm dia.	1968	1995/96	17523	11,816	2019/20	25
2401	Reinforced Concrete Pipe - 0675mm dia.	1968	1995/96	2336.4	11,816	2019/20	25
2193	Reinforced Concrete Pipe - 0675mm dia.	1968	1995/96	21027.6	11,816	2019/20	25
2194	Reinforced Concrete Pipe - 0675mm dia.	1968	1995/96	32709.6	11,816	2019/20	25
2398	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	17047.8	11,816	2019/20	25
2399	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	57231.9	11,816	2019/20	25
1801	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	9132.75	11,816	2019/20	25
1802	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	11568.15	11,816	2019/20	25
1804	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	9132.75	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
9747	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	14003.55	11,816	2019/20	25
9749	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	14003.55	11,816	2019/20	25
9750	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	14003.55	11,816	2019/20	25
2166	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	17047.8	11,816	2019/20	25
2168	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	18265.5	11,816	2019/20	25
2169	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	8523.9	11,816	2019/20	25
2170	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	6697.35	11,816	2019/20	25
2191	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	3653.1	11,816	2019/20	25
2192	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	4870.8	11,816	2019/20	25
2397	Reinforced Concrete Pipe - 0825mm dia.	1968	1995/96	87568.8	11,816	2019/20	25
1111	Reinforced Concrete Pipe - 0900mm dia.	1968	1995/96	7677.45	11,816	2019/20	25
1111	Reinforced Concrete Pipe - 0900mm dia.	1968	1995/96	8530.5	11,816	2019/20	25
2163	Reinforced Concrete Pipe - 0900mm dia.	1968	1995/96	18767.1	11,816	2019/20	25
2164	Reinforced Concrete Pipe - 0900mm dia.	1968	1995/96	80186.7	11,816	2019/20	25
2165	Reinforced Concrete Pipe - 0900mm dia.	1968	1995/96	73362.3	11,816	2019/20	25
2393	Reinforced Concrete Pipe - 1050mm dia.	1968	1995/96	4382.4	11,816	2019/20	25
2394	Reinforced Concrete Pipe - 1050mm dia.	1968	1995/96	43824	11,816	2019/20	25
2395	Reinforced Concrete Pipe - 1050mm dia.	1968	1995/96	3286.8	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
2396	Reinforced Concrete Pipe - 1050mm dia.	1968	1995/96	12051.6	11,816	2019/20	25
2366	Unlined Trapezoidal Open Channel 2-4m Base Width	1968	1995/96	1174.8	11,816	2019/20	25
2392	Unlined Trapezoidal Open Channel 2-4m Base Width	1968	1995/96	1174.8	11,816	2019/20	25
9746	Unlined Trapezoidal Open Channel 2-4m Base Width	1968	1995/96	61677	11,816	2019/20	25
1923	Reinforced Concrete Pipe - 0525mm dia.	1970	1995/96	48675	11,816	2019/20	25
1924	Reinforced Concrete Pipe - 0600mm dia.	1970	1995/96	9652.5	11,816	2019/20	25
1920	Reinforced Concrete Pipe - 0750mm dia.	1970	1995/96	10959.3	11,816	2019/20	25
1921	Reinforced Concrete Pipe - 0750mm dia.	1970	1995/96	4261.95	11,816	2019/20	25
1922	Reinforced Concrete Pipe - 0750mm dia.	1970	1995/96	3653.1	11,816	2019/20	25
1926	Reinforced Concrete Pipe - 0750mm dia.	1970	1995/96	9132.75	11,816	2019/20	25
713	Reinforced Concrete Pipe - 0525mm dia.	1972	1995/96	14602.5	11,816	2019/20	25
2259	Reinforced Concrete Pipe - 0525mm dia.	1972	1995/96	22877.25	11,816	2019/20	25
712	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	6971.25	11,816	2019/20	25
1872	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	10725	11,816	2019/20	25
1877	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	10725	11,816	2019/20	25
711	Reinforced Concrete Pipe - 0675mm dia.	1972	1995/96	19859.4	11,816	2019/20	25
710	Unlined Trapezoidal Open Channel 2-4m Base Width	1972	1995/96	28488.9	11,816	2019/20	25
213	Unlined Trapezoidal Open Channel 2-4m Base Width	1972	1995/96	17622	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
191	Unlined Trapezoidal Open Channel 2-4m Base Width	1972	1995/96	139507.5	11,816	2019/20	25
321	Asbestos Cement Pipe - 525mm dia.	1975	1995/96	5841	11,816	2019/20	25
322	Asbestos Cement Pipe - 525mm dia.	1975	1995/96	5841	11,816	2019/20	25
2156	Concrete Box Culvert - 0600X0300mm	1975	1995/96	2112	11,816	2019/20	25
2158	Concrete Box Culvert - 0600X0300mm	1975	1995/96	10560	11,816	2019/20	25
2145	Concrete Box Culvert - 0900X0300mm	1975	1995/96	3786.75	11,816	2019/20	25
2564	Reinforced Concrete Pipe - 0525mm dia.	1975	1995/96	7301.25	11,816	2019/20	25
2565	Reinforced Concrete Pipe - 0525mm dia.	1975	1995/96	8761.5	11,816	2019/20	25
308	Reinforced Concrete Pipe - 0525mm dia.	1975	1995/96	35046	11,816	2019/20	25
2611	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	26812.5	11,816	2019/20	25
2612	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	5898.75	11,816	2019/20	25
2613	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	31102.5	11,816	2019/20	25
2614	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	9652.5	11,816	2019/20	25
2142	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	46117.5	11,816	2019/20	25
2143	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	5898.75	11,816	2019/20	25
244	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	3217.5	11,816	2019/20	25
245	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	33783.75	11,816	2019/20	25
246	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	26276.25	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
247	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	5898.75	11,816	2019/20	25
248	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	6435	11,816	2019/20	25
249	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	46117.5	11,816	2019/20	25
250	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	7507.5	11,816	2019/20	25
319	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	9652.5	11,816	2019/20	25
242	Reinforced Concrete Pipe - 0675mm dia.	1975	1995/96	7593.3	11,816	2019/20	25
243	Reinforced Concrete Pipe - 0675mm dia.	1975	1995/96	9345.6	11,816	2019/20	25
2561	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	7915.05	11,816	2019/20	25
2603	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	130902.75	11,816	2019/20	25
2604	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	28615.95	11,816	2019/20	25
2605	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	24354	11,816	2019/20	25
2606	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	32877.9	11,816	2019/20	25
2607	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	7915.05	11,816	2019/20	25
2608	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	6697.35	11,816	2019/20	25
2609	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	34704.45	11,816	2019/20	25
1957	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	6088.5	11,816	2019/20	25
1958	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	39575.25	11,816	2019/20	25
1959	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	30442.5	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
1960	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	60885	11,816	2019/20	25
1961	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	45663.75	11,816	2019/20	25
1962	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	160127.55	11,816	2019/20	25
309	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	20700.9	11,816	2019/20	25
310	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	7306.2	11,816	2019/20	25
311	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	28615.95	11,816	2019/20	25
312	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	27398.25	11,816	2019/20	25
2368	Unlined Trapezoidal Open Channel 2-4m Base Width	1975	1995/96	21733.8	11,816	2019/20	25
2369	Unlined Trapezoidal Open Channel 2-4m Base Width	1975	1995/96	4405.5	11,816	2019/20	25
9661	Concrete Box Culvert - 3000X1200mm	1976	1995/96	77152.35	11,816	2019/20	25
9686	Concrete Box Culvert - 3000X1200mm	1976	1995/96	77152.35	11,816	2019/20	25
2071	Reinforced Concrete Pipe - 0600mm dia.	1976	1995/96	19841.25	11,816	2019/20	25
2088	Reinforced Concrete Pipe - 0600mm dia.	1976	1995/96	10725	11,816	2019/20	25
2089	Reinforced Concrete Pipe - 0600mm dia.	1976	1995/96	32711.25	11,816	2019/20	25
2097	Reinforced Concrete Pipe - 0600mm dia.	1976	1995/96	15551.25	11,816	2019/20	25
2098	Reinforced Concrete Pipe - 0600mm dia.	1976	1995/96	20377.5	11,816	2019/20	25
2099	Reinforced Concrete Pipe - 0600mm dia.	1976	1995/96	46117.5	11,816	2019/20	25
2100	Reinforced Concrete Pipe - 0600mm dia.	1976	1995/96	4290	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
2096	Reinforced Concrete Pipe - 0750mm dia.	1976	1995/96	23136.3	11,816	2019/20	25
2064	Reinforced Concrete Pipe - 0900mm dia.	1976	1995/96	5118.3	11,816	2019/20	25
2068	Reinforced Concrete Pipe - 0900mm dia.	1976	1995/96	3412.2	11,816	2019/20	25
2069	Reinforced Concrete Pipe - 0900mm dia.	1976	1995/96	42652.5	11,816	2019/20	25
2070	Reinforced Concrete Pipe - 0900mm dia.	1976	1995/96	72509.25	11,816	2019/20	25
2080	Unlined Trapezoidal Open Channel 10-15m Base Width	1976	1995/96	4897.2	11,816	2019/20	25
2079	Unlined Trapezoidal Open Channel 10-15m Base Width	1976	1995/96	61215	11,816	2019/20	25
2078	Unlined Trapezoidal Open Channel 10-15m Base Width	1976	1995/96	104065.5	11,816	2019/20	25
2077	Unlined Trapezoidal Open Channel 10-15m Base Width	1976	1995/96	45299.1	11,816	2019/20	25
2076	Unlined Trapezoidal Open Channel 10-15m Base Width	1976	1995/96	106514.1	11,816	2019/20	25
9662	Unlined Trapezoidal Open Channel 4-6m Base Width	1976	1995/96	36753.75	11,816	2019/20	25
9679	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	6088.5	11,816	2019/20	25
9678	Unlined Trapezoidal Open Channel 4-6m Base Width	1977	1995/96	32833.35	11,816	2019/20	25
657	Reinforced Concrete Pipe - 0525mm dia.	1978	1995/96	2920.5	11,816	2019/20	25
658	Reinforced Concrete Pipe - 0525mm dia.	1978	1995/96	32125.5	11,816	2019/20	25
659	Reinforced Concrete Pipe - 0525mm dia.	1978	1995/96	2920.5	11,816	2019/20	25
660	Reinforced Concrete Pipe - 0525mm dia.	1978	1995/96	17523	11,816	2019/20	25
661	Reinforced Concrete Pipe - 0525mm dia.	1978	1995/96	12168.75	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
662	Reinforced Concrete Pipe - 0525mm dia.	1978	1995/96	4867.5	11,816	2019/20	25
656	Unlined Trapezoidal Open Channel 2-4m Base Width	1978	1995/96	18796.8	11,816	2019/20	25
63	Concrete Box Culvert - 1500X1200mm	1979	1995/96	255048.75	11,816	2019/20	25
64	Concrete Box Culvert - 1500X1200mm	1979	1995/96	17003.25	11,816	2019/20	25
62	Concrete Box Culvert - 2400X1200mm	1979	1995/96	146213.1	11,816	2019/20	25
2560	Reinforced Concrete Pipe - 0750mm dia.	1979	1995/96	62102.7	11,816	2019/20	25
2555	Reinforced Concrete Pipe - 0900mm dia.	1979	1995/96	45211.65	11,816	2019/20	25
2575	Reinforced Concrete Pipe - 0900mm dia.	1979	1995/96	45211.65	11,816	2019/20	25
2556	Reinforced Concrete Pipe - 0900mm dia.	1979	1995/96	11089.65	11,816	2019/20	25
2576	Reinforced Concrete Pipe - 0900mm dia.	1979	1995/96	11089.65	11,816	2019/20	25
2558	Reinforced Concrete Pipe - 1050mm dia.	1979	1995/96	62449.2	11,816	2019/20	25
2559	Reinforced Concrete Pipe - 1050mm dia.	1979	1995/96	14242.8	11,816	2019/20	25
625	Reinforced Concrete Pipe - 0525mm dia.	1980	1995/96	21417	11,816	2019/20	25
57	Unlined Trapezoidal Open Channel 2-4m Base Width	1980	1995/96	17915.7	11,816	2019/20	25
9955	Reinforced Concrete Pipe - 0825mm dia.	1981	1995/96	29660.4	11,816	2019/20	25
1794	Reinforced Concrete Pipe - 1050mm dia.	1981	1995/96	16434	11,816	2019/20	25
1795	Reinforced Concrete Pipe - 1050mm dia.	1981	1995/96	24103.2	11,816	2019/20	25
1797	Reinforced Concrete Pipe - 1050mm dia.	1981	1995/96	42728.4	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
1798	Reinforced Concrete Pipe - 1050mm dia.	1981	1995/96	18625.2	11,816	2019/20	25
1792	Reinforced Concrete Pipe - 1200mm dia.	1981	1995/96	24977.7	11,816	2019/20	25
1793	Reinforced Concrete Pipe - 1200mm dia.	1981	1995/96	31915.95	11,816	2019/20	25
1796	Reinforced Concrete Pipe - 1200mm dia.	1981	1995/96	6938.25	11,816	2019/20	25
1791	Reinforced Concrete Pipe - 1350mm dia.	1981	1995/96	34089	11,816	2019/20	25
1782	Reinforced Concrete Pipe - 1500mm dia.	1981	1995/96	24849	11,816	2019/20	25
1783	Reinforced Concrete Pipe - 1500mm dia.	1981	1995/96	43485.75	11,816	2019/20	25
65	Concrete Box Culvert - 1800X0600mm	1982	1995/96	11850.3	11,816	2019/20	25
66	Concrete Box Culvert - 1800X0600mm	1982	1995/96	20314.8	11,816	2019/20	25
270	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	3217.5	11,816	2019/20	25
67	Reinforced Concrete Pipe - 0900mm dia.	1982	1995/96	107484.3	11,816	2019/20	25
266	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	67927.2	11,816	2019/20	25
267	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	4382.4	11,816	2019/20	25
268	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	50397.6	11,816	2019/20	25
272	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	9860.4	11,816	2019/20	25
68	Unlined Trapezoidal Open Channel 4-6m Base Width	1982	1995/96	16171.65	11,816	2019/20	25
69	Unlined Trapezoidal Open Channel 4-6m Base Width	1982	1995/96	58806	11,816	2019/20	25
81	Asbestos Cement Pipe - 750mm dia.	1983	1995/96	42619.5	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
76	Asbestos Cement Pipe - 750mm dia.	1983	1995/96	9741.6	11,816	2019/20	25
77	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	30442.5	11,816	2019/20	25
78	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	51752.25	11,816	2019/20	25
79	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	29224.8	11,816	2019/20	25
80	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	37139.85	11,816	2019/20	25
82	Reinforced Concrete Pipe - 1200mm dia.	1983	1995/96	54118.35	11,816	2019/20	25
1143	Asbestos Cement Pipe - 525mm dia.	1984	1995/96	18496.5	11,816	2019/20	25
1143	Asbestos Cement Pipe - 525mm dia.	1984	1995/96	28231.5	11,816	2019/20	25
1143	Asbestos Cement Pipe - 600mm dia.	1984	1995/96	31638.75	11,816	2019/20	25
1143	Asbestos Cement Pipe - 600mm dia.	1984	1995/96	15551.25	11,816	2019/20	25
1139	Concrete Box Culvert - 0750X0450mm	1984	1995/96	12145.65	11,816	2019/20	25
2241	Reinforced Concrete Pipe - 0900mm dia.	1984	1995/96	21326.25	11,816	2019/20	25
2244	Reinforced Concrete Pipe - 0900mm dia.	1984	1995/96	11089.65	11,816	2019/20	25
2245	Reinforced Concrete Pipe - 0900mm dia.	1984	1995/96	4265.25	11,816	2019/20	25
88	Asbestos Cement Pipe - 525mm dia.	1985	1995/96	54029.25	11,816	2019/20	25
89	Asbestos Cement Pipe - 525mm dia.	1985	1995/96	24337.5	11,816	2019/20	25
90	Asbestos Cement Pipe - 525mm dia.	1985	1995/96	30665.25	11,816	2019/20	25
91	Asbestos Cement Pipe - 525mm dia.	1985	1995/96	23364	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
3396	Asbestos Cement Pipe - 575mm dia.	1985	1995/96	20377.5	11,816	2019/20	25
564	Asbestos Cement Pipe - 600mm dia.	1985	1995/96	13942.5	11,816	2019/20	25
565	Asbestos Cement Pipe - 600mm dia.	1985	1995/96	41291.25	11,816	2019/20	25
3388	Asbestos Cement Pipe - 675mm dia.	1985	1995/96	23364	11,816	2019/20	25
3405	Asbestos Cement Pipe - 675mm dia.	1985	1995/96	23364	11,816	2019/20	25
3389	Asbestos Cement Pipe - 675mm dia.	1985	1995/96	6425.1	11,816	2019/20	25
3406	Asbestos Cement Pipe - 675mm dia.	1985	1995/96	6425.1	11,816	2019/20	25
3392	Asbestos Cement Pipe - 675mm dia.	1985	1995/96	35046	11,816	2019/20	25
3393	Asbestos Cement Pipe - 675mm dia.	1985	1995/96	17523	11,816	2019/20	25
3394	Asbestos Cement Pipe - 675mm dia.	1985	1995/96	19275.3	11,816	2019/20	25
3395	Asbestos Cement Pipe - 675mm dia.	1985	1995/96	17523	11,816	2019/20	25
3383	Asbestos Cement Pipe - 750mm dia.	1985	1995/96	12177	11,816	2019/20	25
3400	Asbestos Cement Pipe - 750mm dia.	1985	1995/96	12177	11,816	2019/20	25
3384	Asbestos Cement Pipe - 750mm dia.	1985	1995/96	8523.9	11,816	2019/20	25
3401	Asbestos Cement Pipe - 750mm dia.	1985	1995/96	8523.9	11,816	2019/20	25
3385	Asbestos Cement Pipe - 750mm dia.	1985	1995/96	49925.7	11,816	2019/20	25
3402	Asbestos Cement Pipe - 750mm dia.	1985	1995/96	49925.7	11,816	2019/20	25
3386	Asbestos Cement Pipe - 750mm dia.	1985	1995/96	14612.4	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
3403	Asbestos Cement Pipe - 750mm dia.	1985	1995/96	14612.4	11,816	2019/20	25
3387	Asbestos Cement Pipe - 750mm dia.	1985	1995/96	30442.5	11,816	2019/20	25
3404	Asbestos Cement Pipe - 750mm dia.	1985	1995/96	30442.5	11,816	2019/20	25
3390	Asbestos Cement Pipe - 750mm dia.	1985	1995/96	19483.2	11,816	2019/20	25
3391	Asbestos Cement Pipe - 750mm dia.	1985	1995/96	28007.1	11,816	2019/20	25
1874	Concrete Box Culvert - 0900X0600mm	1985	1995/96	18282	11,816	2019/20	25
1878	Concrete Box Culvert - 0900X0600mm	1985	1995/96	18282	11,816	2019/20	25
3397	Fibre Reinforced Cement Pipe - 525mm dia.	1985	1995/96	3894	11,816	2019/20	25
3398	Fibre Reinforced Cement Pipe - 525mm dia.	1985	1995/96	2920.5	11,816	2019/20	25
3399	Fibre Reinforced Cement Pipe - 525mm dia.	1985	1995/96	3894	11,816	2019/20	25
2047	Reinforced Concrete Pipe - 0525mm dia.	1985	1995/96	22390.5	11,816	2019/20	25
2118	Reinforced Concrete Pipe - 0525mm dia.	1985	1995/96	5841	11,816	2019/20	25
566	Reinforced Concrete Pipe - 0525mm dia.	1985	1995/96	30178.5	11,816	2019/20	25
567	Reinforced Concrete Pipe - 0525mm dia.	1985	1995/96	28231.5	11,816	2019/20	25
2046	Reinforced Concrete Pipe - 0675mm dia.	1985	1995/96	8177.4	11,816	2019/20	25
2045	Reinforced Concrete Pipe - 0750mm dia.	1985	1995/96	54796.5	11,816	2019/20	25
84	Reinforced Concrete Pipe - 0750mm dia.	1985	1995/96	12177	11,816	2019/20	25
85	Reinforced Concrete Pipe - 0750mm dia.	1985	1995/96	3653.1	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
87	Reinforced Concrete Pipe - 0750mm dia.	1985	1995/96	17656.65	11,816	2019/20	25
86	Reinforced Concrete Pipe - 1050mm dia.	1985	1995/96	17529.6	11,816	2019/20	25
548	Reinforced Concrete Pipe - 1050mm dia.	1985	1995/96	14242.8	11,816	2019/20	25
83	Reinforced Concrete Pipe - 1200mm dia.	1985	1995/96	24977.7	11,816	2019/20	25
1873	Unlined Trapezoidal Open Channel 2-4m Base Width	1985	1995/96	11748	11,816	2019/20	25
70	Unlined Trapezoidal Open Channel 4-6m Base Width	1985	1995/96	98010	11,816	2019/20	25
2692	Asbestos Cement Pipe - 525mm dia.	1985	1995/96	4867.5	11,816	2019/20	25
3365	Reinforced Concrete Pipe - 0600mm dia.	1986	1995/96	5362.5	11,816	2019/20	25
3367	Reinforced Concrete Pipe - 0600mm dia.	1986	1995/96	26812.5	11,816	2019/20	25
3368	Reinforced Concrete Pipe - 0600mm dia.	1986	1995/96	6435	11,816	2019/20	25
3222	Reinforced Concrete Pipe - 0600mm dia.	1986	1995/96	2681.25	11,816	2019/20	25
3223	Reinforced Concrete Pipe - 0600mm dia.	1986	1995/96	29493.75	11,816	2019/20	25
4709	Concrete Box Culvert - 1200X0450mm	1986	1995/96	16051.2	11,816	2019/20	25
4735	Concrete Box Culvert - 1200X0450mm	1986	1995/96	16051.2	11,816	2019/20	25
3206	Fibre Reinforced Cement Pipe - 600mm dia.	1986	1995/96	24131.25	11,816	2019/20	25
3205	Fibre Reinforced Cement Pipe - 825mm dia.	1986	1995/96	36016.2	11,816	2019/20	25
3204	Fibre Reinforced Cement Pipe - 900mm dia.	1986	1995/96	100659.9	11,816	2019/20	25
3202	Reinforced Concrete Pipe - 0600mm dia.	1986	1995/96	6971.25	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
3209	Reinforced Concrete Pipe - 0600mm dia.	1986	1995/96	6971.25	11,816	2019/20	25
4707	Unlined Trapezoidal Open Channel 2-4m Base Width	1986	1995/96	13216.5	11,816	2019/20	25
4708	Unlined Trapezoidal Open Channel 2-4m Base Width	1986	1995/96	6461.4	11,816	2019/20	25
4710	Unlined Trapezoidal Open Channel 2-4m Base Width	1986	1995/96	19090.5	11,816	2019/20	25
4637	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	6971.25	11,816	2019/20	25
4659	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	6971.25	11,816	2019/20	25
4660	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	6971.25	11,816	2019/20	25
4661	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	6971.25	11,816	2019/20	25
4662	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	6971.25	11,816	2019/20	25
4638	Unlined Trapezoidal Open Channel 2-4m Base Width	1987	1995/96	33481.8	11,816	2019/20	25
2044	Concrete Box Culvert - 0600X0300mm	1987	1995/96	6336	11,816	2019/20	25
1005	Reinforced Concrete Pipe - 0525mm dia.	1987	1995/96	2920.5	11,816	2019/20	25
2023	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	9116.25	11,816	2019/20	25
2024	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	9116.25	11,816	2019/20	25
1006	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	40792.95	11,816	2019/20	25
1005	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	5479.65	11,816	2019/20	25
1005	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	30442.5	11,816	2019/20	25
2375	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	23136.3	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
2376	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	29224.8	11,816	2019/20	25
2377	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	4870.8	11,816	2019/20	25
2378	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	30442.5	11,816	2019/20	25
2013	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	15830.1	11,816	2019/20	25
2014	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	25571.7	11,816	2019/20	25
2015	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	13394.7	11,816	2019/20	25
2016	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	14612.4	11,816	2019/20	25
2017	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	29833.65	11,816	2019/20	25
2018	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	16438.95	11,816	2019/20	25
2019	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	30442.5	11,816	2019/20	25
2020	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	15221.25	11,816	2019/20	25
2021	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	5479.65	11,816	2019/20	25
2022	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	5479.65	11,816	2019/20	25
2041	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	13394.7	11,816	2019/20	25
2042	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	7306.2	11,816	2019/20	25
2043	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	4261.95	11,816	2019/20	25
1005	Reinforced Concrete Pipe - 0900mm dia.	1987	1995/96	63978.75	11,816	2019/20	25
1005	Reinforced Concrete Pipe - 0900mm dia.	1987	1995/96	54595.2	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
2373	Reinforced Concrete Pipe - 0900mm dia.	1987	1995/96	21326.25	11,816	2019/20	25
2374	Reinforced Concrete Pipe - 0900mm dia.	1987	1995/96	5971.35	11,816	2019/20	25
1005	Reinforced Concrete Pipe - 1050mm dia.	1987	1995/96	8764.8	11,816	2019/20	25
2370	Reinforced Concrete Pipe - 1050mm dia.	1987	1995/96	3286.8	11,816	2019/20	25
2371	Reinforced Concrete Pipe - 1050mm dia.	1987	1995/96	37250.4	11,816	2019/20	25
2473	Concrete Box Culvert - 0800X0125mm	1988	1995/96	2871	11,816	2019/20	25
2438	Fibre Reinforced Cement Pipe - 525mm dia.	1988	1995/96	1460.25	11,816	2019/20	25
2439	Fibre Reinforced Cement Pipe - 525mm dia.	1988	1995/96	22390.5	11,816	2019/20	25
2440	Fibre Reinforced Cement Pipe - 525mm dia.	1988	1995/96	1460.25	11,816	2019/20	25
2441	Fibre Reinforced Cement Pipe - 525mm dia.	1988	1995/96	2920.5	11,816	2019/20	25
2442	Fibre Reinforced Cement Pipe - 525mm dia.	1988	1995/96	1460.25	11,816	2019/20	25
2443	Fibre Reinforced Cement Pipe - 525mm dia.	1988	1995/96	3894	11,816	2019/20	25
2435	Fibre Reinforced Cement Pipe - 600mm dia.	1988	1995/96	1608.75	11,816	2019/20	25
2436	Fibre Reinforced Cement Pipe - 600mm dia.	1988	1995/96	15015	11,816	2019/20	25
2437	Fibre Reinforced Cement Pipe - 600mm dia.	1988	1995/96	3753.75	11,816	2019/20	25
2465	Fibre Reinforced Cement Pipe - 750mm dia.	1988	1995/96	10350.45	11,816	2019/20	25
2433	Reinforced Concrete Pipe - 1050mm dia.	1988	1995/96	15338.4	11,816	2019/20	25
2217	Asbestos Cement Pipe - 525mm dia.	1988	1995/96	51108.75	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
2218	Asbestos Cement Pipe - 525mm dia.	1988	1995/96	49161.75	11,816	2019/20	25
2213	Asbestos Cement Pipe - 750mm dia.	1988	1995/96	12177	11,816	2019/20	25
2210	Reinforced Concrete Pipe - 0600mm dia.	1988	1995/96	28957.5	11,816	2019/20	25
2211	Reinforced Concrete Pipe - 0600mm dia.	1988	1995/96	10188.75	11,816	2019/20	25
2212	Reinforced Concrete Pipe - 0600mm dia.	1988	1995/96	42363.75	11,816	2019/20	25
2489	Fibre Reinforced Cement Pipe - 525mm dia.	1989	1995/96	20930.25	11,816	2019/20	25
2490	Fibre Reinforced Cement Pipe - 525mm dia.	1989	1995/96	14602.5	11,816	2019/20	25
2491	Fibre Reinforced Cement Pipe - 525mm dia.	1989	1995/96	4867.5	11,816	2019/20	25
2492	Fibre Reinforced Cement Pipe - 525mm dia.	1989	1995/96	24337.5	11,816	2019/20	25
2716	Fibre Reinforced Cement Pipe - 750mm dia.	1989	1995/96	4261.95	11,816	2019/20	25
4667	Fibre Reinforced Cement Pipe - 750mm dia.	1989	1995/96	6088.5	11,816	2019/20	25
4668	Fibre Reinforced Cement Pipe - 750mm dia.	1989	1995/96	7915.05	11,816	2019/20	25
4669	Fibre Reinforced Cement Pipe - 750mm dia.	1989	1995/96	2435.4	11,816	2019/20	25
2487	Reinforced Concrete Pipe - 0525mm dia.	1989	1995/96	8274.75	11,816	2019/20	25
2488	Reinforced Concrete Pipe - 0525mm dia.	1989	1995/96	4380.75	11,816	2019/20	25
1865	Reinforced Concrete Pipe - 0600mm dia.	1989	1995/96	4290	11,816	2019/20	25
1876	Reinforced Concrete Pipe - 0600mm dia.	1989	1995/96	4290	11,816	2019/20	25
4666	Unlined Trapezoidal Open Channel 2-4m Base Width	1989	1995/96	1468.5	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
1866	Unlined Trapezoidal Open Channel 4-6m Base Width	1989	1995/96	83308.5	11,816	2019/20	25
1970	Concrete Box Culvert - 0600X0300mm	1990	1995/96	18480	11,816	2019/20	25
1971	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	11797.5	11,816	2019/20	25
2790	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	69712.5	11,816	2019/20	25
2791	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	43972.5	11,816	2019/20	25
1963	Reinforced Concrete Pipe - 0750mm dia.	1990	1995/96	60885	11,816	2019/20	25
1964	Reinforced Concrete Pipe - 0750mm dia.	1990	1995/96	22527.45	11,816	2019/20	25
1965	Reinforced Concrete Pipe - 0750mm dia.	1990	1995/96	26180.55	11,816	2019/20	25
1966	Reinforced Concrete Pipe - 0750mm dia.	1990	1995/96	9132.75	11,816	2019/20	25
1967	Reinforced Concrete Pipe - 0750mm dia.	1990	1995/96	3044.25	11,816	2019/20	25
1980	Reinforced Concrete Pipe - 0750mm dia.	1990	1995/96	4870.8	11,816	2019/20	25
9959	Reinforced Concrete Pipe - 0750mm dia.	1990	1995/96	23136.3	11,816	2019/20	25
9960	Reinforced Concrete Pipe - 0750mm dia.	1990	1995/96	6088.5	11,816	2019/20	25
1981	Reinforced Concrete Pipe - 0750mm dia.	1990	1995/96	3044.25	11,816	2019/20	25
1983	Reinforced Concrete Pipe - 0750mm dia.	1990	1995/96	10350.45	11,816	2019/20	25
9760	Asbestos Cement Pipe - 525mm dia.	1991	1995/96	6327.75	11,816	2019/20	25
9761	Asbestos Cement Pipe - 525mm dia.	1991	1995/96	7301.25	11,816	2019/20	25
2917	Concrete Box Culvert - 2400X0750mm	1991	1995/96	56265	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
2930	Concrete Box Culvert - 2400X0750mm	1991	1995/96	56265	11,816	2019/20	25
9669	Concrete Box Culvert - 2400X0900mm	1991	1995/96	12375	11,816	2019/20	25
9670	Concrete Box Culvert - 2400X0900mm	1991	1995/96	37125	11,816	2019/20	25
9671	Concrete Box Culvert - 2400X0900mm	1991	1995/96	12375	11,816	2019/20	25
9687	Concrete Lined Trapezoidal Open Channel 10-15m Base Width	1991	1995/96	731172.75	11,816	2019/20	25
9672	Concrete Lined Trapezoidal Open Channel 2-4m Base Width	1991	1995/96	121751.85	11,816	2019/20	25
2531	Reinforced Concrete Pipe - 0525mm dia.	1991	1995/96	2920.5	11,816	2019/20	25
2532	Reinforced Concrete Pipe - 0525mm dia.	1991	1995/96	8761.5	11,816	2019/20	25
2539	Reinforced Concrete Pipe - 0525mm dia.	1991	1995/96	2920.5	11,816	2019/20	25
3668	Reinforced Concrete Pipe - 0525mm dia.	1991	1995/96	5841	11,816	2019/20	25
9665	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	1608.75	11,816	2019/20	25
9666	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	24131.25	11,816	2019/20	25
9667	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	52552.5	11,816	2019/20	25
3274	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	12333.75	11,816	2019/20	25
3275	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	12870	11,816	2019/20	25
8266	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	18768.75	11,816	2019/20	25
3276	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	18768.75	11,816	2019/20	25
3277	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	11797.5	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
3278	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	28421.25	11,816	2019/20	25
3309	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	11797.5	11,816	2019/20	25
3310	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	11797.5	11,816	2019/20	25
3311	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	22522.5	11,816	2019/20	25
3312	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	21450	11,816	2019/20	25
3313	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	19305	11,816	2019/20	25
3328	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	14478.75	11,816	2019/20	25
3329	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	6971.25	11,816	2019/20	25
3335	Reinforced Concrete Pipe - 0675mm dia.	1991	1995/96	5256.9	11,816	2019/20	25
3305	Reinforced Concrete Pipe - 0675mm dia.	1991	1995/96	4672.8	11,816	2019/20	25
3306	Reinforced Concrete Pipe - 0675mm dia.	1991	1995/96	5841	11,816	2019/20	25
3307	Reinforced Concrete Pipe - 0675mm dia.	1991	1995/96	15770.7	11,816	2019/20	25
3308	Reinforced Concrete Pipe - 0675mm dia.	1991	1995/96	15770.7	11,816	2019/20	25
3327	Reinforced Concrete Pipe - 0675mm dia.	1991	1995/96	8761.5	11,816	2019/20	25
9675	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	33486.75	11,816	2019/20	25
9751	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	608.85	11,816	2019/20	25
9752	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	608.85	11,816	2019/20	25
3271	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	14612.4	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
3272	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	28615.95	11,816	2019/20	25
3273	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	37139.85	11,816	2019/20	25
3267	Reinforced Concrete Pipe - 0825mm dia.	1991	1995/96	11299.2	11,816	2019/20	25
3268	Reinforced Concrete Pipe - 0825mm dia.	1991	1995/96	50846.4	11,816	2019/20	25
3269	Reinforced Concrete Pipe - 0825mm dia.	1991	1995/96	21892.2	11,816	2019/20	25
3270	Reinforced Concrete Pipe - 0825mm dia.	1991	1995/96	29660.4	11,816	2019/20	25
9674	Reinforced Concrete Pipe - 1050mm dia.	1991	1995/96	8764.8	11,816	2019/20	25
9688	Reinforced Concrete Pipe - 1050mm dia.	1991	1995/96	8764.8	11,816	2019/20	25
9689	Reinforced Concrete Pipe - 1050mm dia.	1991	1995/96	8764.8	11,816	2019/20	25
3349	Reinforced Concrete Pipe - 1050mm dia.	1991	1995/96	35059.2	11,816	2019/20	25
3657	Reinforced Concrete Pipe - 1050mm dia.	1991	1995/96	35059.2	11,816	2019/20	25
2916	Unlined Trapezoidal Open Channel 10-15m Base Width	1991	1995/96	159159	11,816	2019/20	25
1035	Unlined Trapezoidal Open Channel 10-15m Base Width	1991	1995/96	34280.4	11,816	2019/20	25
9664	Unlined Trapezoidal Open Channel 15-20m Base Width	1991	1995/96	659389.5	11,816	2019/20	25
3266	Unlined Trapezoidal Open Channel 15-20m Base Width	1991	1995/96	128452.5	11,816	2019/20	25
2918	Unlined Trapezoidal Open Channel 2-4m Base Width	1991	1995/96	93396.6	11,816	2019/20	25
8265	Unlined Trapezoidal Open Channel 2-4m Base Width	1991	1995/96	32307	11,816	2019/20	25
8263	Unlined Trapezoidal Open Channel 2-4m Base Width	1991	1995/96	28195.2	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
9663	Unlined Trapezoidal Open Channel 4-6m Base Width	1991	1995/96	24502.5	11,816	2019/20	25
9673	Unlined Trapezoidal Open Channel 4-6m Base Width	1991	1995/96	7350.75	11,816	2019/20	25
8262	Unlined Trapezoidal Open Channel 4-6m Base Width	1991	1995/96	57825.9	11,816	2019/20	25
9668	Unlined Trapezoidal Open Channel 6-10m Base Width	1991	1995/96	120697.5	11,816	2019/20	25
9753	Unlined Trapezoidal Open Channel 6-10m Base Width	1991	1995/96	97968.75	11,816	2019/20	25
5999	Asbestos Cement Pipe - 525mm dia.	1992	1995/96	4867.5	11,816	2019/20	25
6000	Asbestos Cement Pipe - 525mm dia.	1992	1995/96	12168.75	11,816	2019/20	25
6001	Asbestos Cement Pipe - 525mm dia.	1992	1995/96	16549.5	11,816	2019/20	25
5948	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	24824.25	11,816	2019/20	25
5949	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	23364	11,816	2019/20	25
5950	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	19956.75	11,816	2019/20	25
5951	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	19470	11,816	2019/20	25
5996	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	6327.75	11,816	2019/20	25
5997	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	20930.25	11,816	2019/20	25
5998	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	3407.25	11,816	2019/20	25
6015	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	28231.5	11,816	2019/20	25
6016	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	14602.5	11,816	2019/20	25
6048	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	12168.75	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
6049	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	12168.75	11,816	2019/20	25
6050	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	12655.5	11,816	2019/20	25
9920	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	5354.25	11,816	2019/20	25
5945	Reinforced Concrete Pipe - 0600mm dia.	1992	1995/96	14478.75	11,816	2019/20	25
5946	Reinforced Concrete Pipe - 0600mm dia.	1992	1995/96	22522.5	11,816	2019/20	25
5947	Reinforced Concrete Pipe - 0600mm dia.	1992	1995/96	30030	11,816	2019/20	25
5930	Reinforced Concrete Pipe - 0600mm dia.	1992	1995/96	12333.75	11,816	2019/20	25
5931	Reinforced Concrete Pipe - 0600mm dia.	1992	1995/96	12333.75	11,816	2019/20	25
5932	Reinforced Concrete Pipe - 0600mm dia.	1992	1995/96	13942.5	11,816	2019/20	25
6047	Reinforced Concrete Pipe - 0600mm dia.	1992	1995/96	14478.75	11,816	2019/20	25
5928	Reinforced Concrete Pipe - 0675mm dia.	1992	1995/96	8177.4	11,816	2019/20	25
5929	Reinforced Concrete Pipe - 0675mm dia.	1992	1995/96	7009.2	11,816	2019/20	25
5943	Reinforced Concrete Pipe - 0675mm dia.	1992	1995/96	11682	11,816	2019/20	25
5944	Reinforced Concrete Pipe - 0675mm dia.	1992	1995/96	5256.9	11,816	2019/20	25
5992	Reinforced Concrete Pipe - 0675mm dia.	1992	1995/96	23364	11,816	2019/20	25
5993	Reinforced Concrete Pipe - 0675mm dia.	1992	1995/96	9345.6	11,816	2019/20	25
5994	Reinforced Concrete Pipe - 0675mm dia.	1992	1995/96	16354.8	11,816	2019/20	25
5995	Reinforced Concrete Pipe - 0675mm dia.	1992	1995/96	8761.5	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
6008	Reinforced Concrete Pipe - 0675mm dia.	1992	1995/96	8761.5	11,816	2019/20	25
5924	Reinforced Concrete Pipe - 0750mm dia.	1992	1995/96	4261.95	11,816	2019/20	25
5925	Reinforced Concrete Pipe - 0750mm dia.	1992	1995/96	4870.8	11,816	2019/20	25
5926	Reinforced Concrete Pipe - 0750mm dia.	1992	1995/96	24354	11,816	2009/20	15
5927	Reinforced Concrete Pipe - 0750mm dia.	1992	1995/96	28615.95	11,816	2019/20	25
6044	Reinforced Concrete Pipe - 0750mm dia.	1992	1995/96	21309.75	11,816	2019/20	25
6045	Reinforced Concrete Pipe - 0750mm dia.	1992	1995/96	24354	11,816	2019/20	25
6046	Reinforced Concrete Pipe - 0750mm dia.	1992	1995/96	41401.8	11,816	2019/20	25
6011	Reinforced Concrete Pipe - 0900mm dia.	1992	1995/96	19620.15	11,816	2019/20	25
5937	Reinforced Concrete Pipe - 1050mm dia.	1992	1995/96	27390	11,816	2019/20	25
5903	Reinforced Concrete Pipe - 1050mm dia.	1992	1995/96	25198.8	11,816	2019/20	25
6006	Reinforced Concrete Pipe - 1050mm dia.	1992	1995/96	15338.4	11,816	2019/20	25
6007	Reinforced Concrete Pipe - 1050mm dia.	1992	1995/96	9860.4	11,816	2019/20	25
5906	Reinforced Concrete Pipe - 1050mm dia.	1992	1995/96	25198.8	11,816	2019/20	25
8268	Unlined Trapezoidal Open Channel 10-15m Base Width	1992	1995/96	203233.8	11,816	2019/20	25
6043	Unlined Trapezoidal Open Channel 2-4m Base Width	1992	1995/96	11160.6	11,816	2019/20	25
3100	Concrete Box Culvert - 0450X1200mm	1993	1995/96	37240.5	11,816	2019/20	25
3099	Concrete Box Culvert - 0600X1200mm	1993	1995/96	17292	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
3102	Reinforced Concrete Pipe - 0525mm dia.	1993	1995/96	7301.25	11,816	2019/20	25
3374	Reinforced Concrete Pipe - 0525mm dia.	1993	1995/96	7301.25	11,816	2019/20	25
3372	Reinforced Concrete Pipe - 0525mm dia.	1993	1995/96	33585.75	11,816	2019/20	25
3373	Reinforced Concrete Pipe - 0525mm dia.	1993	1995/96	33585.75	11,816	2019/20	25
3135	Reinforced Concrete Pipe - 0525mm dia.	1993	1995/96	12655.5	11,816	2019/20	25
3136	Reinforced Concrete Pipe - 0525mm dia.	1993	1995/96	2920.5	11,816	2019/20	25
3105	Reinforced Concrete Pipe - 0600mm dia.	1993	1995/96	12870	11,816	2019/20	25
3106	Reinforced Concrete Pipe - 0600mm dia.	1993	1995/96	18232.5	11,816	2019/20	25
3107	Reinforced Concrete Pipe - 0600mm dia.	1993	1995/96	15015	11,816	2019/20	25
1817	Reinforced Concrete Pipe - 0600mm dia.	1993	1995/96	6435	11,816	2019/20	25
1848	Reinforced Concrete Pipe - 0600mm dia.	1993	1995/96	6435	11,816	2019/20	25
1849	Reinforced Concrete Pipe - 0600mm dia.	1993	1995/96	23058.75	11,816	2019/20	25
1850	Reinforced Concrete Pipe - 0600mm dia.	1993	1995/96	5362.5	11,816	2019/21	25
1851	Reinforced Concrete Pipe - 0600mm dia.	1993	1995/96	10725	11,816	2019/20	25
1852	Reinforced Concrete Pipe - 0600mm dia.	1993	1995/96	10725	11,816	2019/20	25
1853	Reinforced Concrete Pipe - 0600mm dia.	1993	1995/96	10725	11,816	2019/20	25
3101	Reinforced Concrete Pipe - 0675mm dia.	1993	1995/96	30373.2	11,816	2019/20	25
3103	Reinforced Concrete Pipe - 0675mm dia.	1993	1995/96	21611.7	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
3104	Reinforced Concrete Pipe - 0675mm dia.	1993	1995/96	18691.2	11,816	2019/20	25
2548	Reinforced Concrete Pipe - 0825mm dia.	1993	1995/96	17655	11,816	2019/20	25
2549	Reinforced Concrete Pipe - 0825mm dia.	1993	1995/96	17655	11,816	2019/20	25
2574	Reinforced Concrete Pipe - 0825mm dia.	1993	1995/96	32485.2	11,816	2019/20	25
2550	Reinforced Concrete Pipe - 0825mm dia.	1993	1995/96	28248	11,816	2019/20	25
2551	Reinforced Concrete Pipe - 0825mm dia.	1993	1995/96	12711.6	11,816	2019/20	25
2553	Reinforced Concrete Pipe - 0825mm dia.	1993	1995/96	41665.8	11,816	2019/20	25
2554	Reinforced Concrete Pipe - 0825mm dia.	1993	1995/96	47315.4	11,816	2019/20	25
2547	Reinforced Concrete Pipe - 1200mm dia.	1993	1995/96	30528.3	11,816	2019/20	25
2570	Reinforced Concrete Pipe - 1200mm dia.	1993	1995/96	30528.3	11,816	2019/20	25
2571	Reinforced Concrete Pipe - 1200mm dia.	1993	1995/96	30528.3	11,816	2019/20	25
2572	Reinforced Concrete Pipe - 1200mm dia.	1993	1995/96	30528.3	11,816	2019/20	25
1784	Reinforced Concrete Pipe - 1500mm dia.	1993	1995/96	66264	11,816	2019/20	25
1785	Reinforced Concrete Pipe - 1500mm dia.	1993	1995/96	70405.5	11,816	2019/20	25
1786	Reinforced Concrete Pipe - 1500mm dia.	1993	1995/96	248490	11,816	2019/20	25
1787	Reinforced Concrete Pipe - 1500mm dia.	1993	1995/96	2070.75	11,816	2019/20	25
1788	Reinforced Concrete Pipe - 1500mm dia.	1993	1995/96	57981	11,816	2019/20	25
1789	Reinforced Concrete Pipe - 1500mm dia.	1993	1995/96	28990.5	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
1790	Reinforced Concrete Pipe - 1500mm dia.	1993	1995/96	51768.75	11,816	2019/20	25
2811	Reinforced Concrete Pipe - 0525mm dia.	1994	1995/96	13629	11,816	2019/20	25
2812	Reinforced Concrete Pipe - 0525mm dia.	1994	1995/96	13629	11,816	2019/20	25
2813	Reinforced Concrete Pipe - 0525mm dia.	1994	1995/96	3894	11,816	2019/20	25
2362	Brick Lined Culvert - 1850X1700mm	1995	1995/96	88110	11,816	2019/20	25
2360	Concrete Box Culvert - 2150X0750mm	1995	1995/96	204245.25	11,816	2019/20	25
2361	Concrete Box Culvert - 2150X0750mm	1995	1995/96	45148.95	11,816	2019/20	25
3086	Reinforced Concrete Pipe - 0525mm dia.	1995	1995/96	6327.75	11,816	2019/20	25
3087	Reinforced Concrete Pipe - 0525mm dia.	1995	1995/96	11682	11,816	2019/20	25
3088	Reinforced Concrete Pipe - 0525mm dia.	1995	1995/96	20443.5	11,816	2019/20	25
5911	Reinforced Concrete Pipe - 0525mm dia.	1995	1995/96	3407.25	11,816	2019/20	25
9684	Reinforced Concrete Pipe - 0600mm dia.	1995	1995/96	6971.25	11,816	2019/20	25
5907	Reinforced Concrete Pipe - 0600mm dia.	1995	1995/96	3217.5	11,816	2019/20	25
5908	Reinforced Concrete Pipe - 0600mm dia.	1995	1995/96	4290	11,816	2019/20	25
5909	Reinforced Concrete Pipe - 0600mm dia.	1995	1995/96	24131.25	11,816	2019/20	25
5915	Reinforced Concrete Pipe - 0600mm dia.	1995	1995/96	21986.25	11,816	2019/20	25
2056	Reinforced Concrete Pipe - 0750mm dia.	1995	1995/96	38357.55	11,816	2019/20	25
9680	Reinforced Concrete Pipe - 0750mm dia.	1995	1995/96	3044.25	11,816	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
9681	Reinforced Concrete Pipe - 0750mm dia.	1995	1995/96	13394.7	11,816	2019/20	25
9682	Reinforced Concrete Pipe - 0750mm dia.	1995	1995/96	35313.3	11,816	2019/20	25
9683	Reinforced Concrete Pipe - 0750mm dia.	1995	1995/96	9132.75	11,816	2019/20	25
2359	Unlined Trapezoidal Open Channel 2-4m Base Width	1995	1995/96	5286.6	11,816	2019/20	25
8271	Unlined Trapezoidal Open Channel 2-4m Base Width	1995	1995/96	67257.3	11,816	2019/20	25
D3	DETENTION PONDS (DRY)	1994	1995/96	83160	11,816	2019/20	25
D4	DETENTION PONDS (DRY)	1995	1995/97	138600	11,816	2019/20	25
Post 1996 Works							
3187	Concrete Box Culvert - 0900X0450mm	1996	1996/97	11734.8	11,816	2019/20	24
3167	Concrete Box Culvert - 2100X0600mm	1996	1996/97	39986.1	11,816	2019/20	24
3377	Concrete Box Culvert - 2100X0600mm	1996	1996/97	39986.1	11,816	2019/20	24
770	Concrete Dish Drain - 3.0m Wide	1996	1996/97	51529.5	11,816	2019/20	24
767	Concrete Dish Drain - 3.0m Wide	1996	1996/97	60117.75	11,816	2019/20	24
768	Concrete Dish Drain - 3.0m Wide	1996	1996/97	63553.05	11,816	2019/20	24
769	Concrete Dish Drain - 3.0m Wide	1996	1996/97	37788.3	11,816	2019/20	24
3170	Reinforced Concrete Pipe - 0600mm dia.	1996	1996/97	4290	11,816	2019/20	24
3378	Reinforced Concrete Pipe - 0600mm dia.	1996	1996/97	11797.5	11,816	2019/20	24
3172	Reinforced Concrete Pipe - 0600mm dia.	1996	1996/97	8580	11,816	2019/20	24

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
3381	Reinforced Concrete Pipe - 0600mm dia.	1996	1996/97	16087.5	11,816	2019/20	24
TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
3183	Reinforced Concrete Pipe - 0600mm dia.	1996	1996/97	8043.75	11,816	2019/20	24
3171	Reinforced Concrete Pipe - 0600mm dia.	1996	1996/97	7507.5	11,816	2019/20	24
639	Reinforced Concrete Pipe - 0600mm dia.	1996	1996/97	18768.75	11,816	2019/20	24
640	Reinforced Concrete Pipe - 0600mm dia.	1996	1996/97	19841.25	11,816	2019/20	24
641	Reinforced Concrete Pipe - 0600mm dia.	1996	1996/97	11797.5	11,816	2019/20	24
642	Reinforced Concrete Pipe - 0600mm dia.	1996	1996/97	6971.25	11,816	2019/20	24
3182	Reinforced Concrete Pipe - 0675mm dia.	1996	1996/97	8761.5	11,816	2019/20	24
3379	Reinforced Concrete Pipe - 0675mm dia.	1996	1996/97	8761.5	11,816	2019/20	24
3380	Reinforced Concrete Pipe - 0675mm dia.	1996	1996/97	8761.5	11,816	2019/20	24
638	Reinforced Concrete Pipe - 0750mm dia.	1996	1996/97	18265.5	11,816	2019/20	24
441	Concrete Box Culvert - 1200X0600mm	1996	1996/97	12969	11,816	2019/20	24
439	Reinforced Concrete Pipe - 0750mm dia.	1996	1996/97	24354	11,816	2019/20	24
1037	Reinforced Concrete Pipe - 0525mm dia.	1998	1998/99	3407.25	11,816	2019/20	22
1037	Reinforced Concrete Pipe - 0525mm dia.	1998	1998/99	22390.5	11,816	2019/20	22
1035	Reinforced Concrete Pipe - 0675mm dia.	1998	1998/99	4088.7	11,816	2019/20	22

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
1035	Reinforced Concrete Pipe - 0675mm dia.	1998	1998/99	14018.4	11,816	2019/20	22
1035	Reinforced Concrete Pipe - 0675mm dia.	1998	1998/99	4088.7	11,816	2019/20	22
1036	Reinforced Concrete Pipe - 0675mm dia.	1998	1998/99	4088.7	11,816	2019/20	22
1036	Reinforced Concrete Pipe - 0675mm dia.	1998	1998/99	14018.4	11,816	2019/20	22
1036	Reinforced Concrete Pipe - 0675mm dia.	1998	1998/99	14018.4	11,816	2019/20	22
1035	Unlined Trapezoidal Open Channel 10-15m Base Width	1998	1998/99	257103	11,816	2019/20	22
1035	Unlined Trapezoidal Open Channel 10-15m Base Width	1998	1998/99	82028.1	11,816	2019/20	22
1035	Unlined Trapezoidal Open Channel 10-15m Base Width	1998	1998/99	52644.9	11,816	2019/20	22
1021	Reinforced Concrete Pipe - 1050mm dia.	1999	1999/00	51493.2	11,816	2019/20	21
1056	Reinforced Concrete Pipe - 0525mm dia.	1999	1999/00	22877.25	11,816	2019/20	21
1061	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	6971.25	11,816	2019/20	21
1057	Reinforced Concrete Pipe - 0750mm dia.	1999	1999/00	25571.7	11,816	2019/20	21
1057	Reinforced Concrete Pipe - 0750mm dia.	1999	1999/00	17047.8	11,816	2019/20	21
1024	Reinforced Concrete Pipe - 0525mm dia.	1999	1999/00	7788	11,816	2019/20	21
1023	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	26276.25	11,816	2019/20	21
1023	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	24131.25	11,816	2019/20	21
1023	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	6435	11,816	2019/20	21
1023	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	15015	11,816	2019/20	21

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
1024	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	7507.5	11,816	2019/20	21
1101	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	3894	11,816	2019/20	20
1102	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	3894	11,816	2019/20	20
1117	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	15576	11,816	2019/20	20
1121	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	26284.5	11,816	2019/20	20
1122	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	18496.5	11,816	2019/20	20
1122	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	16549.5	11,816	2019/20	20
1122	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	6327.75	11,816	2019/20	20
1122	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	7301.25	11,816	2019/20	20
1122	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	7788	11,816	2019/20	20
1101	Reinforced Concrete Pipe - 0600mm dia.	2000	2000/01	7507.5	11,816	2019/20	20
1101	Reinforced Concrete Pipe - 0600mm dia.	2000	2000/01	7507.5	11,816	2019/20	20
1101	Reinforced Concrete Pipe - 0750mm dia.	2000	2000/01	18874.35	11,816	2019/20	20
1101	Reinforced Concrete Pipe - 0750mm dia.	2000	2000/01	18874.35	11,816	2019/20	20
1101	Reinforced Concrete Pipe - 0750mm dia.	2000	2000/01	3653.1	11,816	2019/20	20
1101	Reinforced Concrete Pipe - 0750mm dia.	2000	2000/01	3653.1	11,816	2019/20	20
1101	Reinforced Concrete Pipe - 0750mm dia.	2000	2000/01	14612.4	11,816	2019/20	20
1101	Reinforced Concrete Pipe - 0750mm dia.	2000	2000/01	14612.4	11,816	2019/20	20

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
1117	Reinforced Concrete Pipe - 0750mm dia.	2000	2000/01	9132.75	11,816	2019/20	20
1117	Reinforced Concrete Pipe - 0750mm dia.	2000	2000/01	7915.05	11,816	2019/20	20
1117	Reinforced Concrete Pipe - 0750mm dia.	2000	2000/01	3653.1	11,816	2019/20	20
1115	Reinforced Concrete Pipe - 0825mm dia.	2000	2000/01	14830.2	11,816	2019/20	20
1116	Reinforced Concrete Pipe - 0900mm dia.	2000	2000/01	35828.1	11,816	2019/20	20
1116	Reinforced Concrete Pipe - 0900mm dia.	2000	2000/01	31562.85	11,816	2019/20	20
1117	Reinforced Concrete Pipe - 0900mm dia.	2000	2000/01	5118.3	11,816	2019/20	20
1077	Unlined Trapezoidal Open Channel 4-6m Base Width	2000	2000/01	2450.25	11,816	2019/20	20
1077	Unlined Trapezoidal Open Channel 4-6m Base Width	2000	2000/01	26952.75	11,816	2019/20	20
1077	Unlined Trapezoidal Open Channel 4-6m Base Width	2000	2000/01	22542.3	11,816	2019/20	20
1129	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	16549.5	11,816	2019/20	20
1130	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	14602.5	11,816	2019/20	20
1130	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	11195.25	11,816	2019/20	20
1130	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	10221.75	11,816	2019/20	20
1130	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	11195.25	11,816	2019/20	20
1129	Reinforced Concrete Pipe - 0600mm dia.	2000	2000/01	1072.5	11,816	2019/20	20
1134	Reinforced Concrete Pipe - 0525mm dia.	2001	2001/02	12655.5	11,816	2019/20	19
1134	Reinforced Concrete Pipe - 0525mm dia.	2001	2001/02	2433.75	11,816	2019/20	19

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
1134	Reinforced Concrete Pipe - 0525mm dia.	2001	2001/02	5354.25	11,816	2019/20	19
1135	Reinforced Concrete Pipe - 0525mm dia.	2001	2001/02	4380.75	11,816	2019/20	19
1134	Reinforced Concrete Pipe - 0600mm dia.	2001	2001/02	15015	11,816	2019/20	19
1134	Reinforced Concrete Pipe - 0600mm dia.	2001	2001/02	26276.25	11,816	2019/20	19
1134	Reinforced Concrete Pipe - 0525mm dia.	2002	2002/03	31638.75	11,816	2019/20	18
1134	Reinforced Concrete Pipe - 0525mm dia.	2002	2002/03	38453.25	11,816	2019/20	18
1076	Reinforced Concrete Pipe - 1050mm dia.	2003	2002/03	7669.2	11,816	2019/20	18
1076	Reinforced Concrete Pipe - 1050mm dia.	2003	2002/03	59162.4	11,816	2019/20	18
1075	Reinforced Concrete Pipe - 1050mm dia.	2003	2002/03	82170	11,816	2019/20	18
1075	Reinforced Concrete Pipe - 1050mm dia.	2003	2002/03	77787.6	11,816	2019/20	18
1076	Reinforced Concrete Pipe - 1050mm dia.	2003	2002/03	37250.4	11,816	2019/20	18
1094	Unlined Trapezoidal Open Channel 2-4m Base Width	2003	2002/03	6167.7	11,816	2019/20	18
1094	Unlined Trapezoidal Open Channel 2-4m Base Width	2003	2002/03	6755.1	11,816	2019/20	18
1077	Reinforced Concrete Pipe - 0750mm dia.	2004	2004/05	9132.75	11,816	2019/20	16
1140	Concrete Box Culvert - 2100X0450mm	2005	2005/06	73986	11,816	2019/20	15
1153	Reinforced Concrete Pipe - 0750mm dia.	2007	2007/08	13394.7	11,816	2019/20	13
1153	Reinforced Concrete Pipe - 0750mm dia.	2007	2007/08	14612.4	11,816	2019/20	13
1153	Reinforced Concrete Pipe - 0750mm dia.	2007	2007/08	6697.35	11,816	2019/20	13

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
1152	Reinforced Concrete Pipe - 0900mm dia.	2007	2007/08	10236.6	11,816	2019/20	13
1152	Reinforced Concrete Pipe - 0900mm dia.	2007	2007/08	23032.35	11,816	2019/20	13
1152	Reinforced Concrete Pipe - 0900mm dia.	2007	2007/08	5118.3	11,816	2019/20	13
1152	Reinforced Concrete Pipe - 0900mm dia.	2007	2007/08	90423.3	11,816	2019/20	13
1153	Reinforced Concrete Pipe - 0900mm dia.	2007	2007/08	40093.35	11,816	2019/20	13
1147	Reinforced Concrete Pipe - 0600mm dia.	2008	2008/09	33783.75	11,816	2019/20	12
1147	Reinforced Concrete Pipe - 0600mm dia.	2008	2008/09	15551.25	11,816	2019/20	12
1148	Reinforced Concrete Pipe - 0600mm dia.	2008	2008/09	9652.5	11,816	2019/20	12
1149	Reinforced Concrete Pipe - 0675mm dia.	2008	2008/09	35630.1	11,816	2019/20	12
1149	Reinforced Concrete Pipe - 0675mm dia.	2008	2008/09	46143.9	11,816	2019/20	12
1149	Reinforced Concrete Pipe - 0675mm dia.	2008	2008/09	31541.4	11,816	2019/20	12
1147	Reinforced Concrete Pipe - 0750mm dia.	2008	2008/09	10959.3	11,816	2019/20	12
1148	Reinforced Concrete Pipe - 0750mm dia.	2008	2008/09	10350.45	11,816	2019/20	12
1149	Reinforced Concrete Pipe - 0750mm dia.	2008	2008/09	55405.35	11,816	2019/20	12
1149	Reinforced Concrete Pipe - 0750mm dia.	2008	2008/09	10959.3	11,816	2019/20	12
1149	Reinforced Concrete Pipe - 0750mm dia.	2008	2008/09	24962.85	11,816	2019/20	12
G2	GROSS POLLUTANT TRAPS	2003	2001/02	74745	11,816	2019/20	19
G3	GROSS POLLUTANT TRAPS	2003	2001/02	74745	11,816	2019/20	19

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
G4	GROSS POLLUTANT TRAPS	2003	2001/02	74745	11,816	2019/20	19
W6	WETLANDS	2003	2001/02	429000	11,816	2019/20	19
G5	GROSS POLLUTANT TRAPS	2003	2001/02	46695	11,816	2019/20	19
G6	GROSS POLLUTANT TRAPS	2003	2001/02	46695	11,816	2019/20	19
S2	SEDIMENT PONDS	2003	2001/02	412500	11,816	2019/20	19
W5	WETLANDS	2003	2001/02	445500	11,816	2019/20	19
G9	GROSS POLLUTANT TRAPS	2003	2001/02	46695	11,816	2019/20	19
S1	SEDIMENT PONDS	2003	2001/02	495000	11,816	2019/20	19
G8	GROSS POLLUTANT TRAPS	2003	2001/02	65340	11,816	2019/20	19
G7	GROSS POLLUTANT TRAPS	2003	2001/02	65340	11,816	2019/20	19
D1	DETENTION PONDS (DRY)	2001	2001/02	198000	11,816	2019/20	19
G17	GROSS POLLUTANT TRAPS	37112	2001/02	74745	11,816	2019/20	19
G18	GROSS POLLUTANT TRAPS	37113	2001/02	6600	11,816	2019/20	19
G19	GROSS POLLUTANT TRAPS	37114	2001/02	6600	11,816	2019/20	19
D2	DETENTION PONDS (DRY)	37844	2003/04	181500	11,816	2019/20	17

MITTAGONG - Existing Stormwater Assets included in DSP

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
<i>Pre 1996 Works</i>							
8377	Brick Lined Culvert - 0750X0600mm	1917	1995/96	25809.3	5,152	2019/20	25
9010	Brick Lined Culvert - 1500X1600mm	1917	1995/96	110137.5	5,152	2019/20	25
8923	Concrete Box Culvert - 1250X0900mm	1917	1995/96	40755	5,152	2019/20	25
8948	Concrete Box Culvert - 1250X0900mm	1917	1995/96	40755	5,152	2019/20	25
8915	Concrete Box Culvert - 1800X1200mm	1917	1995/96	44220	5,152	2019/20	25
8944	Concrete Box Culvert - 1800X1200mm	1917	1995/96	44220	5,152	2019/20	25
8945	Concrete Box Culvert - 1800X1200mm	1917	1995/96	44220	5,152	2019/20	25
8946	Concrete Box Culvert - 1800X1200mm	1917	1995/96	44220	5,152	2019/20	25
9206	Reinforced Concrete Pipe - 0900mm dia.	1917	1995/96	10236.6	5,152	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
9238	Reinforced Concrete Pipe - 0900mm dia.	1917	1995/96	10236.6	5,152	2019/20	25
9239	Reinforced Concrete Pipe - 0900mm dia.	1917	1995/96	10236.6	5,152	2019/20	25
9240	Reinforced Concrete Pipe - 0900mm dia.	1917	1995/96	10236.6	5,152	2019/20	25
9241	Reinforced Concrete Pipe - 0900mm dia.	1917	1995/96	10236.6	5,152	2019/20	25
8918	Reinforced Concrete Pipe - 1800mm dia.	1917	1995/96	42891.75	5,152	2019/20	25
8947	Reinforced Concrete Pipe - 1800mm dia.	1917	1995/96	42891.75	5,152	2019/20	25
9011	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	46110.9	5,152	2019/20	25
9227	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	52866	5,152	2019/20	25
8912	Unlined Trapezoidal Open Channel 6-10m Base Width	1917	1995/96	352687.5	5,152	2019/20	25
8913	Unlined Trapezoidal Open Channel 6-10m Base Width	1917	1995/96	61132.5	5,152	2019/20	25
8914	Unlined Trapezoidal Open Channel 6-10m Base Width	1917	1995/96	74456.25	5,152	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
8917	Unlined Trapezoidal Open Channel 6-10m Base Width	1917	1995/96	6270	5,152	2019/20	25
8919	Unlined Trapezoidal Open Channel 6-10m Base Width	1917	1995/96	82293.75	5,152	2019/20	25
8920	Unlined Trapezoidal Open Channel 6-10m Base Width	1917	1995/96	50943.75	5,152	2019/20	25
8922	Unlined Trapezoidal Open Channel 6-10m Base Width	1917	1995/96	66618.75	5,152	2019/20	25
8916	Unlined Trapezoidal Open Channel 6-10m Base Width	1917	1995/96	45457.5	5,152	2019/20	25
9330	Reinforced Concrete Pipe - 0600mm dia.	1945	1995/96	20377.5	5,152	2019/20	25
9331	Reinforced Concrete Pipe - 0600mm dia.	1945	1995/96	4290	5,152	2019/20	25
8680	Reinforced Concrete Pipe - 0600mm dia.	1950	1995/96	8043.75	5,152	2019/20	25
8681	Reinforced Concrete Pipe - 0600mm dia.	1950	1995/96	8043.75	5,152	2019/20	25
8682	Reinforced Concrete Pipe - 0600mm dia.	1950	1995/96	8043.75	5,152	2019/20	25
8669	Unlined Trapezoidal Open Channel 2-4m Base Width	1950	1995/96	82236	5,152	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
8670	Unlined Trapezoidal Open Channel 2-4m Base Width	1950	1995/96	27901.5	5,152	2019/20	25
8683	Unlined Trapezoidal Open Channel 2-4m Base Width	1950	1995/96	30838.5	5,152	2019/20	25
8493	Reinforced Concrete Pipe - 0750mm dia.	1962	1995/96	12785.85	5,152	2019/20	25
8494	Reinforced Concrete Pipe - 0750mm dia.	1962	1995/96	5479.65	5,152	2019/20	25
8505	Reinforced Concrete Pipe - 0750mm dia.	1962	1995/96	12785.85	5,152	2019/20	25
8707	Concrete Box Culvert - 0600X0300mm	1964	1995/96	6864	5,152	2019/20	25
9019	Concrete Box Culvert - 1200X0600mm	1964	1995/96	23776.5	5,152	2019/20	25
9020	Concrete Box Culvert - 1200X0600mm	1964	1995/96	21615	5,152	2019/20	25
9022	Reinforced Concrete Pipe - 0600mm dia.	1964	1995/96	9652.5	5,152	2019/20	25
9018	Unlined Trapezoidal Open Channel 2-4m Base Width	1964	1995/96	20559	5,152	2019/20	25
9270	Concrete Box Culvert - 0600X0300mm	1965	1995/96	8448	5,152	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
8960	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	8580	5,152	2019/20	25
8969	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	10725	5,152	2019/20	25
9256	Reinforced Concrete Pipe - 0600mm dia.	1967	1995/96	5362.5	5,152	2019/20	25
9014	Concrete Box Culvert - 0900X0600mm	1968	1995/96	11883.3	5,152	2019/20	25
9007	Concrete Box Culvert - 1250X0900mm	1968	1995/96	24453	5,152	2019/20	25
9008	Concrete Box Culvert - 1250X0900mm	1968	1995/96	8151	5,152	2019/20	25
9012	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	4870.8	5,152	2019/20	25
9013	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	2435.4	5,152	2019/20	25
9009	Unlined Trapezoidal Open Channel 2-4m Base Width	1968	1995/96	881.1	5,152	2019/20	25
8928	Brick Lined Culvert - 1500X1600mm	1972	1995/96	118948.5	5,152	2019/20	25
9006	Concrete Box Culvert - 1250X0900mm	1972	1995/96	163020	5,152	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
8926	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	10725	5,152	2019/20	25
8937	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	58987.5	5,152	2019/20	25
8938	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	10725	5,152	2019/20	25
8939	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	2681.25	5,152	2019/20	25
8931	Reinforced Concrete Pipe - 0675mm dia.	1972	1995/96	30957.3	5,152	2019/20	25
8932	Reinforced Concrete Pipe - 0675mm dia.	1972	1995/96	36214.2	5,152	2019/20	25
8933	Reinforced Concrete Pipe - 0750mm dia.	1972	1995/96	24354	5,152	2019/20	25
8934	Reinforced Concrete Pipe - 0750mm dia.	1972	1995/96	20092.05	5,152	2019/20	25
8935	Reinforced Concrete Pipe - 0750mm dia.	1972	1995/96	51752.25	5,152	2019/20	25
8930	Reinforced Concrete Pipe - 1050mm dia.	1972	1995/96	41632.8	5,152	2019/20	25
8927	Unlined Trapezoidal Open Channel 4-6m Base Width	1972	1995/96	3920.4	5,152	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
8929	Unlined Trapezoidal Open Channel 4-6m Base Width	1972	1995/96	2940.3	5,152	2019/20	25
8950	Unlined Trapezoidal Open Channel 4-6m Base Width	1972	1995/96	25972.65	5,152	2019/20	25
9030	Reinforced Concrete Pipe - 0525mm dia.	1974	1995/96	3407.25	5,152	2019/20	25
8368	Reinforced Concrete Pipe - 0600mm dia.	1974	1995/96	6971.25	5,152	2019/20	25
9032	Reinforced Concrete Pipe - 0600mm dia.	1974	1995/96	42363.75	5,152	2019/20	25
8399	Reinforced Concrete Pipe - 0600mm dia.	1974	1995/96	6971.25	5,152	2019/20	25
8365	Reinforced Concrete Pipe - 0750mm dia.	1974	1995/96	1826.55	5,152	2019/20	25
8366	Reinforced Concrete Pipe - 0750mm dia.	1974	1995/96	19483.2	5,152	2019/20	25
8367	Reinforced Concrete Pipe - 0750mm dia.	1974	1995/96	28007.1	5,152	2019/20	25
8369	Reinforced Concrete Pipe - 0750mm dia.	1974	1995/96	54796.5	5,152	2019/20	25
8372	Reinforced Concrete Pipe - 0750mm dia.	1974	1995/96	34704.45	5,152	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
8374	Reinforced Concrete Pipe - 0750mm dia.	1974	1995/96	8523.9	5,152	2019/20	25
8396	Unlined Trapezoidal Open Channel 2-4m Base Width	1974	1995/96	881.1	5,152	2019/20	25
8397	Unlined Trapezoidal Open Channel 2-4m Base Width	1974	1995/96	9398.4	5,152	2019/20	25
8398	Unlined Trapezoidal Open Channel 2-4m Base Width	1974	1995/96	13510.2	5,152	2019/20	25
9525	Concrete Box Culvert - 0900X0300mm	1975	1995/96	7573.5	5,152	2019/20	25
9514	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	10725	5,152	2019/20	25
9522	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	17696.25	5,152	2019/20	25
9523	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	2145	5,152	2019/20	25
6159	Unlined Trapezoidal Open Channel 2-4m Base Width	1975	1995/96	16153.5	5,152	2019/20	25
9505	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	4290	5,152	2019/20	25
9314	Concrete Dish Drain - 1.5m Wide	1976	1995/96	6105	5,152	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
6143	Reinforced Concrete Pipe - 0600mm dia.	1976	1995/96	9652.5	5,152	2019/20	25
6153	Reinforced Concrete Pipe - 0600mm dia.	1976	1995/96	9652.5	5,152	2019/20	25
6145	Reinforced Concrete Pipe - 0600mm dia.	1976	1995/96	3217.5	5,152	2019/20	25
6154	Reinforced Concrete Pipe - 0600mm dia.	1976	1995/96	3217.5	5,152	2019/20	25
6134	Reinforced Concrete Pipe - 0900mm dia.	1976	1995/96	43505.55	5,152	2019/20	25
6135	Reinforced Concrete Pipe - 0900mm dia.	1976	1995/96	17914.05	5,152	2019/20	25
6136	Reinforced Concrete Pipe - 0900mm dia.	1976	1995/96	7677.45	5,152	2019/20	25
6137	Reinforced Concrete Pipe - 0900mm dia.	1976	1995/96	70803.15	5,152	2019/20	25
6138	Reinforced Concrete Pipe - 0900mm dia.	1976	1995/96	12795.75	5,152	2019/20	25
6139	Reinforced Concrete Pipe - 0900mm dia.	1976	1995/96	35828.1	5,152	2019/20	25
6140	Reinforced Concrete Pipe - 0900mm dia.	1976	1995/96	52036.05	5,152	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
6141	Reinforced Concrete Pipe - 0900mm dia.	1976	1995/96	20473.2	5,152	2019/20	25
6132	Reinforced Concrete Pipe - 1200mm dia.	1976	1995/96	58281.3	5,152	2019/20	25
6133	Reinforced Concrete Pipe - 1200mm dia.	1976	1995/96	16651.8	5,152	2019/20	25
6129	Unlined Trapezoidal Open Channel 2-4m Base Width	1976	1995/96	21146.4	5,152	2019/20	25
6130	Unlined Trapezoidal Open Channel 2-4m Base Width	1976	1995/96	58152.6	5,152	2019/20	25
6131	Unlined Trapezoidal Open Channel 2-4m Base Width	1976	1995/96	17622	5,152	2019/20	25
6142	Unlined Trapezoidal Open Channel 2-4m Base Width	1976	1995/96	10573.2	5,152	2019/20	25
6144	Unlined Trapezoidal Open Channel 2-4m Base Width	1976	1995/96	10573.2	5,152	2019/20	25
6146	Unlined Trapezoidal Open Channel 2-4m Base Width	1976	1995/96	16740.9	5,152	2019/20	25
8122	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	9132.75	5,152	2019/20	25
8123	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	27398.25	5,152	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
8124	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	39575.25	5,152	2019/20	25
8131	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	4870.8	5,152	2019/20	25
8125	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	35313.3	5,152	2019/20	25
8126	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	4261.95	5,152	2019/20	25
8127	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	65755.8	5,152	2019/20	25
8994	Concrete Box Culvert - 0600X0300mm	1978	1995/96	8976	5,152	2019/20	25
8995	Concrete Box Culvert - 0600X0300mm	1978	1995/96	2112	5,152	2019/20	25
8980	Concrete Lined Trapezoidal Open Channel 2-4m Base	1978	1995/96	4309.8	5,152	2019/20	25
8981	Concrete Lined Trapezoidal Open Channel 2-4m Base	1978	1995/96	37710.75	5,152	2019/20	25
8983	Concrete Lined Trapezoidal Open Channel 2-4m Base	1978	1995/96	46330.35	5,152	2019/20	25
8988	Reinforced Concrete Pipe - 0600mm dia.	1978	1995/96	26812.5	5,152	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
9230	Reinforced Concrete Pipe - 0525mm dia.	1979	1995/96	30178.5	5,152	2019/20	25
9231	Reinforced Concrete Pipe - 0600mm dia.	1979	1995/96	63277.5	5,152	2019/20	25
9232	Reinforced Concrete Pipe - 0600mm dia.	1979	1995/96	8043.75	5,152	2019/20	25
9226	Brick Lined Culvert - 1200X1200mm	1980	1995/96	126018.75	5,152	2019/20	25
9467	Concrete Box Culvert - 0600X0300mm	1980	1995/96	2640	5,152	2019/20	25
9468	Concrete Box Culvert - 0600X0300mm	1980	1995/96	6864	5,152	2019/20	25
9470	Reinforced Concrete Pipe - 0600mm dia.	1980	1995/96	56306.25	5,152	2019/20	25
9466	Reinforced Concrete Pipe - 0600mm dia.	1980	1995/96	50943.75	5,152	2019/20	25
9460	Reinforced Concrete Pipe - 1050mm dia.	1980	1995/96	32868	5,152	2019/20	25
9224	Reinforced Concrete Pipe - 1050mm dia.	1980	1995/96	62449.2	5,152	2019/20	25
9225	Reinforced Concrete Pipe - 1050mm dia.	1980	1995/96	14242.8	5,152	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
8163	Reinforced Concrete Pipe - 0900mm dia.	1981	1995/96	21326.25	5,152	2019/20	25
8164	Reinforced Concrete Pipe - 0900mm dia.	1981	1995/96	29856.75	5,152	2019/20	25
8165	Reinforced Concrete Pipe - 0900mm dia.	1981	1995/96	8530.5	5,152	2019/20	25
8166	Reinforced Concrete Pipe - 0900mm dia.	1981	1995/96	92129.4	5,152	2019/20	25
8167	Reinforced Concrete Pipe - 0900mm dia.	1981	1995/96	5971.35	5,152	2019/20	25
8168	Reinforced Concrete Pipe - 0900mm dia.	1981	1995/96	2559.15	5,152	2019/20	25
8156	Reinforced Concrete Pipe - 1500mm dia.	1981	1995/96	103537.5	5,152	2019/20	25
8157	Reinforced Concrete Pipe - 1500mm dia.	1981	1995/96	33132	5,152	2019/20	25
1138	Reinforced Concrete Pipe - 1500mm dia.	1981	1995/96	39344.25	5,152	2019/20	25
8158	Reinforced Concrete Pipe - 1500mm dia.	1981	1995/96	113891.25	5,152	2019/20	25
8159	Reinforced Concrete Pipe - 1500mm dia.	1981	1995/96	82830	5,152	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
8160	Reinforced Concrete Pipe - 1500mm dia.	1981	1995/96	72476.25	5,152	2019/20	25
8161	Reinforced Concrete Pipe - 1500mm dia.	1981	1995/96	31061.25	5,152	2019/20	25
8949	Concrete Box Culvert - 1200X1200mm	1981	1995/96	48468.75	5,152	2019/20	25
9216	Concrete Box Culvert - 1500X1200mm	1982	1995/96	98241	5,152	2019/20	25
9217	Concrete Box Culvert - 1500X1200mm	1982	1995/96	24560.25	5,152	2019/20	25
9218	Concrete Box Culvert - 1500X1200mm	1982	1995/96	47231.25	5,152	2019/20	25
9214	Concrete Box Culvert - 1800X0900mm	1982	1995/96	39105	5,152	2019/20	25
9215	Concrete Box Culvert - 1800X0900mm	1982	1995/96	29328.75	5,152	2019/20	25
9222	Concrete Box Culvert - 2800X1300mm	1982	1995/96	112147.2	5,152	2019/20	25
9221	Concrete Box Culvert - 3000X1500mm	1982	1995/96	74811	5,152	2019/20	25
9350	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	21450	5,152	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
9351	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	13406.25	5,152	2019/20	25
9388	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	6971.25	5,152	2019/20	25
8362	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	2681.25	5,152	2019/20	25
8363	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	9652.5	5,152	2019/20	25
8392	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	2681.25	5,152	2019/20	25
8393	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	2681.25	5,152	2019/20	25
8394	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	9652.5	5,152	2019/20	25
8395	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	9652.5	5,152	2019/20	25
8361	Reinforced Concrete Pipe - 0750mm dia.	1982	1995/96	54796.5	5,152	2019/20	25
8370	Reinforced Concrete Pipe - 0750mm dia.	1982	1995/96	38357.55	5,152	2019/20	25
8371	Reinforced Concrete Pipe - 0750mm dia.	1982	1995/96	26180.55	5,152	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
9220	Reinforced Concrete Pipe - 0900mm dia.	1982	1995/96	29856.75	5,152	2019/20	25
9209	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	10956	5,152	2019/20	25
9210	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	14242.8	5,152	2019/20	25
9211	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	10956	5,152	2019/20	25
9212	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	7669.2	5,152	2019/20	25
9242	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	10956	5,152	2019/20	25
9243	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	14242.8	5,152	2019/20	25
9244	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	10956	5,152	2019/20	25
9245	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	7669.2	5,152	2019/20	25
9213	Reinforced Concrete Pipe - 1800mm dia.	1982	1995/96	171567	5,152	2019/20	25
9429	Concrete Box Culvert - 0600X0300mm	1983	1995/96	14256	5,152	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
9430	Concrete Box Culvert - 0600X0300mm	1983	1995/96	2640	5,152	2019/20	25
8094	Concrete Box Culvert - 1200X0600mm	1983	1995/96	5403.75	5,152	2019/20	25
8070	Concrete Box Culvert - 1500X0600mm	1983	1995/96	150034.5	5,152	2019/20	25
8071	Concrete Box Culvert - 1500X0600mm	1983	1995/96	42867	5,152	2019/20	25
8072	Concrete Box Culvert - 1500X0600mm	1983	1995/96	54298.2	5,152	2019/20	25
8073	Concrete Box Culvert - 1500X0600mm	1983	1995/96	71445	5,152	2019/20	25
8074	Concrete Box Culvert - 1500X0600mm	1983	1995/96	45724.8	5,152	2019/20	25
8075	Concrete Box Culvert - 1500X0600mm	1983	1995/96	50011.5	5,152	2019/20	25
8076	Concrete Box Culvert - 1500X0600mm	1983	1995/96	64300.5	5,152	2019/20	25
8093	Concrete Box Culvert - 1500X0600mm	1983	1995/96	21433.5	5,152	2019/20	25
8924	Concrete Box Culvert - 2100X0900mm	1983	1995/96	126126	5,152	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
8925	Reinforced Concrete Pipe - 0600mm dia.	1983	1995/96	17696.25	5,152	2019/20	25
9409	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	3044.25	5,152	2019/20	25
9434	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	4870.8	5,152	2019/20	25
8095	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	4261.95	5,152	2019/20	25
9401	Reinforced Concrete Pipe - 0900mm dia.	1983	1995/96	3412.2	5,152	2019/20	25
9402	Reinforced Concrete Pipe - 0900mm dia.	1983	1995/96	12795.75	5,152	2019/20	25
9404	Reinforced Concrete Pipe - 0900mm dia.	1983	1995/96	34122	5,152	2019/20	25
9405	Reinforced Concrete Pipe - 0900mm dia.	1983	1995/96	25591.5	5,152	2019/20	25
9406	Reinforced Concrete Pipe - 0900mm dia.	1983	1995/96	8530.5	5,152	2019/20	25
9407	Reinforced Concrete Pipe - 0900mm dia.	1983	1995/96	51183	5,152	2019/20	25
9408	Reinforced Concrete Pipe - 0900mm dia.	1983	1995/96	23885.4	5,152	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
8106	Reinforced Concrete Pipe - 0900mm dia.	1983	1995/96	17061	5,152	2019/20	25
8107	Reinforced Concrete Pipe - 0900mm dia.	1983	1995/96	4265.25	5,152	2019/20	25
9403	Reinforced Concrete Pipe - 0900mm dia.	1983	1995/96	23885.4	5,152	2019/20	25
8307	Reinforced Concrete Pipe - 0525mm dia.	1983	1995/96	10708.5	5,152	2019/20	25
8306	Reinforced Concrete Pipe - 1800mm dia.	1983	1995/96	62907.9	5,152	2019/20	25
8315	Reinforced Concrete Pipe - 1800mm dia.	1983	1995/96	228756	5,152	2019/20	25
8316	Reinforced Concrete Pipe - 1800mm dia.	1983	1995/96	228756	5,152	2019/20	25
8312	Reinforced Concrete Pipe - 1800mm dia.	1983	1995/96	62907.9	5,152	2019/20	25
9015	Unlined Trapezoidal Open Channel 2-4m Base Width	1983	1995/96	7342.5	5,152	2019/20	25
8195	Reinforced Concrete Pipe - 0525mm dia.	1985	1995/96	5841	5,152	2019/20	25
8194	Reinforced Concrete Pipe - 0600mm dia.	1985	1995/96	48262.5	5,152	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
8189	Reinforced Concrete Pipe - 0750mm dia.	1985	1995/96	4870.8	5,152	2019/20	25
8190	Reinforced Concrete Pipe - 0750mm dia.	1985	1995/96	39575.25	5,152	2019/20	25
8191	Reinforced Concrete Pipe - 0750mm dia.	1985	1995/96	56014.2	5,152	2019/20	25
8192	Reinforced Concrete Pipe - 0750mm dia.	1985	1995/96	7306.2	5,152	2019/20	25
8193	Reinforced Concrete Pipe - 0750mm dia.	1985	1995/96	18265.5	5,152	2019/20	25
8214	Reinforced Concrete Pipe - 0525mm dia.	1988	1995/96	4867.5	5,152	2019/20	25
8219	Reinforced Concrete Pipe - 0525mm dia.	1988	1995/96	4867.5	5,152	2019/20	25
8245	Reinforced Concrete Pipe - 0600mm dia.	1988	1995/96	6435	5,152	2019/20	25
8246	Reinforced Concrete Pipe - 0600mm dia.	1988	1995/96	2681.25	5,152	2019/20	25
8247	Reinforced Concrete Pipe - 0600mm dia.	1988	1995/96	26812.5	5,152	2019/20	25
8942	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	9652.5	5,152	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
8943	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	1608.75	5,152	2019/20	25
6078	Concrete Box Culvert - 2100X0900mm	1991	1995/96	63063	5,152	2019/20	25
6076	Concrete Box Culvert - 2700X0900mm	1991	1995/96	102227.4	5,152	2019/20	25
6147	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	7306.2	5,152	2019/20	25
6149	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	34704.45	5,152	2019/20	25
6150	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	29224.8	5,152	2019/20	25
6151	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	14612.4	5,152	2019/20	25
6152	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	3653.1	5,152	2019/20	25
6077	Reinforced Concrete Pipe - 1500mm dia.	1991	1995/96	161518.5	5,152	2019/20	25
6081	Unlined Trapezoidal Open Channel 2-4m Base Width	1991	1995/96	7048.8	5,152	2019/20	25
6075	Unlined Trapezoidal Open Channel 4-6m Base Width	1991	1995/96	176418	5,152	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
6079	Unlined Trapezoidal Open Channel 4-6m Base Width	1991	1995/96	173477.7	5,152	2019/20	25
8674	Reinforced Concrete Pipe - 0600mm dia.	1992	1995/96	10725	5,152	2019/20	25
8679	Reinforced Concrete Pipe - 0600mm dia.	1992	1995/96	61668.75	5,152	2019/20	25
8710	Reinforced Concrete Pipe - 0600mm dia.	1992	1995/96	2145	5,152	2019/20	25
8713	Reinforced Concrete Pipe - 0600mm dia.	1992	1995/96	2145	5,152	2019/20	25
8673	Reinforced Concrete Pipe - 0750mm dia.	1992	1995/96	10959.3	5,152	2019/20	25
8273	Unlined Trapezoidal Open Channel 2-4m Base Width	1992	1995/96	65495.1	5,152	2019/20	25
8381	Concrete Box Culvert - 2100X0900mm	1994	1995/96	14714.7	5,152	2019/20	25
8383	Concrete Box Culvert - 2100X0900mm	1994	1995/96	42042	5,152	2019/20	25
8384	Concrete Lined Trapezoidal Open Channel 4-6m Base	1994	1995/96	12934.35	5,152	2019/20	25
8414	Reinforced Concrete Pipe - 0750mm dia.	1994	1995/96	8523.9	5,152	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
8379	Reinforced Concrete Pipe - 1050mm dia.	1994	1995/96	25198.8	5,152	2019/20	25
8402	Reinforced Concrete Pipe - 1050mm dia.	1994	1995/96	25198.8	5,152	2019/20	25
8378	Unlined Trapezoidal Open Channel 2-4m Base Width	1994	1995/96	4405.5	5,152	2019/20	25
8382	Unlined Trapezoidal Open Channel 4-6m Base Width	1994	1995/96	49005	5,152	2019/20	25
Post 1996 Works							
8496	Reinforced Concrete Pipe - 0525mm dia.	1996	1996/97	12655.5	5,152	2019/20	24
8497	Reinforced Concrete Pipe - 0525mm dia.	1996	1996/97	16062.75	5,152	2019/20	24
8498	Reinforced Concrete Pipe - 0525mm dia.	1996	1996/97	15576	5,152	2019/20	24
8495	Reinforced Concrete Pipe - 0600mm dia.	1996	1996/97	43972.5	5,152	2019/20	24
1019	Reinforced Concrete Pipe - 0525mm dia.	1998	1998/99	16549.5	5,152	2019/20	22
1019	Reinforced Concrete Pipe - 0525mm dia.	1998	1998/99	5841	5,152	2019/20	22

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
1020	Reinforced Concrete Pipe - 0525mm dia.	1998	1998/99	5841	5,152	2019/20	22
1020	Reinforced Concrete Pipe - 0525mm dia.	1998	1998/99	16549.5	5,152	2019/20	22
1019	Reinforced Concrete Pipe - 0675mm dia.	1998	1998/99	28036.8	5,152	2019/20	22
1019	Reinforced Concrete Pipe - 0675mm dia	1998	1998/99	32709.6	5,152	2019/20	22
1019	Reinforced Concrete Pipe - 0675mm dia	1998	1998/99	24532.2	5,152	2019/20	22
1019	Reinforced Concrete Pipe - 0675mm dia	1998	1998/99	11097.9	5,152	2019/20	22
1070	Reinforced Concrete Pipe – 0600mm dia	2001	2001/02	3753.75	5,152	2019/20	19
1070	Reinforced Concrete Pipe - 600mm dia	2001	2001/02	6971.25	5,152	2019/20	19
1070	Reinforced Concrete Pipe - 0675mm dia	2001	2001/02	16938.9	5,152	2019/20	19
1070	Reinforced Concrete Pipe - 0675mm dia	2001	2001/02	19859.4	5,152	2019/20	19
1070	Reinforced Concrete Pipe - 0675mm dia	2001	2001/02	32125.5	5,152	2019/20	19

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
1070	Reinforced Concrete Pipe - 0675mm dia	2001	2001/02	35046	5,152	2019/20	19
1070	Reinforced Concrete Pipe - 0675mm dia	2001	2001/02	35046	5,152	2019/20	19
1069	Reinforced Concrete Pipe - 0675mm dia	2001	2001/02	5256.9	5,152	2019/20	19
1110	Concrete Box Culvert - 2700X1200mm	2005	2005/06	77962.5	5,152	2019/20	15
G1	CDS	2003	2003/04	272250	5,152	2019/20	17
W1	Wetland/Detention	2003	2003/04	478500	5,152	2019/20	17
W9	WETLANDS	2004	2003/04	13200	5,152	2019/20	17
S4	SEDIMENT PONDS	2004	2003/04	3300	5,152	2019/20	17
G11	OSS POLLUTANT TR	2004	2003/04	49500	5,152	2019/20	17

MOSS VALE-WINGE- Existing Stormwater Assets included in DSP

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
<i>Pre 1996 Works</i>							
6839	Brick Lined Culvert - 1200X1200mm	1917	1995/96	48468.75	3,313	2019/20	25
6845	Concrete Box Culvert - 1500X1200mm	1917	1995/96	18892.5	3,313	2019/20	25
6847	Reinforced Concrete Pipe - 0750mm dia.	1917	1995/96	70017.75	3,313	2019/20	25
6846	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	16171.65	3,313	2019/20	25
6840	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	17151.75	3,313	2019/20	25
6841	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	8820.9	3,313	2019/20	25
6842	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	24502.5	3,313	2019/20	25
6843	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	10781.1	3,313	2019/20	25
6844	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	132313.5	3,313	2019/20	25
6837	Unlined Trapezoidal Open Channel 4-6m Base Width	1940	1995/96	54885.6	3,313	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
6838	Unlined Trapezoidal Open Channel 4-6m Base Width	1940	1995/96	19602	3,313	2019/20	25
6631	Unlined Trapezoidal Open Channel 2-4m Base Width	1950	1995/96	26433	3,313	2019/20	25
3804	Reinforced Concrete Pipe - 0900mm dia.	1962	1995/96	68244	3,313	2019/20	25
3802	Reinforced Concrete Pipe - 0900mm dia.	1962	1995/96	17061	3,313	2019/20	25
3803	Reinforced Concrete Pipe - 0900mm dia.	1962	1995/96	5118.3	3,313	2019/20	25
6462	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	9652.5	3,313	2019/20	25
6466	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	21450	3,313	2019/20	25
6468	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	8043.75	3,313	2019/20	25
6469	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	29493.75	3,313	2019/20	25
6428	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	4290	3,313	2019/20	25
6444	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	3217.5	3,313	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
6429	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	69712.5	3,313	2019/20	25
6430	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	72393.75	3,313	2019/20	25
6440	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	9652.5	3,313	2019/20	25
6439	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	42900	3,313	2019/20	25
6465	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	39146.25	3,313	2019/20	25
6464	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	48262.5	3,313	2019/20	25
6463	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	21450	3,313	2019/20	25
6467	Reinforced Concrete Pipe - 0750mm dia.	1963	1995/96	9132.75	3,313	2019/20	25
6471	Reinforced Concrete Pipe - 0750mm dia.	1963	1995/96	9132.75	3,313	2019/20	25
6427	Reinforced Concrete Pipe - 0900mm dia.	1963	1995/96	12795.75	3,313	2019/20	25
6433	Reinforced Concrete Pipe - 0900mm dia.	1963	1995/96	12795.75	3,313	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
6461	Unlined Trapezoidal Open Channel 6-10m Base Width	1963	1995/96	94050	3,313	2019/20	25
6876	Concrete Box Culvert - 0600X0300mm	1965	1995/96	8448	3,313	2019/20	25
6392	Reinforced Concrete Pipe - 0600mm dia.	1966	1995/96	18768.75	3,313	2019/20	25
6391	Reinforced Concrete Pipe - 0600mm dia.	1966	1995/96	9652.5	3,313	2019/20	25
6390	Reinforced Concrete Pipe - 0600mm dia.	1966	1995/96	13406.25	3,313	2019/20	25
6888	Concrete Box Culvert - 0900X0450mm	1975	1995/96	14249.4	3,313	2019/20	25
6848	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	6435	3,313	2019/20	25
6849	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	18768.75	3,313	2019/20	25
6850	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	15015	3,313	2019/20	25
6853	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	26812.5	3,313	2019/20	25
6862	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	6435	3,313	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
6863	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	18768.75	3,313	2019/20	25
3830	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	18265.5	3,313	2019/20	25
3834	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	9132.75	3,313	2019/20	25
3805	Reinforced Concrete Pipe - 0900mm dia.	1977	1995/96	8530.5	3,313	2019/20	25
3806	Reinforced Concrete Pipe - 0900mm dia.	1977	1995/96	17061	3,313	2019/20	25
3807	Reinforced Concrete Pipe - 0900mm dia.	1977	1995/96	12795.75	3,313	2019/20	25
3823	Reinforced Concrete Pipe - 0900mm dia.	1977	1995/96	38387.25	3,313	2019/20	25
3827	Reinforced Concrete Pipe - 0900mm dia.	1977	1995/96	9383.55	3,313	2019/20	25
3828	Reinforced Concrete Pipe - 0900mm dia.	1977	1995/96	63978.75	3,313	2019/20	25
3829	Reinforced Concrete Pipe - 0900mm dia.	1977	1995/96	10236.6	3,313	2019/20	25
6592	Reinforced Concrete Pipe - 0600mm dia.	1979	1995/96	6971.25	3,313	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
6593	Reinforced Concrete Pipe - 0600mm dia.	1979	1995/96	25203.75	3,313	2019/20	25
6696	Concrete Box Culvert - 2100X0900mm	1981	1995/96	31531.5	3,313	2019/20	25
6701	Reinforced Concrete Pipe - 0600mm dia.	1981	1995/96	16087.5	3,313	2019/20	25
6699	Reinforced Concrete Pipe - 0750mm dia.	1981	1995/96	3653.1	3,313	2019/20	25
6698	Reinforced Concrete Pipe - 0750mm dia.	1981	1995/96	73062	3,313	2019/20	25
6697	Reinforced Concrete Pipe - 0750mm dia.	1981	1995/96	12177	3,313	2019/20	25
6695	Reinforced Concrete Pipe - 0750mm dia.	1981	1995/96	4870.8	3,313	2019/20	25
6694	Reinforced Concrete Pipe - 0750mm dia.	1981	1995/96	54796.5	3,313	2019/20	25
6714	Reinforced Concrete Pipe - 0750mm dia.	1981	1995/96	54796.5	3,313	2019/20	25
6715	Reinforced Concrete Pipe - 0750mm dia.	1981	1995/96	12177	3,313	2019/20	25
6716	Reinforced Concrete Pipe - 0750mm dia.	1981	1995/96	73062	3,313	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
6717	Reinforced Concrete Pipe - 0750mm dia.	1981	1995/96	3653.1	3,313	2019/20	25
6315	Concrete Box Culvert - 0900X0300mm	1982	1995/96	11360.25	3,313	2019/20	25
6314	Concrete Box Culvert - 0900X0300mm	1982	1995/96	11360.25	3,313	2019/20	25
7039	Concrete Dish Drain - 1.0m Wide	1982	1995/96	22383.9	3,313	2019/20	25
6904	Reinforced Concrete Pipe - 0525mm dia.	1982	1995/96	38940	3,313	2019/20	25
6905	Reinforced Concrete Pipe - 0525mm dia.	1982	1995/96	6327.75	3,313	2019/20	25
6194	Reinforced Concrete Pipe - 0525mm dia.	1982	1995/96	7788	3,313	2019/20	25
6207	Reinforced Concrete Pipe - 0525mm dia.	1982	1995/96	7788	3,313	2019/20	25
7016	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	12870	3,313	2019/20	25
7017	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	34856.25	3,313	2019/20	25
7018	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	23058.75	3,313	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
7068	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	9652.5	3,313	2019/20	25
6244	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	5898.75	3,313	2019/20	25
6243	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	6435	3,313	2019/20	25
6242	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	5898.75	3,313	2019/20	25
6241	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	26812.5	3,313	2019/20	25
6240	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	13406.25	3,313	2019/20	25
6281	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	9116.25	3,313	2019/20	25
6195	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	19305	3,313	2019/20	25
6196	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	2681.25	3,313	2019/20	25
6197	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	11797.5	3,313	2019/20	25
6198	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	26812.5	3,313	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
6199	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	9116.25	3,313	2019/20	25
6200	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	16087.5	3,313	2019/20	25
6201	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	40218.75	3,313	2019/20	25
6213	Reinforced Concrete Pipe - 0900mm dia.	1982	1995/96	22179.3	3,313	2019/20	25
6192	Reinforced Concrete Pipe - 0900mm dia.	1982	1995/96	34122	3,313	2019/20	25
6193	Reinforced Concrete Pipe - 0900mm dia.	1982	1995/96	36681.15	3,313	2019/20	25
6214	Reinforced Concrete Pipe - 0900mm dia.	1982	1995/96	22179.3	3,313	2019/20	25
6191	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	21912	3,313	2019/20	25
6186	Reinforced Concrete Pipe - 1200mm dia.	1982	1995/96	90197.25	3,313	2019/20	25
6189	Reinforced Concrete Pipe - 1200mm dia.	1982	1995/96	59668.95	3,313	2019/20	25
6190	Reinforced Concrete Pipe - 1200mm dia.	1982	1995/96	201209.25	3,313	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
6188	Reinforced Concrete Pipe - 1200mm dia.	1982	1995/96	51343.05	3,313	2019/20	25
6187	Reinforced Concrete Pipe - 1200mm dia.	1982	1995/96	138765	3,313	2019/20	25
7261	Asbestos Cement Pipe - 600mm dia.	1983	1995/96	24131.25	3,313	2019/20	25
7262	Asbestos Cement Pipe - 600mm dia.	1983	1995/96	6435	3,313	2019/20	25
7263	Asbestos Cement Pipe - 600mm dia.	1983	1995/96	13942.5	3,313	2019/20	25
7260	Asbestos Cement Pipe - 600mm dia.	1983	1995/96	21450	3,313	2019/20	25
7259	Asbestos Cement Pipe - 600mm dia.	1983	1995/96	21450	3,313	2019/20	25
7258	Asbestos Cement Pipe - 600mm dia.	1983	1995/96	36465	3,313	2019/20	25
7257	Asbestos Cement Pipe - 600mm dia.	1983	1995/96	32175	3,313	2019/20	25
7267	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	12177	3,313	2019/20	25
7268	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	12177	3,313	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
7256	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	39575.25	3,313	2019/20	25
7255	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	6088.5	3,313	2019/20	25
1051	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	10350.45	3,313	2019/20	25
7250	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	12177	3,313	2019/20	25
6879	Reinforced Concrete Pipe - 0600mm dia.	1985	1995/96	9652.5	3,313	2019/20	25
6882	Reinforced Concrete Pipe - 0600mm dia.	1985	1995/96	9652.5	3,313	2019/20	25
6878	Unlined Trapezoidal Open Channel 4-6m Base Width	1985	1995/96	51455.25	3,313	2019/20	25
9819	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	6435	3,313	2019/20	25
4585	Reinforced Concrete Pipe - 0750mm dia.	1990	1995/96	3044.25	3,313	2019/20	25
4584	Unlined Trapezoidal Open Channel 4-6m Base Width	1990	1995/96	53905.5	3,313	2019/20	25
6884	Asbestos Cement Pipe - 600mm dia.	1991	1995/96	7507.5	3,313	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
6886	Asbestos Cement Pipe - 600mm dia.	1991	1995/96	7507.5	3,313	2019/20	25
7109	Concrete Box Culvert - 0900X0300mm	1991	1995/96	28779.3	3,313	2019/20	25
7107	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	21309.75	3,313	2019/20	25
7130	Reinforced Concrete Pipe - 0825mm dia.	1991	1995/96	25423.2	3,313	2019/20	25
7129	Reinforced Concrete Pipe - 0900mm dia.	1991	1995/96	11089.65	3,313	2019/20	25
7128	Reinforced Concrete Pipe - 1050mm dia.	1991	1995/96	21912	3,313	2019/20	25
7127	Reinforced Concrete Pipe - 1050mm dia.	1991	1995/96	17529.6	3,313	2019/20	25
7126	Reinforced Concrete Pipe - 1050mm dia.	1991	1995/96	54780	3,313	2019/20	25
7125	Reinforced Concrete Pipe - 1050mm dia.	1991	1995/96	161053.2	3,313	2019/20	25
Post 1996 Works							
1053	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	37537.5	3,313	2019/20	21

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
1053	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	26812.5	3,313	2019/20	21
1053	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	17696.25	3,313	2019/20	21
1052	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	71321.25	3,313	2019/20	21
1053	Reinforced Concrete Pipe - 0900mm dia.	1999	1999/00	74215.35	3,313	2019/20	21
1053	Reinforced Concrete Pipe - 1050mm dia.	1999	1999/00	39441.6	3,313	2019/20	21
1053	Reinforced Concrete Pipe - 1050mm dia.	1999	1999/00	10956	3,313	2019/20	21
1054	Reinforced Concrete Pipe - 1350mm dia.	1999	1999/00	37497.9	3,313	2019/20	21
1054	Reinforced Concrete Pipe - 1350mm dia.	1999	1999/00	37497.9	3,313	2019/20	21
1053	Unlined Trapezoidal Open Channel 20-25m Base Width	1999	1999/00	495618.75	3,313	2019/20	21
1053	Unlined Trapezoidal Open Channel 30-35m	1999	1999/00	423099.6	3,313	2019/20	21
1028	Reinforced Concrete Pipe - 0525mm dia.	1999	1999/00	15089.25	3,313	2019/20	21

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
1028	Reinforced Concrete Pipe - 0525mm dia	1999	1999/00	18983.25	3,313	2019/20	21
1028	Reinforced Concrete Pipe - 0600mm dia	1999	1999/00	6971.25	3,313	2019/20	21
1028	Reinforced Concrete Pipe - 0600mm dia	1999	1999/00	5898.75	3,313	2019/20	21
1028	Reinforced Concrete Pipe - 0600mm dia	1999	1999/00	7507.5	3,313	2019/20	21

BUNDANOON - Existing Stormwater Assets included in DSP

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
<i>Pre 1996 Works</i>							
7553	Reinforced Concrete Pipe - 0900mm dia.	1917	1995/96	17061	2,256	2019/20	25
7462	Reinforced Concrete Pipe - 1200mm dia.	1917	1995/96	11101.2	2,256	2019/20	25
7463	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	11748	2,256	2019/20	25
7554	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	20559	2,256	2019/20	25
7555	Reinforced Concrete Pipe - 0525mm dia.	1965	1995/96	7788	2,256	2019/20	25
7556	Reinforced Concrete Pipe - 0525mm dia.	1965	1995/96	10708.5	2,256	2019/20	25
7582	Reinforced Concrete Pipe - 0525mm dia.	1965	1995/96	8761.5	2,256	2019/20	25
7570	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	10725	2,256	2019/20	25
7572	Reinforced Concrete Pipe - 1200mm dia.	1965	1995/96	124888.5	2,256	2019/20	25
7459	Unlined Trapezoidal Open Channel 2-4m Base Width	1972	1995/96	35244	2,256	2019/20	25
7842	Reinforced Concrete Pipe - 0675mm dia.	1973	1995/96	29205	2,256	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
7839	Reinforced Concrete Pipe - 0750mm dia.	1973	1995/96	21309.75	2,256	2019/20	25
7840	Reinforced Concrete Pipe - 0750mm dia.	1973	1995/96	42619.5	2,256	2019/20	25
7841	Reinforced Concrete Pipe - 0750mm dia.	1973	1995/96	45663.75	2,256	2019/20	25
7837	Reinforced Concrete Pipe - 1200mm dia.	1973	1995/96	388542	2,256	2019/20	25
7935	Reinforced Concrete Pipe - 0525mm dia.	1974	1995/96	7301.25	2,256	2019/20	25
7950	Reinforced Concrete Pipe - 0525mm dia.	1974	1995/96	7301.25	2,256	2019/20	25
7940	Reinforced Concrete Pipe - 0600mm dia.	1974	1995/96	36465	2,256	2019/20	25
7938	Reinforced Concrete Pipe - 0675mm dia.	1974	1995/96	21611.7	2,256	2019/20	25
7939	Reinforced Concrete Pipe - 0675mm dia.	1974	1995/96	4672.8	2,256	2019/20	25
7936	Reinforced Concrete Pipe - 0750mm dia.	1974	1995/96	27398.25	2,256	2019/20	25
7937	Reinforced Concrete Pipe - 0750mm dia.	1974	1995/96	7306.2	2,256	2019/20	25
7953	Reinforced Concrete Pipe - 0825mm dia.	1974	1995/96	12711.6	2,256	2019/20	25
7954	Reinforced Concrete Pipe - 0825mm dia.	1974	1995/96	12711.6	2,256	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
7955	Reinforced Concrete Pipe - 0825mm dia.	1974	1995/96	12711.6	2,256	2019/20	25
7933	Unlined Trapezoidal Open Channel 10-15m Base Width	1974	1995/96	30607.5	2,256	2019/20	25
7934	Unlined Trapezoidal Open Channel 10-15m Base Width	1974	1995/96	91822.5	2,256	2019/20	25
7594	Reinforced Concrete Pipe - 0525mm dia.	1975	1995/96	9735	2,256	2019/20	25
7587	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	16087.5	2,256	2019/20	25
7477	Reinforced Concrete Pipe - 0525mm dia.	1982	1995/96	35046	2,256	2019/20	25
7478	Reinforced Concrete Pipe - 0525mm dia.	1982	1995/96	32125.5	2,256	2019/20	25
7479	Reinforced Concrete Pipe - 0525mm dia.	1982	1995/96	3894	2,256	2019/20	25
7480	Reinforced Concrete Pipe - 0525mm dia.	1982	1995/96	34072.5	2,256	2019/20	25
7450	Reinforced Concrete Pipe - 0750mm dia.	1982	1995/96	37748.7	2,256	2019/20	25
7451	Reinforced Concrete Pipe - 0750mm dia.	1982	1995/96	4261.95	2,256	2019/20	25
7452	Reinforced Concrete Pipe - 0750mm dia.	1982	1995/96	51143.4	2,256	2019/20	25
7453	Reinforced Concrete Pipe - 0750mm dia.	1982	1995/96	63320.4	2,256	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
7454	Reinforced Concrete Pipe - 0750mm dia.	1982	1995/96	85239	2,256	2019/20	25
7511	Reinforced Concrete Pipe - 0525mm dia.	1983	1995/96	2433.75	2,256	2019/20	25
7512	Reinforced Concrete Pipe - 0525mm dia.	1983	1995/96	10708.5	2,256	2019/20	25
7507	Reinforced Concrete Pipe - 0600mm dia.	1983	1995/96	25740	2,256	2019/20	25
7508	Reinforced Concrete Pipe - 0600mm dia.	1983	1995/96	5362.5	2,256	2019/20	25
7509	Reinforced Concrete Pipe - 0600mm dia.	1983	1995/96	10725	2,256	2019/20	25
7510	Reinforced Concrete Pipe - 0600mm dia.	1983	1995/96	12870	2,256	2019/20	25
7879	Reinforced Concrete Pipe - 0600mm dia.	1988	1995/96	13406.25	2,256	2019/20	25
7880	Reinforced Concrete Pipe - 0600mm dia.	1988	1995/96	8043.75	2,256	2019/20	25
7883	Reinforced Concrete Pipe - 0675mm dia.	1988	1995/96	17523	2,256	2019/20	25
7876	Reinforced Concrete Pipe - 0825mm dia.	1988	1995/96	35310	2,256	2019/20	25
7877	Reinforced Concrete Pipe - 0825mm dia.	1988	1995/96	22598.4	2,256	2019/20	25
7878	Reinforced Concrete Pipe - 0825mm dia.	1988	1995/96	35310	2,256	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
7831	Reinforced Concrete Pipe - 0900mm dia.	1988	1995/96	17061	2,256	2019/20	25
7855	Reinforced Concrete Pipe - 0900mm dia.	1988	1995/96	17061	2,256	2019/20	25
7874	Reinforced Concrete Pipe - 0900mm dia.	1988	1995/96	29856.75	2,256	2019/20	25
7829	Reinforced Concrete Pipe - 1050mm dia.	1988	1995/96	21912	2,256	2019/20	25
7854	Reinforced Concrete Pipe - 1050mm dia.	1988	1995/96	21912	2,256	2019/20	25
7830	Unlined Trapezoidal Open Channel 10-15m Base Width	1988	1995/96	336682.5	2,256	2019/20	25
7834	Unlined Trapezoidal Open Channel 10-15m Base Width	1988	1995/96	263224.5	2,256	2019/20	25
7545	Reinforced Concrete Pipe - 0525mm dia.	1989	1995/96	9735	2,256	2019/20	25
7546	Reinforced Concrete Pipe - 0525mm dia.	1989	1995/96	4867.5	2,256	2019/20	25
7455	Reinforced Concrete Pipe - 0900mm dia.	1989	1995/96	5971.35	2,256	2019/20	25
7713	Concrete Dish Drain - 2.0m Wide	1991	1995/96	35046	2,256	2019/20	25
7728	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	32175	2,256	2019/20	25
7729	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	5362.5	2,256	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
7751	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	4290	2,256	2019/20	25
7787	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	5362.5	2,256	2019/20	25
7726	Reinforced Concrete Pipe - 0675mm dia.	1991	1995/96	23364	2,256	2019/20	25
7727	Reinforced Concrete Pipe - 0675mm dia.	1991	1995/96	32125.5	2,256	2019/20	25
7748	Reinforced Concrete Pipe - 0675mm dia.	1991	1995/96	5841	2,256	2019/20	25
7741	Reinforced Concrete Pipe - 0675mm dia.	1991	1995/96	5841	2,256	2019/20	25
7718	Reinforced Concrete Pipe - 0900mm dia.	1991	1995/96	51183	2,256	2019/20	25
7719	Reinforced Concrete Pipe - 0900mm dia.	1991	1995/96	46917.75	2,256	2019/20	25
7720	Reinforced Concrete Pipe - 0900mm dia.	1991	1995/96	63978.75	2,256	2019/20	25
7721	Reinforced Concrete Pipe - 0900mm dia.	1991	1995/96	8530.5	2,256	2019/20	25
7714	Reinforced Concrete Pipe - 1350mm dia.	1991	1995/96	17044.5	2,256	2019/20	25
7715	Reinforced Concrete Pipe - 1350mm dia.	1991	1995/96	20453.4	2,256	2019/20	25
7716	Reinforced Concrete Pipe - 1350mm dia.	1991	1995/96	54542.4	2,256	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
7717	Reinforced Concrete Pipe - 1350mm dia.	1991	1995/96	25566.75	2,256	2019/20	25
7725	Unlined Trapezoidal Open Channel 6-10m Base Width	1991	1995/96	113643.75	2,256	2019/20	25
1151	Reinforced Concrete Pipe - 0525mm dia.	1995	1995/96	26284.5	2,256	2019/20	25
1151	Reinforced Concrete Pipe - 0525mm dia.	1995	1995/96	17523	2,256	2019/20	25
1151	Reinforced Concrete Pipe - 0525mm dia.	1995	1995/96	9735	2,256	2019/20	25
1151	Reinforced Concrete Pipe - 0600mm dia.	1995	1995/96	10725	2,256	2019/20	25
1151	Reinforced Concrete Pipe - 0600mm dia.	1995	1995/96	8043.75	2,256	2019/20	25
1151	Reinforced Concrete Pipe - 0750mm dia.	1995	1995/96	3044.25	2,256	2019/20	25
1151	Reinforced Concrete Pipe - 0750mm dia.	1995	1995/96	17047.8	2,256	2019/20	25
1151	Reinforced Concrete Pipe - 0750mm dia.	1995	1995/96	9741.6	2,256	2019/20	25
1150	Unlined Wide Flat Open Channel	1995	1995/96	10721.7	2,256	2019/20	25
7393	Reinforced Concrete Pipe - 0525mm dia.	1982	1995/96	6814.5	2,256	2019/20	25
7610	Reinforced Concrete Pipe - 0525mm dia.	1982	1995/96	14602.5	2,256	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
7611	Reinforced Concrete Pipe - 0525mm dia.	1982	1995/96	7788	2,256	2019/20	25
7348	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	2145	2,256	2019/20	25
7349	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	2145	2,256	2019/20	25
7350	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	2145	2,256	2019/20	25
7351	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	28957.5	2,256	2019/20	25
7352	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	45045	2,256	2019/20	25
7353	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	2681.25	2,256	2019/20	25
7354	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	2681.25	2,256	2019/20	25
7355	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	30030	2,256	2019/20	25
7345	Reinforced Concrete Pipe - 0750mm dia.	1982	1995/96	2435.4	2,256	2019/20	25
7346	Reinforced Concrete Pipe - 0750mm dia.	1982	1995/96	4261.95	2,256	2019/20	25
7347	Reinforced Concrete Pipe - 0750mm dia.	1982	1995/96	13394.7	2,256	2019/20	25
7606	Reinforced Concrete Pipe - 1200mm dia.	1982	1995/96	27753	2,256	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
7607	Unlined Trapezoidal Open Channel 2-4m Base Width	1982	1995/96	55803	2,256	2019/20	25
7608	Unlined Trapezoidal Open Channel 2-4m Base Width	1982	1995/96	45229.8	2,256	2019/20	25
7609	Unlined Trapezoidal Open Channel 2-4m Base Width	1982	1995/96	19971.6	2,256	2019/20	25
Post 1996 Works							
G13	GROSS POLLUTANT TRAPS	2001	2001/2002	41745	2,256	2019/20	19
G12	GROSS POLLUTANT TRAPS	2001	2001/2002	41745	2,256	2019/20	19

ROBERTSON - Existing Stormwater Assets included in DSP

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
<i>Pre 1996 Works</i>							
5696	Concrete Box Culvert - 0900X0550mm	1965	1995/96	21938.4	890	2019/20	25
5683	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	32175	890	2019/20	25
5684	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	10725	890	2019/20	25
5694	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	26812.5	890	2019/20	25
5676	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	4870.8	890	2019/20	25
5677	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	12785.85	890	2019/20	25
5652	Reinforced Concrete Pipe - 0825mm dia.	1965	1995/96	8474.4	890	2019/20	25
5673	Reinforced Concrete Pipe - 0825mm dia.	1965	1995/96	42372	890	2019/20	25
5674	Reinforced Concrete Pipe - 0825mm dia.	1965	1995/96	31779	890	2019/20	25
5675	Reinforced Concrete Pipe - 0825mm dia.	1965	1995/96	28248	890	2019/20	25
5671	Reinforced Concrete Pipe - 1050mm dia.	1965	1995/96	10956	890	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
5672	Reinforced Concrete Pipe - 1050mm dia.	1965	1995/96	32868	890	2019/20	25
5653	Unlined Trapezoidal Open Channel 2-4m Base Width	1965	1995/96	4111.8	890	2019/20	25
5646	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	18768.75	890	2019/20	25
5647	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	3217.5	890	2019/20	25
5659	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	3217.5	890	2019/20	25
5648	Unlined Trapezoidal Open Channel 4-6m Base Width	1972	1995/96	49005	890	2019/20	25
5649	Reinforced Concrete Pipe - 0825mm dia.	1979	1995/96	19067.4	890	2019/20	25
5650	Reinforced Concrete Pipe - 0825mm dia.	1979	1995/96	31779	890	2019/20	25
5651	Unlined Trapezoidal Open Channel 2-4m Base Width	1979	1995/96	26433	890	2019/20	25
5779	Reinforced Concrete Pipe - 0525mm dia.	1990	1995/96	12168.75	890	2019/20	25
5780	Reinforced Concrete Pipe - 0525mm dia.	1990	1995/96	18009.75	890	2019/20	25
5624	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	3753.75	890	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
5625	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	1608.75	890	2019/20	25
5626	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	3753.75	890	2019/20	25
5836	Unlined Trapezoidal Open Channel 15-20m Base Width	1990	1995/96	337401.9	890	2019/20	25
5654	Reinforced Concrete Pipe - 0750mm dia.	1992	1995/96	21918.6	890	2019/20	25
5754	Concrete Box Culvert - 0900X0450mm	1978	1995/96	15087.6	890	2019/20	25
5744	Reinforced Concrete Pipe - 0525mm dia.	1978	1995/96	973.5	890	2019/20	25
5755	Reinforced Concrete Pipe - 0525mm dia.	1978	1995/96	973.5	890	2019/20	25
5748	Reinforced Concrete Pipe - 0525mm dia.	1978	1995/96	10708.5	890	2019/20	25
5749	Reinforced Concrete Pipe - 0525mm dia.	1978	1995/96	24337.5	890	2019/20	25
5746	Reinforced Concrete Pipe - 0600mm dia.	1978	1995/96	6971.25	890	2019/20	25
5747	Reinforced Concrete Pipe - 0600mm dia.	1978	1995/96	12870	890	2019/20	25
5745	Reinforced Concrete Pipe - 0675mm dia.	1978	1995/96	11682	890	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
Post 1996 Works							
1000	Reinforced Concrete Pipe - 0525mm dia	1997	1997/98	5354.25	890	2019/20	23
1002	Reinforced Concrete Pipe - 0525mm dia.	1997	1997/98	17523	890	2019/20	23
1002	Reinforced Concrete Pipe - 0600mm dia	1997	1997/98	17160	890	2019/20	23
1002	Reinforced Concrete Pipe - 0675mm dia.	1997	1997/98	17523	890	2019/20	23
1002	Reinforced Concrete Pipe - 0675mm dia.	1997	1997/98	18691.2	890	2019/20	23
1001	Reinforced Concrete Pipe - 0750mm dia.	1997	1997/98	14612.4	890	2019/20	23
1001	Reinforced Concrete Pipe - 0900mm dia.	1997	1997/98	17914.05	890	2019/20	23
1001	525mm Dia. RCP	1999	1999/00	2433.75	890	2019/20	21

MOSSVALE-WHITES- Existing Stormwater Assets included in DSP

TAM Records	Components	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
<i>Pre 1996 Works</i>							
5212	Concrete Box Culvert 2100X1200mm	1917	1995/96	52,978	4,569	2019/20	25
4521	Reinforced Concrete Pipe - 0525mm dia.	1917	1995/96	9,735	4,569	2019/20	25
5220	Reinforced Concrete Pipe - 0900mm dia.	1917	1995/96	9,384	4,569	2019/20	25
3994	Reinforced Concrete Pipe - 0600mm dia.	1957	1995/96	14,479	4,569	2019/20	25
3995	Reinforced Concrete Pipe - 0600mm dia.	1957	1995/96	17,160	4,569	2019/20	25
3996	Reinforced Concrete Pipe - 0600mm dia.	1957	1995/96	30,030	4,569	2019/20	25
3997	Reinforced Concrete Pipe - 0600mm dia.	1957	1995/96	26,813	4,569	2019/20	25
3998	Reinforced Concrete Pipe - 0600mm dia.	1957	1995/96	9,116	4,569	2019/20	25
3999	Reinforced Concrete Pipe - 0600mm dia.	1957	1995/96	15,015	4,569	2019/20	25
3801	Unlined Trapezoidal Open Channel 2-4m Base Width	1962	1995/96	57,272	4,569	2019/20	25
6389	Reinforced Concrete Pipe - 0600mm dia.	1966	1995/96	13,406	4,569	2019/20	25

TAM Records	Components	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
6353	Reinforced Concrete Pipe - 0600mm dia.	1966	1995/96	21,450	4,569	2019/20	25
6354	Reinforced Concrete Pipe - 0600mm dia.	1966	1995/96	6,435	4,569	2019/20	25
4163	Asbestos Cement Pipe - 525mm dia.	1977	1995/96	4,868	4,569	2019/20	25
4164	Asbestos Cement Pipe - 525mm dia.	1977	1995/96	8,275	4,569	2019/20	25
4294	Concrete Box Culvert 1000X0300mm	1977	1995/96	98,456	4,569	2019/20	25
3935	Concrete Box Culvert 1900X0600mm	1977	1995/96	39,072	4,569	2019/20	25
4076	Reinforced Concrete Pipe - 0525mm dia.	1977	1995/96	17,036	4,569	2019/20	25
4077	Reinforced Concrete Pipe - 0525mm dia.	1977	1995/96	7,301	4,569	2019/20	25
4337	Reinforced Concrete Pipe - 0525mm dia.	1977	1995/96	14,603	4,569	2019/20	25
4301	Reinforced Concrete Pipe - 0525mm dia.	1977	1995/96	26,771	4,569	2019/20	25
4338	Reinforced Concrete Pipe - 0525mm dia.	1977	1995/96	24,338	4,569	2019/20	25
4074	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	8,044	4,569	2019/20	25
4075	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	16,088	4,569	2019/20	25

TAM Records	Components	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
4190	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	24,131	4,569	2019/20	25
4191	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	8,044	4,569	2019/20	25
4192	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	24,131	4,569	2019/20	25
4193	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	26,813	4,569	2019/20	25
4194	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	32,175	4,569	2019/20	25
3938	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	21,450	4,569	2019/20	25
4355	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	10,725	4,569	2019/20	25
4333	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	8,044	4,569	2019/20	25
4334	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	8,044	4,569	2019/20	25
4335	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	6,435	4,569	2019/20	25
4336	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	56,306	4,569	2019/20	25
4344	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	8,044	4,569	2019/20	25
4373	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	2,681	4,569	2019/20	25

TAM Records	Components	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
3939	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	32,175	4,569	2019/20	25
3940	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	8,044	4,569	2019/20	25
3941	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	5,363	4,569	2019/20	25
3942	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	8,044	4,569	2019/20	25
3943	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	21,450	4,569	2019/20	25
3944	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	8,044	4,569	2019/20	25
3945	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	18,769	4,569	2019/20	25
3946	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	5,363	4,569	2019/20	25
3947	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	6,435	4,569	2019/20	25
3932	Reinforced Concrete Pipe - 0675mm dia.	1977	1995/96	29,205	4,569	2019/20	25
4068	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	3,044	4,569	2019/20	25
4069	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	27,398	4,569	2019/20	25
4070	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	39,575	4,569	2019/20	25

TAM Records	Components	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
4071	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	12,177	4,569	2019/20	25
4072	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	9,133	4,569	2019/20	25
4073	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	4,871	4,569	2019/20	25
4329	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	45,664	4,569	2019/20	25
4330	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	9,133	4,569	2019/20	25
4332	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	48,708	4,569	2019/20	25
4354	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	9,133	4,569	2019/20	25
3961	Reinforced Concrete Pipe - 0900mm dia.	1977	1995/96	63,979	4,569	2019/20	25
3937	Reinforced Concrete Pipe - 0900mm dia.	1977	1995/96	63,979	4,569	2019/20	25
3954	Reinforced Concrete Pipe - 1200mm dia.	1977	1995/96	76,321	4,569	2019/20	25
3926	Reinforced Concrete Pipe - 1200mm dia.	1977	1995/96	34,691	4,569	2019/20	25
3917	Reinforced Concrete Pipe - 1200mm dia.	1977	1995/96	34,691	4,569	2019/20	25
3951	Reinforced Concrete Pipe - 1200mm dia.	1977	1995/96	34,691	4,569	2019/20	25

TAM Records	Components	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
3955	Reinforced Concrete Pipe - 1200mm dia.	1977	1995/96	76,321	4,569	2019/20	25
3957	Reinforced Concrete Pipe - 1200mm dia.	1977	1995/96	34,691	4,569	2019/20	25
3958	Reinforced Concrete Pipe - 1200mm dia.	1977	1995/96	69,383	4,569	2019/20	25
3959	Reinforced Concrete Pipe - 1200mm dia.	1977	1995/96	27,753	4,569	2019/20	25
3930	Reinforced Concrete Pipe - 1200mm dia.	1977	1995/96	69,383	4,569	2019/20	25
3931	Reinforced Concrete Pipe - 1200mm dia.	1977	1995/96	27,753	4,569	2019/20	25
3916	Unlined Trapezoidal Open Channel 4-6m Base Width	1977	1995/96	63,707	4,569	2019/20	25
6960	Reinforced Concrete Pipe - 0600mm dia.	1979	1995/96	6,435	4,569	2019/20	25
6961	Reinforced Concrete Pipe - 0600mm dia.	1979	1995/96	85,800	4,569	2019/20	25
6962	Reinforced Concrete Pipe - 0600mm dia.	1979	1995/96	13,406	4,569	2019/20	25
6963	Reinforced Concrete Pipe - 0600mm dia.	1979	1995/96	48,263	4,569	2019/20	25
6964	Reinforced Concrete Pipe - 0600mm dia.	1979	1995/96	4,290	4,569	2019/20	25
6976	Reinforced Concrete Pipe - 0600mm dia.	1979	1995/96	37,538	4,569	2019/20	25

TAM Records	Components	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
6977	Reinforced Concrete Pipe - 0600mm dia.	1979	1995/96	29,494	4,569	2019/20	25
6544	Reinforced Concrete Pipe - 0750mm dia.	1979	1995/96	56,014	4,569	2019/20	25
4141	Reinforced Concrete Pipe - 0525mm dia.	1980	1995/96	31,639	4,569	2019/20	25
4142	Reinforced Concrete Pipe - 0525mm dia.	1980	1995/96	21,904	4,569	2019/20	25
4265	Reinforced Concrete Pipe - 0525mm dia.	1980	1995/96	60,844	4,569	2019/20	25
4243	Reinforced Concrete Pipe - 0600mm dia.	1980	1995/96	8,044	4,569	2019/20	25
4245	Reinforced Concrete Pipe - 0600mm dia.	1980	1995/96	18,769	4,569	2019/20	25
4246	Reinforced Concrete Pipe - 0600mm dia.	1980	1995/96	8,044	4,569	2019/20	25
4241	Reinforced Concrete Pipe - 0750mm dia.	1980	1995/96	12,177	4,569	2019/20	25
4242	Reinforced Concrete Pipe - 0750mm dia.	1980	1995/96	57,841	4,569	2019/20	25
4239	Reinforced Concrete Pipe - 0825mm dia.	1980	1995/96	7,062	4,569	2019/20	25
4240	Reinforced Concrete Pipe - 0825mm dia.	1980	1995/96	35,310	4,569	2019/20	25
5278	Asbestos Cement Pipe - 675mm dia.	1981	1995/96	52,569	4,569	2019/20	25

TAM Records	Components	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
5256	Concrete Box Culvert 1250X0900mm	1981	1995/96	45,646	4,569	2019/20	25
5263	Concrete Box Culvert 1800X0900mm	1981	1995/96	17,597	4,569	2019/20	25
5264	Concrete Box Culvert 1800X0900mm	1981	1995/96	13,687	4,569	2019/20	25
5282	Reinforced Concrete Pipe - 0525mm dia.	1981	1995/96	32,126	4,569	2019/20	25
5283	Reinforced Concrete Pipe - 0525mm dia.	1981	1995/96	11,682	4,569	2019/20	25
5280	Reinforced Concrete Pipe - 0600mm dia.	1981	1995/96	26,813	4,569	2019/20	25
5281	Reinforced Concrete Pipe - 0600mm dia.	1981	1995/96	23,059	4,569	2019/20	25
5277	Reinforced Concrete Pipe - 0750mm dia.	1981	1995/96	21,310	4,569	2019/20	25
5276	Reinforced Concrete Pipe - 1050mm dia.	1981	1995/96	230,076	4,569	2019/20	25
5265	Reinforced Concrete Pipe - 1350mm dia.	1981	1995/96	213,056	4,569	2019/20	25
5266	Reinforced Concrete Pipe - 1350mm dia.	1981	1995/96	57,951	4,569	2019/20	25
5235	Reinforced Concrete Pipe - 0600mm dia.	1981	1995/96	29,494	4,569	2019/20	25
6545	Concrete Box Culvert 0900X0300mm	1982	1995/96	11,360	4,569	2019/20	25

TAM Records	Components	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
6552	Concrete Box Culvert 0900X0300mm	1982	1995/96	11,360	4,569	2019/20	25
4522	Reinforced Concrete Pipe - 0525mm dia.	1982	1995/96	12,169	4,569	2019/20	25
6546	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	26,813	4,569	2019/20	25
6547	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	30,030	4,569	2019/20	25
6548	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	25,740	4,569	2019/20	25
6549	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	9,653	4,569	2019/20	25
5221	Reinforced Concrete Pipe - 0900mm dia.	1982	1995/96	12,796	4,569	2019/20	25
5222	Reinforced Concrete Pipe - 0900mm dia.	1982	1995/96	29,857	4,569	2019/20	25
5223	Reinforced Concrete Pipe - 0900mm dia.	1982	1995/96	11,090	4,569	2019/20	25
5386	Reinforced Concrete Pipe - 0525mm dia.	1985	1995/96	7,788	4,569	2019/20	25
5387	Reinforced Concrete Pipe - 0525mm dia.	1985	1995/96	19,470	4,569	2019/20	25
4543	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	4,826	4,569	2019/20	25
4544	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	19,305	4,569	2019/20	25

TAM Records	Components	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
4545	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	24,131	4,569	2019/20	25
4546	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	16,088	4,569	2019/20	25
4547	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	10,725	4,569	2019/20	25
4548	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	2,681	4,569	2019/20	25
4549	Reinforced Concrete Pipe - 0600mm dia	1987	1995/96	27,885	4,569	2019/20	25
4550	Reinforced Concrete Pipe - 0600mm dia	1987	1995/96	24,131	4,569	2019/20	25
4541	Reinforced Concrete Pipe - 0675mm dia	1987	1995/96	47,896	4,569	2019/20	25
4542	Reinforced Concrete Pipe - 0675mm dia.	1987	1995/96	10,514	4,569	2019/20	25
3927	Reinforced Concrete Pipe - 0825mm dia.	1992	1995/96	38,841	4,569	2019/20	25
3928	Reinforced Concrete Pipe - 0825mm dia.	1992	1995/96	21,186	4,569	2019/20	25
6561	Concrete Box Culvert 0600X0450mm	1994	1995/96	7,722	4,569	2019/20	25
6553	Reinforced Concrete Pipe - 0600mm dia.	1994	1995/96	8,580	4,569	2019/20	25
6554	Reinforced Concrete Pipe - 0600mm dia.	1994	1995/96	61,669	4,569	2019/20	25

TAM Records	Components	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
6555	Reinforced Concrete Pipe - 0600mm dia.	1994	1995/96	24,131	4,569	2019/20	25
6556	Reinforced Concrete Pipe - 0600mm dia.	1994	1995/96	34,856	4,569	2019/20	25
6557	Reinforced Concrete Pipe - 0600mm dia.	1994	1995/96	14,479	4,569	2019/20	25
6558	Reinforced Concrete Pipe - 0600mm dia.	1994	1995/96	24,131	4,569	2019/20	25
6560	Concrete Box Culvert 0600X0450mm	1994	1995/96	10,098	4,569	2019/20	25
6543	Reinforced Concrete Pipe - 0600mm dia.	1994	1995/96	5,363	4,569	2019/20	25
6551	Reinforced Concrete Pipe - 0600mm dia.	1994	1995/96	5,363	4,569	2019/20	25
Post 1996 Works							
1108	Reinforced Concrete Pipe - 0675mm dia	1999	1999/00	29,205	4,569	2019/20	21
1106	Reinforced Concrete Pipe - 0750mm dia	1999	1999/00	8,524	4,569	2019/20	21
1107	Reinforced Concrete Pipe - 0750mm dia.	1999	1999/00	5,480	4,569	2019/20	21
1107	Reinforced Concrete Pipe - 0750mm dia	1999	1999/00	37,749	4,569	2019/20	21
1107	Reinforced Concrete Pipe - 0750mm dia.	1999	1999/00	3,044	4,569	2019/20	21

TAM Records	Components	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
1108	Reinforced Concrete Pipe - 0750mm dia	1999	1999/00	14,004	4,569	2019/20	21
1104	Reinforced Concrete Pipe - 0750mm dia	1999	1999/00	39,575	4,569	2019/20	21
1104	Reinforced Concrete Pipe - 0750mm dia	1999	1999/00	609	4,569	2019/20	21
1104	Unlined Trapezoidal Open Channel 2-4m Base Width	1999	1999/00	16,154	4,569	2019/20	21
1104	Reinforced Concrete Pipe - 0600mm dia	2006	2006/07	28,958	4,569	2019/20	14
1104	Reinforced Concrete Pipe - 0600mm dia.	2006	2006/07	15,551	4,569	2019/20	14
1104	Reinforced Concrete Pipe - 0600mm dia.	2006	2006/07	23,059	4,569	2019/20	14
1104	Reinforced Concrete Pipe - 0750mm dia	2006	2006/07	9,133	4,569	2019/20	14
1104	Unlined Trapezoidal Open Channel 2-4m Base Width	2006	2006/07	4,406	4,569	2019/20	14
1104	Unlined Trapezoidal Open Channel 2-4m Base Width	2006	2006/07	15,860	4,569	2019/20	14
1104	Unlined Trapezoidal Open Channel 2-4m Base Width	2006	2006/07	8,517	4,569	2019/20	14
1105	Unlined Trapezoidal Open Channel 2-4m Base Width	2006	2006/07	12,629	4,569	2019/20	14

BERRIMA - Existing Stormwater Assets included in DSP

TAM RECORDS	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
Pre 1996 Works							
5560	Reinforced Concrete Pipe - 0600mm dia.	1994	1995/96	101887.5	838	2019/20	25
5543	Reinforced Concrete Pipe - 0600mm dia.	1988	1995/96	18768.75	838	2019/20	25
5541	Reinforced Concrete Pipe - 0600mm dia.	1988	1995/96	152831.25	838	2019/20	25
5542	Reinforced Concrete Pipe - 0600mm dia.	1988	1995/97	153301.5	838	2019/21	25
5578	Reinforced Concrete Pipe - 0600mm dia.	1958	1995/98	153771.75	838	2019/22	25
5585	Reinforced Concrete Pipe - 0600mm dia.	1958	1995/99	154242	838	2019/23	25
5577	Unlined Trapezoidal Open Channel 2-4m Base Width	1958	1995/96	5874	838	2019/20	25
Post 1996 Works							
N/A			1999/00	0	838	2019/20	21

MVEC - Existing Stormwater Assets included in DSP

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
<i>Pre 1996 Works</i>							
N/A			1995/96	0	11,216	2030/31	36
<i>Post 1996 Works</i>							
N/A			1999/00	0	11,216	2030/31	32

COLOVALE - Existing Stormwater Assets included in DSP

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken Up	Take-up Period (Years)
<i>Pre 1996 Works</i>							
4836	Concrete Box Culvert - 0600X0300mm	1965	1995/96	5280	799	2019/20	25
4901	Concrete Box Culvert - 1500X1200mm	1990	1995/96	56677.5	799	2019/20	25
4905	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	5362.5	799	2019/20	25
4906	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	13406.25	799	2019/20	25
4907	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	7507.5	799	2019/20	25
4908	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	5362.5	799	2019/20	25
4909	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	17160	799	2019/20	25
4910	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	27885	799	2019/20	25
4911	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	6435	799	2019/20	25
4912	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	25740	799	2019/20	25
4913	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	55770	799	2019/20	25
4914	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	26812.5	799	2019/20	25
4915	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	21450	799	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken Up	Take-up Period (Years)
4916	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	6435	799	2019/20	25
4923	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	6435	799	2019/20	25
4903	Reinforced Concrete Pipe - 0900mm dia.	1990	1995/96	9383.55	799	2019/20	25
4917	Reinforced Concrete Pipe - 0900mm dia.	1990	1995/96	9383.55	799	2019/20	25
4918	Reinforced Concrete Pipe - 0900mm dia.	1990	1995/96	9383.55	799	2019/20	25
4902	Unlined Trapezoidal Open Channel 2-4m Base Width	1990	1995/96	15859.8	799	2019/20	25
4858	Concrete Box Culvert - 0900X0600mm	1994	1995/96	5484.6	799	2019/20	25
4944	Reinforced Concrete Pipe - 0600mm dia.	1986	1995/96	35928.75	799	2019/20	25
4951	Reinforced Concrete Pipe - 0600mm dia.	1986	1995/96	6971.25	799	2019/20	25
4859	Concrete Box Culvert - 0900X0600mm	1994	1995/96	9141	799	2019/20	25
Post 1996 Works							
44 Wattle St, Colovale	Drainage repair,	2010	2010/11	132000	799	2019/20	10

NORTHERN GATEWAY - Existing Stormwater Assets included in DSP

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
<i>Pre 1996 Works</i>							
8615	Concrete Box Culvert - 0750X0300mm	1965	1995/96	8322.6	3,880	2019/20	25
8617	Concrete Box Culvert - 0750X0300mm	1965	1995/96	8962.8	3,880	2019/20	25
8593	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	7915.05	3,880	2019/20	25
8594	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	28007.1	3,880	2019/20	25
8595	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	7915.05	3,880	2019/20	25
8596	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	31660.2	3,880	2019/20	25
8877	Reinforced Concrete Pipe - 0750mm dia.	1971	1995/96	10959.3	3,880	2019/20	25
8878	Reinforced Concrete Pipe - 0750mm dia.	1971	1995/96	2435.4	3,880	2019/20	25
8879	Reinforced Concrete Pipe - 0750mm dia.	1971	1995/96	21309.75	3,880	2019/20	25
8880	Reinforced Concrete Pipe - 0750mm dia.	1971	1995/96	41401.8	3,880	2019/20	25
8881	Reinforced Concrete Pipe - 0750mm dia.	1971	1995/96	24354	3,880	2019/20	25
9154	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	3753.75	3,880	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
9155	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	5362.5	3,880	2019/20	25
9156	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	28421.25	3,880	2019/20	25
9157	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	5362.5	3,880	2019/20	25
9158	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	4290	3,880	2019/20	25
9152	Reinforced Concrete Pipe - 0750mm dia.	1972	1995/96	48708	3,880	2019/20	25
9153	Reinforced Concrete Pipe - 0750mm dia.	1972	1995/96	48708	3,880	2019/20	25
9159	Reinforced Concrete Pipe - 0750mm dia.	1972	1995/96	26789.4	3,880	2019/20	25
9151	Reinforced Concrete Pipe - 0900mm dia.	1972	1995/96	11089.65	3,880	2019/20	25
9132	Reinforced Concrete Pipe - 0600mm dia.	1984	1995/96	6435	3,880	2019/20	25
9137	Reinforced Concrete Pipe - 0600mm dia.	1984	1995/96	6435	3,880	2019/20	25
9124	Reinforced Concrete Pipe - 0600mm dia.	1984	1995/96	53625	3,880	2019/20	25
9074	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	6435	3,880	2019/20	25
9115	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	6971.25	3,880	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
9116	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	29493.75	3,880	2019/20	25
9127	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	6971.25	3,880	2019/20	25
9117	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	28421.25	3,880	2019/20	25
9140	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	15015	3,880	2019/20	25
9944	Concrete Dish Drain - 1.0m Wide	1991	1995/96	32917.5	3,880	2019/20	25
9949	Concrete Dish Drain - 1.0m Wide	1991	1995/96	15361.5	3,880	2019/20	25
9943	Concrete Dish Drain - 2.0m Wide	1991	1995/96	49843.2	3,880	2019/20	25
9954	Reinforced Concrete Pipe - 0525mm dia.	1991	1995/96	19470	3,880	2019/20	25
9942	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	6971.25	3,880	2019/20	25
9953	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	21986.25	3,880	2019/20	25
9941	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	4870.8	3,880	2019/20	25
9945	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	4870.8	3,880	2019/20	25
9938	Unlined Trapezoidal Open Channel 4-6m Base Width	1991	1995/96	27932.85	3,880	2019/20	25

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI¹	Capital Cost (2010/11\$) (\$)	Capacity² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
9939	Unlined Trapezoidal Open Channel 4-6m Base Width	1991	1995/96	62726.4	3,880	2019/20	25
9940	Unlined Trapezoidal Open Channel 4-6m Base Width	1991	1995/96	73507.5	3,880	2019/20	25
9948	Unlined Trapezoidal Open Channel 4-6m Base Width	1991	1995/96	34303.5	3,880	2019/20	25
9065	Reinforced Concrete Pipe - 0750mm dia.	1994	1995/96	47490.3	3,880	2019/20	25
9066	Reinforced Concrete Pipe - 0750mm dia.	1994	1995/96	7915.05	3,880	2019/20	25
9067	Reinforced Concrete Pipe - 0750mm dia.	1994	1995/96	48708	3,880	2019/20	25
9068	Reinforced Concrete Pipe - 0750mm dia.	1994	1995/96	14003.55	3,880	2019/20	25
Post 1996 Works							
N/A			1999/00	0	3,880	2019/20	21

BURRAWANG - Existing Stormwater Assets included in DSP

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
<i>Pre 1996 Works</i>							
N/A			1995/96	0	208	2019/20	25
<i>Post 1996 Works</i>							
1070	Concrete Box Culvert - 1200X0600mm	2001	1999/00	8646	208	2019/20	21
1071	Concrete Box Culvert - 1200X0600mm	2001	1999/00	8646	208	2019/20	21

HILLTOP - Existing Stormwater Assets included in DSP

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Year when Capacity is Taken-Up	Take-up Period (Years)
<i>Pre 1996 Works</i>							
5175	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	24648.8	2,890	2019/20	25
5169	Reinforced Concrete Pipe - 1500mm dia.	1917	1995/96	300192.0	2,890	2019/20	25
5170	Reinforced Concrete Pipe - 1500mm dia.	1917	1995/96	41405.8	2,890	2019/20	25
5171	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	5358.4	2,890	2019/20	25
5172	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	32150.7	2,890	2019/20	25
5173	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	17147.0	2,890	2019/20	25
5161	Reinforced Concrete Pipe - 0900mm dia.	1917	1995/96	11934.7	2,890	2019/20	25
5163	Reinforced Concrete Pipe - 0750mm dia.	1917	1995/96	10960.5	2,890	2019/20	25
5162	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	5873.8	2,890	2019/20	25

APPENDIX D

Schedule 4, Level of Service

MINOR SYSTEM DRAINAGE

Land use	Unit	Existing level of Service	Target
<i>Minor System Drainage</i>			
Road Drainage			
Residential Areas	ARI	Varies	5
Commercial & Industrial Areas	ARI	Varies	10
Road Crossings			
To meet the total requirement of 100 year ARI with $VxD < 0.4$. Minimum Requirement for culvert crossing	ARI	Varies	5
Site Drainage			
Standard Residential Dwelling	ARI	Varies	5
Standard Residential Units	ARI	Varies	5
Commercial/ Industrial Land Use	ARI	Varies	10
Institutional or Important Site (Hospitals, Town Hall, Schools, etc)	ARI	Varies	10
<i>Major System Drainage</i>	ARI	Varies	100
<i>Water Quality</i>			
Comply with Regional Environmental Plan No. 1 where required.	NorBE	Varies	Meet or exceed pre development water quality

APPENDIX E
Schedule 5, Capital Works
Program.

EXETER

Capital Works Program 2010/2011

Stormwater Business

Object ID	Project	Type of works			Priority	Project total	Years					
		Improved LOS	Growth Works	Asset Renewals			2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
						\$0	\$0	\$0	\$0	\$0	\$0	
						\$0	\$0	\$0	\$0	\$0	\$0	
EXETER total						\$0	\$0	\$0	\$0	\$0	\$0	
				Financial model	Improved LOS	\$0	\$0	\$0	\$0	\$0	\$0	
					Growth works	\$0	\$0	\$0	\$0	\$0	\$0	
					Asset renewals	\$0	\$0	\$0	\$0	\$0	\$0	
					Total	\$0	\$0	\$0	\$0	\$0	\$0	
						2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	

**BOWRAL
Capital Works Program
Stormwater Business**

Object ID	Project	Type of works			Priority	Project total	Years					
		Improved LOS	Growth Works	Asset Renewals			2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
127	Romney Place to Railway	70%	30%		5	15000	\$0	\$0	\$0	\$0	\$15,000	\$0
128	Sunninghill Avenue (Lot 13 Burradoo Estates)	50%	50%		1	100000	\$100,000	\$0	\$0	\$0	\$0	\$0
128	Burradoo Park to Osborne Road	100%			2	40000	\$0	\$40,000	\$0	\$0	\$0	\$0
128	Osborne Road (Moss Vale Rd to Eridge Park Rd)	70%	30%		2	400000	\$0	\$400,000	\$0	\$0	\$0	\$0
128	Osborne Road (Intersection Rangelagh & Osborne Rds)	100%			3	50000	\$0	\$0	\$50,000	\$0	\$0	\$0
128	Railway Parade/Hudson Street	100%			4	45000	\$0	\$0	\$0	\$45,000	\$0	\$0
131	Elizabeth Street	100%			4	800000	\$0	\$0	\$0	\$800,000	\$0	\$0
186	Station Street (Old Dairy Co-op)	100%			2	65000	\$0	\$65,000	\$0	\$0	\$0	\$0
186	Wattle Lane, Boolwey to carpark	100%			3	60000	\$0	\$0	\$60,000	\$0	\$0	\$0
189	Mittagong Rivulet - Kirkham Road to Mount Rd	70%	30%		2	160000	\$0	\$160,000	\$0	\$0	\$0	\$0
192	Lamond Lane	100%			3	50000	\$0	\$0	\$50,000	\$0	\$0	\$0
203	Hamilton Avenue/Banksia Street	100%			1	100000	\$100,000	\$0	\$0	\$0	\$0	\$0
206	Merrigang Street	100%			3	40000	\$0	\$0	\$40,000	\$0	\$0	\$0
208	Shepherd Street	100%			3	110000	\$0	\$0	\$110,000	\$0	\$0	\$0
212	Bowral Street from Sheffield St to Rivulet	100%			2	700000	\$0	\$700,000	\$0	\$0	\$0	\$0
230	Mount Road	60%	40%		2	160000	\$0	\$160,000	\$0	\$0	\$0	\$0
231	"The Majors" and Bowral Golf Course	30%	70%		3	150000	\$0	\$0	\$150,000	\$0	\$0	\$0
232	Kangaloon Road - GPT - Catchment EB3 - Downstream e	50%	50%		6	50000	\$0	\$0	\$0	\$0	\$0	\$50,000
	Improve public awareness	100%			1	\$1,000	\$1,000					
	Browal floodsafe brochures and website	100%			1	\$6,000	\$6,000					
	Manage riparian corridor removal of material from channel - creek maintenance program, riparian corridor management plan	100%			1	\$60,000	\$60,000					
	Voluntary house raising/reconstruction scoping study	100%			1	\$20,000	\$20,000					
	Bowral golf course detention basin design scoping study	50%	50%		1	\$20,000	\$20,000					

Object ID	Project	Type of works			Priority	Project total	Years						
		Improved LOS	Growth Works	Asset Renewals			2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	
	Install flood marker and awareness sign	100%			1	\$5,000	\$5,000						
	Raise houses - 7 weatherboard and 7 brick houses	100%			2	\$910,000		\$910,000					
	Modify bridges and culverts: remove Victoria Street Bridge , Amplify railway culvert north of Nerang Street	100%			2	\$80,000		\$80,000					
	Retford park detention basin construction	100%			2	\$4,700,000		\$4,700,000					
	Bowral Golf Course detention basin construction	50%	50%		2	\$810,000		\$810,000					
	Farmborough Close levee scoping study	100%			1	\$20,000	\$20,000						
	Burradoo floodplain risk management	100%			1	\$180,000	\$180,000						
	Flood proofing guidelines	100%			3	\$5,000			\$5,000				
	Install Rain gauges	100%			2	\$6,000		\$6,000					
Bowral total						\$9,918,000	\$512,000	\$8,031,000	\$465,000	\$845,000	\$15,000	\$50,000	
				Financial model	Improved LOS	\$452,000	\$7,394,000	\$360,000	\$845,000	\$10,500	\$25,000		
					Growth works	\$60,000	\$637,000	\$105,000	\$0	\$4,500	\$25,000		
					Asset renewals								
					Total	\$0	\$0	\$0	\$0	\$0	\$0		
						\$512,000	\$8,031,000	\$465,000	\$845,000	\$15,000	\$50,000		
						2010/11	2011/12	2012/13	2013/14	2014/15	2015/16		

MITTAGONG
Capital Works Program 2010/2011
Stormwater Business

Object ID	Project	Type of works			Priority	Project total	Years					
		Improved LOS	Growth Works	Asset Renewals			2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
89	Meranie Stree	100%			4	60000	\$0	\$0	\$0	\$60,000	\$0	\$0
163	Cook St, Spring St	100%			2	240000	\$0	\$240,000	\$0	\$0	\$0	\$0
164	William Street (near Charles St)	100%			3	60000	\$0	\$0	\$60,000	\$0	\$0	\$0
165	Dalton/Lyell/Cavendish Street	30%	70%		2	400000	\$0	\$400,000	\$0	\$0	\$0	\$0
166	Corner Bessemer & Albert Sts (Mittagong PS	100%			2	50000	\$0	\$50,000	\$0	\$0	\$0	\$0
166	Oxley Drive	100%			2	400000	\$0	\$400,000	\$0	\$0	\$0	\$0
166	Railway Parade	100%			4	35000	\$0	\$0	\$0	\$35,000	\$0	\$0
169	Brewster St / Rainbow Road	60%	40%		3	90000	\$0	\$0	\$90,000	\$0	\$0	\$0
172	Ferguson Crescen	100%			4	100000	\$0	\$0	\$0	\$100,000	\$0	\$0
179	Southey Street	20%	80%		3	65000	\$0	\$0	\$65,000	\$0	\$0	\$0
0	Hood St/Elizabeth St	100%			3	100000	\$0	\$0	\$100,000	\$0	\$0	\$0
0	Railway Pde near Huxley S	100%			0	100000	\$0	\$0	\$0	\$0	\$0	\$0
0	Bessemer St	100%			0	100000	\$0	\$0	\$0	\$0	\$0	\$0
0	Mandemar St	0%			4	60000	\$0	\$0	\$0	\$60,000	\$0	\$0
MITTAGONG total						\$1,860,000	\$0	\$1,090,000	\$315,000	\$255,000	\$0	\$0
				Financial model	Improved LOS	\$0	\$810,000	\$227,000	\$195,000	\$0	\$0	
					Growth works	\$0	\$280,000	\$88,000	\$0	\$0	\$0	
					Asset renewal	\$0	\$0	\$0	\$0	\$0	\$0	
					Total	\$0	\$1,090,000	\$315,000	\$195,000	\$0	\$0	
							2010/11	2011/12	2012/13	2013/14	2014/15	2015/16

MOSS VALE WINGE
Capital Works Program 2010/2011
Stormwater Business

Object I	Project	Type of works			Priority	Project total	Years					
		Improved LOS	Growth Wor	Asset Renewals			2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
22	Valetta Street near Villiers Roa	100%			4	100000	\$0	\$0	\$0	\$100,000	\$0	\$0
23	Hill Toad, Lot 32 to Narellan Rd	100%			4	30000	\$0	\$0	\$0	\$30,000	\$0	\$0
41	Moss Vale Showground, extend pipe east sid	0%			3	70000	\$0	\$0	\$70,000	\$0	\$0	\$0
MOSS VALE-WINGE total						\$200,000	\$0	\$0	\$70,000	\$130,000	\$0	\$0
				Financial model	Improved LO		\$0	\$0	\$0	\$130,000	\$0	\$0
					Growth works		\$0	\$0	\$0	\$0	\$0	\$0
					Asset renewa		\$0	\$0	\$0	\$0	\$0	\$0
					Total		\$0	\$0	\$0	\$130,000	\$0	\$0
							2010/11	2011/12	2012/13	2013/14	2014/15	2015/16

BUNDANOON
Capital Works Program 2010/2011
Stormwater Business

Object ID	Project	Type of works			Priority	Project total	Years					
		Improved LOS	Growth Work	Asset Renewals			2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
102	Ellsmore Road	80%	20%		1	130000	\$130,000	\$0	\$0	\$0	\$0	\$0
108	Penola Street	50%	50%		3	240000	\$0	\$0	\$240,000	\$0	\$0	\$0
Bundanoon total						\$370,000	\$130,000	\$0	\$240,000	\$0	\$0	\$0
				Financial model		Improved LOS	\$104,000	\$0	\$120,000	\$0	\$0	\$0
						Growth works	\$26,000	\$0	\$120,000	\$0	\$0	\$0
						Asset renewal	\$0	\$0	\$0	\$0	\$0	\$0
						Total	\$130,000	\$0	\$240,000	\$0	\$0	\$0
							2010/11	2011/12	2012/13	2013/14	2014/15	2015/16

ROBERTSON
Capital Works Program 2010/2011
Stormwater Business

Object ID	Project	Type of works			Priority	Project total	Years					
		Improved LO	Growth Wor	Asset Renewals			2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
54	Caalong Street	100%			3	45000	\$0	\$0	\$45,000	\$0	\$0	\$0
0	Hoddle St (Illawarra Hwy)	0%			5	60000	\$0	\$0	\$0	\$0	\$60,000	\$0
58	Hoddle Lane	100%			4	60000	\$0	\$0	\$0	\$60,000	\$0	\$0
ROBERTSON total						\$165,000	\$0	\$0	\$45,000	\$60,000	\$60,000	\$0
				Financial model		Improved LO	\$0	\$0	\$45,000	\$60,000	\$0	\$0
						Growth works	\$0	\$0	\$0	\$0	\$0	\$0
						Asset renewa	\$0	\$0	\$0	\$0	\$0	\$0
						Total	\$0	\$0	\$45,000	\$60,000	\$0	\$0
							2010/11	2011/12	2012/13	2013/14	2014/15	2015/16

MOSSVALE - WHITES - Capital Charge Calculations
Capital Works Program 2010/2011
Stormwater Business

Object I	Project	Type of works			Priority	Project total	Years					
		Improved LOS	Growth Work	Asset Renewals			2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
20	Willow Drive, through caravan park	100%			3	110000	\$0	\$0	\$110,000	\$0	\$0	\$0
52	Innes Road/Garrett Street to Whites Cree	100%			3	60000	\$0	\$0	\$60,000	\$0	\$0	\$0
45	Moss Vale Gardens Open Drain - Stage 2 WC6	20%	80%		3	160000	\$0	\$0	\$160,000	\$0	\$0	\$0
6	Whites Creek Reserve to Illawarra Highwa	100%			1	700000	\$700,000	\$0	\$0	\$0	\$0	\$0
46	Railway Street, Broughton Street to Spring Stre	20%	80%		3	150000	\$0	\$0	\$150,000	\$0	\$0	\$0
72	Throsby Street (Chapman St to Railway		100%		4	40000	\$0	\$0	\$0	\$40,000	\$0	\$0
MOSSVALE_WHITES total						\$1,220,000	\$700,000	\$0	\$480,000	\$40,000	\$0	\$0
				Financial model	Improved LOS	\$700,000	\$0	\$232,000	\$0	\$0	\$0	\$0
					Growth works	\$0	\$0	\$248,000	\$40,000	\$0	\$0	\$0
					Asset renewals	\$0	\$0	\$0	\$0	\$0	\$0	\$0
					Total	\$700,000	\$0	\$480,000	\$40,000	\$0	\$0	\$0
							2010/11	2011/12	2012/13	2013/14	2014/15	2015/16

**BERRIMA
Capital Works Program 2010/2011
Stormwater Business**

Object ID	Project	Type of works			Priority	Project total	Years					
		Improved LOS	Growth Work	Asset Renewals			2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
115	Wingecarribee Street (Outside Motel)	100%			3 4	65000	\$0	\$0	\$65,000	\$0	\$0	\$0
117	Schotts Lane (at Taylor Street)	100%				80000	\$0	\$0	\$0	\$80,000	\$0	\$0
BERRIMA total						\$145,000	\$0	\$0	\$65,000	\$80,000	\$0	\$0
				Financial model	Improved LOS	\$0	\$0	\$65,000	\$80,000	\$0	\$0	
					Growth works	\$0	\$0	\$0	\$0	\$0	\$0	
					Asset renewal	\$0	\$0	\$0	\$0	\$0	\$0	
					Total	\$0	\$0	\$65,000	\$80,000	\$0	\$0	
						2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	

**MVEC
Capital Works Program
Stormwater Business**

Object ID	Project	Type of works			Priority	Project total	Years						
		Improved LOS	Growth Works	Asset Renewals			2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	
	Detention Basin 1		100%		2	\$309,600	\$0	\$309,600	\$0	\$0	\$0	\$0	
	Detention Basin 2		100%		3	\$20,160	\$0	\$0	\$20,160	\$0	\$0	\$0	
	Detention Basin 3a		100%		4	\$129,600	\$0	\$0	\$0	\$129,600	\$0	\$0	
	Detention Basin 3c		100%		5	\$482,400	\$0	\$0	\$0	\$0	\$482,400	\$0	
	Detention Basin 3g		100%		6	\$115,200	\$0	\$0	\$0	\$0	\$0	\$115,200	
	Detention Basin 5		100%		6	\$417,600	\$0	\$0	\$0	\$0	\$0	\$417,600	
	Detention Basin 7		100%		6	\$25,200	\$0	\$0	\$0	\$0	\$0	\$25,200	
	Detention Basin 8		100%		6	\$25,200	\$0	\$0	\$0	\$0	\$0	\$25,200	
	Category 2 Stream rehabilitation		100%		5	\$738,000	\$0	\$0	\$0	\$0	\$738,000	\$0	
	Category 3 / Overland Flow Path Management		100%		6	\$2,856,000	\$0	\$0	\$0	\$0	\$0	\$2,856,000	
	Category 3 / Overland Flow Path Management		100%		6	\$70,500	\$0	\$0	\$0	\$0	\$0	\$70,500	
	Culvert upgrade - Under rail spur (Douglas Road)		100%		3	\$220,000	\$0	\$0	\$220,000	\$0	\$0	\$0	
	Culvert upgrade - Douglas Road extension		100%		3	\$220,000	\$0	\$0	\$220,000	\$0	\$0	\$0	
	Culvert upgrade - Collins Road		100%		3	\$350,000	\$0	\$0	\$350,000	\$0	\$0	\$0	
	Culvert upgrade - main railway		100%		4	\$150,000	\$0	\$0	\$0	\$150,000	\$0	\$0	
	Berrima Road pipeline upgrade. 500m		100%		3	\$430,000	\$0	\$0	\$430,000	\$0	\$0	\$0	
	Bioretention - water quality treatment for public space and roads. Assumed integrated as part of Det Basins		100%		5	\$1,338,750	\$0	\$0	\$0	\$0	\$1,338,750	\$0	
MVEC total						\$7,898,210	\$0	\$309,600	\$1,240,160	\$279,600	\$2,559,150	\$3,509,700	
						Financial model	Improved LOS	\$0	\$0	\$0	\$0	\$0	
							Growth works	\$0	\$309,600	\$1,240,160	\$279,600	\$2,559,150	\$3,509,700
							Asset renewals	\$0	\$0	\$0	\$0	\$0	
							Total	\$0	\$0	\$0	\$0	\$0	
								\$0	\$309,600	\$1,240,160	\$279,600	\$2,559,150	\$3,509,700
								2010/11	2011/12	2012/13	2013/14	2014/15	2015/16

BURRAWANG
Capital Works Program 2010/2011
Stormwater Business

Object I	Project	Type of works			Priority	Project total	Years					
		Improved LOS	Growth Work	Asset Renewals			2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
93	Dale Street, No 29/31 Ref. 7810/3	100%			4	35000	\$0	\$0	\$0	\$35,000	\$0	\$0
Burrawang total						\$35,000	\$0	\$0	\$0	\$35,000	\$0	\$0
				Financial model		Improved LOS	\$0	\$0	\$0	\$35,000	\$0	\$0
						Growth works	\$0	\$0	\$0	\$0	\$0	\$0
						Asset renewal	\$0	\$0	\$0	\$0	\$0	\$0
						Total	\$0	\$0	\$0	\$35,000	\$0	\$0
							2010/11	2011/12	2012/13	2013/14	2014/15	2015/16

**HILLTOP
Capital Works Program 2010/2011
Stormwater Business**

Object ID	Project	Type of works			Priority	Project total	Years					
		Improved LOS	Growth Works	Asset Renewals			2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
75	Wyong Street (at Lot 456)	80%	20%		4	45000	\$0	\$0	\$0	\$45,000	\$0	\$0
HILL TOP total						\$45,000	\$0	\$0	\$0	\$45,000	\$0	\$0
				Financial model	Improved LOS	\$0	\$0	\$0	\$36,000	\$0	\$0	
					Growth works	\$0	\$0	\$0	\$9,000	\$0	\$0	
					Asset renewals	\$0	\$0	\$0	\$0	\$0	\$0	
					Total	\$0	\$0	\$0	\$45,000	\$0	\$0	
							2010/11	2011/12	2012/13	2013/14	2014/15	2015/16

APPENDIX F

Capital Charge

BERRIMA CAPITAL CHARGE CALCULATIONS

Developer Charges for Water Supply, Sewerage and Stormwater Drainage

Sensitivity Factor

1.65

EXAMPLE 2 - Pre 1996 and Post 1996 Existing Works

TAM RECORDS	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Length (m)	Rate (\$/m)	Rate, with factor (\$/m)	Capital Cost (2010/11\$)	Capacity ² (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor ^{3,4}	Capital Charge per ET (2010/11\$)
Pre 1996 Works													
5560	Reinforced Concrete Pipe - 0600mm dia.	1994	1995/96	190	325	536.25	101887.5	838	122	2019/20	25	1.39	169
5543	Reinforced Concrete Pipe - 0600mm dia.	1988	1995/96	35	325	536.25	18768.75	838	22	2019/20	25	1.39	31
5541	Reinforced Concrete Pipe - 0600mm dia.	1988	1995/96	285	325	536.25	152831.25	838	182	2019/20	25	1.39	254
5542	Reinforced Concrete Pipe - 0600mm dia.	1988	1995/97	285	326	537.9	153301.5	838	183	2019/21	25	1.39	255
5578	Reinforced Concrete Pipe - 0600mm dia.	1958	1995/98	285	327	539.55	153771.75	838	183	2019/22	25	1.39	256
5585	Reinforced Concrete Pipe - 0600mm dia.	1958	1995/99	285	328	541.2	154242	838	184	2019/23	25	1.39	257
5577	Unlined Trapezoidal	1958	1995/96	20	178	293.7	5874	838	7	2019/20	25	1.39	10

	Open Channel 2-4m Base Width												
Post 1996 Works													
N/A			1999/00	0	0	0	0	838	0	2019/20	21	1.81	0
Proposed upgrade Works													
Object ID	Activities	Year Commissioned	Effective year of commissioning for ROI ¹	Notes	Capital Cost (2010/11\$) (\$)		Capacity ² (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor ^{3,4}	Capital Charge per ET (2010/11\$)	
115	Wingecarribee Street (Outside Motel)	2012	2012/13	Water entering private property. Need 60m K&G along one side, pipe & pits	65,000	65,000	838	5	2019/20	10	1.33	7	
117	Schotts Lane (at Taylor Street)	2013	2013/14	Water entering driveway. Need pipes & pits to Wingecarribee St	80,000	80,000	838	23	2019/20	10	1.33	31	
Proposed Stormwater Management Works													
		2010	2010/11	Planning and development controls. Improve emergency management (revise Local Flood Plan)	15,000	15,000	838	23	2019/20	10	1.33	31	
		2011	2011/12	Vegetation management plan	50,000	50,000	838	23	2019/20	10	1.33	31	
		2011	2011/12	Voluntary purchase of property	200,000	200,000	838	23	2019/20	10	1.33	31	
		2013	2013/14	Catchment wide flood warning improvements	20,000	20,000	838	23	2019/20	10	1.33	31	
Total						433521.1		11,732				1,394	

Rate of return (pre 1996)

3%

Rate of return (post 1996)

7%

1. For pre-1996 assets, the effective year of commissioning for calculating Return on Investment (ROI) factors is January 1996, ie: 1995/96.
2. The capacity in the above calculation is the total capacity provided by existing and proposed service reservoirs.
3. The ROI factor for pre-1996 works is based on a rate of return (discount rate) of 3% pa real. The ROI factor assumes a uniform annual take-up of lots over the take-up period, commencing in the effective year of commissioning of the asset.
4. The ROI factor for post-1996 assets is based on a rate of return (discount rate) of 7% pa real, together with a uniform annual take-up of lots over the take-up period, commencing in the year of commissioning of the asset.

BOWRAL CAPITAL CHARGE CALCULATIONS

Developer Charges for Water Supply, Sewerage and Stormwater Drainage

sensitivity factor

1.65

EXAMPLE 2 - Pre 1996 and Post 1996 Existing Works

Component		Year Commissioned	Effective year of commissioning for ROI ¹	Length (m)	Rate (\$/m)	Rate (\$/m) x Factor	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor ^{3,4}	Capital Charge per ET (2010/11\$)	Notes
<i>Pre 1996 Works</i>														
4632	Asbestos Cement Pipe - 600mm dia.	1917	1995/96	6	325	536.25	3217.5	11,816	0	2019/20	25	1.39	0	
4654	Asbestos Cement Pipe - 600mm dia.	1917	1995/96	6	325	536.25	3217.5	11,816	0	2019/20	25	1.39	0	
4655	Asbestos Cement Pipe - 600mm dia.	1917	1995/96	6	325	536.25	3217.5	11,816	0	2019/20	25	1.39	0	
4656	Asbestos Cement Pipe - 600mm dia.	1917	1995/96	6	325	536.25	3217.5	11,816	0	2019/20	25	1.39	0	
4616	Asbestos Cement Pipe - 750mm dia.	1917	1995/96	6	369	608.85	3653.1	11,816	0	2019/20	25	1.39	0	
4646	Asbestos Cement Pipe - 750mm dia.	1917	1995/96	6	369	608.85	3653.1	11,816	0	2019/20	25	1.39	0	
2363	Brick Lined Culvert - 1850X1700m m	1917	1995/96	3	5340	8811	26433	11,816	2	2019/20	25	1.39	3	

2912	Brick Lined Culvert - 4000X2500m m	1917	1995/96	12	10680	17622	211464	11,816	18	2019/20	25	1.39	25	
58	Brick Lined Culvert - 4000X2500m m	1917	1995/96	10	10680	17622	176220	11,816	15	2019/20	25	1.39	21	
4621	Brick Lined Culvert - 6100X2950m m	1917	1995/96	9	16020	26433	237897	11,816	20	2019/20	25	1.39	28	
2513	Concrete Box Culvert - 0300X0900m m	1917	1995/96	7	849	1400.85	9805.95	11,816	1	2019/20	25	1.39	1	
2135	Concrete Box Culvert - 0600X0300m m	1917	1995/96	5	320	528	2640	11,816	0	2019/20	25	1.39	0	
2136	Concrete Box Culvert - 0600X0300m m	1917	1995/96	13	320	528	6864	11,816	1	2019/20	25	1.39	1	
2137	Concrete Box Culvert - 0600X0300m m	1917	1995/96	5	320	528	2640	11,816	0	2019/20	25	1.39	0	
2146	Concrete Box Culvert - 0900X0300m m	1917	1995/96	12	459	757.35	9088.2	11,816	1	2019/20	25	1.39	1	
2147	Concrete Box Culvert - 0900X0300m m	1917	1995/96	6	459	757.35	4544.1	11,816	0	2019/20	25	1.39	1	
4614	Concrete Box Culvert - 0900X0550m m	1917	1995/96	4	554	914.1	3656.4	11,816	0	2019/20	25	1.39	0	

4619	Reinforced Concrete Pipe - 0525mm dia.	1917	1995/96	8	295	486.75	3894	11,816	0	2019/20	25	1.39	0	
2924	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	90	325	536.25	48262.5	11,816	4	2019/20	25	1.39	6	
2714	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	4	325	536.25	2145	11,816	0	2019/20	25	1.39	0	
4639	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	5	325	536.25	2681.25	11,816	0	2019/20	25	1.39	0	
4663	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	5	325	536.25	2681.25	11,816	0	2019/20	25	1.39	0	
4664	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	5	325	536.25	2681.25	11,816	0	2019/20	25	1.39	0	
4665	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	5	325	536.25	2681.25	11,816	0	2019/20	25	1.39	0	
4713	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	12	325	536.25	6435	11,816	1	2019/20	25	1.39	1	
4739	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	12	325	536.25	6435	11,816	1	2019/20	25	1.39	1	
4740	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	12	325	536.25	6435	11,816	1	2019/20	25	1.39	1	
1820	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	42	325	536.25	22522.5	11,816	2	2019/20	25	1.39	3	
2527	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	24	325	536.25	12870	11,816	1	2019/20	25	1.39	2	
2528	Reinforced Concrete Pipe	1917	1995/96	14	325	536.25	7507.5	11,816	1	2019/20	25	1.39	1	

	- 0600mm dia.													
1883	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	12	325	536.25	6435	11,816	1	2019/20	25	1.39	1	
4634	Reinforced Concrete Pipe - 0750mm dia.	1917	1995/96	8	369	608.85	4870.8	11,816	0	2019/20	25	1.39	1	
4657	Reinforced Concrete Pipe - 0750mm dia.	1917	1995/96	8	369	608.85	4870.8	11,816	0	2019/20	25	1.39	1	
4658	Reinforced Concrete Pipe - 0750mm dia.	1917	1995/96	8	369	608.85	4870.8	11,816	0	2019/20	25	1.39	1	
2510	Reinforced Concrete Pipe - 0750mm dia.	1917	1995/96	18	369	608.85	10959.3	11,816	1	2019/20	25	1.39	1	
2520	Reinforced Concrete Pipe - 0750mm dia.	1917	1995/96	18	369	608.85	10959.3	11,816	1	2019/20	25	1.39	1	
2521	Reinforced Concrete Pipe - 0750mm dia.	1917	1995/96	18	369	608.85	10959.3	11,816	1	2019/20	25	1.39	1	
2713	Reinforced Concrete Pipe - 1200mm dia.	1917	1995/96	11	841	1387.65	15264.15	11,816	1	2019/20	25	1.39	2	
4625	Reinforced Concrete Pipe - 1200mm dia.	1917	1995/96	22	841	1387.65	30528.3	11,816	3	2019/20	25	1.39	4	
4651	Reinforced Concrete Pipe - 1200mm dia.	1917	1995/96	22	841	1387.65	30528.3	11,816	3	2019/20	25	1.39	4	
4642	Reinforced Concrete Pipe - 1500mm dia.	1917	1995/96	6	1255	2070.75	12424.5	11,816	1	2019/20	25	1.39	1	
4641	Reinforced Concrete Pipe - 1800mm dia.	1917	1995/96	8	1733	2859.45	22875.6	11,816	2	2019/20	25	1.39	3	

2484	Reinforced Concrete Pipe - 1800mm dia.	1917	1995/96	12	1733	2859.45	34313.4	11,816	3	2019/20	25	1.39	4	
2506	Reinforced Concrete Pipe - 1800mm dia.	1917	1995/96	12	1733	2859.45	34313.4	11,816	3	2019/20	25	1.39	4	
2507	Reinforced Concrete Pipe - 1800mm dia.	1917	1995/96	12	1733	2859.45	34313.4	11,816	3	2019/20	25	1.39	4	
2416	Trachyte Culvert - 0400X0400m m	1917	1995/96	15	390	643.5	9652.5	11,816	1	2019/20	25	1.39	1	
2216	Trachyte Culvert - 0600X0300m m	1917	1995/96	3	320	528	1584	11,816	0	2019/20	25	1.39	0	
2233	Trachyte Culvert - 0600X0300m m	1917	1995/96	6	320	528	3168	11,816	0	2019/20	25	1.39	0	
2234	Trachyte Culvert - 0600X0300m m	1917	1995/96	13	320	528	6864	11,816	1	2019/20	25	1.39	1	
720	Trachyte Culvert - 0600X0600m m	1917	1995/96	94	503	829.95	78015.3	11,816	7	2019/20	25	1.39	9	
721	Trachyte Culvert - 0600X0600m m	1917	1995/96	20	503	829.95	16599	11,816	1	2019/20	25	1.39	2	
722	Trachyte Culvert - 0600X0600m m	1917	1995/96	33	503	829.95	27388.35	11,816	2	2019/20	25	1.39	3	
1809	Trachyte Culvert - 0600X0600m	1917	1995/96	28	503	829.95	23238.6	11,816	2	2019/20	25	1.39	3	

	m													
1819	Trachyte Culvert - 0600X0600m m	1917	1995/96	16	503	829.95	13279.2	11,816	1	2019/20	25	1.39	2	
2214	Trachyte Culvert - 0750X0300m m	1917	1995/96	6	388	640.2	3841.2	11,816	0	2019/20	25	1.39	0	
2215	Trachyte Culvert - 0750X0300m m	1917	1995/96	14	388	640.2	8962.8	11,816	1	2019/20	25	1.39	1	
2205	Trachyte Culvert - 0900X0300m m	1917	1995/96	5	459	757.35	3786.75	11,816	0	2019/20	25	1.39	0	
2206	Trachyte Culvert - 0900X0300m m	1917	1995/96	5	459	757.35	3786.75	11,816	0	2019/20	25	1.39	0	
2207	Trachyte Culvert - 0900X0300m m	1917	1995/96	5	459	757.35	3786.75	11,816	0	2019/20	25	1.39	0	
2208	Trachyte Culvert - 0900X0300m m	1917	1995/96	14	459	757.35	10602.9	11,816	1	2019/20	25	1.39	1	
2209	Trachyte Culvert - 0900X0300m m	1917	1995/96	35	459	757.35	26507.25	11,816	2	2019/20	25	1.39	3	
1823	Trachyte Culvert - 1000X0500m m	1917	1995/96	33	369	608.85	20092.05	11,816	2	2019/20	25	1.39	2	

2911	Unlined Trapezoidal Open Channel 10-15m Base Width	1917	1995/96	33	742	1224.3	40401.9	11,816	3	2019/20	25	1.39	5	
2483	Unlined Trapezoidal Open Channel 10-15m Base Width	1917	1995/96	430	742	1224.3	526449	11,816	45	2019/20	25	1.39	62	
2485	Unlined Trapezoidal Open Channel 10-15m Base Width	1917	1995/96	70	742	1224.3	85701	11,816	7	2019/20	25	1.39	10	
2919	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	332	178	293.7	97508.4	11,816	8	2019/20	25	1.39	12	
4613	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	70	178	293.7	20559	11,816	2	2019/20	25	1.39	2	
4615	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	114	178	293.7	33481.8	11,816	3	2019/20	25	1.39	4	
4617	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	40	178	293.7	11748	11,816	1	2019/20	25	1.39	1	
4650	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	132	178	293.7	38768.4	11,816	3	2019/20	25	1.39	5	

4620	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	6	178	293.7	1762.2	11,816	0	2019/20	25	1.39	0	
4622	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	4	178	293.7	1174.8	11,816	0	2019/20	25	1.39	0	
4624	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	170	178	293.7	49929	11,816	4	2019/20	25	1.39	6	
4626	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	110	178	293.7	32307	11,816	3	2019/20	25	1.39	4	
4627	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	222	178	293.7	65201.4	11,816	6	2019/20	25	1.39	8	
4629	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	15	178	293.7	4405.5	11,816	0	2019/20	25	1.39	1	
4630	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	120	178	293.7	35244	11,816	3	2019/20	25	1.39	4	
4631	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	10	178	293.7	2937	11,816	0	2019/20	25	1.39	0	

4633	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	90	178	293.7	26433	11,816	2	2019/20	25	1.39	3	
4635	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	13	178	293.7	3818.1	11,816	0	2019/20	25	1.39	0	
4636	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	18	178	293.7	5286.6	11,816	0	2019/20	25	1.39	1	
4640	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	100	178	293.7	29370	11,816	2	2019/20	25	1.39	3	
4643	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	195	178	293.7	57271.5	11,816	5	2019/20	25	1.39	7	
4644	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	560	178	293.7	164472	11,816	14	2019/20	25	1.39	19	
4714	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	4	178	293.7	1174.8	11,816	0	2019/20	25	1.39	0	
719	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	85	178	293.7	24964.5	11,816	2	2019/20	25	1.39	3	

723	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	80	178	293.7	23496	11,816	2	2019/20	25	1.39	3	
2511	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	150	178	293.7	44055	11,816	4	2019/20	25	1.39	5	
2512	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	95	178	293.7	27901.5	11,816	2	2019/20	25	1.39	3	
1882	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	16	178	293.7	4699.2	11,816	0	2019/20	25	1.39	1	
59	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	13	178	293.7	3818.1	11,816	0	2019/20	25	1.39	0	
190	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	138	178	293.7	40530.6	11,816	3	2019/20	25	1.39	5	
2508	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	300	297	490.05	147015	11,816	12	2019/20	25	1.39	17	
2509	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	120	297	490.05	58806	11,816	5	2019/20	25	1.39	7	

1864	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	10	297	490.05	4900.5	11,816	0	2019/20	25	1.39	1	
1867	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	206	297	490.05	100950.3	11,816	9	2019/20	25	1.39	12	
1868	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	86	297	490.05	42144.3	11,816	4	2019/20	25	1.39	5	
1869	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	65	297	490.05	31853.25	11,816	3	2019/20	25	1.39	4	
1870	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	97	297	490.05	47534.85	11,816	4	2019/20	25	1.39	6	
1871	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	15	297	490.05	7350.75	11,816	1	2019/20	25	1.39	1	
2913	Unlined Trapezoidal Open Channel 6-10m Base Width	1917	1995/96	15	475	783.75	11756.25	11,816	1	2019/20	25	1.39	1	
2059	Concrete Box Culvert - 0600X0300m m	1960	1995/96	15	320	528	7920	11,816	1	2019/20	25	1.39	1	

2060	Concrete Box Culvert - 0600X0300m m	1960	1995/96	2	320	528	1056	11,816	0	2019/20	25	1.39	0	
1821	Reinforced Concrete Pipe - 0600mm dia.	1960	1995/96	44	325	536.25	23595	11,816	2	2019/20	25	1.39	3	
1822	Reinforced Concrete Pipe - 0600mm dia.	1960	1995/96	20	325	536.25	10725	11,816	1	2019/20	25	1.39	1	
4787	Concrete Box Culvert - 0750X0450m m	1962	1995/96	6	433	714.45	4286.7	11,816	0	2019/20	25	1.39	1	
4789	Concrete Box Culvert - 0750X0450m m	1962	1995/96	6	433	714.45	4286.7	11,816	0	2019/20	25	1.39	1	
1951	Reinforced Concrete Pipe - 0750mm dia.	1962	1995/96	12	369	608.85	7306.2	11,816	1	2019/20	25	1.39	1	
4750	Unlined Trapezoidal Open Channel 2-4m Base Width	1962	1995/96	300	178	293.7	88110	11,816	7	2019/20	25	1.39	10	
4751	Unlined Trapezoidal Open Channel 2-4m Base Width	1962	1995/96	60	178	293.7	17622	11,816	1	2019/20	25	1.39	2	
512	Asbestos Cement Pipe - 600mm dia.	1965	1995/96	60	325	536.25	32175	11,816	3	2019/20	25	1.39	4	
513	Asbestos Cement Pipe - 600mm dia.	1965	1995/96	12	325	536.25	6435	11,816	1	2019/20	25	1.39	1	

215	Brick Lined Culvert - 0900X0370m m	1965	1995/96	10	508	838.2	8382	11,816	1	2019/20	25	1.39	1	
4711	Concrete Box Culvert - 0600X0300m m	1965	1995/96	6	320	528	3168	11,816	0	2019/20	25	1.39	0	
4736	Concrete Box Culvert - 0600X0300m m	1965	1995/96	6	320	528	3168	11,816	0	2019/20	25	1.39	0	
1945	Concrete Box Culvert - 0600X0300m m	1965	1995/96	115	320	528	60720	11,816	5	2019/20	25	1.39	7	
1946	Concrete Box Culvert - 0600X0300m m	1965	1995/96	14	320	528	7392	11,816	1	2019/20	25	1.39	1	
1916	Concrete Box Culvert - 0600X0600m m	1965	1995/96	15	517	853.05	12795.75	11,816	1	2019/20	25	1.39	2	
4699	Concrete Box Culvert - 0750X0450m m	1965	1995/96	4	433	714.45	2857.8	11,816	0	2019/20	25	1.39	0	
342	Concrete Box Culvert - 0850X0550m m	1965	1995/96	14	554	914.1	12797.4	11,816	1	2019/20	25	1.39	2	
1886	Concrete Box Culvert - 0900X0600m m	1965	1995/96	16	554	914.1	14625.6	11,816	1	2019/20	25	1.39	2	
1918	Concrete Box Culvert - 0900X0600m m	1965	1995/96	12	554	914.1	10969.2	11,816	1	2019/20	25	1.39	1	

1919	Concrete Box Culvert - 0900X0600m m	1965	1995/96	12	554	914.1	10969.2	11,816	1	2019/20	25	1.39	1	
4737	Concrete Box Culvert - 1200X0300m m	1965	1995/96	6	561	925.65	5553.9	11,816	0	2019/20	25	1.39	1	
4738	Concrete Box Culvert - 1200X0300m m	1965	1995/96	6	561	925.65	5553.9	11,816	0	2019/20	25	1.39	1	
1932	Concrete Box Culvert - 1200X0600m m	1965	1995/96	25	655	1080.75	27018.75	11,816	2	2019/20	25	1.39	3	
3423	Concrete Box Culvert - 1500X0900m m	1965	1995/96	12	988	1630.2	19562.4	11,816	2	2019/20	25	1.39	2	
3420	Concrete Box Culvert - 1500X0900m m	1965	1995/96	12	988	1630.2	19562.4	11,816	2	2019/20	25	1.39	2	
2277	Reinforced Concrete Pipe - 0525mm dia.	1965	1995/96	10	295	486.75	4867.5	11,816	0	2019/20	25	1.39	1	
2278	Reinforced Concrete Pipe - 0525mm dia.	1965	1995/96	22	295	486.75	10708.5	11,816	1	2019/20	25	1.39	1	
2279	Reinforced Concrete Pipe - 0525mm dia.	1965	1995/96	78	295	486.75	37966.5	11,816	3	2019/20	25	1.39	4	
4723	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	12	325	536.25	6435	11,816	1	2019/20	25	1.39	1	
4725	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	17	325	536.25	9116.25	11,816	1	2019/20	25	1.39	1	

4726	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	33	325	536.25	17696.25	11,816	1	2019/20	25	1.39	2	
4727	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	38	325	536.25	20377.5	11,816	2	2019/20	25	1.39	2	
4728	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	34	325	536.25	18232.5	11,816	2	2019/20	25	1.39	2	
4729	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	12	325	536.25	6435	11,816	1	2019/20	25	1.39	1	
4730	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	29	325	536.25	15551.25	11,816	1	2019/20	25	1.39	2	
4747	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	18	325	536.25	9652.5	11,816	1	2019/20	25	1.39	1	
4748	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	18	325	536.25	9652.5	11,816	1	2019/20	25	1.39	1	
4749	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	18	325	536.25	9652.5	11,816	1	2019/20	25	1.39	1	
2335	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	13	325	536.25	6971.25	11,816	1	2019/20	25	1.39	1	
2336	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	38	325	536.25	20377.5	11,816	2	2019/20	25	1.39	2	
2337	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	5	325	536.25	2681.25	11,816	0	2019/20	25	1.39	0	
1894	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	18	325	536.25	9652.5	11,816	1	2019/20	25	1.39	1	
1895	Reinforced Concrete Pipe	1965	1995/96	15	325	536.25	8043.75	11,816	1	2019/20	25	1.39	1	

	- 0600mm dia.													
1896	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	25	325	536.25	13406.25	11,816	1	2019/20	25	1.39	2	
1897	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	21	325	536.25	11261.25	11,816	1	2019/20	25	1.39	1	
2275	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	78	325	536.25	41827.5	11,816	4	2019/20	25	1.39	5	
2276	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	42	325	536.25	22522.5	11,816	2	2019/20	25	1.39	3	
1992	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	71	325	536.25	38073.75	11,816	3	2019/20	25	1.39	4	
1996	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	12	325	536.25	6435	11,816	1	2019/20	25	1.39	1	
492	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	57	325	536.25	30566.25	11,816	3	2019/20	25	1.39	4	
1888	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	30	369	608.85	18265.5	11,816	2	2019/20	25	1.39	2	
1889	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	16	369	608.85	9741.6	11,816	1	2019/20	25	1.39	1	
1890	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	22	369	608.85	13394.7	11,816	1	2019/20	25	1.39	2	
1891	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	18	369	608.85	10959.3	11,816	1	2019/20	25	1.39	1	
1892	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	17	369	608.85	10350.45	11,816	1	2019/20	25	1.39	1	

1893	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	20	369	608.85	12177	11,816	1	2019/20	25	1.39	1	
1933	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	5	369	608.85	3044.25	11,816	0	2019/20	25	1.39	0	
1934	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	45	369	608.85	27398.25	11,816	2	2019/20	25	1.39	3	
1935	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	55	369	608.85	33486.75	11,816	3	2019/20	25	1.39	4	
1936	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	44	369	608.85	26789.4	11,816	2	2019/20	25	1.39	3	
1937	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	35	369	608.85	21309.75	11,816	2	2019/20	25	1.39	3	
2272	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	68	369	608.85	41401.8	11,816	4	2019/20	25	1.39	5	
2274	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	31	369	608.85	18874.35	11,816	2	2019/20	25	1.39	2	
1987	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	21	369	608.85	12785.85	11,816	1	2019/20	25	1.39	2	
1988	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	22	369	608.85	13394.7	11,816	1	2019/20	25	1.39	2	
1989	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	39	369	608.85	23745.15	11,816	2	2019/20	25	1.39	3	
1990	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	28	369	608.85	17047.8	11,816	1	2019/20	25	1.39	2	
1991	Reinforced Concrete Pipe	1965	1995/96	76	369	608.85	46272.6	11,816	4	2019/20	25	1.39	5	

	- 0750mm dia.													
2010	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	55	369	608.85	33486.75	11,816	3	2019/20	25	1.39	4	
2012	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	20	369	608.85	12177	11,816	1	2019/20	25	1.39	1	
2914	Reinforced Concrete Pipe - 0825mm dia.	1965	1995/96	100	428	706.2	70620	11,816	6	2019/20	25	1.39	8	
2267	Reinforced Concrete Pipe - 0825mm dia.	1965	1995/96	5	428	706.2	3531	11,816	0	2019/20	25	1.39	0	
2268	Reinforced Concrete Pipe - 0825mm dia.	1965	1995/96	16	428	706.2	11299.2	11,816	1	2019/20	25	1.39	1	
2269	Reinforced Concrete Pipe - 0825mm dia.	1965	1995/96	32	428	706.2	22598.4	11,816	2	2019/20	25	1.39	3	
2270	Reinforced Concrete Pipe - 0825mm dia.	1965	1995/96	70	428	706.2	49434	11,816	4	2019/20	25	1.39	6	
2271	Reinforced Concrete Pipe - 0825mm dia.	1965	1995/96	27	428	706.2	19067.4	11,816	2	2019/20	25	1.39	2	
1931	Reinforced Concrete Pipe - 0900mm dia.	1965	1995/96	125	517	853.05	106631.25	11,816	9	2019/20	25	1.39	13	
2262	Reinforced Concrete Pipe - 0900mm dia.	1965	1995/96	6	517	853.05	5118.3	11,816	0	2019/20	25	1.39	1	
2264	Reinforced Concrete Pipe - 0900mm dia.	1965	1995/96	20	517	853.05	17061	11,816	1	2019/20	25	1.39	2	
2265	Reinforced Concrete Pipe - 0900mm dia.	1965	1995/96	94	517	853.05	80186.7	11,816	7	2019/20	25	1.39	9	

2266	Reinforced Concrete Pipe - 0900mm dia.	1965	1995/96	20	517	853.05	17061	11,816	1	2019/20	25	1.39	2	
1985	Reinforced Concrete Pipe - 0900mm dia.	1965	1995/96	51	517	853.05	43505.55	11,816	4	2019/20	25	1.39	5	
1986	Reinforced Concrete Pipe - 0900mm dia.	1965	1995/96	52	517	853.05	44358.6	11,816	4	2019/20	25	1.39	5	
2003	Reinforced Concrete Pipe - 1200mm dia.	1965	1995/96	25	841	1387.65	34691.25	11,816	3	2019/20	25	1.39	4	
2004	Reinforced Concrete Pipe - 1200mm dia.	1965	1995/96	5	841	1387.65	6938.25	11,816	1	2019/20	25	1.39	1	
2005	Reinforced Concrete Pipe - 1200mm dia.	1965	1995/96	160	841	1387.65	222024	11,816	19	2019/20	25	1.39	26	
2006	Reinforced Concrete Pipe - 1200mm dia.	1965	1995/96	85	841	1387.65	117950.25	11,816	10	2019/20	25	1.39	14	
2007	Reinforced Concrete Pipe - 1200mm dia.	1965	1995/96	22	841	1387.65	30528.3	11,816	3	2019/20	25	1.39	4	
2008	Reinforced Concrete Pipe - 1200mm dia.	1965	1995/96	13	841	1387.65	18039.45	11,816	2	2019/20	25	1.39	2	
2009	Reinforced Concrete Pipe - 1200mm dia.	1965	1995/96	18	841	1387.65	24977.7	11,816	2	2019/20	25	1.39	3	
2915	Unlined Trapezoidal Open Channel 2-4m Base Width	1965	1995/96	240	178	293.7	70488	11,816	6	2019/20	25	1.39	8	
4712	Unlined Trapezoidal Open Channel 2-4m Base	1965	1995/96	165	178	293.7	48460.5	11,816	4	2019/20	25	1.39	6	

	Width													
4719	Unlined Trapezoidal Open Channel 2-4m Base Width	1965	1995/96	2	178	293.7	587.4	11,816	0	2019/20	25	1.39	0	
4746	Unlined Trapezoidal Open Channel 2-4m Base Width	1965	1995/96	5	178	293.7	1468.5	11,816	0	2019/20	25	1.39	0	
1885	Unlined Trapezoidal Open Channel 2-4m Base Width	1965	1995/96	28	178	293.7	8223.6	11,816	1	2019/20	25	1.39	1	
1915	Unlined Trapezoidal Open Channel 2-4m Base Width	1965	1995/96	45	178	293.7	13216.5	11,816	1	2019/20	25	1.39	2	
1917	Unlined Trapezoidal Open Channel 2-4m Base Width	1965	1995/96	55	178	293.7	16153.5	11,816	1	2019/20	25	1.39	2	
1944	Unlined Trapezoidal Open Channel 2-4m Base Width	1965	1995/96	5	178	293.7	1468.5	11,816	0	2019/20	25	1.39	0	
4703	Unlined Wide Flat Open Channel	1965	1995/96	98	171	282.15	27650.7	11,816	2	2019/20	25	1.39	3	
493	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	13	325	536.25	6971.25	11,816	1	2019/20	25	1.39	1	
2224	Concrete Box Culvert - 0600X0300m m	1968	1995/96	13	320	528	6864	11,816	1	2019/20	25	1.39	1	

2364	Concrete Box Culvert - 2300X0700m m	1968	1995/96	7	1529	2522.85	17659.95	11,816	1	2019/20	25	1.39	2	
2365	Concrete Box Culvert - 2300X0700m m	1968	1995/96	16	1529	2522.85	40365.6	11,816	3	2019/20	25	1.39	5	
2402	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	78	295	486.75	37966.5	11,816	3	2019/20	25	1.39	4	
2403	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	28	295	486.75	13629	11,816	1	2019/20	25	1.39	2	
2404	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	88	295	486.75	42834	11,816	4	2019/20	25	1.39	5	
2432	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	28	295	486.75	13629	11,816	1	2019/20	25	1.39	2	
2167	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	3	295	486.75	1460.25	11,816	0	2019/20	25	1.39	0	
2195	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	125	295	486.75	60843.75	11,816	5	2019/20	25	1.39	7	
2175	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	22	295	486.75	10708.5	11,816	1	2019/20	25	1.39	1	
2176	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	32	295	486.75	15576	11,816	1	2019/20	25	1.39	2	
2177	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	18	295	486.75	8761.5	11,816	1	2019/20	25	1.39	1	
2178	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	7	295	486.75	3407.25	11,816	0	2019/20	25	1.39	0	

2179	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	19	295	486.75	9248.25	11,816	1	2019/20	25	1.39	1	
2180	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	15	295	486.75	7301.25	11,816	1	2019/20	25	1.39	1	
2181	Reinforced Concrete Pipe - 0525mm dia.	1968	1995/96	43	295	486.75	20930.25	11,816	2	2019/20	25	1.39	2	
2391	Reinforced Concrete Pipe - 0600mm dia.	1968	1995/96	78	325	536.25	41827.5	11,816	4	2019/20	25	1.39	5	
2171	Reinforced Concrete Pipe - 0600mm dia.	1968	1995/96	82	325	536.25	43972.5	11,816	4	2019/20	25	1.39	5	
2203	Reinforced Concrete Pipe - 0600mm dia.	1968	1995/96	105	325	536.25	56306.25	11,816	5	2019/20	25	1.39	7	
2204	Reinforced Concrete Pipe - 0600mm dia.	1968	1995/96	101	325	536.25	54161.25	11,816	5	2019/20	25	1.39	6	
2400	Reinforced Concrete Pipe - 0675mm dia.	1968	1995/96	30	354	584.1	17523	11,816	1	2019/20	25	1.39	2	
2401	Reinforced Concrete Pipe - 0675mm dia.	1968	1995/96	4	354	584.1	2336.4	11,816	0	2019/20	25	1.39	0	
2193	Reinforced Concrete Pipe - 0675mm dia.	1968	1995/96	36	354	584.1	21027.6	11,816	2	2019/20	25	1.39	2	
2194	Reinforced Concrete Pipe - 0675mm dia.	1968	1995/96	56	354	584.1	32709.6	11,816	3	2019/20	25	1.39	4	
2398	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	28	369	608.85	17047.8	11,816	1	2019/20	25	1.39	2	

2399	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	94	369	608.85	57231.9	11,816	5	2019/20	25	1.39	7	
1801	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	15	369	608.85	9132.75	11,816	1	2019/20	25	1.39	1	
1802	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	19	369	608.85	11568.15	11,816	1	2019/20	25	1.39	1	
1804	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	15	369	608.85	9132.75	11,816	1	2019/20	25	1.39	1	
9747	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	23	369	608.85	14003.55	11,816	1	2019/20	25	1.39	2	
9749	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	23	369	608.85	14003.55	11,816	1	2019/20	25	1.39	2	
9750	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	23	369	608.85	14003.55	11,816	1	2019/20	25	1.39	2	
2166	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	28	369	608.85	17047.8	11,816	1	2019/20	25	1.39	2	
2168	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	30	369	608.85	18265.5	11,816	2	2019/20	25	1.39	2	
2169	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	14	369	608.85	8523.9	11,816	1	2019/20	25	1.39	1	
2170	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	11	369	608.85	6697.35	11,816	1	2019/20	25	1.39	1	
2191	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	6	369	608.85	3653.1	11,816	0	2019/20	25	1.39	0	

2192	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	8	369	608.85	4870.8	11,816	0	2019/20	25	1.39	1	
2397	Reinforced Concrete Pipe - 0825mm dia.	1968	1995/96	124	428	706.2	87568.8	11,816	7	2019/20	25	1.39	10	
1111	Reinforced Concrete Pipe - 0900mm dia.	1968	1995/96	9	517	853.05	7677.45	11,816	1	2019/20	25	1.39	1	
1111	Reinforced Concrete Pipe - 0900mm dia.	1968	1995/96	10	517	853.05	8530.5	11,816	1	2019/20	25	1.39	1	
2163	Reinforced Concrete Pipe - 0900mm dia.	1968	1995/96	22	517	853.05	18767.1	11,816	2	2019/20	25	1.39	2	
2164	Reinforced Concrete Pipe - 0900mm dia.	1968	1995/96	94	517	853.05	80186.7	11,816	7	2019/20	25	1.39	9	
2165	Reinforced Concrete Pipe - 0900mm dia.	1968	1995/96	86	517	853.05	73362.3	11,816	6	2019/20	25	1.39	9	
2393	Reinforced Concrete Pipe - 1050mm dia.	1968	1995/96	4	664	1095.6	4382.4	11,816	0	2019/20	25	1.39	1	
2394	Reinforced Concrete Pipe - 1050mm dia.	1968	1995/96	40	664	1095.6	43824	11,816	4	2019/20	25	1.39	5	
2395	Reinforced Concrete Pipe - 1050mm dia.	1968	1995/96	3	664	1095.6	3286.8	11,816	0	2019/20	25	1.39	0	
2396	Reinforced Concrete Pipe - 1050mm dia.	1968	1995/96	11	664	1095.6	12051.6	11,816	1	2019/20	25	1.39	1	
2366	Unlined Trapezoidal Open Channel 2-4m Base Width	1968	1995/96	4	178	293.7	1174.8	11,816	0	2019/20	25	1.39	0	

2392	Unlined Trapezoidal Open Channel 2-4m Base Width	1968	1995/96	4	178	293.7	1174.8	11,816	0	2019/20	25	1.39	0	
9746	Unlined Trapezoidal Open Channel 2-4m Base Width	1968	1995/96	210	178	293.7	61677	11,816	5	2019/20	25	1.39	7	
1923	Reinforced Concrete Pipe - 0525mm dia.	1970	1995/96	100	295	486.75	48675	11,816	4	2019/20	25	1.39	6	
1924	Reinforced Concrete Pipe - 0600mm dia.	1970	1995/96	18	325	536.25	9652.5	11,816	1	2019/20	25	1.39	1	
1920	Reinforced Concrete Pipe - 0750mm dia.	1970	1995/96	18	369	608.85	10959.3	11,816	1	2019/20	25	1.39	1	
1921	Reinforced Concrete Pipe - 0750mm dia.	1970	1995/96	7	369	608.85	4261.95	11,816	0	2019/20	25	1.39	1	
1922	Reinforced Concrete Pipe - 0750mm dia.	1970	1995/96	6	369	608.85	3653.1	11,816	0	2019/20	25	1.39	0	
1926	Reinforced Concrete Pipe - 0750mm dia.	1970	1995/96	15	369	608.85	9132.75	11,816	1	2019/20	25	1.39	1	
713	Reinforced Concrete Pipe - 0525mm dia.	1972	1995/96	30	295	486.75	14602.5	11,816	1	2019/20	25	1.39	2	
2259	Reinforced Concrete Pipe - 0525mm dia.	1972	1995/96	47	295	486.75	22877.25	11,816	2	2019/20	25	1.39	3	
712	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	13	325	536.25	6971.25	11,816	1	2019/20	25	1.39	1	

1872	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	20	325	536.25	10725	11,816	1	2019/20	25	1.39	1	
1877	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	20	325	536.25	10725	11,816	1	2019/20	25	1.39	1	
711	Reinforced Concrete Pipe - 0675mm dia.	1972	1995/96	34	354	584.1	19859.4	11,816	2	2019/20	25	1.39	2	
710	Unlined Trapezoidal Open Channel 2-4m Base Width	1972	1995/96	97	178	293.7	28488.9	11,816	2	2019/20	25	1.39	3	
213	Unlined Trapezoidal Open Channel 2-4m Base Width	1972	1995/96	60	178	293.7	17622	11,816	1	2019/20	25	1.39	2	
191	Unlined Trapezoidal Open Channel 2-4m Base Width	1972	1995/96	475	178	293.7	139507.5	11,816	12	2019/20	25	1.39	16	
321	Asbestos Cement Pipe - 525mm dia.	1975	1995/96	12	295	486.75	5841	11,816	0	2019/20	25	1.39	1	
322	Asbestos Cement Pipe - 525mm dia.	1975	1995/96	12	295	486.75	5841	11,816	0	2019/20	25	1.39	1	
2156	Concrete Box Culvert - 0600X0300m m	1975	1995/96	4	320	528	2112	11,816	0	2019/20	25	1.39	0	
2158	Concrete Box Culvert - 0600X0300m m	1975	1995/96	20	320	528	10560	11,816	1	2019/20	25	1.39	1	

2145	Concrete Box Culvert - 0900X0300m m	1975	1995/96	5	459	757.35	3786.75	11,816	0	2019/20	25	1.39	0	
2564	Reinforced Concrete Pipe - 0525mm dia.	1975	1995/96	15	295	486.75	7301.25	11,816	1	2019/20	25	1.39	1	
2565	Reinforced Concrete Pipe - 0525mm dia.	1975	1995/96	18	295	486.75	8761.5	11,816	1	2019/20	25	1.39	1	
308	Reinforced Concrete Pipe - 0525mm dia.	1975	1995/96	72	295	486.75	35046	11,816	3	2019/20	25	1.39	4	
2611	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	50	325	536.25	26812.5	11,816	2	2019/20	25	1.39	3	
2612	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	11	325	536.25	5898.75	11,816	0	2019/20	25	1.39	1	
2613	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	58	325	536.25	31102.5	11,816	3	2019/20	25	1.39	4	
2614	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	18	325	536.25	9652.5	11,816	1	2019/20	25	1.39	1	
2142	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	86	325	536.25	46117.5	11,816	4	2019/20	25	1.39	5	
2143	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	11	325	536.25	5898.75	11,816	0	2019/20	25	1.39	1	
244	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	6	325	536.25	3217.5	11,816	0	2019/20	25	1.39	0	
245	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	63	325	536.25	33783.75	11,816	3	2019/20	25	1.39	4	

246	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	49	325	536.25	26276.25	11,816	2	2019/20	25	1.39	3	
247	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	11	325	536.25	5898.75	11,816	0	2019/20	25	1.39	1	
248	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	12	325	536.25	6435	11,816	1	2019/20	25	1.39	1	
249	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	86	325	536.25	46117.5	11,816	4	2019/20	25	1.39	5	
250	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	14	325	536.25	7507.5	11,816	1	2019/20	25	1.39	1	
319	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	18	325	536.25	9652.5	11,816	1	2019/20	25	1.39	1	
242	Reinforced Concrete Pipe - 0675mm dia.	1975	1995/96	13	354	584.1	7593.3	11,816	1	2019/20	25	1.39	1	
243	Reinforced Concrete Pipe - 0675mm dia.	1975	1995/96	16	354	584.1	9345.6	11,816	1	2019/20	25	1.39	1	
2561	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	13	369	608.85	7915.05	11,816	1	2019/20	25	1.39	1	
2603	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	215	369	608.85	130902.75	11,816	11	2019/20	25	1.39	15	
2604	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	47	369	608.85	28615.95	11,816	2	2019/20	25	1.39	3	
2605	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	40	369	608.85	24354	11,816	2	2019/20	25	1.39	3	

2606	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	54	369	608.85	32877.9	11,816	3	2019/20	25	1.39	4	
2607	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	13	369	608.85	7915.05	11,816	1	2019/20	25	1.39	1	
2608	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	11	369	608.85	6697.35	11,816	1	2019/20	25	1.39	1	
2609	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	57	369	608.85	34704.45	11,816	3	2019/20	25	1.39	4	
1957	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	10	369	608.85	6088.5	11,816	1	2019/20	25	1.39	1	
1958	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	65	369	608.85	39575.25	11,816	3	2019/20	25	1.39	5	
1959	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	50	369	608.85	30442.5	11,816	3	2019/20	25	1.39	4	
1960	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	100	369	608.85	60885	11,816	5	2019/20	25	1.39	7	
1961	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	75	369	608.85	45663.75	11,816	4	2019/20	25	1.39	5	
1962	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	263	369	608.85	160127.55	11,816	14	2019/20	25	1.39	19	
309	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	34	369	608.85	20700.9	11,816	2	2019/20	25	1.39	2	
310	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	12	369	608.85	7306.2	11,816	1	2019/20	25	1.39	1	

311	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	47	369	608.85	28615.95	11,816	2	2019/20	25	1.39	3	
312	Reinforced Concrete Pipe - 0750mm dia.	1975	1995/96	45	369	608.85	27398.25	11,816	2	2019/20	25	1.39	3	
2368	Unlined Trapezoidal Open Channel 2-4m Base Width	1975	1995/96	74	178	293.7	21733.8	11,816	2	2019/20	25	1.39	3	
2369	Unlined Trapezoidal Open Channel 2-4m Base Width	1975	1995/96	15	178	293.7	4405.5	11,816	0	2019/20	25	1.39	1	
9661	Concrete Box Culvert - 3000X1200m m	1976	1995/96	23	2033	3354.45	77152.35	11,816	7	2019/20	25	1.39	9	
9686	Concrete Box Culvert - 3000X1200m m	1976	1995/96	23	2033	3354.45	77152.35	11,816	7	2019/20	25	1.39	9	
2071	Reinforced Concrete Pipe - 0600mm dia.	1976	1995/96	37	325	536.25	19841.25	11,816	2	2019/20	25	1.39	2	
2088	Reinforced Concrete Pipe - 0600mm dia.	1976	1995/96	20	325	536.25	10725	11,816	1	2019/20	25	1.39	1	
2089	Reinforced Concrete Pipe - 0600mm dia.	1976	1995/96	61	325	536.25	32711.25	11,816	3	2019/20	25	1.39	4	
2097	Reinforced Concrete Pipe - 0600mm dia.	1976	1995/96	29	325	536.25	15551.25	11,816	1	2019/20	25	1.39	2	
2098	Reinforced Concrete Pipe - 0600mm dia.	1976	1995/96	38	325	536.25	20377.5	11,816	2	2019/20	25	1.39	2	

2099	Reinforced Concrete Pipe - 0600mm dia.	1976	1995/96	86	325	536.25	46117.5	11,816	4	2019/20	25	1.39	5	
2100	Reinforced Concrete Pipe - 0600mm dia.	1976	1995/96	8	325	536.25	4290	11,816	0	2019/20	25	1.39	1	
2096	Reinforced Concrete Pipe - 0750mm dia.	1976	1995/96	38	369	608.85	23136.3	11,816	2	2019/20	25	1.39	3	
2064	Reinforced Concrete Pipe - 0900mm dia.	1976	1995/96	6	517	853.05	5118.3	11,816	0	2019/20	25	1.39	1	
2068	Reinforced Concrete Pipe - 0900mm dia.	1976	1995/96	4	517	853.05	3412.2	11,816	0	2019/20	25	1.39	0	
2069	Reinforced Concrete Pipe - 0900mm dia.	1976	1995/96	50	517	853.05	42652.5	11,816	4	2019/20	25	1.39	5	
2070	Reinforced Concrete Pipe - 0900mm dia.	1976	1995/96	85	517	853.05	72509.25	11,816	6	2019/20	25	1.39	9	
2080	Unlined Trapezoidal Open Channel 10-15m Base Width	1976	1995/96	4	742	1224.3	4897.2	11,816	0	2019/20	25	1.39	1	
2079	Unlined Trapezoidal Open Channel 10-15m Base Width	1976	1995/96	50	742	1224.3	61215	11,816	5	2019/20	25	1.39	7	
2078	Unlined Trapezoidal Open Channel 10-15m Base Width	1976	1995/96	85	742	1224.3	104065.5	11,816	9	2019/20	25	1.39	12	

2077	Unlined Trapezoidal Open Channel 10-15m Base Width	1976	1995/96	37	742	1224.3	45299.1	11,816	4	2019/20	25	1.39	5	
2076	Unlined Trapezoidal Open Channel 10-15m Base Width	1976	1995/96	87	742	1224.3	106514.1	11,816	9	2019/20	25	1.39	13	
9662	Unlined Trapezoidal Open Channel 4-6m Base Width	1976	1995/96	75	297	490.05	36753.75	11,816	3	2019/20	25	1.39	4	
9679	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	10	369	608.85	6088.5	11,816	1	2019/20	25	1.39	1	
9678	Unlined Trapezoidal Open Channel 4-6m Base Width	1977	1995/96	67	297	490.05	32833.35	11,816	3	2019/20	25	1.39	4	
657	Reinforced Concrete Pipe - 0525mm dia.	1978	1995/96	6	295	486.75	2920.5	11,816	0	2019/20	25	1.39	0	
658	Reinforced Concrete Pipe - 0525mm dia.	1978	1995/96	66	295	486.75	32125.5	11,816	3	2019/20	25	1.39	4	
659	Reinforced Concrete Pipe - 0525mm dia.	1978	1995/96	6	295	486.75	2920.5	11,816	0	2019/20	25	1.39	0	
660	Reinforced Concrete Pipe - 0525mm dia.	1978	1995/96	36	295	486.75	17523	11,816	1	2019/20	25	1.39	2	
661	Reinforced Concrete Pipe - 0525mm dia.	1978	1995/96	25	295	486.75	12168.75	11,816	1	2019/20	25	1.39	1	

662	Reinforced Concrete Pipe - 0525mm dia.	1978	1995/96	10	295	486.75	4867.5	11,816	0	2019/20	25	1.39	1	
656	Unlined Trapezoidal Open Channel 2-4m Base Width	1978	1995/96	64	178	293.7	18796.8	11,816	2	2019/20	25	1.39	2	
63	Concrete Box Culvert - 1500X1200m m	1979	1995/96	135	1145	1889.25	255048.75	11,816	22	2019/20	25	1.39	30	
64	Concrete Box Culvert - 1500X1200m m	1979	1995/96	9	1145	1889.25	17003.25	11,816	1	2019/20	25	1.39	2	
62	Concrete Box Culvert - 2400X1200m m	1979	1995/96	54	1641	2707.65	146213.1	11,816	12	2019/20	25	1.39	17	
2560	Reinforced Concrete Pipe - 0750mm dia.	1979	1995/96	102	369	608.85	62102.7	11,816	5	2019/20	25	1.39	7	
2555	Reinforced Concrete Pipe - 0900mm dia.	1979	1995/96	53	517	853.05	45211.65	11,816	4	2019/20	25	1.39	5	
2575	Reinforced Concrete Pipe - 0900mm dia.	1979	1995/96	53	517	853.05	45211.65	11,816	4	2019/20	25	1.39	5	
2556	Reinforced Concrete Pipe - 0900mm dia.	1979	1995/96	13	517	853.05	11089.65	11,816	1	2019/20	25	1.39	1	
2576	Reinforced Concrete Pipe - 0900mm dia.	1979	1995/96	13	517	853.05	11089.65	11,816	1	2019/20	25	1.39	1	
2558	Reinforced Concrete Pipe - 1050mm dia.	1979	1995/96	57	664	1095.6	62449.2	11,816	5	2019/20	25	1.39	7	

2559	Reinforced Concrete Pipe - 1050mm dia.	1979	1995/96	13	664	1095.6	14242.8	11,816	1	2019/20	25	1.39	2	
625	Reinforced Concrete Pipe - 0525mm dia.	1980	1995/96	44	295	486.75	21417	11,816	2	2019/20	25	1.39	3	
57	Unlined Trapezoidal Open Channel 2-4m Base Width	1980	1995/96	61	178	293.7	17915.7	11,816	2	2019/20	25	1.39	2	
9955	Reinforced Concrete Pipe - 0825mm dia.	1981	1995/96	42	428	706.2	29660.4	11,816	3	2019/20	25	1.39	3	
1794	Reinforced Concrete Pipe - 1050mm dia.	1981	1995/96	15	664	1095.6	16434	11,816	1	2019/20	25	1.39	2	
1795	Reinforced Concrete Pipe - 1050mm dia.	1981	1995/96	22	664	1095.6	24103.2	11,816	2	2019/20	25	1.39	3	
1797	Reinforced Concrete Pipe - 1050mm dia.	1981	1995/96	39	664	1095.6	42728.4	11,816	4	2019/20	25	1.39	5	
1798	Reinforced Concrete Pipe - 1050mm dia.	1981	1995/96	17	664	1095.6	18625.2	11,816	2	2019/20	25	1.39	2	
1792	Reinforced Concrete Pipe - 1200mm dia.	1981	1995/96	18	841	1387.65	24977.7	11,816	2	2019/20	25	1.39	3	
1793	Reinforced Concrete Pipe - 1200mm dia.	1981	1995/96	23	841	1387.65	31915.95	11,816	3	2019/20	25	1.39	4	
1796	Reinforced Concrete Pipe - 1200mm dia.	1981	1995/96	5	841	1387.65	6938.25	11,816	1	2019/20	25	1.39	1	
1791	Reinforced Concrete Pipe - 1350mm dia.	1981	1995/96	20	1033	1704.45	34089	11,816	3	2019/20	25	1.39	4	

1782	Reinforced Concrete Pipe - 1500mm dia.	1981	1995/96	12	1255	2070.75	24849	11,816	2	2019/20	25	1.39	3	
1783	Reinforced Concrete Pipe - 1500mm dia.	1981	1995/96	21	1255	2070.75	43485.75	11,816	4	2019/20	25	1.39	5	
65	Concrete Box Culvert - 1800X0600m m	1982	1995/96	7	1026	1692.9	11850.3	11,816	1	2019/20	25	1.39	1	
66	Concrete Box Culvert - 1800X0600m m	1982	1995/96	12	1026	1692.9	20314.8	11,816	2	2019/20	25	1.39	2	
270	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	6	325	536.25	3217.5	11,816	0	2019/20	25	1.39	0	
67	Reinforced Concrete Pipe - 0900mm dia.	1982	1995/96	126	517	853.05	107484.3	11,816	9	2019/20	25	1.39	13	
266	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	62	664	1095.6	67927.2	11,816	6	2019/20	25	1.39	8	
267	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	4	664	1095.6	4382.4	11,816	0	2019/20	25	1.39	1	
268	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	46	664	1095.6	50397.6	11,816	4	2019/20	25	1.39	6	
272	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	9	664	1095.6	9860.4	11,816	1	2019/20	25	1.39	1	
68	Unlined Trapezoidal Open Channel 4-6m Base Width	1982	1995/96	33	297	490.05	16171.65	11,816	1	2019/20	25	1.39	2	

69	Unlined Trapezoidal Open Channel 4-6m Base Width	1982	1995/96	120	297	490.05	58806	11,816	5	2019/20	25	1.39	7	
81	Asbestos Cement Pipe - 750mm dia.	1983	1995/96	70	369	608.85	42619.5	11,816	4	2019/20	25	1.39	5	
76	Asbestos Cement Pipe - 750mm dia.	1983	1995/96	16	369	608.85	9741.6	11,816	1	2019/20	25	1.39	1	
77	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	50	369	608.85	30442.5	11,816	3	2019/20	25	1.39	4	
78	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	85	369	608.85	51752.25	11,816	4	2019/20	25	1.39	6	
79	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	48	369	608.85	29224.8	11,816	2	2019/20	25	1.39	3	
80	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	61	369	608.85	37139.85	11,816	3	2019/20	25	1.39	4	
82	Reinforced Concrete Pipe - 1200mm dia.	1983	1995/96	39	841	1387.65	54118.35	11,816	5	2019/20	25	1.39	6	
1143	Asbestos Cement Pipe - 525mm dia.	1984	1995/96	38	295	486.75	18496.5	11,816	2	2019/20	25	1.39	2	
1143	Asbestos Cement Pipe - 525mm dia.	1984	1995/96	58	295	486.75	28231.5	11,816	2	2019/20	25	1.39	3	
1143	Asbestos Cement Pipe - 600mm dia.	1984	1995/96	59	325	536.25	31638.75	11,816	3	2019/20	25	1.39	4	
1143	Asbestos Cement Pipe - 600mm dia.	1984	1995/96	29	325	536.25	15551.25	11,816	1	2019/20	25	1.39	2	

1139	Concrete Box Culvert - 0750X0450m m	1984	1995/96	17	433	714.45	12145.65	11,816	1	2019/20	25	1.39	1	
2241	Reinforced Concrete Pipe - 0900mm dia.	1984	1995/96	25	517	853.05	21326.25	11,816	2	2019/20	25	1.39	3	
2244	Reinforced Concrete Pipe - 0900mm dia.	1984	1995/96	13	517	853.05	11089.65	11,816	1	2019/20	25	1.39	1	
2245	Reinforced Concrete Pipe - 0900mm dia.	1984	1995/96	5	517	853.05	4265.25	11,816	0	2019/20	25	1.39	1	
88	Asbestos Cement Pipe - 525mm dia.	1985	1995/96	111	295	486.75	54029.25	11,816	5	2019/20	25	1.39	6	
89	Asbestos Cement Pipe - 525mm dia.	1985	1995/96	50	295	486.75	24337.5	11,816	2	2019/20	25	1.39	3	
90	Asbestos Cement Pipe - 525mm dia.	1985	1995/96	63	295	486.75	30665.25	11,816	3	2019/20	25	1.39	4	
91	Asbestos Cement Pipe - 525mm dia.	1985	1995/96	48	295	486.75	23364	11,816	2	2019/20	25	1.39	3	
3396	Asbestos Cement Pipe - 575mm dia.	1985	1995/96	38	325	536.25	20377.5	11,816	2	2019/20	25	1.39	2	
564	Asbestos Cement Pipe - 600mm dia.	1985	1995/96	26	325	536.25	13942.5	11,816	1	2019/20	25	1.39	2	
565	Asbestos Cement Pipe - 600mm dia.	1985	1995/96	77	325	536.25	41291.25	11,816	3	2019/20	25	1.39	5	
3388	Asbestos Cement Pipe - 675mm dia.	1985	1995/96	40	354	584.1	23364	11,816	2	2019/20	25	1.39	3	

3405	Asbestos Cement Pipe - 675mm dia.	1985	1995/96	40	354	584.1	23364	11,816	2	2019/20	25	1.39	3	
3389	Asbestos Cement Pipe - 675mm dia.	1985	1995/96	11	354	584.1	6425.1	11,816	1	2019/20	25	1.39	1	
3406	Asbestos Cement Pipe - 675mm dia.	1985	1995/96	11	354	584.1	6425.1	11,816	1	2019/20	25	1.39	1	
3392	Asbestos Cement Pipe - 675mm dia.	1985	1995/96	60	354	584.1	35046	11,816	3	2019/20	25	1.39	4	
3393	Asbestos Cement Pipe - 675mm dia.	1985	1995/96	30	354	584.1	17523	11,816	1	2019/20	25	1.39	2	
3394	Asbestos Cement Pipe - 675mm dia.	1985	1995/96	33	354	584.1	19275.3	11,816	2	2019/20	25	1.39	2	
3395	Asbestos Cement Pipe - 675mm dia.	1985	1995/96	30	354	584.1	17523	11,816	1	2019/20	25	1.39	2	
3383	Asbestos Cement Pipe - 750mm dia.	1985	1995/96	20	369	608.85	12177	11,816	1	2019/20	25	1.39	1	
3400	Asbestos Cement Pipe - 750mm dia.	1985	1995/96	20	369	608.85	12177	11,816	1	2019/20	25	1.39	1	
3384	Asbestos Cement Pipe - 750mm dia.	1985	1995/96	14	369	608.85	8523.9	11,816	1	2019/20	25	1.39	1	
3401	Asbestos Cement Pipe - 750mm dia.	1985	1995/96	14	369	608.85	8523.9	11,816	1	2019/20	25	1.39	1	
3385	Asbestos Cement Pipe - 750mm dia.	1985	1995/96	82	369	608.85	49925.7	11,816	4	2019/20	25	1.39	6	

3402	Asbestos Cement Pipe - 750mm dia.	1985	1995/96	82	369	608.85	49925.7	11,816	4	2019/20	25	1.39	6	
3386	Asbestos Cement Pipe - 750mm dia.	1985	1995/96	24	369	608.85	14612.4	11,816	1	2019/20	25	1.39	2	
3403	Asbestos Cement Pipe - 750mm dia.	1985	1995/96	24	369	608.85	14612.4	11,816	1	2019/20	25	1.39	2	
3387	Asbestos Cement Pipe - 750mm dia.	1985	1995/96	50	369	608.85	30442.5	11,816	3	2019/20	25	1.39	4	
3404	Asbestos Cement Pipe - 750mm dia.	1985	1995/96	50	369	608.85	30442.5	11,816	3	2019/20	25	1.39	4	
3390	Asbestos Cement Pipe - 750mm dia.	1985	1995/96	32	369	608.85	19483.2	11,816	2	2019/20	25	1.39	2	
3391	Asbestos Cement Pipe - 750mm dia.	1985	1995/96	46	369	608.85	28007.1	11,816	2	2019/20	25	1.39	3	
1874	Concrete Box Culvert - 0900X0600m m	1985	1995/96	20	554	914.1	18282	11,816	2	2019/20	25	1.39	2	
1878	Concrete Box Culvert - 0900X0600m m	1985	1995/96	20	554	914.1	18282	11,816	2	2019/20	25	1.39	2	
3397	Fibre Reinforced Cement Pipe - 525mm dia.	1985	1995/96	8	295	486.75	3894	11,816	0	2019/20	25	1.39	0	
3398	Fibre Reinforced Cement Pipe - 525mm dia.	1985	1995/96	6	295	486.75	2920.5	11,816	0	2019/20	25	1.39	0	

3399	Fibre Reinforced Cement Pipe - 525mm dia.	1985	1995/96	8	295	486.75	3894	11,816	0	2019/20	25	1.39	0	
2047	Reinforced Concrete Pipe - 0525mm dia.	1985	1995/96	46	295	486.75	22390.5	11,816	2	2019/20	25	1.39	3	
2118	Reinforced Concrete Pipe - 0525mm dia.	1985	1995/96	12	295	486.75	5841	11,816	0	2019/20	25	1.39	1	
566	Reinforced Concrete Pipe - 0525mm dia.	1985	1995/96	62	295	486.75	30178.5	11,816	3	2019/20	25	1.39	4	
567	Reinforced Concrete Pipe - 0525mm dia.	1985	1995/96	58	295	486.75	28231.5	11,816	2	2019/20	25	1.39	3	
2046	Reinforced Concrete Pipe - 0675mm dia.	1985	1995/96	14	354	584.1	8177.4	11,816	1	2019/20	25	1.39	1	
2045	Reinforced Concrete Pipe - 0750mm dia.	1985	1995/96	90	369	608.85	54796.5	11,816	5	2019/20	25	1.39	6	
84	Reinforced Concrete Pipe - 0750mm dia.	1985	1995/96	20	369	608.85	12177	11,816	1	2019/20	25	1.39	1	
85	Reinforced Concrete Pipe - 0750mm dia.	1985	1995/96	6	369	608.85	3653.1	11,816	0	2019/20	25	1.39	0	
87	Reinforced Concrete Pipe - 0750mm dia.	1985	1995/96	29	369	608.85	17656.65	11,816	1	2019/20	25	1.39	2	
86	Reinforced Concrete Pipe - 1050mm dia.	1985	1995/96	16	664	1095.6	17529.6	11,816	1	2019/20	25	1.39	2	
548	Reinforced Concrete Pipe - 1050mm dia.	1985	1995/96	13	664	1095.6	14242.8	11,816	1	2019/20	25	1.39	2	

83	Reinforced Concrete Pipe - 1200mm dia.	1985	1995/96	18	841	1387.65	24977.7	11,816	2	2019/20	25	1.39	3	
1873	Unlined Trapezoidal Open Channel 2-4m Base Width	1985	1995/96	40	178	293.7	11748	11,816	1	2019/20	25	1.39	1	
70	Unlined Trapezoidal Open Channel 4-6m Base Width	1985	1995/96	200	297	490.05	98010	11,816	8	2019/20	25	1.39	12	
2692	Asbestos Cement Pipe - 525mm dia.	1985	1995/96	10	295	486.75	4867.5	11,816	0	2019/20	25	1.39	1	
3365	Reinforced Concrete Pipe - 0600mm dia.	1986	1995/96	10	325	536.25	5362.5	11,816	0	2019/20	25	1.39	1	
3367	Reinforced Concrete Pipe - 0600mm dia.	1986	1995/96	50	325	536.25	26812.5	11,816	2	2019/20	25	1.39	3	
3368	Reinforced Concrete Pipe - 0600mm dia.	1986	1995/96	12	325	536.25	6435	11,816	1	2019/20	25	1.39	1	
3222	Reinforced Concrete Pipe - 0600mm dia.	1986	1995/96	5	325	536.25	2681.25	11,816	0	2019/20	25	1.39	0	
3223	Reinforced Concrete Pipe - 0600mm dia.	1986	1995/96	55	325	536.25	29493.75	11,816	2	2019/20	25	1.39	3	
4709	Concrete Box Culvert - 1200X0450m m	1986	1995/96	16	608	1003.2	16051.2	11,816	1	2019/20	25	1.39	2	
4735	Concrete Box Culvert - 1200X0450m m	1986	1995/96	16	608	1003.2	16051.2	11,816	1	2019/20	25	1.39	2	

3206	Fibre Reinforced Cement Pipe - 600mm dia.	1986	1995/96	45	325	536.25	24131.25	11,816	2	2019/20	25	1.39	3	
3205	Fibre Reinforced Cement Pipe - 825mm dia.	1986	1995/96	51	428	706.2	36016.2	11,816	3	2019/20	25	1.39	4	
3204	Fibre Reinforced Cement Pipe - 900mm dia.	1986	1995/96	118	517	853.05	100659.9	11,816	9	2019/20	25	1.39	12	
3202	Reinforced Concrete Pipe - 0600mm dia.	1986	1995/96	13	325	536.25	6971.25	11,816	1	2019/20	25	1.39	1	
3209	Reinforced Concrete Pipe - 0600mm dia.	1986	1995/96	13	325	536.25	6971.25	11,816	1	2019/20	25	1.39	1	
4707	Unlined Trapezoidal Open Channel 2-4m Base Width	1986	1995/96	45	178	293.7	13216.5	11,816	1	2019/20	25	1.39	2	
4708	Unlined Trapezoidal Open Channel 2-4m Base Width	1986	1995/96	22	178	293.7	6461.4	11,816	1	2019/20	25	1.39	1	
4710	Unlined Trapezoidal Open Channel 2-4m Base Width	1986	1995/96	65	178	293.7	19090.5	11,816	2	2019/20	25	1.39	2	
4637	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	13	325	536.25	6971.25	11,816	1	2019/20	25	1.39	1	
4659	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	13	325	536.25	6971.25	11,816	1	2019/20	25	1.39	1	

4660	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	13	325	536.25	6971.25	11,816	1	2019/20	25	1.39	1	
4661	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	13	325	536.25	6971.25	11,816	1	2019/20	25	1.39	1	
4662	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	13	325	536.25	6971.25	11,816	1	2019/20	25	1.39	1	
4638	Unlined Trapezoidal Open Channel 2-4m Base Width	1987	1995/96	114	178	293.7	33481.8	11,816	3	2019/20	25	1.39	4	
2044	Concrete Box Culvert - 0600X0300m m	1987	1995/96	12	320	528	6336	11,816	1	2019/20	25	1.39	1	
1005	Reinforced Concrete Pipe - 0525mm dia.	1987	1995/96	6	295	486.75	2920.5	11,816	0	2019/20	25	1.39	0	
2023	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	17	325	536.25	9116.25	11,816	1	2019/20	25	1.39	1	
2024	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	17	325	536.25	9116.25	11,816	1	2019/20	25	1.39	1	
1006	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	67	369	608.85	40792.95	11,816	3	2019/20	25	1.39	5	
1005	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	9	369	608.85	5479.65	11,816	0	2019/20	25	1.39	1	
1005	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	50	369	608.85	30442.5	11,816	3	2019/20	25	1.39	4	
2375	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	38	369	608.85	23136.3	11,816	2	2019/20	25	1.39	3	

2376	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	48	369	608.85	29224.8	11,816	2	2019/20	25	1.39	3	
2377	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	8	369	608.85	4870.8	11,816	0	2019/20	25	1.39	1	
2378	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	50	369	608.85	30442.5	11,816	3	2019/20	25	1.39	4	
2013	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	26	369	608.85	15830.1	11,816	1	2019/20	25	1.39	2	
2014	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	42	369	608.85	25571.7	11,816	2	2019/20	25	1.39	3	
2015	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	22	369	608.85	13394.7	11,816	1	2019/20	25	1.39	2	
2016	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	24	369	608.85	14612.4	11,816	1	2019/20	25	1.39	2	
2017	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	49	369	608.85	29833.65	11,816	3	2019/20	25	1.39	4	
2018	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	27	369	608.85	16438.95	11,816	1	2019/20	25	1.39	2	
2019	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	50	369	608.85	30442.5	11,816	3	2019/20	25	1.39	4	
2020	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	25	369	608.85	15221.25	11,816	1	2019/20	25	1.39	2	
2021	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	9	369	608.85	5479.65	11,816	0	2019/20	25	1.39	1	

2022	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	9	369	608.85	5479.65	11,816	0	2019/20	25	1.39	1	
2041	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	22	369	608.85	13394.7	11,816	1	2019/20	25	1.39	2	
2042	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	12	369	608.85	7306.2	11,816	1	2019/20	25	1.39	1	
2043	Reinforced Concrete Pipe - 0750mm dia.	1987	1995/96	7	369	608.85	4261.95	11,816	0	2019/20	25	1.39	1	
1005	Reinforced Concrete Pipe - 0900mm dia.	1987	1995/96	75	517	853.05	63978.75	11,816	5	2019/20	25	1.39	8	
1005	Reinforced Concrete Pipe - 0900mm dia.	1987	1995/96	64	517	853.05	54595.2	11,816	5	2019/20	25	1.39	6	
2373	Reinforced Concrete Pipe - 0900mm dia.	1987	1995/96	25	517	853.05	21326.25	11,816	2	2019/20	25	1.39	3	
2374	Reinforced Concrete Pipe - 0900mm dia.	1987	1995/96	7	517	853.05	5971.35	11,816	1	2019/20	25	1.39	1	
1005	Reinforced Concrete Pipe - 1050mm dia.	1987	1995/96	8	664	1095.6	8764.8	11,816	1	2019/20	25	1.39	1	
2370	Reinforced Concrete Pipe - 1050mm dia.	1987	1995/96	3	664	1095.6	3286.8	11,816	0	2019/20	25	1.39	0	
2371	Reinforced Concrete Pipe - 1050mm dia.	1987	1995/96	34	664	1095.6	37250.4	11,816	3	2019/20	25	1.39	4	
2473	Concrete Box Culvert - 0800X0125m m	1988	1995/96	4	435	717.75	2871	11,816	0	2019/20	25	1.39	0	

2438	Fibre Reinforced Cement Pipe - 525mm dia.	1988	1995/96	3	295	486.75	1460.25	11,816	0	2019/20	25	1.39	0	
2439	Fibre Reinforced Cement Pipe - 525mm dia.	1988	1995/96	46	295	486.75	22390.5	11,816	2	2019/20	25	1.39	3	
2440	Fibre Reinforced Cement Pipe - 525mm dia.	1988	1995/96	3	295	486.75	1460.25	11,816	0	2019/20	25	1.39	0	
2441	Fibre Reinforced Cement Pipe - 525mm dia.	1988	1995/96	6	295	486.75	2920.5	11,816	0	2019/20	25	1.39	0	
2442	Fibre Reinforced Cement Pipe - 525mm dia.	1988	1995/96	3	295	486.75	1460.25	11,816	0	2019/20	25	1.39	0	
2443	Fibre Reinforced Cement Pipe - 525mm dia.	1988	1995/96	8	295	486.75	3894	11,816	0	2019/20	25	1.39	0	
2435	Fibre Reinforced Cement Pipe - 600mm dia.	1988	1995/96	3	325	536.25	1608.75	11,816	0	2019/20	25	1.39	0	
2436	Fibre Reinforced Cement Pipe - 600mm dia.	1988	1995/96	28	325	536.25	15015	11,816	1	2019/20	25	1.39	2	
2437	Fibre Reinforced Cement Pipe - 600mm dia.	1988	1995/96	7	325	536.25	3753.75	11,816	0	2019/20	25	1.39	0	
2465	Fibre Reinforced Cement Pipe - 750mm dia.	1988	1995/96	17	369	608.85	10350.45	11,816	1	2019/20	25	1.39	1	

2433	Reinforced Concrete Pipe - 1050mm dia.	1988	1995/96	14	664	1095.6	15338.4	11,816	1	2019/20	25	1.39	2	
2217	Asbestos Cement Pipe - 525mm dia.	1988	1995/96	105	295	486.75	51108.75	11,816	4	2019/20	25	1.39	6	
2218	Asbestos Cement Pipe - 525mm dia.	1988	1995/96	101	295	486.75	49161.75	11,816	4	2019/20	25	1.39	6	
2213	Asbestos Cement Pipe - 750mm dia.	1988	1995/96	20	369	608.85	12177	11,816	1	2019/20	25	1.39	1	
2210	Reinforced Concrete Pipe - 0600mm dia.	1988	1995/96	54	325	536.25	28957.5	11,816	2	2019/20	25	1.39	3	
2211	Reinforced Concrete Pipe - 0600mm dia.	1988	1995/96	19	325	536.25	10188.75	11,816	1	2019/20	25	1.39	1	
2212	Reinforced Concrete Pipe - 0600mm dia.	1988	1995/96	79	325	536.25	42363.75	11,816	4	2019/20	25	1.39	5	
2489	Fibre Reinforced Cement Pipe - 525mm dia.	1989	1995/96	43	295	486.75	20930.25	11,816	2	2019/20	25	1.39	2	
2490	Fibre Reinforced Cement Pipe - 525mm dia.	1989	1995/96	30	295	486.75	14602.5	11,816	1	2019/20	25	1.39	2	
2491	Fibre Reinforced Cement Pipe - 525mm dia.	1989	1995/96	10	295	486.75	4867.5	11,816	0	2019/20	25	1.39	1	
2492	Fibre Reinforced Cement Pipe - 525mm dia.	1989	1995/96	50	295	486.75	24337.5	11,816	2	2019/20	25	1.39	3	

2716	Fibre Reinforced Cement Pipe - 750mm dia.	1989	1995/96	7	369	608.85	4261.95	11,816	0	2019/20	25	1.39	1	
4667	Fibre Reinforced Cement Pipe - 750mm dia.	1989	1995/96	10	369	608.85	6088.5	11,816	1	2019/20	25	1.39	1	
4668	Fibre Reinforced Cement Pipe - 750mm dia.	1989	1995/96	13	369	608.85	7915.05	11,816	1	2019/20	25	1.39	1	
4669	Fibre Reinforced Cement Pipe - 750mm dia.	1989	1995/96	4	369	608.85	2435.4	11,816	0	2019/20	25	1.39	0	
2487	Reinforced Concrete Pipe - 0525mm dia.	1989	1995/96	17	295	486.75	8274.75	11,816	1	2019/20	25	1.39	1	
2488	Reinforced Concrete Pipe - 0525mm dia.	1989	1995/96	9	295	486.75	4380.75	11,816	0	2019/20	25	1.39	1	
1865	Reinforced Concrete Pipe - 0600mm dia.	1989	1995/96	8	325	536.25	4290	11,816	0	2019/20	25	1.39	1	
1876	Reinforced Concrete Pipe - 0600mm dia.	1989	1995/96	8	325	536.25	4290	11,816	0	2019/20	25	1.39	1	
4666	Unlined Trapezoidal Open Channel 2-4m Base Width	1989	1995/96	5	178	293.7	1468.5	11,816	0	2019/20	25	1.39	0	
1866	Unlined Trapezoidal Open Channel 4-6m Base Width	1989	1995/96	170	297	490.05	83308.5	11,816	7	2019/20	25	1.39	10	

1970	Concrete Box Culvert - 0600X0300m m	1990	1995/96	35	320	528	18480	11,816	2	2019/20	25	1.39	2	
1971	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	22	325	536.25	11797.5	11,816	1	2019/20	25	1.39	1	
2790	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	130	325	536.25	69712.5	11,816	6	2019/20	25	1.39	8	
2791	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	82	325	536.25	43972.5	11,816	4	2019/20	25	1.39	5	
1963	Reinforced Concrete Pipe - 0750mm dia.	1990	1995/96	100	369	608.85	60885	11,816	5	2019/20	25	1.39	7	
1964	Reinforced Concrete Pipe - 0750mm dia.	1990	1995/96	37	369	608.85	22527.45	11,816	2	2019/20	25	1.39	3	
1965	Reinforced Concrete Pipe - 0750mm dia.	1990	1995/96	43	369	608.85	26180.55	11,816	2	2019/20	25	1.39	3	
1966	Reinforced Concrete Pipe - 0750mm dia.	1990	1995/96	15	369	608.85	9132.75	11,816	1	2019/20	25	1.39	1	
1967	Reinforced Concrete Pipe - 0750mm dia.	1990	1995/96	5	369	608.85	3044.25	11,816	0	2019/20	25	1.39	0	
1980	Reinforced Concrete Pipe - 0750mm dia.	1990	1995/96	8	369	608.85	4870.8	11,816	0	2019/20	25	1.39	1	
9959	Reinforced Concrete Pipe - 0750mm dia.	1990	1995/96	38	369	608.85	23136.3	11,816	2	2019/20	25	1.39	3	
9960	Reinforced Concrete Pipe - 0750mm dia.	1990	1995/96	10	369	608.85	6088.5	11,816	1	2019/20	25	1.39	1	

1981	Reinforced Concrete Pipe - 0750mm dia.	1990	1995/96	5	369	608.85	3044.25	11,816	0	2019/20	25	1.39	0	
1983	Reinforced Concrete Pipe - 0750mm dia.	1990	1995/96	17	369	608.85	10350.45	11,816	1	2019/20	25	1.39	1	
9760	Asbestos Cement Pipe - 525mm dia.	1991	1995/96	13	295	486.75	6327.75	11,816	1	2019/20	25	1.39	1	
9761	Asbestos Cement Pipe - 525mm dia.	1991	1995/96	15	295	486.75	7301.25	11,816	1	2019/20	25	1.39	1	
2917	Concrete Box Culvert - 2400X0750m m	1991	1995/96	22	1550	2557.5	56265	11,816	5	2019/20	25	1.39	7	
2930	Concrete Box Culvert - 2400X0750m m	1991	1995/96	22	1550	2557.5	56265	11,816	5	2019/20	25	1.39	7	
9669	Concrete Box Culvert - 2400X0900m m	1991	1995/96	5	1500	2475	12375	11,816	1	2019/20	25	1.39	1	
9670	Concrete Box Culvert - 2400X0900m m	1991	1995/96	15	1500	2475	37125	11,816	3	2019/20	25	1.39	4	
9671	Concrete Box Culvert - 2400X0900m m	1991	1995/96	5	1500	2475	12375	11,816	1	2019/20	25	1.39	1	
9687	Concrete Lined Trapezoidal Open Channel 10-15m Base Width	1991	1995/96	385	1151	1899.15	731172.75	11,816	62	2019/20	25	1.39	86	

9672	Concrete Lined Trapezoidal Open Channel 2-4m Base Width	1991	1995/96	113	653	1077.45	121751.85	11,816	10	2019/20	25	1.39	14	
2531	Reinforced Concrete Pipe - 0525mm dia.	1991	1995/96	6	295	486.75	2920.5	11,816	0	2019/20	25	1.39	0	
2532	Reinforced Concrete Pipe - 0525mm dia.	1991	1995/96	18	295	486.75	8761.5	11,816	1	2019/20	25	1.39	1	
2539	Reinforced Concrete Pipe - 0525mm dia.	1991	1995/96	6	295	486.75	2920.5	11,816	0	2019/20	25	1.39	0	
3668	Reinforced Concrete Pipe - 0525mm dia.	1991	1995/96	12	295	486.75	5841	11,816	0	2019/20	25	1.39	1	
9665	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	3	325	536.25	1608.75	11,816	0	2019/20	25	1.39	0	
9666	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	45	325	536.25	24131.25	11,816	2	2019/20	25	1.39	3	
9667	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	98	325	536.25	52552.5	11,816	4	2019/20	25	1.39	6	
3274	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	23	325	536.25	12333.75	11,816	1	2019/20	25	1.39	1	
3275	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	24	325	536.25	12870	11,816	1	2019/20	25	1.39	2	
8266	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	35	325	536.25	18768.75	11,816	2	2019/20	25	1.39	2	
3276	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	35	325	536.25	18768.75	11,816	2	2019/20	25	1.39	2	

3277	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	22	325	536.25	11797.5	11,816	1	2019/20	25	1.39	1	
3278	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	53	325	536.25	28421.25	11,816	2	2019/20	25	1.39	3	
3309	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	22	325	536.25	11797.5	11,816	1	2019/20	25	1.39	1	
3310	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	22	325	536.25	11797.5	11,816	1	2019/20	25	1.39	1	
3311	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	42	325	536.25	22522.5	11,816	2	2019/20	25	1.39	3	
3312	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	40	325	536.25	21450	11,816	2	2019/20	25	1.39	3	
3313	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	36	325	536.25	19305	11,816	2	2019/20	25	1.39	2	
3328	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	27	325	536.25	14478.75	11,816	1	2019/20	25	1.39	2	
3329	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	13	325	536.25	6971.25	11,816	1	2019/20	25	1.39	1	
3335	Reinforced Concrete Pipe - 0675mm dia.	1991	1995/96	9	354	584.1	5256.9	11,816	0	2019/20	25	1.39	1	
3305	Reinforced Concrete Pipe - 0675mm dia.	1991	1995/96	8	354	584.1	4672.8	11,816	0	2019/20	25	1.39	1	
3306	Reinforced Concrete Pipe - 0675mm dia.	1991	1995/96	10	354	584.1	5841	11,816	0	2019/20	25	1.39	1	

3307	Reinforced Concrete Pipe - 0675mm dia.	1991	1995/96	27	354	584.1	15770.7	11,816	1	2019/20	25	1.39	2	
3308	Reinforced Concrete Pipe - 0675mm dia.	1991	1995/96	27	354	584.1	15770.7	11,816	1	2019/20	25	1.39	2	
3327	Reinforced Concrete Pipe - 0675mm dia.	1991	1995/96	15	354	584.1	8761.5	11,816	1	2019/20	25	1.39	1	
9675	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	55	369	608.85	33486.75	11,816	3	2019/20	25	1.39	4	
9751	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	1	369	608.85	608.85	11,816	0	2019/20	25	1.39	0	
9752	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	1	369	608.85	608.85	11,816	0	2019/20	25	1.39	0	
3271	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	24	369	608.85	14612.4	11,816	1	2019/20	25	1.39	2	
3272	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	47	369	608.85	28615.95	11,816	2	2019/20	25	1.39	3	
3273	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	61	369	608.85	37139.85	11,816	3	2019/20	25	1.39	4	
3267	Reinforced Concrete Pipe - 0825mm dia.	1991	1995/96	16	428	706.2	11299.2	11,816	1	2019/20	25	1.39	1	
3268	Reinforced Concrete Pipe - 0825mm dia.	1991	1995/96	72	428	706.2	50846.4	11,816	4	2019/20	25	1.39	6	
3269	Reinforced Concrete Pipe - 0825mm dia.	1991	1995/96	31	428	706.2	21892.2	11,816	2	2019/20	25	1.39	3	

3270	Reinforced Concrete Pipe - 0825mm dia.	1991	1995/96	42	428	706.2	29660.4	11,816	3	2019/20	25	1.39	3	
9674	Reinforced Concrete Pipe - 1050mm dia.	1991	1995/96	8	664	1095.6	8764.8	11,816	1	2019/20	25	1.39	1	
9688	Reinforced Concrete Pipe - 1050mm dia.	1991	1995/96	8	664	1095.6	8764.8	11,816	1	2019/20	25	1.39	1	
9689	Reinforced Concrete Pipe - 1050mm dia.	1991	1995/96	8	664	1095.6	8764.8	11,816	1	2019/20	25	1.39	1	
3349	Reinforced Concrete Pipe - 1050mm dia.	1991	1995/96	32	664	1095.6	35059.2	11,816	3	2019/20	25	1.39	4	
3657	Reinforced Concrete Pipe - 1050mm dia.	1991	1995/96	32	664	1095.6	35059.2	11,816	3	2019/20	25	1.39	4	
2916	Unlined Trapezoidal Open Channel 10-15m Base Width	1991	1995/96	130	742	1224.3	159159	11,816	13	2019/20	25	1.39	19	
1035	Unlined Trapezoidal Open Channel 10-15m Base Width	1991	1995/96	28	742	1224.3	34280.4	11,816	3	2019/20	25	1.39	4	
9664	Unlined Trapezoidal Open Channel 15-20m Base Width	1991	1995/96	385	1038	1712.7	659389.5	11,816	56	2019/20	25	1.39	78	
3266	Unlined Trapezoidal Open Channel 15-20m Base Width	1991	1995/96	75	1038	1712.7	128452.5	11,816	11	2019/20	25	1.39	15	

2918	Unlined Trapezoidal Open Channel 2-4m Base Width	1991	1995/96	318	178	293.7	93396.6	11,816	8	2019/20	25	1.39	11	
8265	Unlined Trapezoidal Open Channel 2-4m Base Width	1991	1995/96	110	178	293.7	32307	11,816	3	2019/20	25	1.39	4	
8263	Unlined Trapezoidal Open Channel 2-4m Base Width	1991	1995/96	96	178	293.7	28195.2	11,816	2	2019/20	25	1.39	3	
9663	Unlined Trapezoidal Open Channel 4-6m Base Width	1991	1995/96	50	297	490.05	24502.5	11,816	2	2019/20	25	1.39	3	
9673	Unlined Trapezoidal Open Channel 4-6m Base Width	1991	1995/96	15	297	490.05	7350.75	11,816	1	2019/20	25	1.39	1	
8262	Unlined Trapezoidal Open Channel 4-6m Base Width	1991	1995/96	118	297	490.05	57825.9	11,816	5	2019/20	25	1.39	7	
9668	Unlined Trapezoidal Open Channel 6-10m Base Width	1991	1995/96	154	475	783.75	120697.5	11,816	10	2019/20	25	1.39	14	
9753	Unlined Trapezoidal Open Channel 6-10m Base Width	1991	1995/96	125	475	783.75	97968.75	11,816	8	2019/20	25	1.39	12	

5999	Asbestos Cement Pipe - 525mm dia.	1992	1995/96	10	295	486.75	4867.5	11,816	0	2019/20	25	1.39	1	
6000	Asbestos Cement Pipe - 525mm dia.	1992	1995/96	25	295	486.75	12168.75	11,816	1	2019/20	25	1.39	1	
6001	Asbestos Cement Pipe - 525mm dia.	1992	1995/96	34	295	486.75	16549.5	11,816	1	2019/20	25	1.39	2	
5948	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	51	295	486.75	24824.25	11,816	2	2019/20	25	1.39	3	
5949	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	48	295	486.75	23364	11,816	2	2019/20	25	1.39	3	
5950	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	41	295	486.75	19956.75	11,816	2	2019/20	25	1.39	2	
5951	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	40	295	486.75	19470	11,816	2	2019/20	25	1.39	2	
5996	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	13	295	486.75	6327.75	11,816	1	2019/20	25	1.39	1	
5997	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	43	295	486.75	20930.25	11,816	2	2019/20	25	1.39	2	
5998	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	7	295	486.75	3407.25	11,816	0	2019/20	25	1.39	0	
6015	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	58	295	486.75	28231.5	11,816	2	2019/20	25	1.39	3	
6016	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	30	295	486.75	14602.5	11,816	1	2019/20	25	1.39	2	

6048	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	25	295	486.75	12168.75	11,816	1	2019/20	25	1.39	1	
6049	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	25	295	486.75	12168.75	11,816	1	2019/20	25	1.39	1	
6050	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	26	295	486.75	12655.5	11,816	1	2019/20	25	1.39	1	
9920	Reinforced Concrete Pipe - 0525mm dia.	1992	1995/96	11	295	486.75	5354.25	11,816	0	2019/20	25	1.39	1	
5945	Reinforced Concrete Pipe - 0600mm dia.	1992	1995/96	27	325	536.25	14478.75	11,816	1	2019/20	25	1.39	2	
5946	Reinforced Concrete Pipe - 0600mm dia.	1992	1995/96	42	325	536.25	22522.5	11,816	2	2019/20	25	1.39	3	
5947	Reinforced Concrete Pipe - 0600mm dia.	1992	1995/96	56	325	536.25	30030	11,816	3	2019/20	25	1.39	4	
5930	Reinforced Concrete Pipe - 0600mm dia.	1992	1995/96	23	325	536.25	12333.75	11,816	1	2019/20	25	1.39	1	
5931	Reinforced Concrete Pipe - 0600mm dia.	1992	1995/96	23	325	536.25	12333.75	11,816	1	2019/20	25	1.39	1	
5932	Reinforced Concrete Pipe - 0600mm dia.	1992	1995/96	26	325	536.25	13942.5	11,816	1	2019/20	25	1.39	2	
6047	Reinforced Concrete Pipe - 0600mm dia.	1992	1995/96	27	325	536.25	14478.75	11,816	1	2019/20	25	1.39	2	
5928	Reinforced Concrete Pipe - 0675mm dia.	1992	1995/96	14	354	584.1	8177.4	11,816	1	2019/20	25	1.39	1	

5929	Reinforced Concrete Pipe - 0675mm dia.	1992	1995/96	12	354	584.1	7009.2	11,816	1	2019/20	25	1.39	1	
5943	Reinforced Concrete Pipe - 0675mm dia.	1992	1995/96	20	354	584.1	11682	11,816	1	2019/20	25	1.39	1	
5944	Reinforced Concrete Pipe - 0675mm dia.	1992	1995/96	9	354	584.1	5256.9	11,816	0	2019/20	25	1.39	1	
5992	Reinforced Concrete Pipe - 0675mm dia.	1992	1995/96	40	354	584.1	23364	11,816	2	2019/20	25	1.39	3	
5993	Reinforced Concrete Pipe - 0675mm dia.	1992	1995/96	16	354	584.1	9345.6	11,816	1	2019/20	25	1.39	1	
5994	Reinforced Concrete Pipe - 0675mm dia.	1992	1995/96	28	354	584.1	16354.8	11,816	1	2019/20	25	1.39	2	
5995	Reinforced Concrete Pipe - 0675mm dia.	1992	1995/96	15	354	584.1	8761.5	11,816	1	2019/20	25	1.39	1	
6008	Reinforced Concrete Pipe - 0675mm dia.	1992	1995/96	15	354	584.1	8761.5	11,816	1	2019/20	25	1.39	1	
5924	Reinforced Concrete Pipe - 0750mm dia.	1992	1995/96	7	369	608.85	4261.95	11,816	0	2019/20	25	1.39	1	
5925	Reinforced Concrete Pipe - 0750mm dia.	1992	1995/96	8	369	608.85	4870.8	11,816	0	2019/20	25	1.39	1	
5926	Reinforced Concrete Pipe - 0750mm dia.	1992	1995/96	40	369	608.85	24354	11,816	2	2009/20	15	1.22	3	
5927	Reinforced Concrete Pipe - 0750mm dia.	1992	1995/96	47	369	608.85	28615.95	11,816	2	2019/20	25	1.39	3	

6044	Reinforced Concrete Pipe - 0750mm dia.	1992	1995/96	35	369	608.85	21309.75	11,816	2	2019/20	25	1.39	3	
6045	Reinforced Concrete Pipe - 0750mm dia.	1992	1995/96	40	369	608.85	24354	11,816	2	2019/20	25	1.39	3	
6046	Reinforced Concrete Pipe - 0750mm dia.	1992	1995/96	68	369	608.85	41401.8	11,816	4	2019/20	25	1.39	5	
6011	Reinforced Concrete Pipe - 0900mm dia.	1992	1995/96	23	517	853.05	19620.15	11,816	2	2019/20	25	1.39	2	
5937	Reinforced Concrete Pipe - 1050mm dia.	1992	1995/96	25	664	1095.6	27390	11,816	2	2019/20	25	1.39	3	
5903	Reinforced Concrete Pipe - 1050mm dia.	1992	1995/96	23	664	1095.6	25198.8	11,816	2	2019/20	25	1.39	3	
6006	Reinforced Concrete Pipe - 1050mm dia.	1992	1995/96	14	664	1095.6	15338.4	11,816	1	2019/20	25	1.39	2	
6007	Reinforced Concrete Pipe - 1050mm dia.	1992	1995/96	9	664	1095.6	9860.4	11,816	1	2019/20	25	1.39	1	
5906	Reinforced Concrete Pipe - 1050mm dia.	1992	1995/96	23	664	1095.6	25198.8	11,816	2	2019/20	25	1.39	3	
8268	Unlined Trapezoidal Open Channel 10-15m Base Width	1992	1995/96	166	742	1224.3	203233.8	11,816	17	2019/20	25	1.39	24	
6043	Unlined Trapezoidal Open Channel 2-4m Base Width	1992	1995/96	38	178	293.7	11160.6	11,816	1	2019/20	25	1.39	1	

3100	Concrete Box Culvert - 0450X1200m m	1993	1995/96	37	610	1006.5	37240.5	11,816	3	2019/20	25	1.39	4	
3099	Concrete Box Culvert - 0600X1200m m	1993	1995/96	16	655	1080.75	17292	11,816	1	2019/20	25	1.39	2	
3102	Reinforced Concrete Pipe - 0525mm dia.	1993	1995/96	15	295	486.75	7301.25	11,816	1	2019/20	25	1.39	1	
3374	Reinforced Concrete Pipe - 0525mm dia.	1993	1995/96	15	295	486.75	7301.25	11,816	1	2019/20	25	1.39	1	
3372	Reinforced Concrete Pipe - 0525mm dia.	1993	1995/96	69	295	486.75	33585.75	11,816	3	2019/20	25	1.39	4	
3373	Reinforced Concrete Pipe - 0525mm dia.	1993	1995/96	69	295	486.75	33585.75	11,816	3	2019/20	25	1.39	4	
3135	Reinforced Concrete Pipe - 0525mm dia.	1993	1995/96	26	295	486.75	12655.5	11,816	1	2019/20	25	1.39	1	
3136	Reinforced Concrete Pipe - 0525mm dia.	1993	1995/96	6	295	486.75	2920.5	11,816	0	2019/20	25	1.39	0	
3105	Reinforced Concrete Pipe - 0600mm dia.	1993	1995/96	24	325	536.25	12870	11,816	1	2019/20	25	1.39	2	
3106	Reinforced Concrete Pipe - 0600mm dia.	1993	1995/96	34	325	536.25	18232.5	11,816	2	2019/20	25	1.39	2	
3107	Reinforced Concrete Pipe - 0600mm dia.	1993	1995/96	28	325	536.25	15015	11,816	1	2019/20	25	1.39	2	
1817	Reinforced Concrete Pipe - 0600mm dia.	1993	1995/96	12	325	536.25	6435	11,816	1	2019/20	25	1.39	1	

1848	Reinforced Concrete Pipe - 0600mm dia.	1993	1995/96	12	325	536.25	6435	11,816	1	2019/20	25	1.39	1	
1849	Reinforced Concrete Pipe - 0600mm dia.	1993	1995/96	43	325	536.25	23058.75	11,816	2	2019/20	25	1.39	3	
1850	Reinforced Concrete Pipe - 0600mm dia.	1993	1995/96	10	325	536.25	5362.5	11,816	0	2019/21	25	1.39	1	
1851	Reinforced Concrete Pipe - 0600mm dia.	1993	1995/96	20	325	536.25	10725	11,816	1	2019/20	25	1.39	1	
1852	Reinforced Concrete Pipe - 0600mm dia.	1993	1995/96	20	325	536.25	10725	11,816	1	2019/20	25	1.39	1	
1853	Reinforced Concrete Pipe - 0600mm dia.	1993	1995/96	20	325	536.25	10725	11,816	1	2019/20	25	1.39	1	
3101	Reinforced Concrete Pipe - 0675mm dia.	1993	1995/96	52	354	584.1	30373.2	11,816	3	2019/20	25	1.39	4	
3103	Reinforced Concrete Pipe - 0675mm dia.	1993	1995/96	37	354	584.1	21611.7	11,816	2	2019/20	25	1.39	3	
3104	Reinforced Concrete Pipe - 0675mm dia.	1993	1995/96	32	354	584.1	18691.2	11,816	2	2019/20	25	1.39	2	
2548	Reinforced Concrete Pipe - 0825mm dia.	1993	1995/96	25	428	706.2	17655	11,816	1	2019/20	25	1.39	2	
2549	Reinforced Concrete Pipe - 0825mm dia.	1993	1995/96	25	428	706.2	17655	11,816	1	2019/20	25	1.39	2	
2574	Reinforced Concrete Pipe - 0825mm dia.	1993	1995/96	46	428	706.2	32485.2	11,816	3	2019/20	25	1.39	4	

2550	Reinforced Concrete Pipe - 0825mm dia.	1993	1995/96	40	428	706.2	28248	11,816	2	2019/20	25	1.39	3	
2551	Reinforced Concrete Pipe - 0825mm dia.	1993	1995/96	18	428	706.2	12711.6	11,816	1	2019/20	25	1.39	1	
2553	Reinforced Concrete Pipe - 0825mm dia.	1993	1995/96	59	428	706.2	41665.8	11,816	4	2019/20	25	1.39	5	
2554	Reinforced Concrete Pipe - 0825mm dia.	1993	1995/96	67	428	706.2	47315.4	11,816	4	2019/20	25	1.39	6	
2547	Reinforced Concrete Pipe - 1200mm dia.	1993	1995/96	22	841	1387.65	30528.3	11,816	3	2019/20	25	1.39	4	
2570	Reinforced Concrete Pipe - 1200mm dia.	1993	1995/96	22	841	1387.65	30528.3	11,816	3	2019/20	25	1.39	4	
2571	Reinforced Concrete Pipe - 1200mm dia.	1993	1995/96	22	841	1387.65	30528.3	11,816	3	2019/20	25	1.39	4	
2572	Reinforced Concrete Pipe - 1200mm dia.	1993	1995/96	22	841	1387.65	30528.3	11,816	3	2019/20	25	1.39	4	
1784	Reinforced Concrete Pipe - 1500mm dia.	1993	1995/96	32	1255	2070.75	66264	11,816	6	2019/20	25	1.39	8	
1785	Reinforced Concrete Pipe - 1500mm dia.	1993	1995/96	34	1255	2070.75	70405.5	11,816	6	2019/20	25	1.39	8	
1786	Reinforced Concrete Pipe - 1500mm dia.	1993	1995/96	120	1255	2070.75	248490	11,816	21	2019/20	25	1.39	29	
1787	Reinforced Concrete Pipe - 1500mm dia.	1993	1995/96	1	1255	2070.75	2070.75	11,816	0	2019/20	25	1.39	0	

1788	Reinforced Concrete Pipe - 1500mm dia.	1993	1995/96	28	1255	2070.75	57981	11,816	5	2019/20	25	1.39	7	
1789	Reinforced Concrete Pipe - 1500mm dia.	1993	1995/96	14	1255	2070.75	28990.5	11,816	2	2019/20	25	1.39	3	
1790	Reinforced Concrete Pipe - 1500mm dia.	1993	1995/96	25	1255	2070.75	51768.75	11,816	4	2019/20	25	1.39	6	
2811	Reinforced Concrete Pipe - 0525mm dia.	1994	1995/96	28	295	486.75	13629	11,816	1	2019/20	25	1.39	2	
2812	Reinforced Concrete Pipe - 0525mm dia.	1994	1995/96	28	295	486.75	13629	11,816	1	2019/20	25	1.39	2	
2813	Reinforced Concrete Pipe - 0525mm dia.	1994	1995/96	8	295	486.75	3894	11,816	0	2019/20	25	1.39	0	
2362	Brick Lined Culvert - 1850X1700m m	1995	1995/96	10	5340	8811	88110	11,816	7	2019/20	25	1.39	10	
2360	Concrete Box Culvert - 2150X0750m m	1995	1995/96	95	1303	2149.95	204245.25	11,816	17	2019/20	25	1.39	24	
2361	Concrete Box Culvert - 2150X0750m m	1995	1995/96	21	1303	2149.95	45148.95	11,816	4	2019/20	25	1.39	5	
3086	Reinforced Concrete Pipe - 0525mm dia.	1995	1995/96	13	295	486.75	6327.75	11,816	1	2019/20	25	1.39	1	
3087	Reinforced Concrete Pipe - 0525mm dia.	1995	1995/96	24	295	486.75	11682	11,816	1	2019/20	25	1.39	1	
3088	Reinforced Concrete Pipe - 0525mm dia.	1995	1995/96	42	295	486.75	20443.5	11,816	2	2019/20	25	1.39	2	

5911	Reinforced Concrete Pipe - 0525mm dia.	1995	1995/96	7	295	486.75	3407.25	11,816	0	2019/20	25	1.39	0	
9684	Reinforced Concrete Pipe - 0600mm dia.	1995	1995/96	13	325	536.25	6971.25	11,816	1	2019/20	25	1.39	1	
5907	Reinforced Concrete Pipe - 0600mm dia.	1995	1995/96	6	325	536.25	3217.5	11,816	0	2019/20	25	1.39	0	
5908	Reinforced Concrete Pipe - 0600mm dia.	1995	1995/96	8	325	536.25	4290	11,816	0	2019/20	25	1.39	1	
5909	Reinforced Concrete Pipe - 0600mm dia.	1995	1995/96	45	325	536.25	24131.25	11,816	2	2019/20	25	1.39	3	
5915	Reinforced Concrete Pipe - 0600mm dia.	1995	1995/96	41	325	536.25	21986.25	11,816	2	2019/20	25	1.39	3	
2056	Reinforced Concrete Pipe - 0750mm dia.	1995	1995/96	63	369	608.85	38357.55	11,816	3	2019/20	25	1.39	5	
9680	Reinforced Concrete Pipe - 0750mm dia.	1995	1995/96	5	369	608.85	3044.25	11,816	0	2019/20	25	1.39	0	
9681	Reinforced Concrete Pipe - 0750mm dia.	1995	1995/96	22	369	608.85	13394.7	11,816	1	2019/20	25	1.39	2	
9682	Reinforced Concrete Pipe - 0750mm dia.	1995	1995/96	58	369	608.85	35313.3	11,816	3	2019/20	25	1.39	4	
9683	Reinforced Concrete Pipe - 0750mm dia.	1995	1995/96	15	369	608.85	9132.75	11,816	1	2019/20	25	1.39	1	
2359	Unlined Trapezoidal Open Channel 2-4m Base Width	1995	1995/96	18	178	293.7	5286.6	11,816	0	2019/20	25	1.39	1	

8271	Unlined Trapezoidal Open Channel 2-4m Base Width	1995	1995/96	229	178	293.7	67257.3	11,816	6	2019/20	25	1.39	8	
D3	DETENTION PONDS (DRY)	1994	1995/96	1	50400	83160	83160	11,816	7	2019/20	25	1.39	10	
D4	DETENTION PONDS (DRY)	1995	1995/97	1	84000	138600	138600	11,816	12	2019/20	25	1.39	16	

Post 1996 Works

3187	Concrete Box Culvert - 0900X0450m m	1996	1996/97	14	508	838.2	11734.8	11,816	1	2019/20	24	1.96	2	
3167	Concrete Box Culvert - 2100X0600m m	1996	1996/97	21	1154	1904.1	39986.1	11,816	3	2019/20	24	1.96	7	
3377	Concrete Box Culvert - 2100X0600m m	1996	1996/97	21	1154	1904.1	39986.1	11,816	3	2019/20	24	1.96	7	
770	Concrete Dish Drain - 3.0m Wide	1996	1996/97	90	347	572.55	51529.5	11,816	4	2019/20	24	1.96	9	
767	Concrete Dish Drain - 3.0m Wide	1996	1996/97	105	347	572.55	60117.75	11,816	5	2019/20	24	1.96	10	
768	Concrete Dish Drain - 3.0m Wide	1996	1996/97	111	347	572.55	63553.05	11,816	5	2019/20	24	1.96	11	
769	Concrete Dish Drain - 3.0m Wide	1996	1996/97	66	347	572.55	37788.3	11,816	3	2019/20	24	1.96	6	
3170	Reinforced Concrete Pipe - 0600mm dia.	1996	1996/97	8	325	536.25	4290	11,816	0	2019/20	24	1.96	1	

3378	Reinforced Concrete Pipe - 0600mm dia.	1996	1996/97	22	325	536.25	11797.5	11,816	1	2019/20	24	1.96	2	
3172	Reinforced Concrete Pipe - 0600mm dia.	1996	1996/97	16	325	536.25	8580	11,816	1	2019/20	24	1.96	1	
3381	Reinforced Concrete Pipe - 0600mm dia.	1996	1996/97	30	325	536.25	16087.5	11,816	1	2019/20	24	1.96	3	
3183	Reinforced Concrete Pipe - 0600mm dia.	1996	1996/97	15	325	536.25	8043.75	11,816	1	2019/20	24	1.96	1	
3171	Reinforced Concrete Pipe - 0600mm dia.	1996	1996/97	14	325	536.25	7507.5	11,816	1	2019/20	24	1.96	1	
639	Reinforced Concrete Pipe - 0600mm dia.	1996	1996/97	35	325	536.25	18768.75	11,816	2	2019/20	24	1.96	3	
640	Reinforced Concrete Pipe - 0600mm dia.	1996	1996/97	37	325	536.25	19841.25	11,816	2	2019/20	24	1.96	3	
641	Reinforced Concrete Pipe - 0600mm dia.	1996	1996/97	22	325	536.25	11797.5	11,816	1	2019/20	24	1.96	2	
642	Reinforced Concrete Pipe - 0600mm dia.	1996	1996/97	13	325	536.25	6971.25	11,816	1	2019/20	24	1.96	1	
3182	Reinforced Concrete Pipe - 0675mm dia.	1996	1996/97	15	354	584.1	8761.5	11,816	1	2019/20	24	1.96	1	
3379	Reinforced Concrete Pipe - 0675mm dia.	1996	1996/97	15	354	584.1	8761.5	11,816	1	2019/20	24	1.96	1	
3380	Reinforced Concrete Pipe - 0675mm dia.	1996	1996/97	15	354	584.1	8761.5	11,816	1	2019/20	24	1.96	1	

638	Reinforced Concrete Pipe - 0750mm dia.	1996	1996/97	30	369	608.85	18265.5	11,816	2	2019/20	24	1.96	3	
441	Concrete Box Culvert - 1200X0600m m	1996	1996/97	12	655	1080.75	12969	11,816	1	2019/20	24	1.96	2	
439	Reinforced Concrete Pipe - 0750mm dia.	1996	1996/97	40	369	608.85	24354	11,816	2	2019/20	24	1.96	4	
1037	Reinforced Concrete Pipe - 0525mm dia.	1998	1998/99	7	295	486.75	3407.25	11,816	0	2019/20	22	1.86	1	
1037	Reinforced Concrete Pipe - 0525mm dia.	1998	1998/99	46	295	486.75	22390.5	11,816	2	2019/20	22	1.86	4	
1035	Reinforced Concrete Pipe - 0675mm dia.	1998	1998/99	7	354	584.1	4088.7	11,816	0	2019/20	22	1.86	1	
1035	Reinforced Concrete Pipe - 0675mm dia.	1998	1998/99	24	354	584.1	14018.4	11,816	1	2019/20	22	1.86	2	
1035	Reinforced Concrete Pipe - 0675mm dia.	1998	1998/99	7	354	584.1	4088.7	11,816	0	2019/20	22	1.86	1	
1036	Reinforced Concrete Pipe - 0675mm dia.	1998	1998/99	7	354	584.1	4088.7	11,816	0	2019/20	22	1.86	1	
1036	Reinforced Concrete Pipe - 0675mm dia.	1998	1998/99	24	354	584.1	14018.4	11,816	1	2019/20	22	1.86	2	
1036	Reinforced Concrete Pipe - 0675mm dia.	1998	1998/99	24	354	584.1	14018.4	11,816	1	2019/20	22	1.86	2	
1035	Unlined Trapezoidal Open Channel 10-15m Base Width	1998	1998/99	210	742	1224.3	257103	11,816	22	2019/20	22	1.86	40	

1035	Unlined Trapezoidal Open Channel 10-15m Base Width	1998	1998/99	67	742	1224.3	82028.1	11,816	7	2019/20	22	1.86	13	
1035	Unlined Trapezoidal Open Channel 10-15m Base Width	1998	1998/99	43	742	1224.3	52644.9	11,816	4	2019/20	22	1.86	8	
1021	Reinforced Concrete Pipe - 1050mm dia.	1999	1999/00	47	664	1095.6	51493.2	11,816	4	2019/20	21	1.81	8	
1056	Reinforced Concrete Pipe - 0525mm dia.	1999	1999/00	47	295	486.75	22877.25	11,816	2	2019/20	21	1.81	4	
1061	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	13	325	536.25	6971.25	11,816	1	2019/20	21	1.81	1	
1057	Reinforced Concrete Pipe - 0750mm dia.	1999	1999/00	42	369	608.85	25571.7	11,816	2	2019/20	21	1.81	4	
1057	Reinforced Concrete Pipe - 0750mm dia.	1999	1999/00	28	369	608.85	17047.8	11,816	1	2019/20	21	1.81	3	
1024	Reinforced Concrete Pipe - 0525mm dia.	1999	1999/00	16	295	486.75	7788	11,816	1	2019/20	21	1.81	1	
1023	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	49	325	536.25	26276.25	11,816	2	2019/20	21	1.81	4	
1023	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	45	325	536.25	24131.25	11,816	2	2019/20	21	1.81	4	
1023	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	12	325	536.25	6435	11,816	1	2019/20	21	1.81	1	

1023	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	28	325	536.25	15015	11,816	1	2019/20	21	1.81	2	
1024	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	14	325	536.25	7507.5	11,816	1	2019/20	21	1.81	1	
1101	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	8	295	486.75	3894	11,816	0	2019/20	20	1.76	1	
1102	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	8	295	486.75	3894	11,816	0	2019/20	20	1.76	1	
1117	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	32	295	486.75	15576	11,816	1	2019/20	20	1.76	2	
1121	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	54	295	486.75	26284.5	11,816	2	2019/20	20	1.76	4	
1122	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	38	295	486.75	18496.5	11,816	2	2019/20	20	1.76	3	
1122	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	34	295	486.75	16549.5	11,816	1	2019/20	20	1.76	2	
1122	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	13	295	486.75	6327.75	11,816	1	2019/20	20	1.76	1	
1122	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	15	295	486.75	7301.25	11,816	1	2019/20	20	1.76	1	
1122	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	16	295	486.75	7788	11,816	1	2019/20	20	1.76	1	
1101	Reinforced Concrete Pipe - 0600mm dia.	2000	2000/01	14	325	536.25	7507.5	11,816	1	2019/20	20	1.76	1	

1101	Reinforced Concrete Pipe - 0600mm dia.	2000	2000/01	14	325	536.25	7507.5	11,816	1	2019/20	20	1.76	1	
1101	Reinforced Concrete Pipe - 0750mm dia.	2000	2000/01	31	369	608.85	18874.35	11,816	2	2019/20	20	1.76	3	
1101	Reinforced Concrete Pipe - 0750mm dia.	2000	2000/01	31	369	608.85	18874.35	11,816	2	2019/20	20	1.76	3	
1101	Reinforced Concrete Pipe - 0750mm dia.	2000	2000/01	6	369	608.85	3653.1	11,816	0	2019/20	20	1.76	1	
1101	Reinforced Concrete Pipe - 0750mm dia.	2000	2000/01	6	369	608.85	3653.1	11,816	0	2019/20	20	1.76	1	
1101	Reinforced Concrete Pipe - 0750mm dia.	2000	2000/01	24	369	608.85	14612.4	11,816	1	2019/20	20	1.76	2	
1101	Reinforced Concrete Pipe - 0750mm dia.	2000	2000/01	24	369	608.85	14612.4	11,816	1	2019/20	20	1.76	2	
1117	Reinforced Concrete Pipe - 0750mm dia.	2000	2000/01	15	369	608.85	9132.75	11,816	1	2019/20	20	1.76	1	
1117	Reinforced Concrete Pipe - 0750mm dia.	2000	2000/01	13	369	608.85	7915.05	11,816	1	2019/20	20	1.76	1	
1117	Reinforced Concrete Pipe - 0750mm dia.	2000	2000/01	6	369	608.85	3653.1	11,816	0	2019/20	20	1.76	1	
1115	Reinforced Concrete Pipe - 0825mm dia.	2000	2000/01	21	428	706.2	14830.2	11,816	1	2019/20	20	1.76	2	
1116	Reinforced Concrete Pipe - 0900mm dia.	2000	2000/01	42	517	853.05	35828.1	11,816	3	2019/20	20	1.76	5	

1116	Reinforced Concrete Pipe - 0900mm dia.	2000	2000/01	37	517	853.05	31562.85	11,816	3	2019/20	20	1.76	5	
1117	Reinforced Concrete Pipe - 0900mm dia.	2000	2000/01	6	517	853.05	5118.3	11,816	0	2019/20	20	1.76	1	
1077	Unlined Trapezoidal Open Channel 4-6m Base Width	2000	2000/01	5	297	490.05	2450.25	11,816	0	2019/20	20	1.76	0	
1077	Unlined Trapezoidal Open Channel 4-6m Base Width	2000	2000/01	55	297	490.05	26952.75	11,816	2	2019/20	20	1.76	4	
1077	Unlined Trapezoidal Open Channel 4-6m Base Width	2000	2000/01	46	297	490.05	22542.3	11,816	2	2019/20	20	1.76	3	
1129	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	34	295	486.75	16549.5	11,816	1	2019/20	20	1.76	2	
1130	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	30	295	486.75	14602.5	11,816	1	2019/20	20	1.76	2	
1130	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	23	295	486.75	11195.25	11,816	1	2019/20	20	1.76	2	
1130	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	21	295	486.75	10221.75	11,816	1	2019/20	20	1.76	2	
1130	Reinforced Concrete Pipe - 0525mm dia.	2000	2000/01	23	295	486.75	11195.25	11,816	1	2019/20	20	1.76	2	
1129	Reinforced Concrete Pipe - 0600mm dia.	2000	2000/01	2	325	536.25	1072.5	11,816	0	2019/20	20	1.76	0	

1134	Reinforced Concrete Pipe - 0525mm dia.	2001	2001/02	26	295	486.75	12655.5	11,816	1	2019/20	19	1.72	2	
1134	Reinforced Concrete Pipe - 0525mm dia.	2001	2001/02	5	295	486.75	2433.75	11,816	0	2019/20	19	1.72	0	
1134	Reinforced Concrete Pipe - 0525mm dia.	2001	2001/02	11	295	486.75	5354.25	11,816	0	2019/20	19	1.72	1	
1135	Reinforced Concrete Pipe - 0525mm dia.	2001	2001/02	9	295	486.75	4380.75	11,816	0	2019/20	19	1.72	1	
1134	Reinforced Concrete Pipe - 0600mm dia.	2001	2001/02	28	325	536.25	15015	11,816	1	2019/20	19	1.72	2	
1134	Reinforced Concrete Pipe - 0600mm dia.	2001	2001/02	49	325	536.25	26276.25	11,816	2	2019/20	19	1.72	4	
1134	Reinforced Concrete Pipe - 0525mm dia.	2002	2002/03	65	295	486.75	31638.75	11,816	3	2019/20	18	1.67	4	
1134	Reinforced Concrete Pipe - 0525mm dia.	2002	2002/03	79	295	486.75	38453.25	11,816	3	2019/20	18	1.67	5	
1076	Reinforced Concrete Pipe - 1050mm dia.	2003	2002/03	7	664	1095.6	7669.2	11,816	1	2019/20	18	1.67	1	
1076	Reinforced Concrete Pipe - 1050mm dia.	2003	2002/03	54	664	1095.6	59162.4	11,816	5	2019/20	18	1.67	8	
1075	Reinforced Concrete Pipe - 1050mm dia.	2003	2002/03	75	664	1095.6	82170	11,816	7	2019/20	18	1.67	12	
1075	Reinforced Concrete Pipe - 1050mm dia.	2003	2002/03	71	664	1095.6	77787.6	11,816	7	2019/20	18	1.67	11	

1076	Reinforced Concrete Pipe - 1050mm dia.	2003	2002/03	34	664	1095.6	37250.4	11,816	3	2019/20	18	1.67	5	
1094	Unlined Trapezoidal Open Channel 2-4m Base Width	2003	2002/03	21	178	293.7	6167.7	11,816	1	2019/20	18	1.67	1	
1094	Unlined Trapezoidal Open Channel 2-4m Base Width	2003	2002/03	23	178	293.7	6755.1	11,816	1	2019/20	18	1.67	1	
1077	Reinforced Concrete Pipe - 0750mm dia.	2004	2004/05	15	369	608.85	9132.75	11,816	1	2019/20	16	1.58	1	
1140	Concrete Box Culvert - 2100X0450m m	2005	2005/06	40	1121	1849.65	73986	11,816	6	2019/20	15	1.54	10	
1153	Reinforced Concrete Pipe - 0750mm dia.	2007	2007/08	22	369	608.85	13394.7	11,816	1	2019/20	13	1.45	2	
1153	Reinforced Concrete Pipe - 0750mm dia.	2007	2007/08	24	369	608.85	14612.4	11,816	1	2019/20	13	1.45	2	
1153	Reinforced Concrete Pipe - 0750mm dia.	2007	2007/08	11	369	608.85	6697.35	11,816	1	2019/20	13	1.45	1	
1152	Reinforced Concrete Pipe - 0900mm dia.	2007	2007/08	12	517	853.05	10236.6	11,816	1	2019/20	13	1.45	1	
1152	Reinforced Concrete Pipe - 0900mm dia.	2007	2007/08	27	517	853.05	23032.35	11,816	2	2019/20	13	1.45	3	
1152	Reinforced Concrete Pipe - 0900mm dia.	2007	2007/08	6	517	853.05	5118.3	11,816	0	2019/20	13	1.45	1	

1152	Reinforced Concrete Pipe - 0900mm dia.	2007	2007/08	106	517	853.05	90423.3	11,816	8	2019/20	13	1.45	11	
1153	Reinforced Concrete Pipe - 0900mm dia.	2007	2007/08	47	517	853.05	40093.35	11,816	3	2019/20	13	1.45	5	
1147	Reinforced Concrete Pipe - 0600mm dia.	2008	2008/09	63	325	536.25	33783.75	11,816	3	2019/20	12	1.41	4	
1147	Reinforced Concrete Pipe - 0600mm dia.	2008	2008/09	29	325	536.25	15551.25	11,816	1	2019/20	12	1.41	2	
1148	Reinforced Concrete Pipe - 0600mm dia.	2008	2008/09	18	325	536.25	9652.5	11,816	1	2019/20	12	1.41	1	
1149	Reinforced Concrete Pipe - 0675mm dia.	2008	2008/09	61	354	584.1	35630.1	11,816	3	2019/20	12	1.41	4	
1149	Reinforced Concrete Pipe - 0675mm dia.	2008	2008/09	79	354	584.1	46143.9	11,816	4	2019/20	12	1.41	6	
1149	Reinforced Concrete Pipe - 0675mm dia.	2008	2008/09	54	354	584.1	31541.4	11,816	3	2019/20	12	1.41	4	
1147	Reinforced Concrete Pipe - 0750mm dia.	2008	2008/09	18	369	608.85	10959.3	11,816	1	2019/20	12	1.41	1	
1148	Reinforced Concrete Pipe - 0750mm dia.	2008	2008/09	17	369	608.85	10350.45	11,816	1	2019/20	12	1.41	1	
1149	Reinforced Concrete Pipe - 0750mm dia.	2008	2008/09	91	369	608.85	55405.35	11,816	5	2019/20	12	1.41	7	
1149	Reinforced Concrete Pipe - 0750mm dia.	2008	2008/09	18	369	608.85	10959.3	11,816	1	2019/20	12	1.41	1	

1149	Reinforced Concrete Pipe - 0750mm dia.	2008	2008/09	41	369	608.85	24962.85	11,816	2	2019/20	12	1.41	3	
G2	GROSS POLLUTANT TRAPS	2003	2001/02	1	45300	74745	74745	11,816	6	2019/20	19	1.72	11	
G3	GROSS POLLUTANT TRAPS	2003	2001/02	1	45300	74745	74745	11,816	6	2019/20	19	1.72	11	
G4	GROSS POLLUTANT TRAPS	2003	2001/02	1	45300	74745	74745	11,816	6	2019/20	19	1.72	11	
W6	WETLANDS	2003	2001/02	1	26000 0	429000	429000	11,816	36	2019/20	19	1.72	62	
G5	GROSS POLLUTANT TRAPS	2003	2001/02	1	28300	46695	46695	11,816	4	2019/20	19	1.72	7	
G6	GROSS POLLUTANT TRAPS	2003	2001/02	1	28300	46695	46695	11,816	4	2019/20	19	1.72	7	
S2	SEDIMENT PONDS	2003	2001/02	1	25000 0	412500	412500	11,816	35	2019/20	19	1.72	60	
W5	WETLANDS	2003	2001/02	1	27000 0	445500	445500	11,816	38	2019/20	19	1.72	65	
G9	GROSS POLLUTANT TRAPS	2003	2001/02	1	28300	46695	46695	11,816	4	2019/20	19	1.72	7	
S1	SEDIMENT PONDS	2003	2001/02	1	30000 0	495000	495000	11,816	42	2019/20	19	1.72	72	
G8	GROSS POLLUTANT TRAPS	2003	2001/02	1	39600	65340	65340	11,816	6	2019/20	19	1.72	10	
G7	GROSS POLLUTANT TRAPS	2003	2001/02	1	39600	65340	65340	11,816	6	2019/20	19	1.72	10	

BOWRAL CAPITAL CHARGE CALCULATIONS - continued

<i>Proposed upgrade Works</i>													
Object ID	Activities	Year Commissioned	Effective year of commissioning for ROI ¹	Notes	Capital Cost (2010/11\$) (\$)		Capacity ² (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor ^{3,4}	Capital Charge per ET (2010/11\$)	Notes
127	Romney Place to Railway	2010	2010/11	Channel needs concrete invert	15,000	15,000	11,816	1	2019/20	10	1.33	2	
128	Sunninghill Avenue (Lot 13 Burradoo Estates)	1905	2010/11	Construct concrete invert to channel	100,000	100,000	11,816	8	2019/20	10	1.33	11	
128	Burradoo Park to Osborne Road	2010	2010/11	Increase pipe capacity across park	40,000	40,000	11,816	3	2019/20	10	1.33	5	
128	Osborne Road (Moss Vale Rd to Eridge Park Rd)	2010	2010/11	Construct K&G and piped drainage	400,000	400,000	11,816	34	2019/20	10	1.33	45	
128	Osborne Road (Intersection Rangelagh & Osborne Rds)	2010	2010/11	Extend pipes and open channel	50,000	50,000	11,816	4	2019/20	10	1.33	6	
128	Railway Parade/Hudson Street	2010	2010/11		45,000	45,000	11,816	4	2019/20	10	1.33	5	
131	Elizabeth Street	2010	2010/11		800,000	800,000	11,816	68	2019/20	10	1.33	90	
186	Station Street (Old Dairy Co-op)	2010	2010/11	Need K&G, pipes & pits along full length	65,000	65,000	11,816	6	2019/20	10	1.33	7	Need K&G, pipes & pits along full length
186	Wattle Lane, Boolwey to carpark	2010	2010/11	Needs full reconstruction of pavement. Needs K&G,	60,000	60,000	11,816	5	2019/20	10	1.33	7	Needs full reconstruction of pavement. Needs K&G, pipes & pits

				pipes & pits									
189	Mittagong Rivulet - Kirkham Road to Mount Rd	2010	2010/11	Channel clearing, realignment	160,000	160,000	11,816	14	2019/20	10	1.33	18	Channel clearing, realignment
192	Lamond Lane	2010	2010/11	Increase inlet capacity near Elm St	50,000	50,000	11,816	4	2019/20	10	1.33	6	Increase inlet capacity near Elm St
203	Hamilton Avenue/Banksia Street	2010	2010/11	Need K&G, pipes & pits along full length	100,000	100,000	11,816	8	2019/20	10	1.33	11	Need K&G, pipes & pits along full length
206	Merrigang Street	2010	2010/11	Increase inlet capacity near Elm St	40,000	40,000	11,816	3	2019/20	10	1.33	5	Increase inlet capacity near Elm St
208	Shepherd Street	2010	2010/11		110,000	110,000	11,816	9	2019/20	10	1.33	12	Reconstruct existing inlets to improve inlet capacity, construct new pipe west of creek to supplement kerb
212	Bowral Street from Sheffield St to Rivulet	2010	2010/11	Ananda has concept design & estimate	700,000	700,000	11,816	59	2019/20	10	1.33	79	Ananda has concept design & estimate
230	Mount Road	2010	2010/11	K&G, Pits & pipes from Meribah Rd & Burton PI	160,000	160,000	11,816	14	2019/20	10	1.33	18	K&G, Pits & pipes from Meribah Rd & Burton PI
231	"The Majors" and Bowral Golf Course	2010	2010/11	Pipe permanently underwater, regular blockages & flooding. LUA may address some of the problems	150,000	150,000	11,816	13	2019/20	10	1.33	17	Pipe permanently underwater, regular blockages & flooding. LUA may address some of the problems

232	Kangaloon Road - GPT - Catchment EB3 - Downstream end of box culvert	2010	2010/11	side of the road not yet determined	50,000	50,000	11,816	4	2019/20	10	1.33	6	Side of the road not yet determined
Proposed Stormwater Management Works													
		2010	2010/11	Planning and development controls. Improve emergency management (revise Local Flood Plan)	15,000	15,000	11,816	1	2019/20	10	1.33	2	
		2010	2010/11	Improve public awareness	1,000	1,000	11,816	0	2019/20	10	1.33	0	
		2010	2010/11	Bowral floodsafe brochures and website	6,000	6,000	11,816	1	2019/20	10	1.33	1	
		2010	2010/11	Update/distribute flood certificate	0	0	11,816	0	2019/20	10	1.33	0	
		2010	2010/11	Manage riparian corridor waste removal	40,000	40,000	11,816	3	2019/20	10	1.33	5	
		2010	2010/11	Voluntary house raising/reconstruction scoping study	20,000	20,000	11,816	2	2019/20	10	1.33	2	
	Bowral Golf Course	2010	2010/11	Bowral golf course detention basin design scoping study	20,000	20,000	11,816	2	2019/20	10	1.33	2	
	Mittagong Road	2010	2010/11	Install flood marker and awareness sign	5,000	5,000	11,816	0	2019/20	10	1.33	1	

		2010	2010/11	Raise houses - 7 weatherboard and 7 brick houses	910,000	910,000	11,816	77	2019/20	10	1.33	102	
	Victoria Street, Nerang Street	2010	2010/11	Modify bridges and culverts	80,000	80,000	11,816	7	2019/20	10	1.33	9	
	Redford Park	2010	2010/11	Detention basin construction	4,700,00 0	4,700,000	11,816	398	2019/20	10	1.33	529	
	Bowral Golf Course	2010	2010/11	Detention basin construction	810,000	810,000	11,816	69	2019/20	10	1.33	91	
		2010	2010/11	Farmborough Close levee scoping study	20,000	20,000	11,816	2	2019/20	10	1.33	2	
		2010	2010/11	Burradoo floodplain risk management	180,000	180,000	11,816	15	2019/20	10	1.33	20	
		2010	2010/11	Flood proofing guidelines	5,000	5,000	11,816	0	2019/20	10	1.33	1	
		2010	2010/11	Install Rain gauges	6,000	6,000	11,816	1	2019/20	10	1.33	1	
Total						35,222,479		10,114,496				4,247	

Rate of return (pre 1996)

3%

Rate of return (post 1996)

7%

1. For pre-1996 assets, the effective year of commissioning for calculating Return on Investment (ROI) factors is January 1996, ie: 1995/96.

2. The capacity in the above calculation is the total capacity provided by existing and proposed service reservoirs.

3. The ROI factor for pre-1996 works is based on a rate of return (discount rate) of 3% pa real. The ROI factor assumes a uniform annual take-up of lots over the take-up period, commencing in the effective year of commissioning of the asset.

4. The ROI factor for post-1996 assets is based on a rate of return (discount rate) of 7% pa real, together with a uniform annual take-up of lots over the take-up period, commencing in the year of commissioning of the asset.

BUNDANOON CAPITAL CHARGE CALCULATIONS

Developer Charges for Water Supply, Sewerage and Stormwater Drainage

Sensitivity
Factor

1.65

EXAMPLE 2 - Pre 1996 and
Post 1996 Existing Works

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Length (m)	Rate (\$/m)	Rate (\$/m) x Factor	Capital Cost (2010/11 \$)	Capacity ² (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor ^{3,4}	Capital Charge per ET (2010/11\$)
Pre 1996 Works													
7553	Reinforced Concrete Pipe - 0900mm dia.	1917	1995/96	20	517	853.05	17061	2,256	8	2019/20	25	1.39	11
7462	Reinforced Concrete Pipe - 1200mm dia.	1917	1995/96	8	841	1387.65	11101.2	2,256	5	2019/20	25	1.39	7
7463	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	40	178	293.7	11748	2,256	5	2019/20	25	1.39	7
7554	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	70	178	293.7	20559	2,256	9	2019/20	25	1.39	13
7555	Reinforced Concrete Pipe - 0525mm dia.	1965	1995/96	16	295	486.75	7788	2,256	3	2019/20	25	1.39	5
7556	Reinforced Concrete Pipe - 0525mm dia.	1965	1995/96	22	295	486.75	10708.5	2,256	5	2019/20	25	1.39	7

7582	Reinforced Concrete Pipe - 0525mm dia.	1965	1995/96	18	295	486.75	8761.5	2,256	4	2019/20	25	1.39	5
7570	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	20	325	536.25	10725	2,256	5	2019/20	25	1.39	7
7572	Reinforced Concrete Pipe - 1200mm dia.	1965	1995/96	90	841	1387.65	124888.5	2,256	55	2019/20	25	1.39	77
7459	Unlined Trapezoidal Open Channel 2-4m Base Width	1972	1995/96	120	178	293.7	35244	2,256	16	2019/20	25	1.39	22
7842	Reinforced Concrete Pipe - 0675mm dia.	1973	1995/96	50	354	584.1	29205	2,256	13	2019/20	25	1.39	18
7839	Reinforced Concrete Pipe - 0750mm dia.	1973	1995/96	35	369	608.85	21309.75	2,256	9	2019/20	25	1.39	13
7840	Reinforced Concrete Pipe - 0750mm dia.	1973	1995/96	70	369	608.85	42619.5	2,256	19	2019/20	25	1.39	26
7841	Reinforced Concrete Pipe - 0750mm dia.	1973	1995/96	75	369	608.85	45663.75	2,256	20	2019/20	25	1.39	28
7837	Reinforced Concrete Pipe - 1200mm dia.	1973	1995/96	280	841	1387.65	388542	2,256	172	2019/20	25	1.39	240
7935	Reinforced Concrete Pipe - 0525mm dia.	1974	1995/96	15	295	486.75	7301.25	2,256	3	2019/20	25	1.39	5
7950	Reinforced Concrete Pipe - 0525mm dia.	1974	1995/96	15	295	486.75	7301.25	2,256	3	2019/20	25	1.39	5
7940	Reinforced Concrete Pipe - 0600mm dia.	1974	1995/96	68	325	536.25	36465	2,256	16	2019/20	25	1.39	23

7938	Reinforced Concrete Pipe - 0675mm dia.	1974	1995/96	37	354	584.1	21611.7	2,256	10	2019/20	25	1.39	13
7939	Reinforced Concrete Pipe - 0675mm dia.	1974	1995/96	8	354	584.1	4672.8	2,256	2	2019/20	25	1.39	3
7936	Reinforced Concrete Pipe - 0750mm dia.	1974	1995/96	45	369	608.85	27398.25	2,256	12	2019/20	25	1.39	17
7937	Reinforced Concrete Pipe - 0750mm dia.	1974	1995/96	12	369	608.85	7306.2	2,256	3	2019/20	25	1.39	5
7953	Reinforced Concrete Pipe - 0825mm dia.	1974	1995/96	18	428	706.2	12711.6	2,256	6	2019/20	25	1.39	8
7954	Reinforced Concrete Pipe - 0825mm dia.	1974	1995/96	18	428	706.2	12711.6	2,256	6	2019/20	25	1.39	8
7955	Reinforced Concrete Pipe - 0825mm dia.	1974	1995/96	18	428	706.2	12711.6	2,256	6	2019/20	25	1.39	8
7933	Unlined Trapezoidal Open Channel 10-15m Base Width	1974	1995/96	25	742	1224.3	30607.5	2,256	14	2019/20	25	1.39	19
7934	Unlined Trapezoidal Open Channel 10-15m Base Width	1974	1995/96	75	742	1224.3	91822.5	2,256	41	2019/20	25	1.39	57
7594	Reinforced Concrete Pipe - 0525mm dia.	1975	1995/96	20	295	486.75	9735	2,256	4	2019/20	25	1.39	6
7587	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	30	325	536.25	16087.5	2,256	7	2019/20	25	1.39	10
7477	Reinforced Concrete Pipe - 0525mm dia.	1982	1995/96	72	295	486.75	35046	2,256	16	2019/20	25	1.39	22

7478	Reinforced Concrete Pipe - 0525mm dia.	1982	1995/96	66	295	486.75	32125.5	2,256	14	2019/20	25	1.39	20
7479	Reinforced Concrete Pipe - 0525mm dia.	1982	1995/96	8	295	486.75	3894	2,256	2	2019/20	25	1.39	2
7480	Reinforced Concrete Pipe - 0525mm dia.	1982	1995/96	70	295	486.75	34072.5	2,256	15	2019/20	25	1.39	21
7450	Reinforced Concrete Pipe - 0750mm dia.	1982	1995/96	62	369	608.85	37748.7	2,256	17	2019/20	25	1.39	23
7451	Reinforced Concrete Pipe - 0750mm dia.	1982	1995/96	7	369	608.85	4261.95	2,256	2	2019/20	25	1.39	3
7452	Reinforced Concrete Pipe - 0750mm dia.	1982	1995/96	84	369	608.85	51143.4	2,256	23	2019/20	25	1.39	32
7453	Reinforced Concrete Pipe - 0750mm dia.	1982	1995/96	104	369	608.85	63320.4	2,256	28	2019/20	25	1.39	39
7454	Reinforced Concrete Pipe - 0750mm dia.	1982	1995/96	140	369	608.85	85239	2,256	38	2019/20	25	1.39	53
7511	Reinforced Concrete Pipe - 0525mm dia.	1983	1995/96	5	295	486.75	2433.75	2,256	1	2019/20	25	1.39	2
7512	Reinforced Concrete Pipe - 0525mm dia.	1983	1995/96	22	295	486.75	10708.5	2,256	5	2019/20	25	1.39	7
7507	Reinforced Concrete Pipe - 0600mm dia.	1983	1995/96	48	325	536.25	25740	2,256	11	2019/20	25	1.39	16
7508	Reinforced Concrete Pipe - 0600mm dia.	1983	1995/96	10	325	536.25	5362.5	2,256	2	2019/20	25	1.39	3

7509	Reinforced Concrete Pipe - 0600mm dia.	1983	1995/96	20	325	536.25	10725	2,256	5	2019/20	25	1.39	7
7510	Reinforced Concrete Pipe - 0600mm dia.	1983	1995/96	24	325	536.25	12870	2,256	6	2019/20	25	1.39	8
7879	Reinforced Concrete Pipe - 0600mm dia.	1988	1995/96	25	325	536.25	13406.25	2,256	6	2019/20	25	1.39	8
7880	Reinforced Concrete Pipe - 0600mm dia.	1988	1995/96	15	325	536.25	8043.75	2,256	4	2019/20	25	1.39	5
7883	Reinforced Concrete Pipe - 0675mm dia.	1988	1995/96	30	354	584.1	17523	2,256	8	2019/20	25	1.39	11
7876	Reinforced Concrete Pipe - 0825mm dia.	1988	1995/96	50	428	706.2	35310	2,256	16	2019/20	25	1.39	22
7877	Reinforced Concrete Pipe - 0825mm dia.	1988	1995/96	32	428	706.2	22598.4	2,256	10	2019/20	25	1.39	14
7878	Reinforced Concrete Pipe - 0825mm dia.	1988	1995/96	50	428	706.2	35310	2,256	16	2019/20	25	1.39	22
7831	Reinforced Concrete Pipe - 0900mm dia.	1988	1995/96	20	517	853.05	17061	2,256	8	2019/20	25	1.39	11
7855	Reinforced Concrete Pipe - 0900mm dia.	1988	1995/96	20	517	853.05	17061	2,256	8	2019/20	25	1.39	11
7874	Reinforced Concrete Pipe - 0900mm dia.	1988	1995/96	35	517	853.05	29856.75	2,256	13	2019/20	25	1.39	18
7829	Reinforced Concrete Pipe - 1050mm dia.	1988	1995/96	20	664	1095.6	21912	2,256	10	2019/20	25	1.39	14

7854	Reinforced Concrete Pipe - 1050mm dia.	1988	1995/96	20	664	1095.6	21912	2,256	10	2019/20	25	1.39	14
7830	Unlined Trapezoidal Open Channel 10-15m Base Width	1988	1995/96	275	742	1224.3	336682.5	2,256	149	2019/20	25	1.39	208
7834	Unlined Trapezoidal Open Channel 10-15m Base Width	1988	1995/96	215	742	1224.3	263224.5	2,256	117	2019/20	25	1.39	163
7545	Reinforced Concrete Pipe - 0525mm dia.	1989	1995/96	20	295	486.75	9735	2,256	4	2019/20	25	1.39	6
7546	Reinforced Concrete Pipe - 0525mm dia.	1989	1995/96	10	295	486.75	4867.5	2,256	2	2019/20	25	1.39	3
7455	Reinforced Concrete Pipe - 0900mm dia.	1989	1995/96	7	517	853.05	5971.35	2,256	3	2019/20	25	1.39	4
7713	Concrete Dish Drain - 2.0m Wide	1991	1995/96	90	236	389.4	35046	2,256	16	2019/20	25	1.39	22
7728	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	60	325	536.25	32175	2,256	14	2019/20	25	1.39	20
7729	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	10	325	536.25	5362.5	2,256	2	2019/20	25	1.39	3
7751	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	8	325	536.25	4290	2,256	2	2019/20	25	1.39	3
7787	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	10	325	536.25	5362.5	2,256	2	2019/20	25	1.39	3
7726	Reinforced Concrete Pipe - 0675mm dia.	1991	1995/96	40	354	584.1	23364	2,256	10	2019/20	25	1.39	14

7727	Reinforced Concrete Pipe - 0675mm dia.	1991	1995/96	55	354	584.1	32125.5	2,256	14	2019/20	25	1.39	20
7748	Reinforced Concrete Pipe - 0675mm dia.	1991	1995/96	10	354	584.1	5841	2,256	3	2019/20	25	1.39	4
7741	Reinforced Concrete Pipe - 0675mm dia.	1991	1995/96	10	354	584.1	5841	2,256	3	2019/20	25	1.39	4
7718	Reinforced Concrete Pipe - 0900mm dia.	1991	1995/96	60	517	853.05	51183	2,256	23	2019/20	25	1.39	32
7719	Reinforced Concrete Pipe - 0900mm dia.	1991	1995/96	55	517	853.05	46917.75	2,256	21	2019/20	25	1.39	29
7720	Reinforced Concrete Pipe - 0900mm dia.	1991	1995/96	75	517	853.05	63978.75	2,256	28	2019/20	25	1.39	40
7721	Reinforced Concrete Pipe - 0900mm dia.	1991	1995/96	10	517	853.05	8530.5	2,256	4	2019/20	25	1.39	5
7714	Reinforced Concrete Pipe - 1350mm dia.	1991	1995/96	10	1033	1704.45	17044.5	2,256	8	2019/20	25	1.39	11
7715	Reinforced Concrete Pipe - 1350mm dia.	1991	1995/96	12	1033	1704.45	20453.4	2,256	9	2019/20	25	1.39	13
7716	Reinforced Concrete Pipe - 1350mm dia.	1991	1995/96	32	1033	1704.45	54542.4	2,256	24	2019/20	25	1.39	34
7717	Reinforced Concrete Pipe - 1350mm dia.	1991	1995/96	15	1033	1704.45	25566.75	2,256	11	2019/20	25	1.39	16
7725	Unlined Trapezoidal Open Channel 6-10m Base Width	1991	1995/96	145	475	783.75	113643.75	2,256	50	2019/20	25	1.39	70

1151	Reinforced Concrete Pipe - 0525mm dia.	1995	1995/96	54	295	486.75	26284.5	2,256	12	2019/20	25	1.39	16
1151	Reinforced Concrete Pipe - 0525mm dia.	1995	1995/96	36	295	486.75	17523	2,256	8	2019/20	25	1.39	11
1151	Reinforced Concrete Pipe - 0525mm dia.	1995	1995/96	20	295	486.75	9735	2,256	4	2019/20	25	1.39	6
1151	Reinforced Concrete Pipe - 0600mm dia.	1995	1995/96	20	325	536.25	10725	2,256	5	2019/20	25	1.39	7
1151	Reinforced Concrete Pipe - 0600mm dia.	1995	1995/96	15	325	536.25	8043.75	2,256	4	2019/20	25	1.39	5
1151	Reinforced Concrete Pipe - 0750mm dia.	1995	1995/96	5	369	608.85	3044.25	2,256	1	2019/20	25	1.39	2
1151	Reinforced Concrete Pipe - 0750mm dia.	1995	1995/96	28	369	608.85	17047.8	2,256	8	2019/20	25	1.39	11
1151	Reinforced Concrete Pipe - 0750mm dia.	1995	1995/96	16	369	608.85	9741.6	2,256	4	2019/20	25	1.39	6
1150	Unlined Wide Flat Open Channel	1995	1995/96	38	171	282.15	10721.7	2,256	5	2019/20	25	1.39	7
7393	Reinforced Concrete Pipe - 0525mm dia.	1982	1995/96	14	295	486.75	6814.5	2,256	3	2019/20	25	1.39	4
7610	Reinforced Concrete Pipe - 0525mm dia.	1982	1995/96	30	295	486.75	14602.5	2,256	6	2019/20	25	1.39	9
7611	Reinforced Concrete Pipe - 0525mm dia.	1982	1995/96	16	295	486.75	7788	2,256	3	2019/20	25	1.39	5
7348	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	4	325	536.25	2145	2,256	1	2019/20	25	1.39	1

7349	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	4	325	536.25	2145	2,256	1	2019/20	25	1.39	1
7350	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	4	325	536.25	2145	2,256	1	2019/20	25	1.39	1
7351	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	54	325	536.25	28957.5	2,256	13	2019/20	25	1.39	18
7352	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	84	325	536.25	45045	2,256	20	2019/20	25	1.39	28
7353	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	5	325	536.25	2681.25	2,256	1	2019/20	25	1.39	2
7354	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	5	325	536.25	2681.25	2,256	1	2019/20	25	1.39	2
7355	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	56	325	536.25	30030	2,256	13	2019/20	25	1.39	19
7345	Reinforced Concrete Pipe - 0750mm dia.	1982	1995/96	4	369	608.85	2435.4	2,256	1	2019/20	25	1.39	2
7346	Reinforced Concrete Pipe - 0750mm dia.	1982	1995/96	7	369	608.85	4261.95	2,256	2	2019/20	25	1.39	3
7347	Reinforced Concrete Pipe - 0750mm dia.	1982	1995/96	22	369	608.85	13394.7	2,256	6	2019/20	25	1.39	8
7606	Reinforced Concrete Pipe - 1200mm dia.	1982	1995/96	20	841	1387.65	27753	2,256	12	2019/20	25	1.39	17
7607	Unlined Trapezoidal Open Channel 2-4m Base Width	1982	1995/96	190	178	293.7	55803	2,256	25	2019/20	25	1.39	34

7608	Unlined Trapezoidal Open Channel 2-4m Base Width	1982	1995/96	154	178	293.7	45229.8	2,256	20	2019/20	25	1.39	28
7609	Unlined Trapezoidal Open Channel 2-4m Base Width	1982	1995/96	68	178	293.7	19971.6	2,256	9	2019/20	25	1.39	12

Post 1996 Works

G13	GROSS POLLUTANT TRAPS	2001	2001/2002	1	25300	41745	41745	2,256	19	2019/20	19	1.72	32
G12	GROSS POLLUTANT TRAPS	2001	2001/2002	1	25300	41745	41745	2,256	19	2019/20	19	1.72	32

Proposed upgrade Works

Object ID	Activities	Year Commissioned	Effective year of commissioning for ROI ¹	Notes	Capital Cost (2010/11\$) (\$)		Capacity ² (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor ^{3,4}	Capital Charge per ET (2010/11\$)
102	Ellsmore Road	2010	2010/11	From behind Burgess to Ellsmore Rd	130000	130000	2,256	58	2019/20	10	1.33	77
108	Penola Street	2012	2012/13	Install additional pipe capacity	240000	240000	2,256	106	2019/20	8	1.25	133
Total						3791044		9,024				2,347

Rate of return (pre 1996) 3%

Rate of return (post 1996) 7%

1. For pre-1996 assets, the effective year of commissioning for calculating Return on Investment (ROI) factors is January 1996, ie: 1995/96.
2. The capacity in the above calculation is the total capacity provided by existing and proposed service reservoirs.
3. The ROI factor for pre-1996 works is based on a rate of return (discount rate) of 3% pa real. The ROI factor assumes a uniform annual take-up of lots over the take-up period, commencing in the effective year of commissioning of the asset.
4. The ROI factor for post-1996 assets is based on a rate of return (discount rate) of 7% pa real, together with a uniform annual take-up of lots over the take-up period, commencing in the year of commissioning of the asset.

BURRAWANG CAPITAL CHARGE CALCULATIONS

Developer Charges for Water Supply, Sewerage and Stormwater Drainage

Sensitivity Factor

1.65

EXAMPLE 2 - Pre 1996 and Post 1996 Existing Works

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Length (m)	Rate (\$/m)	Rate (\$/m) x Factor	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor ^{3,4}	Capital Charge per ET (2010/11\$)
Pre 1996 Works													
N/A			1995/96	0	0	0	0	208	0	2019/20	25	1.39	0
Post 1996 Works													
1070	Concrete Box Culvert - 1200X0600 mm	2001	1999/00	8	655	1080.75	8646	208	42	2019/20	21	1.81	75
1071	Concrete Box Culvert - 1200X0600 mm	2001	1999/00	8	655	1080.75	8646	208	42	2019/20	21	1.81	75
Proposed upgrade Works													
Object ID	Activities	Year Commissioned	Effective year of commissioning for ROI ¹	Notes	Capital Cost (2010/11\$) (\$)		Capacity ² (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor ^{3,4}	Capital Charge per ET (2010/11\$)	
93	Dale Street, No 29/31 Ref. 7810/3	2013	2013/14	Pipe to Region St.	35000	35000	208	168	2030/31	18	1.67	281	

Total		52292		251				431
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Rate of return (pre 1996) 3%

Rate of return (post 1996) 7%

1. For pre-1996 assets, the effective year of commissioning for calculating Return on Investment (ROI) factors is January 1996, ie: 1995/96.
2. The capacity in the above calculation is the total capacity provided by existing and proposed service reservoirs.
3. The ROI factor for pre-1996 works is based on a rate of return (discount rate) of 3% pa real. The ROI factor assumes a uniform annual take-up of lots over the take-up period, commencing in the effective year of commissioning of the asset.
4. The ROI factor for post-1996 assets is based on a rate of return (discount rate) of 7% pa real, together with a uniform annual take-up of lots over the take-up period, commencing in the year of commissioning of the asset.

COLO VALE CAPITAL CHARGE CALCULATIONS

Developer Charges for Water Supply, Sewerage and Stormwater Drainage

Sensitivity Factor

EXAMPLE 2 - Pre 1996 and Post 1996 Existing Works

1.65

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Length (m)	Rate (\$/m)	Rate (\$/m) x Factor	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor ^{3,4}	Capital Charge per ET (2010/11\$)
<i>Pre 1996 Works</i>													
4836	Concrete Box Culvert - 0600X0300mm	1965	1995/96	10	320	528	5280	799	7	2019/20	25	1.39	9
4901	Concrete Box Culvert - 1500X1200mm	1990	1995/96	30	1145	1889.25	56677.5	799	71	2019/20	25	1.39	99
4905	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	10	325	536.25	5362.5	799	7	2019/20	25	1.39	9
4906	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	25	325	536.25	13406.25	799	17	2019/20	25	1.39	23
4907	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	14	325	536.25	7507.5	799	9	2019/20	25	1.39	13
4908	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	10	325	536.25	5362.5	799	7	2019/20	25	1.39	9
4909	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	32	325	536.25	17160	799	21	2019/20	25	1.39	30

4910	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	52	325	536.25	27885	799	35	2019/20	25	1.39	49
4911	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	12	325	536.25	6435	799	8	2019/20	25	1.39	11
4912	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	48	325	536.25	25740	799	32	2019/20	25	1.39	45
4913	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	104	325	536.25	55770	799	70	2019/20	25	1.39	97
4914	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	50	325	536.25	26812.5	799	34	2019/20	25	1.39	47
4915	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	40	325	536.25	21450	799	27	2019/20	25	1.39	37
4916	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	12	325	536.25	6435	799	8	2019/20	25	1.39	11
4923	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	12	325	536.25	6435	799	8	2019/20	25	1.39	11
4903	Reinforced Concrete Pipe - 0900mm dia.	1990	1995/96	11	517	853.05	9383.55	799	12	2019/20	25	1.39	16
4917	Reinforced Concrete Pipe - 0900mm dia.	1990	1995/96	11	517	853.05	9383.55	799	12	2019/20	25	1.39	16
4918	Reinforced Concrete Pipe - 0900mm dia.	1990	1995/96	11	517	853.05	9383.55	799	12	2019/20	25	1.39	16
4902	Unlined Trapezoidal Open Channel 2-4m Base Width	1990	1995/96	54	178	293.7	15859.8	799	20	2019/20	25	1.39	28

4858	Concrete Box Culvert - 0900X0600mm	1994	1995/96	6	554	914.1	5484.6	799	7	2019/20	25	1.39	10	
4944	Reinforced Concrete Pipe - 0600mm dia.	1986	1995/96	67	325	536.25	35928.75	799	45	2019/20	25	1.39	63	
4951	Reinforced Concrete Pipe - 0600mm dia.	1986	1995/96	13	325	536.25	6971.25	799	9	2019/20	25	1.39	12	
4859	Concrete Box Culvert - 0900X0600mm	1994	1995/96	10	554	914.1	9141	799	11	2019/20	25	1.39	16	
Post 1996 Works														
44	Wattle St, Colovale	Drainage repair,	2010	2010/11	1	80000	132000	132000	799	165	2019/20	10	1.33	220
Proposed upgrade Works														
Object ID	Activities	Year Commissioned	Effective year of commissioning for ROI ¹	Notes	Capital Cost (2010/11\$) (\$)		Capacity ² (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor ^{3,4}	Capital Charge per ET (2010/11\$)		
69	Ebony Place (Lot 2)	2010	2010/11	Collect leaves and gravel	45000	45000	799	56	2019/20	10	1.33	75		
Total						566,255		19,975				972		

Rate of return (pre 1996)

3%

Rate of return (post 1996)

7%

1. For pre-1996 assets, the effective year of commissioning for calculating Return on Investment (ROI) factors is January 1996, ie: 1995/96.

2. The capacity in the above calculation is the total capacity provided by existing and proposed service reservoirs.

3. The ROI factor for pre-1996 works is based on a rate of return (discount rate) of 3% pa real. The ROI factor assumes a uniform annual take-up of lots over the take-up period, commencing in the effective year of commissioning of the asset.

4. The ROI factor for post-1996 assets is based on a rate of return (discount rate) of 7% pa real, together with a uniform annual take-up of lots over the take-up period, commencing in the year of commissioning of the asset.

EXETER CAPITAL CHARGE CALCULATIONS

Developer Charges for Water Supply, Sewerage and Stormwater Drainage

Sensitivity Factor

EXAMPLE 2 - Pre 1996 and Post 1996 Existing Works

1.65

Component	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Length (m)	Rate (\$/m)	Rate (\$/m) x Factor	Capital Cost (2000/11\$) (\$)	Capacity ₂ (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor ^{3,4}	Capital Charge per ET (2000/11\$)
Pre 1996 Works													
3775	Reinforced Concrete Pipe - 0525mm dia.	1965	1995/96	54	295	486.75	26284.5	371	71	2019/20	25	1.39	99
3776	Reinforced Concrete Pipe - 0525mm dia.	1965	1995/96	10	295	486.75	4867.5	371	13	2019/20	25	1.39	18
3771	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	180	325	536.25	96525	371	260	2019/20	25	1.39	363
3767	Reinforced Concrete Pipe - 0675mm dia.	1965	1995/96	52	354	584.1	30373.2	371	82	2019/20	25	1.39	114
3769	Reinforced Concrete Pipe - 0675mm dia.	1965	1995/96	32	354	584.1	18691.2	371	50	2019/20	25	1.39	70
3770	Reinforced Concrete Pipe - 0675mm dia.	1965	1995/96	80	354	584.1	46728	371	126	2019/20	25	1.39	176
3766	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	10	369	608.85	6088.5	371	16	2019/20	25	1.39	23
3749	Reinforced Concrete Pipe - 0525mm dia.	1972	1995/96	15	295	486.75	7301.25	371	20	2019/20	25	1.39	27
3750	Reinforced Concrete Pipe - 0525mm dia.	1972	1995/96	10	295	486.75	4867.5	371	13	2019/20	25	1.39	18

3761	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	56	325	536.25	30030	371	81	2019/20	25	1.39	113
3762	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	50	325	536.25	26812.5	371	72	2019/20	25	1.39	101
3763	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	12	325	536.25	6435	371	17	2019/20	25	1.39	24
3757	Reinforced Concrete Pipe - 0675mm dia.	1972	1995/96	20	354	584.1	11682	371	31	2019/20	25	1.39	44
3758	Reinforced Concrete Pipe - 0675mm dia.	1972	1995/96	34	354	584.1	19859.4	371	54	2019/20	25	1.39	75
3760	Reinforced Concrete Pipe - 0675mm dia.	1972	1995/96	50	354	584.1	29205	371	79	2019/20	25	1.39	110
3746	Reinforced Concrete Pipe - 0675mm dia.	1972	1995/96	10	354	584.1	5841	371	16	2019/20	25	1.39	22
3747	Reinforced Concrete Pipe - 0675mm dia.	1972	1995/96	10	354	584.1	5841	371	16	2019/20	25	1.39	22
3748	Reinforced Concrete Pipe - 0675mm dia.	1972	1995/96	76	354	584.1	44391.6	371	120	2019/20	25	1.39	167
3742	Reinforced Concrete Pipe - 0750mm dia.	1972	1995/96	12	369	608.85	7306.2	371	20	2019/20	25	1.39	27
3743	Reinforced Concrete Pipe - 0750mm dia.	1972	1995/96	30	369	608.85	18265.5	371	49	2019/20	25	1.39	69
3744	Reinforced Concrete Pipe - 0750mm dia.	1972	1995/96	12	369	608.85	7306.2	371	20	2019/20	25	1.39	27
3745	Reinforced Concrete Pipe - 0750mm dia.	1972	1995/96	46	369	608.85	28007.1	371	75	2019/20	25	1.39	105
8259	Brick Lined Culvert - 2100X1200mm	1917	1995/96	35	4272	7048.8	246708	371	665	2019/20	25	1.39	927
3777	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	22	325	536.25	11797.5	371	32	2019/20	25	1.39	44
3779	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	76	325	536.25	40755	371	110	2019/20	25	1.39	153
3780	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	12	325	536.25	6435	371	17	2019/20	25	1.39	24

3781	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	6	325	536.25	3217.5	371	9	2019/20	25	1.39	12
Post 1996 Works													
1042	Concrete Box Culvert - 3000X0600mm	1999	1999/00	7	2067	3410.55	23873.85	371	64	2019/20	21	1.81	117
1042	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	32	325	536.25	17160	371	46	2019/20	21	1.81	84
1042	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	78	325	536.25	41827.5	371	113	2019/20	21	1.81	204
1043	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	6	325	536.25	3217.5	371	9	2019/20	21	1.81	16
Proposed upgrade Works													
Object ID	Activities	Year Commissioned	Effective year of commissioning for ROI ¹	Notes	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor ^{3,4}	Capital Charge per ET (2010/11\$)		
N/A													
Total					877,701		5,194				3,395		

Rate of return (pre 1996) 3%

Rate of return (post 1996) 7%

1. For pre-1996 assets, the effective year of commissioning for calculating Return on Investment (ROI) factors is January 1996, ie: 1995/96.

2. The capacity in the above calculation is the total capacity provided by existing and proposed service reservoirs.

3. The ROI factor for pre-1996 works is based on a rate of return (discount rate) of 3% pa real. The ROI factor assumes a uniform annual take-up of lots over the take-up period, commencing in the effective year of commissioning of the asset.

4. The ROI factor for post-1996 assets is based on a rate of return (discount rate) of 7% pa real, together with a uniform annual take-up of lots over the take-up period, commencing in the year of commissioning of the asset.

HILLTOP CAPITAL CHARGE CALCULATIONS

Developer Charges for Water Supply, Sewerage and Stormwater Drainage

Sensitivity Factor

EXAMPLE 2 - Pre 1996 and Post 1996 Existing Works

1.65

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Length (m)	Rate (\$/m)	Rate (\$/m) x Factor	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor ^{3,4}	Capital Charge per ET (2010/11\$)
Pre 1996 Works													
5175	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	46	324.7542	535.8444	24648.84378	2,890	9	2019/20	25	1.39	12
5169	Reinforced Concrete Pipe - 1500mm dia.	1917	1995/96	145	1254.7209	2070.2895	300191.9753	2,890	104	2019/20	25	1.39	145
5170	Reinforced Concrete Pipe - 1500mm dia.	1917	1995/96	20	1254.7209	2070.2895	41405.7897	2,890	14	2019/20	25	1.39	20
5171	Reinforced Concrete Pipe - 0600mm dia.	1917	1995/96	10	324.7542	535.8444	5358.4443	2,890	2	2019/20	25	1.39	3
5172	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	60	324.7542	535.8444	32150.6658	2,890	11	2019/20	25	1.39	16
5173	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	32	324.7542	535.8444	17147.02176	2,890	6	2019/20	25	1.39	8
5161	Reinforced Concrete Pipe - 0900mm dia.	1917	1995/96	14	516.6516	852.4751	11934.65196	2,890	4	2019/20	25	1.39	6
5163	Reinforced Concrete Pipe - 0750mm dia.	1917	1995/96	18	369.0397	608.9155	10960.47909	2,890	4	2019/20	25	1.39	5
5162	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	20	177.9936	293.6894	5873.7888	2,890	2	2019/20	25	1.39	3
5164	Unlined Trapezoidal Open Channel 2-4m Base Width	1975	1995/96	18	177.9936	293.6894	5286.40992	2,890	2	2019/20	25	1.39	3

5193	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	28	324.7542	535.8444	15003.64404	2,890	5	2019/20	25	1.39	7
5194	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	13	324.7542	535.8444	6965.97759	2,890	2	2019/20	25	1.39	3
Post 1996 Works													
Proposed upgrade Works													
Object ID	Activities	Year Commissioned	Effective year of commissioning for ROI ¹	Notes	Capital Cost (2010/11\$) (\$)		Capacity ² (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor ^{3,4}	Capital Charge per ET (2010/11\$)	
75	Wyong Street (at Lot 456)	2010	2012/13	Culvert upgrade	25000	25000	2,890	9	2019/20	8	1.25	11	
Total						501,928		37,570				242	

Rate of return (pre 1996) 3%

Rate of return (post 1996) 7%

1. For pre-1996 assets, the effective year of commissioning for calculating Return on Investment (ROI) factors is January 1996, ie: 1995/96.

2. The capacity in the above calculation is the total capacity provided by existing and proposed service reservoirs.

3. The ROI factor for pre-1996 works is based on a rate of return (discount rate) of 3% pa real. The ROI factor assumes a uniform annual take-up of lots over the take-up period, commencing in the effective year of commissioning of the asset.

4. The ROI factor for post-1996 assets is based on a rate of return (discount rate) of 7% pa real, together with a uniform annual take-up of lots over the take-up period, commencing in the year of commissioning of the asset.

MITTAGONG CAPITAL CHARGE CALCULATIONS

Developer Charges for Water Supply, Sewerage and Stormwater Drainage

Sensitivity Factor

EXAMPLE 2 - Pre 1996 and Post 1996 Existing Works

1.65

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Length (m)	Rate (\$/m)	Rate (\$/m) x Factor	Capital Cost (2010/11\$) (\$)	Capacity ₂ (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor ^{3,4}	Capital Charge per ET (2010/11\$)
Pre 1996 Works													
8377	Brick Lined Culvert - 0750X0600mm	1917	1995/96	33	474	782.1	25809.3	5,152	5	2019/20	25	1.39	7
9010	Brick Lined Culvert - 1500X1600mm	1917	1995/96	25	2670	4405.5	110137.5	5,152	21	2019/20	25	1.39	30
8923	Concrete Box Culvert - 1250X0900mm	1917	1995/96	25	988	1630.2	40755	5,152	8	2019/20	25	1.39	11
8948	Concrete Box Culvert - 1250X0900mm	1917	1995/96	25	988	1630.2	40755	5,152	8	2019/20	25	1.39	11
8915	Concrete Box Culvert - 1800X1200mm	1917	1995/96	20	1340	2211	44220	5,152	9	2019/20	25	1.39	12
8944	Concrete Box Culvert - 1800X1200mm	1917	1995/96	20	1340	2211	44220	5,152	9	2019/20	25	1.39	12
8945	Concrete Box Culvert - 1800X1200mm	1917	1995/96	20	1340	2211	44220	5,152	9	2019/20	25	1.39	12
8946	Concrete Box Culvert - 1800X1200mm	1917	1995/96	20	1340	2211	44220	5,152	9	2019/20	25	1.39	12
9206	Reinforced Concrete Pipe - 0900mm dia.	1917	1995/96	12	517	853.05	10236.6	5,152	2	2019/20	25	1.39	3
9238	Reinforced Concrete Pipe - 0900mm dia.	1917	1995/96	12	517	853.05	10236.6	5,152	2	2019/20	25	1.39	3

9239	Reinforced Concrete Pipe - 0900mm dia.	1917	1995/96	12	517	853.05	10236.6	5,152	2	2019/20	25	1.39	3
9240	Reinforced Concrete Pipe - 0900mm dia.	1917	1995/96	12	517	853.05	10236.6	5,152	2	2019/20	25	1.39	3
9241	Reinforced Concrete Pipe - 0900mm dia.	1917	1995/96	12	517	853.05	10236.6	5,152	2	2019/20	25	1.39	3
8918	Reinforced Concrete Pipe - 1800mm dia.	1917	1995/96	15	1733	2859.45	42891.75	5,152	8	2019/20	25	1.39	12
8947	Reinforced Concrete Pipe - 1800mm dia.	1917	1995/96	15	1733	2859.45	42891.75	5,152	8	2019/20	25	1.39	12
9011	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	157	178	293.7	46110.9	5,152	9	2019/20	25	1.39	12
9227	Unlined Trapezoidal Open Channel 2-4m Base Width	1917	1995/96	180	178	293.7	52866	5,152	10	2019/20	25	1.39	14
8912	Unlined Trapezoidal Open Channel 6-10m Base Width	1917	1995/96	450	475	783.75	352687.5	5,152	68	2019/20	25	1.39	95
8913	Unlined Trapezoidal Open Channel 6-10m Base Width	1917	1995/96	78	475	783.75	61132.5	5,152	12	2019/20	25	1.39	17
8914	Unlined Trapezoidal Open Channel 6-10m Base Width	1917	1995/96	95	475	783.75	74456.25	5,152	14	2019/20	25	1.39	20
8917	Unlined Trapezoidal Open Channel 6-10m Base Width	1917	1995/96	8	475	783.75	6270	5,152	1	2019/20	25	1.39	2
8919	Unlined Trapezoidal Open Channel 6-10m Base Width	1917	1995/96	105	475	783.75	82293.75	5,152	16	2019/20	25	1.39	22
8920	Unlined Trapezoidal Open Channel 6-10m Base Width	1917	1995/96	65	475	783.75	50943.75	5,152	10	2019/20	25	1.39	14
8922	Unlined Trapezoidal Open Channel 6-10m Base Width	1917	1995/96	85	475	783.75	66618.75	5,152	13	2019/20	25	1.39	18
8916	Unlined Trapezoidal Open Channel 6-10m Base Width	1917	1995/96	58	475	783.75	45457.5	5,152	9	2019/20	25	1.39	12
9330	Reinforced Concrete Pipe - 0600mm dia.	1945	1995/96	38	325	536.25	20377.5	5,152	4	2019/20	25	1.39	6
9331	Reinforced Concrete Pipe - 0600mm dia.	1945	1995/96	8	325	536.25	4290	5,152	1	2019/20	25	1.39	1

8680	Reinforced Concrete Pipe - 0600mm dia.	1950	1995/96	15	325	536.25	8043.75	5,152	2	2019/20	25	1.39	2
8681	Reinforced Concrete Pipe - 0600mm dia.	1950	1995/96	15	325	536.25	8043.75	5,152	2	2019/20	25	1.39	2
8682	Reinforced Concrete Pipe - 0600mm dia.	1950	1995/96	15	325	536.25	8043.75	5,152	2	2019/20	25	1.39	2
8669	Unlined Trapezoidal Open Channel 2-4m Base Width	1950	1995/96	280	178	293.7	82236	5,152	16	2019/20	25	1.39	22
8670	Unlined Trapezoidal Open Channel 2-4m Base Width	1950	1995/96	95	178	293.7	27901.5	5,152	5	2019/20	25	1.39	8
8683	Unlined Trapezoidal Open Channel 2-4m Base Width	1950	1995/96	105	178	293.7	30838.5	5,152	6	2019/20	25	1.39	8
8493	Reinforced Concrete Pipe - 0750mm dia.	1962	1995/96	21	369	608.85	12785.85	5,152	2	2019/20	25	1.39	3
8494	Reinforced Concrete Pipe - 0750mm dia.	1962	1995/96	9	369	608.85	5479.65	5,152	1	2019/20	25	1.39	1
8505	Reinforced Concrete Pipe - 0750mm dia.	1962	1995/96	21	369	608.85	12785.85	5,152	2	2019/20	25	1.39	3
8707	Concrete Box Culvert - 0600X0300mm	1964	1995/96	13	320	528	6864	5,152	1	2019/20	25	1.39	2
9019	Concrete Box Culvert - 1200X0600mm	1964	1995/96	22	655	1080.75	23776.5	5,152	5	2019/20	25	1.39	6
9020	Concrete Box Culvert - 1200X0600mm	1964	1995/96	20	655	1080.75	21615	5,152	4	2019/20	25	1.39	6
9022	Reinforced Concrete Pipe - 0600mm dia.	1964	1995/96	18	325	536.25	9652.5	5,152	2	2019/20	25	1.39	3
9018	Unlined Trapezoidal Open Channel 2-4m Base Width	1964	1995/96	70	178	293.7	20559	5,152	4	2019/20	25	1.39	6
9270	Concrete Box Culvert - 0600X0300mm	1965	1995/96	16	320	528	8448	5,152	2	2019/20	25	1.39	2
8960	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	16	325	536.25	8580	5,152	2	2019/20	25	1.39	2
8969	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	20	325	536.25	10725	5,152	2	2019/20	25	1.39	3

9256	Reinforced Concrete Pipe - 0600mm dia.	1967	1995/96	10	325	536.25	5362.5	5,152	1	2019/20	25	1.39	1
9014	Concrete Box Culvert - 0900X0600mm	1968	1995/96	13	554	914.1	11883.3	5,152	2	2019/20	25	1.39	3
9007	Concrete Box Culvert - 1250X0900mm	1968	1995/96	15	988	1630.2	24453	5,152	5	2019/20	25	1.39	7
9008	Concrete Box Culvert - 1250X0900mm	1968	1995/96	5	988	1630.2	8151	5,152	2	2019/20	25	1.39	2
9012	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	8	369	608.85	4870.8	5,152	1	2019/20	25	1.39	1
9013	Reinforced Concrete Pipe - 0750mm dia.	1968	1995/96	4	369	608.85	2435.4	5,152	0	2019/20	25	1.39	1
9009	Unlined Trapezoidal Open Channel 2-4m Base Width	1968	1995/96	3	178	293.7	881.1	5,152	0	2019/20	25	1.39	0
8928	Brick Lined Culvert - 1500X1600mm	1972	1995/96	27	2670	4405.5	118948.5	5,152	23	2019/20	25	1.39	32
9006	Concrete Box Culvert - 1250X0900mm	1972	1995/96	100	988	1630.2	163020	5,152	32	2019/20	25	1.39	44
8926	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	20	325	536.25	10725	5,152	2	2019/20	25	1.39	3
8937	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	110	325	536.25	58987.5	5,152	11	2019/20	25	1.39	16
8938	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	20	325	536.25	10725	5,152	2	2019/20	25	1.39	3
8939	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	5	325	536.25	2681.25	5,152	1	2019/20	25	1.39	1
8931	Reinforced Concrete Pipe - 0675mm dia.	1972	1995/96	53	354	584.1	30957.3	5,152	6	2019/20	25	1.39	8
8932	Reinforced Concrete Pipe - 0675mm dia.	1972	1995/96	62	354	584.1	36214.2	5,152	7	2019/20	25	1.39	10
8933	Reinforced Concrete Pipe - 0750mm dia.	1972	1995/96	40	369	608.85	24354	5,152	5	2019/20	25	1.39	7
8934	Reinforced Concrete Pipe - 0750mm dia.	1972	1995/96	33	369	608.85	20092.05	5,152	4	2019/20	25	1.39	5

8935	Reinforced Concrete Pipe - 0750mm dia.	1972	1995/96	85	369	608.85	51752.25	5,152	10	2019/20	25	1.39	14
8930	Reinforced Concrete Pipe - 1050mm dia.	1972	1995/96	38	664	1095.6	41632.8	5,152	8	2019/20	25	1.39	11
8927	Unlined Trapezoidal Open Channel 4-6m Base Width	1972	1995/96	8	297	490.05	3920.4	5,152	1	2019/20	25	1.39	1
8929	Unlined Trapezoidal Open Channel 4-6m Base Width	1972	1995/96	6	297	490.05	2940.3	5,152	1	2019/20	25	1.39	1
8950	Unlined Trapezoidal Open Channel 4-6m Base Width	1972	1995/96	53	297	490.05	25972.65	5,152	5	2019/20	25	1.39	7
9030	Reinforced Concrete Pipe - 0525mm dia.	1974	1995/96	7	295	486.75	3407.25	5,152	1	2019/20	25	1.39	1
8368	Reinforced Concrete Pipe - 0600mm dia.	1974	1995/96	13	325	536.25	6971.25	5,152	1	2019/20	25	1.39	2
9032	Reinforced Concrete Pipe - 0600mm dia.	1974	1995/96	79	325	536.25	42363.75	5,152	8	2019/20	25	1.39	11
8399	Reinforced Concrete Pipe - 0600mm dia.	1974	1995/96	13	325	536.25	6971.25	5,152	1	2019/20	25	1.39	2
8365	Reinforced Concrete Pipe - 0750mm dia.	1974	1995/96	3	369	608.85	1826.55	5,152	0	2019/20	25	1.39	0
8366	Reinforced Concrete Pipe - 0750mm dia.	1974	1995/96	32	369	608.85	19483.2	5,152	4	2019/20	25	1.39	5
8367	Reinforced Concrete Pipe - 0750mm dia.	1974	1995/96	46	369	608.85	28007.1	5,152	5	2019/20	25	1.39	8
8369	Reinforced Concrete Pipe - 0750mm dia.	1974	1995/96	90	369	608.85	54796.5	5,152	11	2019/20	25	1.39	15
8372	Reinforced Concrete Pipe - 0750mm dia.	1974	1995/96	57	369	608.85	34704.45	5,152	7	2019/20	25	1.39	9
8374	Reinforced Concrete Pipe - 0750mm dia.	1974	1995/96	14	369	608.85	8523.9	5,152	2	2019/20	25	1.39	2
8396	Unlined Trapezoidal Open Channel 2-4m Base Width	1974	1995/96	3	178	293.7	881.1	5,152	0	2019/20	25	1.39	0
8397	Unlined Trapezoidal Open Channel 2-4m Base Width	1974	1995/96	32	178	293.7	9398.4	5,152	2	2019/20	25	1.39	3

8398	Unlined Trapezoidal Open Channel 2-4m Base Width	1974	1995/96	46	178	293.7	13510.2	5,152	3	2019/20	25	1.39	4
9525	Concrete Box Culvert - 0900X0300mm	1975	1995/96	10	459	757.35	7573.5	5,152	1	2019/20	25	1.39	2
9514	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	20	325	536.25	10725	5,152	2	2019/20	25	1.39	3
9522	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	33	325	536.25	17696.25	5,152	3	2019/20	25	1.39	5
9523	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	4	325	536.25	2145	5,152	0	2019/20	25	1.39	1
6159	Unlined Trapezoidal Open Channel 2-4m Base Width	1975	1995/96	55	178	293.7	16153.5	5,152	3	2019/20	25	1.39	4
9505	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	8	325	536.25	4290	5,152	1	2019/20	25	1.39	1
9314	Concrete Dish Drain - 1.5m Wide	1976	1995/96	20	185	305.25	6105	5,152	1	2019/20	25	1.39	2
6143	Reinforced Concrete Pipe - 0600mm dia.	1976	1995/96	18	325	536.25	9652.5	5,152	2	2019/20	25	1.39	3
6153	Reinforced Concrete Pipe - 0600mm dia.	1976	1995/96	18	325	536.25	9652.5	5,152	2	2019/20	25	1.39	3
6145	Reinforced Concrete Pipe - 0600mm dia.	1976	1995/96	6	325	536.25	3217.5	5,152	1	2019/20	25	1.39	1
6154	Reinforced Concrete Pipe - 0600mm dia.	1976	1995/96	6	325	536.25	3217.5	5,152	1	2019/20	25	1.39	1
6134	Reinforced Concrete Pipe - 0900mm dia.	1976	1995/96	51	517	853.05	43505.55	5,152	8	2019/20	25	1.39	12
6135	Reinforced Concrete Pipe - 0900mm dia.	1976	1995/96	21	517	853.05	17914.05	5,152	3	2019/20	25	1.39	5
6136	Reinforced Concrete Pipe - 0900mm dia.	1976	1995/96	9	517	853.05	7677.45	5,152	1	2019/20	25	1.39	2
6137	Reinforced Concrete Pipe - 0900mm dia.	1976	1995/96	83	517	853.05	70803.15	5,152	14	2019/20	25	1.39	19
6138	Reinforced Concrete Pipe - 0900mm dia.	1976	1995/96	15	517	853.05	12795.75	5,152	2	2019/20	25	1.39	3

6139	Reinforced Concrete Pipe - 0900mm dia.	1976	1995/96	42	517	853.05	35828.1	5,152	7	2019/20	25	1.39	10
6140	Reinforced Concrete Pipe - 0900mm dia.	1976	1995/96	61	517	853.05	52036.05	5,152	10	2019/20	25	1.39	14
6141	Reinforced Concrete Pipe - 0900mm dia.	1976	1995/96	24	517	853.05	20473.2	5,152	4	2019/20	25	1.39	6
6132	Reinforced Concrete Pipe - 1200mm dia.	1976	1995/96	42	841	1387.65	58281.3	5,152	11	2019/20	25	1.39	16
6133	Reinforced Concrete Pipe - 1200mm dia.	1976	1995/96	12	841	1387.65	16651.8	5,152	3	2019/20	25	1.39	5
6129	Unlined Trapezoidal Open Channel 2-4m Base Width	1976	1995/96	72	178	293.7	21146.4	5,152	4	2019/20	25	1.39	6
6130	Unlined Trapezoidal Open Channel 2-4m Base Width	1976	1995/96	198	178	293.7	58152.6	5,152	11	2019/20	25	1.39	16
6131	Unlined Trapezoidal Open Channel 2-4m Base Width	1976	1995/96	60	178	293.7	17622	5,152	3	2019/20	25	1.39	5
6142	Unlined Trapezoidal Open Channel 2-4m Base Width	1976	1995/96	36	178	293.7	10573.2	5,152	2	2019/20	25	1.39	3
6144	Unlined Trapezoidal Open Channel 2-4m Base Width	1976	1995/96	36	178	293.7	10573.2	5,152	2	2019/20	25	1.39	3
6146	Unlined Trapezoidal Open Channel 2-4m Base Width	1976	1995/96	57	178	293.7	16740.9	5,152	3	2019/20	25	1.39	5
8122	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	15	369	608.85	9132.75	5,152	2	2019/20	25	1.39	2
8123	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	45	369	608.85	27398.25	5,152	5	2019/20	25	1.39	7
8124	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	65	369	608.85	39575.25	5,152	8	2019/20	25	1.39	11
8131	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	8	369	608.85	4870.8	5,152	1	2019/20	25	1.39	1
8125	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	58	369	608.85	35313.3	5,152	7	2019/20	25	1.39	10
8126	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	7	369	608.85	4261.95	5,152	1	2019/20	25	1.39	1

8127	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	108	369	608.85	65755.8	5,152	13	2019/20	25	1.39	18
8994	Concrete Box Culvert - 0600X0300mm	1978	1995/96	17	320	528	8976	5,152	2	2019/20	25	1.39	2
8995	Concrete Box Culvert - 0600X0300mm	1978	1995/96	4	320	528	2112	5,152	0	2019/20	25	1.39	1
8980	Concrete Lined Trapezoidal Open Channel 2-4m Base Width	1978	1995/96	4	653	1077.45	4309.8	5,152	1	2019/20	25	1.39	1
8981	Concrete Lined Trapezoidal Open Channel 2-4m Base Width	1978	1995/96	35	653	1077.45	37710.75	5,152	7	2019/20	25	1.39	10
8983	Concrete Lined Trapezoidal Open Channel 2-4m Base Width	1978	1995/96	43	653	1077.45	46330.35	5,152	9	2019/20	25	1.39	13
8988	Reinforced Concrete Pipe - 0600mm dia.	1978	1995/96	50	325	536.25	26812.5	5,152	5	2019/20	25	1.39	7
9230	Reinforced Concrete Pipe - 0525mm dia.	1979	1995/96	62	295	486.75	30178.5	5,152	6	2019/20	25	1.39	8
9231	Reinforced Concrete Pipe - 0600mm dia.	1979	1995/96	118	325	536.25	63277.5	5,152	12	2019/20	25	1.39	17
9232	Reinforced Concrete Pipe - 0600mm dia.	1979	1995/96	15	325	536.25	8043.75	5,152	2	2019/20	25	1.39	2
9226	Brick Lined Culvert - 1200X1200mm	1980	1995/96	65	1175	1938.75	126018.75	5,152	24	2019/20	25	1.39	34
9467	Concrete Box Culvert - 0600X0300mm	1980	1995/96	5	320	528	2640	5,152	1	2019/20	25	1.39	1
9468	Concrete Box Culvert - 0600X0300mm	1980	1995/96	13	320	528	6864	5,152	1	2019/20	25	1.39	2
9470	Reinforced Concrete Pipe - 0600mm dia.	1980	1995/96	105	325	536.25	56306.25	5,152	11	2019/20	25	1.39	15
9466	Reinforced Concrete Pipe - 0600mm dia.	1980	1995/96	95	325	536.25	50943.75	5,152	10	2019/20	25	1.39	14
9460	Reinforced Concrete Pipe - 1050mm dia.	1980	1995/96	30	664	1095.6	32868	5,152	6	2019/20	25	1.39	9

9224	Reinforced Concrete Pipe - 1050mm dia.	1980	1995/96	57	664	1095.6	62449.2	5,152	12	2019/20	25	1.39	17
9225	Reinforced Concrete Pipe - 1050mm dia.	1980	1995/96	13	664	1095.6	14242.8	5,152	3	2019/20	25	1.39	4
8163	Reinforced Concrete Pipe - 0900mm dia.	1981	1995/96	25	517	853.05	21326.25	5,152	4	2019/20	25	1.39	6
8164	Reinforced Concrete Pipe - 0900mm dia.	1981	1995/96	35	517	853.05	29856.75	5,152	6	2019/20	25	1.39	8
8165	Reinforced Concrete Pipe - 0900mm dia.	1981	1995/96	10	517	853.05	8530.5	5,152	2	2019/20	25	1.39	2
8166	Reinforced Concrete Pipe - 0900mm dia.	1981	1995/96	108	517	853.05	92129.4	5,152	18	2019/20	25	1.39	25
8167	Reinforced Concrete Pipe - 0900mm dia.	1981	1995/96	7	517	853.05	5971.35	5,152	1	2019/20	25	1.39	2
8168	Reinforced Concrete Pipe - 0900mm dia.	1981	1995/96	3	517	853.05	2559.15	5,152	0	2019/20	25	1.39	1
8156	Reinforced Concrete Pipe - 1500mm dia.	1981	1995/96	50	1255	2070.75	103537.5	5,152	20	2019/20	25	1.39	28
8157	Reinforced Concrete Pipe - 1500mm dia.	1981	1995/96	16	1255	2070.75	33132	5,152	6	2019/20	25	1.39	9
1138	Reinforced Concrete Pipe - 1500mm dia.	1981	1995/96	19	1255	2070.75	39344.25	5,152	8	2019/20	25	1.39	11
8158	Reinforced Concrete Pipe - 1500mm dia.	1981	1995/96	55	1255	2070.75	113891.25	5,152	22	2019/20	25	1.39	31
8159	Reinforced Concrete Pipe - 1500mm dia.	1981	1995/96	40	1255	2070.75	82830	5,152	16	2019/20	25	1.39	22
8160	Reinforced Concrete Pipe - 1500mm dia.	1981	1995/96	35	1255	2070.75	72476.25	5,152	14	2019/20	25	1.39	20
8161	Reinforced Concrete Pipe - 1500mm dia.	1981	1995/96	15	1255	2070.75	31061.25	5,152	6	2019/20	25	1.39	8
8949	Concrete Box Culvert - 1200X1200mm	1981	1995/96	25	1175	1938.75	48468.75	5,152	9	2019/20	25	1.39	13
9216	Concrete Box Culvert - 1500X1200mm	1982	1995/96	52	1145	1889.25	98241	5,152	19	2019/20	25	1.39	27

9217	Concrete Box Culvert - 1500X1200mm	1982	1995/96	13	1145	1889.25	24560.25	5,152	5	2019/20	25	1.39	7
9218	Concrete Box Culvert - 1500X1200mm	1982	1995/96	25	1145	1889.25	47231.25	5,152	9	2019/20	25	1.39	13
9214	Concrete Box Culvert - 1800X0900mm	1982	1995/96	20	1185	1955.25	39105	5,152	8	2019/20	25	1.39	11
9215	Concrete Box Culvert - 1800X0900mm	1982	1995/96	15	1185	1955.25	29328.75	5,152	6	2019/20	25	1.39	8
9222	Concrete Box Culvert - 2800X1300mm	1982	1995/96	32	2124	3504.6	112147.2	5,152	22	2019/20	25	1.39	30
9221	Concrete Box Culvert - 3000X1500mm	1982	1995/96	20	2267	3740.55	74811	5,152	15	2019/20	25	1.39	20
9350	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	40	325	536.25	21450	5,152	4	2019/20	25	1.39	6
9351	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	25	325	536.25	13406.25	5,152	3	2019/20	25	1.39	4
9388	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	13	325	536.25	6971.25	5,152	1	2019/20	25	1.39	2
8362	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	5	325	536.25	2681.25	5,152	1	2019/20	25	1.39	1
8363	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	18	325	536.25	9652.5	5,152	2	2019/20	25	1.39	3
8392	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	5	325	536.25	2681.25	5,152	1	2019/20	25	1.39	1
8393	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	5	325	536.25	2681.25	5,152	1	2019/20	25	1.39	1
8394	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	18	325	536.25	9652.5	5,152	2	2019/20	25	1.39	3
8395	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	18	325	536.25	9652.5	5,152	2	2019/20	25	1.39	3
8361	Reinforced Concrete Pipe - 0750mm dia.	1982	1995/96	90	369	608.85	54796.5	5,152	11	2019/20	25	1.39	15
8370	Reinforced Concrete Pipe - 0750mm dia.	1982	1995/96	63	369	608.85	38357.55	5,152	7	2019/20	25	1.39	10

8371	Reinforced Concrete Pipe - 0750mm dia.	1982	1995/96	43	369	608.85	26180.55	5,152	5	2019/20	25	1.39	7
9220	Reinforced Concrete Pipe - 0900mm dia.	1982	1995/96	35	517	853.05	29856.75	5,152	6	2019/20	25	1.39	8
9209	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	10	664	1095.6	10956	5,152	2	2019/20	25	1.39	3
9210	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	13	664	1095.6	14242.8	5,152	3	2019/20	25	1.39	4
9211	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	10	664	1095.6	10956	5,152	2	2019/20	25	1.39	3
9212	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	7	664	1095.6	7669.2	5,152	1	2019/20	25	1.39	2
9242	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	10	664	1095.6	10956	5,152	2	2019/20	25	1.39	3
9243	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	13	664	1095.6	14242.8	5,152	3	2019/20	25	1.39	4
9244	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	10	664	1095.6	10956	5,152	2	2019/20	25	1.39	3
9245	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	7	664	1095.6	7669.2	5,152	1	2019/20	25	1.39	2
9213	Reinforced Concrete Pipe - 1800mm dia.	1982	1995/96	60	1733	2859.45	171567	5,152	33	2019/20	25	1.39	46
9429	Concrete Box Culvert - 0600X0300mm	1983	1995/96	27	320	528	14256	5,152	3	2019/20	25	1.39	4
9430	Concrete Box Culvert - 0600X0300mm	1983	1995/96	5	320	528	2640	5,152	1	2019/20	25	1.39	1
8094	Concrete Box Culvert - 1200X0600mm	1983	1995/96	5	655	1080.75	5403.75	5,152	1	2019/20	25	1.39	1
8070	Concrete Box Culvert - 1500X0600mm	1983	1995/96	105	866	1428.9	150034.5	5,152	29	2019/20	25	1.39	41
8071	Concrete Box Culvert - 1500X0600mm	1983	1995/96	30	866	1428.9	42867	5,152	8	2019/20	25	1.39	12
8072	Concrete Box Culvert - 1500X0600mm	1983	1995/96	38	866	1428.9	54298.2	5,152	11	2019/20	25	1.39	15

8073	Concrete Box Culvert - 1500X0600mm	1983	1995/96	50	866	1428.9	71445	5,152	14	2019/20	25	1.39	19
8074	Concrete Box Culvert - 1500X0600mm	1983	1995/96	32	866	1428.9	45724.8	5,152	9	2019/20	25	1.39	12
8075	Concrete Box Culvert - 1500X0600mm	1983	1995/96	35	866	1428.9	50011.5	5,152	10	2019/20	25	1.39	14
8076	Concrete Box Culvert - 1500X0600mm	1983	1995/96	45	866	1428.9	64300.5	5,152	12	2019/20	25	1.39	17
8093	Concrete Box Culvert - 1500X0600mm	1983	1995/96	15	866	1428.9	21433.5	5,152	4	2019/20	25	1.39	6
8924	Concrete Box Culvert - 2100X0900mm	1983	1995/96	60	1274	2102.1	126126	5,152	24	2019/20	25	1.39	34
8925	Reinforced Concrete Pipe - 0600mm dia.	1983	1995/96	33	325	536.25	17696.25	5,152	3	2019/20	25	1.39	5
9409	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	5	369	608.85	3044.25	5,152	1	2019/20	25	1.39	1
9434	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	8	369	608.85	4870.8	5,152	1	2019/20	25	1.39	1
8095	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	7	369	608.85	4261.95	5,152	1	2019/20	25	1.39	1
9401	Reinforced Concrete Pipe - 0900mm dia.	1983	1995/96	4	517	853.05	3412.2	5,152	1	2019/20	25	1.39	1
9402	Reinforced Concrete Pipe - 0900mm dia.	1983	1995/96	15	517	853.05	12795.75	5,152	2	2019/20	25	1.39	3
9404	Reinforced Concrete Pipe - 0900mm dia.	1983	1995/96	40	517	853.05	34122	5,152	7	2019/20	25	1.39	9
9405	Reinforced Concrete Pipe - 0900mm dia.	1983	1995/96	30	517	853.05	25591.5	5,152	5	2019/20	25	1.39	7
9406	Reinforced Concrete Pipe - 0900mm dia.	1983	1995/96	10	517	853.05	8530.5	5,152	2	2019/20	25	1.39	2
9407	Reinforced Concrete Pipe - 0900mm dia.	1983	1995/96	60	517	853.05	51183	5,152	10	2019/20	25	1.39	14
9408	Reinforced Concrete Pipe - 0900mm dia.	1983	1995/96	28	517	853.05	23885.4	5,152	5	2019/20	25	1.39	6

8106	Reinforced Concrete Pipe - 0900mm dia.	1983	1995/96	20	517	853.05	17061	5,152	3	2019/20	25	1.39	5
8107	Reinforced Concrete Pipe - 0900mm dia.	1983	1995/96	5	517	853.05	4265.25	5,152	1	2019/20	25	1.39	1
9403	Reinforced Concrete Pipe - 0900mm dia.	1983	1995/96	28	517	853.05	23885.4	5,152	5	2019/20	25	1.39	6
8307	Reinforced Concrete Pipe - 0525mm dia.	1983	1995/96	22	295	486.75	10708.5	5,152	2	2019/20	25	1.39	3
8306	Reinforced Concrete Pipe - 1800mm dia.	1983	1995/96	22	1733	2859.45	62907.9	5,152	12	2019/20	25	1.39	17
8315	Reinforced Concrete Pipe - 1800mm dia.	1983	1995/96	80	1733	2859.45	228756	5,152	44	2019/20	25	1.39	62
8316	Reinforced Concrete Pipe - 1800mm dia.	1983	1995/96	80	1733	2859.45	228756	5,152	44	2019/20	25	1.39	62
8312	Reinforced Concrete Pipe - 1800mm dia.	1983	1995/96	22	1733	2859.45	62907.9	5,152	12	2019/20	25	1.39	17
9015	Unlined Trapezoidal Open Channel 2-4m Base Width	1983	1995/96	25	178	293.7	7342.5	5,152	1	2019/20	25	1.39	2
8195	Reinforced Concrete Pipe - 0525mm dia.	1985	1995/96	12	295	486.75	5841	5,152	1	2019/20	25	1.39	2
8194	Reinforced Concrete Pipe - 0600mm dia.	1985	1995/96	90	325	536.25	48262.5	5,152	9	2019/20	25	1.39	13
8189	Reinforced Concrete Pipe - 0750mm dia.	1985	1995/96	8	369	608.85	4870.8	5,152	1	2019/20	25	1.39	1
8190	Reinforced Concrete Pipe - 0750mm dia.	1985	1995/96	65	369	608.85	39575.25	5,152	8	2019/20	25	1.39	11
8191	Reinforced Concrete Pipe - 0750mm dia.	1985	1995/96	92	369	608.85	56014.2	5,152	11	2019/20	25	1.39	15
8192	Reinforced Concrete Pipe - 0750mm dia.	1985	1995/96	12	369	608.85	7306.2	5,152	1	2019/20	25	1.39	2
8193	Reinforced Concrete Pipe - 0750mm dia.	1985	1995/96	30	369	608.85	18265.5	5,152	4	2019/20	25	1.39	5
8214	Reinforced Concrete Pipe - 0525mm dia.	1988	1995/96	10	295	486.75	4867.5	5,152	1	2019/20	25	1.39	1

8219	Reinforced Concrete Pipe - 0525mm dia.	1988	1995/96	10	295	486.75	4867.5	5,152	1	2019/20	25	1.39	1
8245	Reinforced Concrete Pipe - 0600mm dia.	1988	1995/96	12	325	536.25	6435	5,152	1	2019/20	25	1.39	2
8246	Reinforced Concrete Pipe - 0600mm dia.	1988	1995/96	5	325	536.25	2681.25	5,152	1	2019/20	25	1.39	1
8247	Reinforced Concrete Pipe - 0600mm dia.	1988	1995/96	50	325	536.25	26812.5	5,152	5	2019/20	25	1.39	7
8942	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	18	325	536.25	9652.5	5,152	2	2019/20	25	1.39	3
8943	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	3	325	536.25	1608.75	5,152	0	2019/20	25	1.39	0
6078	Concrete Box Culvert - 2100X0900mm	1991	1995/96	30	1274	2102.1	63063	5,152	12	2019/20	25	1.39	17
6076	Concrete Box Culvert - 2700X0900mm	1991	1995/96	36	1721	2839.65	102227.4	5,152	20	2019/20	25	1.39	28
6147	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	12	369	608.85	7306.2	5,152	1	2019/20	25	1.39	2
6149	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	57	369	608.85	34704.45	5,152	7	2019/20	25	1.39	9
6150	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	48	369	608.85	29224.8	5,152	6	2019/20	25	1.39	8
6151	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	24	369	608.85	14612.4	5,152	3	2019/20	25	1.39	4
6152	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	6	369	608.85	3653.1	5,152	1	2019/20	25	1.39	1
6077	Reinforced Concrete Pipe - 1500mm dia.	1991	1995/96	78	1255	2070.75	161518.5	5,152	31	2019/20	25	1.39	44
6081	Unlined Trapezoidal Open Channel 2-4m Base Width	1991	1995/96	24	178	293.7	7048.8	5,152	1	2019/20	25	1.39	2
6075	Unlined Trapezoidal Open Channel 4-6m Base Width	1991	1995/96	360	297	490.05	176418	5,152	34	2019/20	25	1.39	48
6079	Unlined Trapezoidal Open Channel 4-6m Base Width	1991	1995/96	354	297	490.05	173477.7	5,152	34	2019/20	25	1.39	47

8674	Reinforced Concrete Pipe - 0600mm dia.	1992	1995/96	20	325	536.25	10725	5,152	2	2019/20	25	1.39	3
8679	Reinforced Concrete Pipe - 0600mm dia.	1992	1995/96	115	325	536.25	61668.75	5,152	12	2019/20	25	1.39	17
8710	Reinforced Concrete Pipe - 0600mm dia.	1992	1995/96	4	325	536.25	2145	5,152	0	2019/20	25	1.39	1
8713	Reinforced Concrete Pipe - 0600mm dia.	1992	1995/96	4	325	536.25	2145	5,152	0	2019/20	25	1.39	1
8673	Reinforced Concrete Pipe - 0750mm dia.	1992	1995/96	18	369	608.85	10959.3	5,152	2	2019/20	25	1.39	3
8273	Unlined Trapezoidal Open Channel 2-4m Base Width	1992	1995/96	223	178	293.7	65495.1	5,152	13	2019/20	25	1.39	18
8381	Concrete Box Culvert - 2100X0900mm	1994	1995/96	7	1274	2102.1	14714.7	5,152	3	2019/20	25	1.39	4
8383	Concrete Box Culvert - 2100X0900mm	1994	1995/96	20	1274	2102.1	42042	5,152	8	2019/20	25	1.39	11
8384	Concrete Lined Trapezoidal Open Channel 4-6m Base Width	1994	1995/96	9	871	1437.15	12934.35	5,152	3	2019/20	25	1.39	3
8414	Reinforced Concrete Pipe - 0750mm dia.	1994	1995/96	14	369	608.85	8523.9	5,152	2	2019/20	25	1.39	2
8379	Reinforced Concrete Pipe - 1050mm dia.	1994	1995/96	23	664	1095.6	25198.8	5,152	5	2019/20	25	1.39	7
8402	Reinforced Concrete Pipe - 1050mm dia.	1994	1995/96	23	664	1095.6	25198.8	5,152	5	2019/20	25	1.39	7
8378	Unlined Trapezoidal Open Channel 2-4m Base Width	1994	1995/96	15	178	293.7	4405.5	5,152	1	2019/20	25	1.39	1
8382	Unlined Trapezoidal Open Channel 4-6m Base Width	1994	1995/96	100	297	490.05	49005	5,152	10	2019/20	25	1.39	13
Post 1996 Works													
8496	Reinforced Concrete Pipe - 0525mm dia.	1996	1996/97	26	295	486.75	12655.5	5,152	2	2019/20	24	1.96	5
8497	Reinforced Concrete Pipe - 0525mm dia.	1996	1996/97	33	295	486.75	16062.75	5,152	3	2019/20	24	1.96	6

8498	Reinforced Concrete Pipe - 0525mm dia.	1996	1996/97	32	295	486.75	15576	5,152	3	2019/20	24	1.96	6
8495	Reinforced Concrete Pipe - 0600mm dia.	1996	1996/97	82	325	536.25	43972.5	5,152	9	2019/20	24	1.96	17
1019	Reinforced Concrete Pipe - 0525mm dia.	1998	1998/99	34	295	486.75	16549.5	5,152	3	2019/20	22	1.86	6
1019	Reinforced Concrete Pipe - 0525mm dia.	1998	1998/99	12	295	486.75	5841	5,152	1	2019/20	22	1.86	2
1020	Reinforced Concrete Pipe - 0525mm dia.	1998	1998/99	12	295	486.75	5841	5,152	1	2019/20	22	1.86	2
1020	Reinforced Concrete Pipe - 0525mm dia.	1998	1998/99	34	295	486.75	16549.5	5,152	3	2019/20	22	1.86	6
1019	Reinforced Concrete Pipe - 0675mm dia.	1998	1998/99	48	354	584.1	28036.8	5,152	5	2019/20	22	1.86	10
1019	Reinforced Concrete Pipe - 0675mm dia.	1998	1998/99	56	354	584.1	32709.6	5,152	6	2019/20	22	1.86	12
1019	Reinforced Concrete Pipe - 0675mm dia.	1998	1998/99	42	354	584.1	24532.2	5,152	5	2019/20	22	1.86	9
1019	Reinforced Concrete Pipe - 0675mm dia.	1998	1998/99	19	354	584.1	11097.9	5,152	2	2019/20	22	1.86	4
1070	Reinforced Concrete Pipe - 0600mm dia.	2001	2001/02	7	325	536.25	3753.75	5,152	1	2019/20	19	1.72	1
1070	Reinforced Concrete Pipe - 0600mm dia.	2001	2001/02	13	325	536.25	6971.25	5,152	1	2019/20	19	1.72	2
1070	Reinforced Concrete Pipe - 0675mm dia.	2001	2001/02	29	354	584.1	16938.9	5,152	3	2019/20	19	1.72	6
1070	Reinforced Concrete Pipe - 0675mm dia.	2001	2001/02	34	354	584.1	19859.4	5,152	4	2019/20	19	1.72	7
1070	Reinforced Concrete Pipe - 0675mm dia.	2001	2001/02	55	354	584.1	32125.5	5,152	6	2019/20	19	1.72	11
1070	Reinforced Concrete Pipe - 0675mm dia.	2001	2001/02	60	354	584.1	35046	5,152	7	2019/20	19	1.72	12
1070	Reinforced Concrete Pipe - 0675mm dia.	2001	2001/02	60	354	584.1	35046	5,152	7	2019/20	19	1.72	12

1069	Reinforced Concrete Pipe - 0675mm dia.	2001	2001/02	9	354	584.1	5256.9	5,152	1	2019/20	19	1.72	2
1110	Concrete Box Culvert - 2700X1200mm	2005	2005/06	25	1890	3118.5	77962.5	5,152	15	2019/20	15	1.54	23
G1	CDS	2003	2003/04	1	16500 0	272250	272250	5,152	53	2019/20	17	1.63	86
W1	Wetland/Detention	2003	2003/04	1	29000 0	478500	478500	5,152	93	2019/20	17	1.63	151
W9	WETLANDS	2004	2003/04	1	8000	13200	13200	5,152	3	2019/20	17	1.63	4
S4	SEDIMENT PONDS	2004	2003/04	1	2000	3300	3300	5,152	1	2019/20	17	1.63	1
G11	GROSS POLLUTANT TRAPS	2004	2003/04	1	30000	49500	49500	5,152	10	2019/20	17	1.63	16

Proposed upgrade Works												
Object ID	Activities	Year Commissioned	Effective year of commissioning for ROI ¹	Notes	Capital Cost (2010/11\$) (\$)		Capacity ² (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor ^{3,4}	Capital Charge per ET (2010/11\$)
89	Meranie Street	2013	2013/14	Pipe pits, K&G around intersection	60000	60000	5,152	12	2019/20	7	1.21	14
163	Cook St, Spring St	2011	2011/12	Northern side of spring st, K&G between hood st and elizabeth st plus drainage to watercourse on eastern end	240000	240000	5,152	47	2019/20	9	1.29	60
164	William Street (near Charles St)	2012	2012/13	Pipe open channel in road reserve between William & Thomas Street. Approx. 55m 900 dia.	55000	55000	5,152	11	2019/20	8	1.25	13

165	Dalton/Lyell/Cavendish Streets	2011	2011/12	Upgrade drainage at rear of bus depot including additional capacity down Lyell St.	400000	400000	5,152	78	2019/20	9	1.29	100
166	Corner Bessemer & Albert Sts (Mittagong PS)	2011	2011/12	Upgrade stormwater pipes	50000	50000	5,152	10	2019/20	9	1.29	13
166	Oxley Drive	2011	2011/12	Extent to Spencer St from Murchison St	400000	400000	5,152	78	2019/20	9	1.29	100
166	Railway Parade	2013	2013/14	Intersection flooding - at Stanley St. Investigate area	35000	35000	5,152	7	2019/20	7	1.21	8
169	Brewster St / Rainbow Road	2012	2010/13	Pipe open channel through Henley Brae retirement village	80000	80000	5,152	16	2019/20	10	1.33	21
172	Ferguson Crescent	2013	2013/14	Pipe open drain, K&G	100000	100000	5,152	19	2019/20	7	1.21	24
179	Southey Street	2012	2012/13	Acquire easement Lot 30, install pipes	65000	65000	5,152	13	2019/20	8	1.25	16
0	Hood St/Elizabeth St	2012	2012/13	Box culvert	100000	100000	5,152	19	2019/20	8	1.25	24
0	Railway Pde near Huxley St	2010	2010/11	Culvert under railway line needs upgrading	100000	100000	5,152	19	2019/20	10	1.33	26
0	Bessemer St	2010	2010/11	Channel scoured, Pipes are dislodged. Needs reconstruction using drop structures. Refer to Design branch	100000	100000	5,152	19	2019/20	10	1.33	26
0	Mandemar St	2013	2013/14	Natural watercourse, can be piped, private problem.	60000	60000	5,152	12	2019/20	7	1.21	14

Proposed Stormwater Management Works

N/A																			
Total					11,472,496		216,384												3,143

Rate of return (pre 1996) 3%

Rate of return (post 1996) 7%

1. For pre-1996 assets, the effective year of commissioning for calculating Return on Investment (ROI) factors is January 1996, ie: 1995/96.
2. The capacity in the above calculation is the total capacity provided by existing and proposed service reservoirs.
3. The ROI factor for pre-1996 works is based on a rate of return (discount rate) of 3% pa real. The ROI factor assumes a uniform annual take-up of lots over the take-up period, commencing in the effective year of commissioning of the asset.
4. The ROI factor for post-1996 assets is based on a rate of return (discount rate) of 7% pa real, together with a uniform annual take-up of lots over the take-up period, commencing in the year of commissioning of the asset.

MOSS VALE WHITES CREEK CAPITAL CHARGE CALCULATIONS

Developer Charges for Stormwater Drainage

Sensitivity Factor

1.65

Pre 1996, Post 1996 and Proposed Upgrade Works

Moss Vale Whites_assessment

TAM Records	Components	Year Commissioned	Effective year of commissioning for ROI ¹	Length (m)	Rate (\$/m)	Rate (\$/m) x Factor	Capital Cost (2010/11 \$)	Capacity ² (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor ^{3,4}	Capital Charge per ET (2010/11\$)
Pre 1996 Works													
5212	Concrete Box Culvert - 2100X1200mm	1917	1995/96	23	1,396	2,303	52,978	4,569	12	2019/20	25	1.39	16
4521	Reinforced Concrete Pipe - 0525mm dia.	1917	1995/96	20	295	487	9,735	4,569	2	2019/20	25	1.39	3
5220	Reinforced Concrete Pipe - 0900mm dia.	1917	1995/96	11	517	853	9,384	4,569	2	2019/20	25	1.39	3
3994	Reinforced Concrete Pipe - 0600mm dia.	1957	1995/96	27	325	536	14,479	4,569	3	2019/20	25	1.39	4
3995	Reinforced Concrete Pipe - 0600mm dia.	1957	1995/96	32	325	536	17,160	4,569	4	2019/20	25	1.39	5
3996	Reinforced Concrete Pipe - 0600mm dia.	1957	1995/96	56	325	536	30,030	4,569	7	2019/20	25	1.39	9
3997	Reinforced Concrete Pipe - 0600mm dia.	1957	1995/96	50	325	536	26,813	4,569	6	2019/20	25	1.39	8
3998	Reinforced Concrete Pipe - 0600mm dia.	1957	1995/96	17	325	536	9,116	4,569	2	2019/20	25	1.39	3
3999	Reinforced Concrete Pipe - 0600mm dia.	1957	1995/96	28	325	536	15,015	4,569	3	2019/20	25	1.39	5

3801	Unlined Trapezoidal Open Channel 2-4m Base Width	1962	1995/96	195	178	294	57,272	4,569	13	2019/20	25	1.39	17
6389	Reinforced Concrete Pipe - 0600mm dia.	1966	1995/96	25	325	536	13,406	4,569	3	2019/20	25	1.39	4
6353	Reinforced Concrete Pipe - 0600mm dia.	1966	1995/96	40	325	536	21,450	4,569	5	2019/20	25	1.39	7
6354	Reinforced Concrete Pipe - 0600mm dia.	1966	1995/96	12	325	536	6,435	4,569	1	2019/20	25	1.39	2
4163	Asbestos Cement Pipe - 525mm dia.	1977	1995/96	10	295	487	4,868	4,569	1	2019/20	25	1.39	1
4164	Asbestos Cement Pipe - 525mm dia.	1977	1995/96	17	295	487	8,275	4,569	2	2019/20	25	1.39	3
4294	Concrete Box Culvert - 1000X0300mm	1977	1995/96	130	459	757	98,456	4,569	22	2019/20	25	1.39	30
3935	Concrete Box Culvert - 1900X0600mm	1977	1995/96	20	1,184	1,954	39,072	4,569	9	2019/20	25	1.39	12
4076	Reinforced Concrete Pipe - 0525mm dia.	1977	1995/96	35	295	487	17,036	4,569	4	2019/20	25	1.39	5
4077	Reinforced Concrete Pipe - 0525mm dia.	1977	1995/96	15	295	487	7,301	4,569	2	2019/20	25	1.39	2
4337	Reinforced Concrete Pipe - 0525mm dia.	1977	1995/96	30	295	487	14,603	4,569	3	2019/20	25	1.39	4
4301	Reinforced Concrete Pipe - 0525mm dia.	1977	1995/96	55	295	487	26,771	4,569	6	2019/20	25	1.39	8
4338	Reinforced Concrete Pipe - 0525mm dia.	1977	1995/96	50	295	487	24,338	4,569	5	2019/20	25	1.39	7
4074	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	15	325	536	8,044	4,569	2	2019/20	25	1.39	2
4075	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	30	325	536	16,088	4,569	4	2019/20	25	1.39	5
4190	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	45	325	536	24,131	4,569	5	2019/20	25	1.39	7
4191	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	15	325	536	8,044	4,569	2	2019/20	25	1.39	2

4192	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	45	325	536	24,131	4,569	5	2019/20	25	1.39	7
4193	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	50	325	536	26,813	4,569	6	2019/20	25	1.39	8
4194	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	60	325	536	32,175	4,569	7	2019/20	25	1.39	10
3938	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	40	325	536	21,450	4,569	5	2019/20	25	1.39	7
4355	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	20	325	536	10,725	4,569	2	2019/20	25	1.39	3
4333	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	15	325	536	8,044	4,569	2	2019/20	25	1.39	2
4334	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	15	325	536	8,044	4,569	2	2019/20	25	1.39	2
4335	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	12	325	536	6,435	4,569	1	2019/20	25	1.39	2
4336	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	105	325	536	56,306	4,569	12	2019/20	25	1.39	17
4344	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	15	325	536	8,044	4,569	2	2019/20	25	1.39	2
4373	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	5	325	536	2,681	4,569	1	2019/20	25	1.39	1
3939	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	60	325	536	32,175	4,569	7	2019/20	25	1.39	10
3940	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	15	325	536	8,044	4,569	2	2019/20	25	1.39	2
3941	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	10	325	536	5,363	4,569	1	2019/20	25	1.39	2
3942	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	15	325	536	8,044	4,569	2	2019/20	25	1.39	2
3943	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	40	325	536	21,450	4,569	5	2019/20	25	1.39	7
3944	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	15	325	536	8,044	4,569	2	2019/20	25	1.39	2

3945	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	35	325	536	18,769	4,569	4	2019/20	25	1.39	6
3946	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	10	325	536	5,363	4,569	1	2019/20	25	1.39	2
3947	Reinforced Concrete Pipe - 0600mm dia.	1977	1995/96	12	325	536	6,435	4,569	1	2019/20	25	1.39	2
3932	Reinforced Concrete Pipe - 0675mm dia.	1977	1995/96	50	354	584	29,205	4,569	6	2019/20	25	1.39	9
4068	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	5	369	609	3,044	4,569	1	2019/20	25	1.39	1
4069	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	45	369	609	27,398	4,569	6	2019/20	25	1.39	8
4070	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	65	369	609	39,575	4,569	9	2019/20	25	1.39	12
4071	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	20	369	609	12,177	4,569	3	2019/20	25	1.39	4
4072	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	15	369	609	9,133	4,569	2	2019/20	25	1.39	3
4073	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	8	369	609	4,871	4,569	1	2019/20	25	1.39	1
4329	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	75	369	609	45,664	4,569	10	2019/20	25	1.39	14
4330	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	15	369	609	9,133	4,569	2	2019/20	25	1.39	3
4332	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	80	369	609	48,708	4,569	11	2019/20	25	1.39	15
4354	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	15	369	609	9,133	4,569	2	2019/20	25	1.39	3
3961	Reinforced Concrete Pipe - 0900mm dia.	1977	1995/96	75	517	853	63,979	4,569	14	2019/20	25	1.39	20
3937	Reinforced Concrete Pipe - 0900mm dia.	1977	1995/96	75	517	853	63,979	4,569	14	2019/20	25	1.39	20
3954	Reinforced Concrete Pipe - 1200mm dia.	1977	1995/96	55	841	1,388	76,321	4,569	17	2019/20	25	1.39	23

3926	Reinforced Concrete Pipe - 1200mm dia.	1977	1995/96	25	841	1,388	34,691	4,569	8	2019/20	25	1.39	11
3917	Reinforced Concrete Pipe - 1200mm dia.	1977	1995/96	25	841	1,388	34,691	4,569	8	2019/20	25	1.39	11
3951	Reinforced Concrete Pipe - 1200mm dia.	1977	1995/96	25	841	1,388	34,691	4,569	8	2019/20	25	1.39	11
3955	Reinforced Concrete Pipe - 1200mm dia.	1977	1995/96	55	841	1,388	76,321	4,569	17	2019/20	25	1.39	23
3957	Reinforced Concrete Pipe - 1200mm dia.	1977	1995/96	25	841	1,388	34,691	4,569	8	2019/20	25	1.39	11
3958	Reinforced Concrete Pipe - 1200mm dia.	1977	1995/96	50	841	1,388	69,383	4,569	15	2019/20	25	1.39	21
3959	Reinforced Concrete Pipe - 1200mm dia.	1977	1995/96	20	841	1,388	27,753	4,569	6	2019/20	25	1.39	8
3930	Reinforced Concrete Pipe - 1200mm dia.	1977	1995/96	50	841	1,388	69,383	4,569	15	2019/20	25	1.39	21
3931	Reinforced Concrete Pipe - 1200mm dia.	1977	1995/96	20	841	1,388	27,753	4,569	6	2019/20	25	1.39	8
3916	Unlined Trapezoidal Open Channel 4-6m Base Width	1977	1995/96	130	297	490	63,707	4,569	14	2019/20	25	1.39	19
6960	Reinforced Concrete Pipe - 0600mm dia.	1979	1995/96	12	325	536	6,435	4,569	1	2019/20	25	1.39	2
6961	Reinforced Concrete Pipe - 0600mm dia.	1979	1995/96	160	325	536	85,800	4,569	19	2019/20	25	1.39	26
6962	Reinforced Concrete Pipe - 0600mm dia.	1979	1995/96	25	325	536	13,406	4,569	3	2019/20	25	1.39	4
6963	Reinforced Concrete Pipe - 0600mm dia.	1979	1995/96	90	325	536	48,263	4,569	11	2019/20	25	1.39	15
6964	Reinforced Concrete Pipe - 0600mm dia.	1979	1995/96	8	325	536	4,290	4,569	1	2019/20	25	1.39	1
6976	Reinforced Concrete Pipe - 0600mm dia.	1979	1995/96	70	325	536	37,538	4,569	8	2019/20	25	1.39	11
6977	Reinforced Concrete Pipe - 0600mm dia.	1979	1995/96	55	325	536	29,494	4,569	6	2019/20	25	1.39	9

6544	Reinforced Concrete Pipe - 0750mm dia.	1979	1995/96	92	369	609	56,014	4,569	12	2019/20	25	1.39	17
4141	Reinforced Concrete Pipe - 0525mm dia.	1980	1995/96	65	295	487	31,639	4,569	7	2019/20	25	1.39	10
4142	Reinforced Concrete Pipe - 0525mm dia.	1980	1995/96	45	295	487	21,904	4,569	5	2019/20	25	1.39	7
4265	Reinforced Concrete Pipe - 0525mm dia.	1980	1995/96	125	295	487	60,844	4,569	13	2019/20	25	1.39	19
4243	Reinforced Concrete Pipe - 0600mm dia.	1980	1995/96	15	325	536	8,044	4,569	2	2019/20	25	1.39	2
4245	Reinforced Concrete Pipe - 0600mm dia.	1980	1995/96	35	325	536	18,769	4,569	4	2019/20	25	1.39	6
4246	Reinforced Concrete Pipe - 0600mm dia.	1980	1995/96	15	325	536	8,044	4,569	2	2019/20	25	1.39	2
4241	Reinforced Concrete Pipe - 0750mm dia.	1980	1995/96	20	369	609	12,177	4,569	3	2019/20	25	1.39	4
4242	Reinforced Concrete Pipe - 0750mm dia.	1980	1995/96	95	369	609	57,841	4,569	13	2019/20	25	1.39	18
4239	Reinforced Concrete Pipe - 0825mm dia.	1980	1995/96	10	428	706	7,062	4,569	2	2019/20	25	1.39	2
4240	Reinforced Concrete Pipe - 0825mm dia.	1980	1995/96	50	428	706	35,310	4,569	8	2019/20	25	1.39	11
5278	Asbestos Cement Pipe - 675mm dia.	1981	1995/96	90	354	584	52,569	4,569	12	2019/20	25	1.39	16
5256	Concrete Box Culvert - 1250X0900mm	1981	1995/96	28	988	1,630	45,646	4,569	10	2019/20	25	1.39	14
5263	Concrete Box Culvert - 1800X0900mm	1981	1995/96	9	1,185	1,955	17,597	4,569	4	2019/20	25	1.39	5
5264	Concrete Box Culvert - 1800X0900mm	1981	1995/96	7	1,185	1,955	13,687	4,569	3	2019/20	25	1.39	4
5282	Reinforced Concrete Pipe - 0525mm dia.	1981	1995/96	66	295	487	32,126	4,569	7	2019/20	25	1.39	10
5283	Reinforced Concrete Pipe - 0525mm dia.	1981	1995/96	24	295	487	11,682	4,569	3	2019/20	25	1.39	4

5280	Reinforced Concrete Pipe - 0600mm dia.	1981	1995/96	50	325	536	26,813	4,569	6	2019/20	25	1.39	8
5281	Reinforced Concrete Pipe - 0600mm dia.	1981	1995/96	43	325	536	23,059	4,569	5	2019/20	25	1.39	7
5277	Reinforced Concrete Pipe - 0750mm dia.	1981	1995/96	35	369	609	21,310	4,569	5	2019/20	25	1.39	7
5276	Reinforced Concrete Pipe - 1050mm dia.	1981	1995/96	210	664	1,096	230,076	4,569	50	2019/20	25	1.39	70
5265	Reinforced Concrete Pipe - 1350mm dia.	1981	1995/96	125	1,033	1,704	213,056	4,569	47	2019/20	25	1.39	65
5266	Reinforced Concrete Pipe - 1350mm dia.	1981	1995/96	34	1,033	1,704	57,951	4,569	13	2019/20	25	1.39	18
5235	Reinforced Concrete Pipe - 0600mm dia.	1981	1995/96	55	325	536	29,494	4,569	6	2019/20	25	1.39	9
6545	Concrete Box Culvert - 0900X0300mm	1982	1995/96	15	459	757	11,360	4,569	2	2019/20	25	1.39	3
6552	Concrete Box Culvert - 0900X0300mm	1982	1995/96	15	459	757	11,360	4,569	2	2019/20	25	1.39	3
4522	Reinforced Concrete Pipe - 0525mm dia.	1982	1995/96	25	295	487	12,169	4,569	3	2019/20	25	1.39	4
6546	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	50	325	536	26,813	4,569	6	2019/20	25	1.39	8
6547	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	56	325	536	30,030	4,569	7	2019/20	25	1.39	9
6548	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	48	325	536	25,740	4,569	6	2019/20	25	1.39	8
6549	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	18	325	536	9,653	4,569	2	2019/20	25	1.39	3
5221	Reinforced Concrete Pipe - 0900mm dia.	1982	1995/96	15	517	853	12,796	4,569	3	2019/20	25	1.39	4
5222	Reinforced Concrete Pipe - 0900mm dia.	1982	1995/96	35	517	853	29,857	4,569	7	2019/20	25	1.39	9
5223	Reinforced Concrete Pipe - 0900mm dia.	1982	1995/96	13	517	853	11,090	4,569	2	2019/20	25	1.39	3

5386	Reinforced Concrete Pipe - 0525mm dia.	1985	1995/96	16	295	487	7,788	4,569	2	2019/20	25	1.39	2
5387	Reinforced Concrete Pipe - 0525mm dia.	1985	1995/96	40	295	487	19,470	4,569	4	2019/20	25	1.39	6
4543	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	9	325	536	4,826	4,569	1	2019/20	25	1.39	1
4544	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	36	325	536	19,305	4,569	4	2019/20	25	1.39	6
4545	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	45	325	536	24,131	4,569	5	2019/20	25	1.39	7
4546	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	30	325	536	16,088	4,569	4	2019/20	25	1.39	5
4547	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	20	325	536	10,725	4,569	2	2019/20	25	1.39	3
4548	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	5	325	536	2,681	4,569	1	2019/20	25	1.39	1
4549	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	52	325	536	27,885	4,569	6	2019/20	25	1.39	9
4550	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	45	325	536	24,131	4,569	5	2019/20	25	1.39	7
4541	Reinforced Concrete Pipe - 0675mm dia.	1987	1995/96	82	354	584	47,896	4,569	10	2019/20	25	1.39	15
4542	Reinforced Concrete Pipe - 0675mm dia.	1987	1995/96	18	354	584	10,514	4,569	2	2019/20	25	1.39	3
3927	Reinforced Concrete Pipe - 0825mm dia.	1992	1995/96	55	428	706	38,841	4,569	9	2019/20	25	1.39	12
3928	Reinforced Concrete Pipe - 0825mm dia.	1992	1995/96	30	428	706	21,186	4,569	5	2019/20	25	1.39	6
6561	Concrete Box Culvert - 0600X0450mm	1994	1995/96	13	360	594	7,722	4,569	2	2019/20	25	1.39	2
6553	Reinforced Concrete Pipe - 0600mm dia.	1994	1995/96	16	325	536	8,580	4,569	2	2019/20	25	1.39	3
6554	Reinforced Concrete Pipe - 0600mm dia.	1994	1995/96	115	325	536	61,669	4,569	13	2019/20	25	1.39	19

6555	Reinforced Concrete Pipe - 0600mm dia.	1994	1995/96	45	325	536	24,131	4,569	5	2019/20	25	1.39	7
6556	Reinforced Concrete Pipe - 0600mm dia.	1994	1995/96	65	325	536	34,856	4,569	8	2019/20	25	1.39	11
6557	Reinforced Concrete Pipe - 0600mm dia.	1994	1995/96	27	325	536	14,479	4,569	3	2019/20	25	1.39	4
6558	Reinforced Concrete Pipe - 0600mm dia.	1994	1995/96	45	325	536	24,131	4,569	5	2019/20	25	1.39	7
6560	Concrete Box Culvert - 0600X0450mm	1994	1995/96	17	360	594	10,098	4,569	2	2019/20	25	1.39	3
6543	Reinforced Concrete Pipe - 0600mm dia.	1994	1995/96	10	325	536	5,363	4,569	1	2019/20	25	1.39	2
6551	Reinforced Concrete Pipe - 0600mm dia.	1994	1995/96	10	325	536	5,363	4,569	1	2019/20	25	1.39	2
Post 1996 Works													
1108	Reinforced Concrete Pipe - 0675mm dia.	1999	1999/00	50	354	584	29,205	4,569	6	2019/20	21	1.81	12
1106	Reinforced Concrete Pipe - 0750mm dia.	1999	1999/00	14	369	609	8,524	4,569	2	2019/20	21	1.81	3
1107	Reinforced Concrete Pipe - 0750mm dia.	1999	1999/00	9	369	609	5,480	4,569	1	2019/20	21	1.81	2
1107	Reinforced Concrete Pipe - 0750mm dia.	1999	1999/00	62	369	609	37,749	4,569	8	2019/20	21	1.81	15
1107	Reinforced Concrete Pipe - 0750mm dia.	1999	1999/00	5	369	609	3,044	4,569	1	2019/20	21	1.81	1
1107	Reinforced Concrete Pipe - 0750mm dia.	1999	1999/00	23	369	609	14,004	4,569	3	2019/20	21	1.81	6
1108	Reinforced Concrete Pipe - 0750mm dia.	1999	1999/00	65	369	609	39,575	4,569	9	2019/20	21	1.81	16
1108	Reinforced Concrete Pipe - 0750mm dia.	1999	1999/00	1	369	609	609	4,569	0	2019/20	21	1.81	0
1104	Unlined Trapezoidal Open Channel 2-4m Base Width	1999	1999/00	55	178	294	16,154	4,569	4	2019/20	21	1.81	6

1104	Reinforced Concrete Pipe - 0600mm dia.	2006	2006/07	54	325	536	28,958	4,569	6	2019/20	14	1.50	9
1104	Reinforced Concrete Pipe - 0600mm dia.	2006	2006/07	29	325	536	15,551	4,569	3	2019/20	14	1.50	5
1104	Reinforced Concrete Pipe - 0600mm dia.	2006	2006/07	43	325	536	23,059	4,569	5	2019/20	14	1.50	8
1104	Reinforced Concrete Pipe - 0750mm dia.	2006	2006/07	15	369	609	9,133	4,569	2	2019/20	14	1.50	3
1104	Unlined Trapezoidal Open Channel 2-4m Base Width	2006	2006/07	15	178	294	4,406	4,569	1	2019/20	14	1.50	1
1104	Unlined Trapezoidal Open Channel 2-4m Base Width	2006	2006/07	54	178	294	15,860	4,569	3	2019/20	14	1.50	5
1104	Unlined Trapezoidal Open Channel 2-4m Base Width	2006	2006/07	29	178	294	8,517	4,569	2	2019/20	14	1.50	3
1105	Unlined Trapezoidal Open Channel 2-4m Base Width	2006	2006/07	43	178	294	12,629	4,569	3	2019/20	14	1.50	4
G14	GROSS POLLUTANT TRAPS	2004	2004/2005	1	34000	56,100	56100	4,569	12	2019/20	16	1.58	19
G15	GROSS POLLUTANT TRAPS	2004	2004/2005	1	30000	49,500	49500	4,569	11	2019/20	16	1.58	17
G16	GROSS POLLUTANT TRAPS	2004	2004/2005	1	30000	49,500	49500	4,569	11	2019/20	16	1.58	17

Proposed upgrade Works

Object ID	Activities	Year Commissioned	Effective year of commissioning for ROI ¹	Notes	Capital Cost (2010/11\$) (\$)		Capacity ² (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor ^{3,4}	Capital Charge per ET (2010/11\$)
20	Willow Drive, through caravan park	2012	2012/13	Channel scours, channel needs widening	110,000	110,000	4,569	24	2021/22	10	1.33	32
52	Innes Road/Garrett Street to Whites Creek	2012	2012/13	Needs easement created and channel piped	60,000	60,000	4,569	13	2021/22	10	1.33	17
45	Moss Vale Gardens Open Drain - Stage 2 WC672/91	2012	2012/13	Piping open drain with twin 1200	160,000	160,000	4,569	35	2021/22	10	1.33	47

6	Whites Creek Reserve to Illawarra Highway	2010	2010/11	Construct box culverts with walk way above from Whites lane to Argyle St	700,000	700,000	4,569	153	2019/20	10	1.33	204
46	Railway Street, Broughton Street to Spring Street	2012	2012/13	Clear out open channel	150,000	150,000	4,569	33	2021/22	10	1.33	44
72	Throsby Street (Chapman St to Railway)	2013	2013/14	Pipe open drain	40,000	40,000	4,569	14	2019/20	10	1.33	19
Proposed Stormwater Management Works												
		2010	2010/11	White Creek flood study	110,000	110,000	4,569	14	2019/20	10	1.33	19
Total						5,542,427		740,178				1,650

Rate of return (pre 1996) 3%

Rate of return (post 1996) 7%

1. For pre-1996 assets, the effective year of commissioning for calculating Return on Investment (ROI) factors is January 1996, ie: 1995/96.

2. The capacity in the above calculation is the total capacity provided by existing and proposed service reservoirs.

3. The ROI factor for pre-1996 works is based on a rate of return (discount rate) of 3% pa real. The ROI factor assumes a uniform annual take-up of lots over the take-up period, commencing in the effective year of commissioning of the asset.

4. The ROI factor for post-1996 assets is based on a rate of return (discount rate) of 7% pa real, together with a uniform annual take-up of lots over the take-up period, commencing in the year of commissioning of the asset.

MOSS VALE WINGECARRIBEE CAPITAL CHARGE CALCULATIONS

Developer Charges for Water Supply, Sewerage and Stormwater Drainage

Sensitivity
Factor

EXAMPLE 2 - Pre 1996 and Post 1996 Existing Works

1.65

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Length (m)	Rate (\$/m)	Rate (\$/m) x Factor	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor ^{3,4}	Capital Charge per ET (2010/11\$)
Pre 1996 Works													
6839	Brick Lined Culvert - 1200X1200mm	1917	1995/96	25	1,175	1,939	48468.75	3,313	15	2019/20	25	1.39	20
6845	Concrete Box Culvert - 1500X1200mm	1917	1995/96	10	1,145	1,889	18892.5	3,313	6	2019/20	25	1.39	8
6847	Reinforced Concrete Pipe - 0750mm dia.	1917	1995/96	115	369	609	70017.75	3,313	21	2019/20	25	1.39	29
6846	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	33	297	490	16171.65	3,313	5	2019/20	25	1.39	7
6840	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	35	297	490	17151.75	3,313	5	2019/20	25	1.39	7
6841	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	18	297	490	8820.9	3,313	3	2019/20	25	1.39	4
6842	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	50	297	490	24502.5	3,313	7	2019/20	25	1.39	10
6843	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	22	297	490	10781.1	3,313	3	2019/20	25	1.39	5
6844	Unlined Trapezoidal Open Channel 4-6m Base Width	1917	1995/96	270	297	490	132313.5	3,313	40	2019/20	25	1.39	56

6837	Unlined Trapezoidal Open Channel 4-6m Base Width	1940	1995/96	112	297	490	54885.6	3,313	17	2019/20	25	1.39	23
6838	Unlined Trapezoidal Open Channel 4-6m Base Width	1940	1995/96	40	297	490	19602	3,313	6	2019/20	25	1.39	8
6631	Unlined Trapezoidal Open Channel 2-4m Base Width	1950	1995/96	90	178	294	26433	3,313	8	2019/20	25	1.39	11
3804	Reinforced Concrete Pipe - 0900mm dia.	1962	1995/96	80	517	853	68244	3,313	21	2019/20	25	1.39	29
3802	Reinforced Concrete Pipe - 0900mm dia.	1962	1995/96	20	517	853	17061	3,313	5	2019/20	25	1.39	7
3803	Reinforced Concrete Pipe - 0900mm dia.	1962	1995/96	6	517	853	5118.3	3,313	2	2019/20	25	1.39	2
6462	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	18	325	536	9652.5	3,313	3	2019/20	25	1.39	4
6466	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	40	325	536	21450	3,313	6	2019/20	25	1.39	9
6468	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	15	325	536	8043.75	3,313	2	2019/20	25	1.39	3
6469	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	55	325	536	29493.75	3,313	9	2019/20	25	1.39	12
6428	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	8	325	536	4290	3,313	1	2019/20	25	1.39	2
6444	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	6	325	536	3217.5	3,313	1	2019/20	25	1.39	1
6429	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	130	325	536	69712.5	3,313	21	2019/20	25	1.39	29
6430	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	135	325	536	72393.75	3,313	22	2019/20	25	1.39	30
6440	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	18	325	536	9652.5	3,313	3	2019/20	25	1.39	4
6439	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	80	325	536	42900	3,313	13	2019/20	25	1.39	18
6465	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	73	325	536	39146.25	3,313	12	2019/20	25	1.39	16

6464	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	90	325	536	48262.5	3,313	15	2019/20	25	1.39	20
6463	Reinforced Concrete Pipe - 0600mm dia.	1963	1995/96	40	325	536	21450	3,313	6	2019/20	25	1.39	9
6467	Reinforced Concrete Pipe - 0750mm dia.	1963	1995/96	15	369	609	9132.75	3,313	3	2019/20	25	1.39	4
6471	Reinforced Concrete Pipe - 0750mm dia.	1963	1995/96	15	369	609	9132.75	3,313	3	2019/20	25	1.39	4
6427	Reinforced Concrete Pipe - 0900mm dia.	1963	1995/96	15	517	853	12795.75	3,313	4	2019/20	25	1.39	5
6433	Reinforced Concrete Pipe - 0900mm dia.	1963	1995/96	15	517	853	12795.75	3,313	4	2019/20	25	1.39	5
6461	Unlined Trapezoidal Open Channel 6-10m Base Width	1963	1995/96	120	475	784	94050	3,313	28	2019/20	25	1.39	40
6876	Concrete Box Culvert - 0600X0300mm	1965	1995/96	16	320	528	8448	3,313	3	2019/20	25	1.39	4
6392	Reinforced Concrete Pipe - 0600mm dia.	1966	1995/96	35	325	536	18768.75	3,313	6	2019/20	25	1.39	8
6391	Reinforced Concrete Pipe - 0600mm dia.	1966	1995/96	18	325	536	9652.5	3,313	3	2019/20	25	1.39	4
6390	Reinforced Concrete Pipe - 0600mm dia.	1966	1995/96	25	325	536	13406.25	3,313	4	2019/20	25	1.39	6
6888	Concrete Box Culvert - 0900X0450mm	1975	1995/96	17	508	838	14249.4	3,313	4	2019/20	25	1.39	6
6848	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	12	325	536	6435	3,313	2	2019/20	25	1.39	3
6849	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	35	325	536	18768.75	3,313	6	2019/20	25	1.39	8
6850	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	28	325	536	15015	3,313	5	2019/20	25	1.39	6
6853	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	50	325	536	26812.5	3,313	8	2019/20	25	1.39	11
6862	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	12	325	536	6435	3,313	2	2019/20	25	1.39	3

6863	Reinforced Concrete Pipe - 0600mm dia.	1975	1995/96	35	325	536	18768.75	3,313	6	2019/20	25	1.39	8
3830	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	30	369	609	18265.5	3,313	6	2019/20	25	1.39	8
3834	Reinforced Concrete Pipe - 0750mm dia.	1977	1995/96	15	369	609	9132.75	3,313	3	2019/20	25	1.39	4
3805	Reinforced Concrete Pipe - 0900mm dia.	1977	1995/96	10	517	853	8530.5	3,313	3	2019/20	25	1.39	4
3806	Reinforced Concrete Pipe - 0900mm dia.	1977	1995/96	20	517	853	17061	3,313	5	2019/20	25	1.39	7
3807	Reinforced Concrete Pipe - 0900mm dia.	1977	1995/96	15	517	853	12795.75	3,313	4	2019/20	25	1.39	5
3823	Reinforced Concrete Pipe - 0900mm dia.	1977	1995/96	45	517	853	38387.25	3,313	12	2019/20	25	1.39	16
3827	Reinforced Concrete Pipe - 0900mm dia.	1977	1995/96	11	517	853	9383.55	3,313	3	2019/20	25	1.39	4
3828	Reinforced Concrete Pipe - 0900mm dia.	1977	1995/96	75	517	853	63978.75	3,313	19	2019/20	25	1.39	27
3829	Reinforced Concrete Pipe - 0900mm dia.	1977	1995/96	12	517	853	10236.6	3,313	3	2019/20	25	1.39	4
6592	Reinforced Concrete Pipe - 0600mm dia.	1979	1995/96	13	325	536	6971.25	3,313	2	2019/20	25	1.39	3
6593	Reinforced Concrete Pipe - 0600mm dia.	1979	1995/96	47	325	536	25203.75	3,313	8	2019/20	25	1.39	11
6696	Concrete Box Culvert - 2100X0900mm	1981	1995/96	15	1,274	2,102	31531.5	3,313	10	2019/20	25	1.39	13
6701	Reinforced Concrete Pipe - 0600mm dia.	1981	1995/96	30	325	536	16087.5	3,313	5	2019/20	25	1.39	7
6699	Reinforced Concrete Pipe - 0750mm dia.	1981	1995/96	6	369	609	3653.1	3,313	1	2019/20	25	1.39	2
6698	Reinforced Concrete Pipe - 0750mm dia.	1981	1995/96	120	369	609	73062	3,313	22	2019/20	25	1.39	31
6697	Reinforced Concrete Pipe - 0750mm dia.	1981	1995/96	20	369	609	12177	3,313	4	2019/20	25	1.39	5

6695	Reinforced Concrete Pipe - 0750mm dia.	1981	1995/96	8	369	609	4870.8	3,313	1	2019/20	25	1.39	2
6694	Reinforced Concrete Pipe - 0750mm dia.	1981	1995/96	90	369	609	54796.5	3,313	17	2019/20	25	1.39	23
6714	Reinforced Concrete Pipe - 0750mm dia.	1981	1995/96	90	369	609	54796.5	3,313	17	2019/20	25	1.39	23
6715	Reinforced Concrete Pipe - 0750mm dia.	1981	1995/96	20	369	609	12177	3,313	4	2019/20	25	1.39	5
6716	Reinforced Concrete Pipe - 0750mm dia.	1981	1995/96	120	369	609	73062	3,313	22	2019/20	25	1.39	31
6717	Reinforced Concrete Pipe - 0750mm dia.	1981	1995/96	6	369	609	3653.1	3,313	1	2019/20	25	1.39	2
6315	Concrete Box Culvert - 0900X0300mm	1982	1995/96	15	459	757	11360.25	3,313	3	2019/20	25	1.39	5
6314	Concrete Box Culvert - 0900X0300mm	1982	1995/96	15	459	757	11360.25	3,313	3	2019/20	25	1.39	5
7039	Concrete Dish Drain - 1.0m Wide	1982	1995/96	102	133	219	22383.9	3,313	7	2019/20	25	1.39	9
6904	Reinforced Concrete Pipe - 0525mm dia.	1982	1995/96	80	295	487	38940	3,313	12	2019/20	25	1.39	16
6905	Reinforced Concrete Pipe - 0525mm dia.	1982	1995/96	13	295	487	6327.75	3,313	2	2019/20	25	1.39	3
6194	Reinforced Concrete Pipe - 0525mm dia.	1982	1995/96	16	295	487	7788	3,313	2	2019/20	25	1.39	3
6207	Reinforced Concrete Pipe - 0525mm dia.	1982	1995/96	16	295	487	7788	3,313	2	2019/20	25	1.39	3
7016	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	24	325	536	12870	3,313	4	2019/20	25	1.39	5
7017	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	65	325	536	34856.25	3,313	11	2019/20	25	1.39	15
7018	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	43	325	536	23058.75	3,313	7	2019/20	25	1.39	10
7068	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	18	325	536	9652.5	3,313	3	2019/20	25	1.39	4

6244	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	11	325	536	5898.75	3,313	2	2019/20	25	1.39	2
6243	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	12	325	536	6435	3,313	2	2019/20	25	1.39	3
6242	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	11	325	536	5898.75	3,313	2	2019/20	25	1.39	2
6241	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	50	325	536	26812.5	3,313	8	2019/20	25	1.39	11
6240	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	25	325	536	13406.25	3,313	4	2019/20	25	1.39	6
6281	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	17	325	536	9116.25	3,313	3	2019/20	25	1.39	4
6195	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	36	325	536	19305	3,313	6	2019/20	25	1.39	8
6196	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	5	325	536	2681.25	3,313	1	2019/20	25	1.39	1
6197	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	22	325	536	11797.5	3,313	4	2019/20	25	1.39	5
6198	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	50	325	536	26812.5	3,313	8	2019/20	25	1.39	11
6199	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	17	325	536	9116.25	3,313	3	2019/20	25	1.39	4
6200	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	30	325	536	16087.5	3,313	5	2019/20	25	1.39	7
6201	Reinforced Concrete Pipe - 0600mm dia.	1982	1995/96	75	325	536	40218.75	3,313	12	2019/20	25	1.39	17
6213	Reinforced Concrete Pipe - 0900mm dia.	1982	1995/96	26	517	853	22179.3	3,313	7	2019/20	25	1.39	9
6192	Reinforced Concrete Pipe - 0900mm dia.	1982	1995/96	40	517	853	34122	3,313	10	2019/20	25	1.39	14
6193	Reinforced Concrete Pipe - 0900mm dia.	1982	1995/96	43	517	853	36681.15	3,313	11	2019/20	25	1.39	15
6214	Reinforced Concrete Pipe - 0900mm dia.	1982	1995/96	26	517	853	22179.3	3,313	7	2019/20	25	1.39	9

6191	Reinforced Concrete Pipe - 1050mm dia.	1982	1995/96	20	664	1,096	21912	3,313	7	2019/20	25	1.39	9
6186	Reinforced Concrete Pipe - 1200mm dia.	1982	1995/96	65	841	1,388	90197.25	3,313	27	2019/20	25	1.39	38
6189	Reinforced Concrete Pipe - 1200mm dia.	1982	1995/96	43	841	1,388	59668.95	3,313	18	2019/20	25	1.39	25
6190	Reinforced Concrete Pipe - 1200mm dia.	1982	1995/96	145	841	1,388	201209.25	3,313	61	2019/20	25	1.39	85
6188	Reinforced Concrete Pipe - 1200mm dia.	1982	1995/96	37	841	1,388	51343.05	3,313	15	2019/20	25	1.39	22
6187	Reinforced Concrete Pipe - 1200mm dia.	1982	1995/96	100	841	1,388	138765	3,313	42	2019/20	25	1.39	58
7261	Asbestos Cement Pipe - 600mm dia.	1983	1995/96	45	325	536	24131.25	3,313	7	2019/20	25	1.39	10
7262	Asbestos Cement Pipe - 600mm dia.	1983	1995/96	12	325	536	6435	3,313	2	2019/20	25	1.39	3
7263	Asbestos Cement Pipe - 600mm dia.	1983	1995/96	26	325	536	13942.5	3,313	4	2019/20	25	1.39	6
7260	Asbestos Cement Pipe - 600mm dia.	1983	1995/96	40	325	536	21450	3,313	6	2019/20	25	1.39	9
7259	Asbestos Cement Pipe - 600mm dia.	1983	1995/96	40	325	536	21450	3,313	6	2019/20	25	1.39	9
7258	Asbestos Cement Pipe - 600mm dia.	1983	1995/96	68	325	536	36465	3,313	11	2019/20	25	1.39	15
7257	Asbestos Cement Pipe - 600mm dia.	1983	1995/96	60	325	536	32175	3,313	10	2019/20	25	1.39	14
7267	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	20	369	609	12177	3,313	4	2019/20	25	1.39	5
7268	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	20	369	609	12177	3,313	4	2019/20	25	1.39	5
7256	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	65	369	609	39575.25	3,313	12	2019/20	25	1.39	17
7255	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	10	369	609	6088.5	3,313	2	2019/20	25	1.39	3

1051	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	17	369	609	10350.45	3,313	3	2019/20	25	1.39	4
7250	Reinforced Concrete Pipe - 0750mm dia.	1983	1995/96	20	369	609	12177	3,313	4	2019/20	25	1.39	5
6879	Reinforced Concrete Pipe - 0600mm dia.	1985	1995/96	18	325	536	9652.5	3,313	3	2019/20	25	1.39	4
6882	Reinforced Concrete Pipe - 0600mm dia.	1985	1995/96	18	325	536	9652.5	3,313	3	2019/20	25	1.39	4
6878	Unlined Trapezoidal Open Channel 4-6m Base Width	1985	1995/96	105	297	490	51455.25	3,313	16	2019/20	25	1.39	22
9819	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	12	325	536	6435	3,313	2	2019/20	25	1.39	3
4585	Reinforced Concrete Pipe - 0750mm dia.	1990	1995/96	5	369	609	3044.25	3,313	1	2019/20	25	1.39	1
4584	Unlined Trapezoidal Open Channel 4-6m Base Width	1990	1995/96	110	297	490	53905.5	3,313	16	2019/20	25	1.39	23
6884	Asbestos Cement Pipe - 600mm dia.	1991	1995/96	14	325	536	7507.5	3,313	2	2019/20	25	1.39	3
6886	Asbestos Cement Pipe - 600mm dia.	1991	1995/96	14	325	536	7507.5	3,313	2	2019/20	25	1.39	3
7109	Concrete Box Culvert - 0900X0300mm	1991	1995/96	38	459	757	28779.3	3,313	9	2019/20	25	1.39	12
7107	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	35	369	609	21309.75	3,313	6	2019/20	25	1.39	9
7130	Reinforced Concrete Pipe - 0825mm dia.	1991	1995/96	36	428	706	25423.2	3,313	8	2019/20	25	1.39	11
7129	Reinforced Concrete Pipe - 0900mm dia.	1991	1995/96	13	517	853	11089.65	3,313	3	2019/20	25	1.39	5
7128	Reinforced Concrete Pipe - 1050mm dia.	1991	1995/96	20	664	1,096	21912	3,313	7	2019/20	25	1.39	9
7127	Reinforced Concrete Pipe - 1050mm dia.	1991	1995/96	16	664	1,096	17529.6	3,313	5	2019/20	25	1.39	7
7126	Reinforced Concrete Pipe - 1050mm dia.	1991	1995/96	50	664	1,096	54780	3,313	17	2019/20	25	1.39	23

7125	Reinforced Concrete Pipe - 1050mm dia.	1991	1995/96	147	664	1,096	161053.2	3,313	49	2019/20	25	1.39	68
Post 1996 Works													
1053	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	70	325	536	37537.5	3,313	11	2019/20	21	1.81	21
1053	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	50	325	536	26812.5	3,313	8	2019/20	21	1.81	15
1053	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	33	325	536	17696.25	3,313	5	2019/20	21	1.81	10
1052	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	133	325	536	71321.25	3,313	22	2019/20	21	1.81	39
1053	Reinforced Concrete Pipe - 0900mm dia.	1999	1999/00	87	517	853	74215.35	3,313	22	2019/20	21	1.81	41
1053	Reinforced Concrete Pipe - 1050mm dia.	1999	1999/00	36	664	1,096	39441.6	3,313	12	2019/20	21	1.81	22
1053	Reinforced Concrete Pipe - 1050mm dia.	1999	1999/00	10	664	1,096	10956	3,313	3	2019/20	21	1.81	6
1054	Reinforced Concrete Pipe - 1350mm dia.	1999	1999/00	22	1,033	1,704	37497.9	3,313	11	2019/20	21	1.81	21
1054	Reinforced Concrete Pipe - 1350mm dia.	1999	1999/00	22	1,033	1,704	37497.9	3,313	11	2019/20	21	1.81	21
1053	Unlined Trapezoidal Open Channel 20-25m Base Width	1999	1999/00	225	1,335	2,203	495618.75	3,313	150	2019/20	21	1.81	271
1053	Unlined Trapezoidal Open Channel 30-35m Base Width	1999	1999/00	133	1,928	3,181	423099.6	3,313	128	2019/20	21	1.81	231
1028	Reinforced Concrete Pipe - 0525mm dia.	1999	1999/00	31	295	487	15089.25	3,313	5	2019/20	21	1.81	8
1028	Reinforced Concrete Pipe - 0525mm dia.	1999	1999/00	39	295	487	18983.25	3,313	6	2019/20	21	1.81	10
1028	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	13	325	536	6971.25	3,313	2	2019/20	21	1.81	4
1028	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	11	325	536	5898.75	3,313	2	2019/20	21	1.81	3

1028	Reinforced Concrete Pipe - 0600mm dia.	1999	1999/00	14	325	536	7507.5	3,313	2	2019/20	21	1.81	4
Proposed upgrade Works													
Object ID	Activities	Year Commissioned	Effective year of commissioning for ROI ¹	Notes	Capital Cost (2010/11\$) (\$)		Capacity ² (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor ^{3,4}	Capital Charge per ET (2010/11\$)	
22	Valetta Street near Villiers Road	2014	2013/14	Maybe addressed by James tauton dr project	100000	100000	3,313	30	2019/20	7	1.21	37	
23	Hill Toad, Lot 32 to Narellan Rd	2014	2013/14	K&G 150m	30000	30000	3,313	9	2019/20	7	1.21	11	
41	Moss Vale Showground, extend pipe east side	2013	2012/13	Pipe open drain 120m	70000	70000	3,313	21	2019/20	8	1.25	26	
Proposed Stormwater Management Works													
		2010	2010/11	Wingecarribee River flood study	106000	106000	3,313	32	2019/20	10	1.33	43	
		2010	2010/11	Flood risk management study	110000	110000	3,313	33	2019/20	10	1.33	44	
Total						5,312,614		500,263				2,388	

Rate of return (pre 1996) 3%

Rate of return (post 1996) 7%

1. For pre-1996 assets, the effective year of commissioning for calculating Return on Investment (ROI) factors is January 1996, ie: 1995/96.

2. The capacity in the above calculation is the total capacity provided by existing and proposed service reservoirs.

3. The ROI factor for pre-1996 works is based on a rate of return (discount rate) of 3% pa real. The ROI factor assumes a uniform annual take-up of lots over the take-up period, commencing in the effective year of commissioning of the asset.

4. The ROI factor for post-1996 assets is based on a rate of return (discount rate) of 7% pa real, together with a uniform annual take-up of lots over the take-up period, commencing in the year of commissioning of the asset.

MOSS VALE ENTERPRISE CORRIDOR CAPITAL CHARGE CALCULATIONS

Developer Charges for Water Supply, Sewerage and Stormwater
Drainage - MVEZ

Sensitivity Factor

1.65

EXAMPLE 2 - Pre 1996 and Post 1996 Existing Works

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Length (m)	Rate (\$/m)	Rate (\$/m) x Factor	Capital Cost (2010/11\$) (\$)	Capacity ₂ (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor ^{3,4}	Capital Charge per ET (2010/11\$)
Pre 1996 Works													
N/A			1995/96			0	0	11,216	0	2030/31	36	1.60	0
Post 1996 Works													
N/A			1999/00	0	0	0	0	11,216	0	2030/31	32	2.36	0
Unplanned Stormwater quality and quantity control works													
Object ID	Activities	Year Commissioned	Effective year of commissioning for ROI ¹	Notes		Capital Cost (2010/11\$) (\$)		Capacity ₂ (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor ^{3,4}	Capital Charge per ET (2010/11\$)
	Detention Basin 1	2012	2011/12	0.516	Ha	309600	309600	11,216	28	2030/31	20	1.76	49
	Detention Basin 2	2013	2012/13	0.0336	Ha	20160	20160	11,216	2	2030/31	19	1.72	3
	Detention Basin 3a	2014	2013/14	0.216	Ha	129600	129600	11,216	12	2030/31	18	1.67	19
	Detention Basin 3c	2015	2014/15	0.804	Ha	482400	482400	11,216	43	2030/31	17	1.63	70
	Detention Basin 3g	2016	2015/16	0.192	Ha	115200	115200	11,216	10	2030/31	16	1.58	16
	Detention Basin 5	2017	2016/17	0.696	Ha	417600	417600	11,216	37	2030/31	15	1.54	57

	Detention Basin 7	2018	2017/18	0.042	Ha	25200	25200	11,216	2	2030/31	14	1.50	3
	Detention Basin 8	2019	2018/19	0.042	Ha	25200	25200	11,216	2	2030/31	13	1.45	3
	Category 2 Stream rehabilitation	2015	2014/15	50% of channel revegetated/rehab		738000	738000	11,216	66	2030/31	17	1.63	107
	Category 3 / Overland Flow Path Management	2016	2016/17	20% of existing rehabilitation/reveg		2856000	2856000	11,216	255	2030/31	15	1.54	392
	Category 3 / Overland Flow Path Management	2018	2017/18	Channel modifications - 94 structures - \$7500/structure		70500	70500	11,216	6	2030/31	14	1.50	9
	Culvert upgrade - Under rail spur (Douglas Road)	2013	2012/13	Two 30m long, 3600mm (W) x 2700mm (H) culverts		220000	220000	11,216	20	2030/31	19	1.72	34
	Culvert upgrade - Douglas Road extension	2013	2012/13	Two 30m long, 3600mm (W) x 2700mm (H) culverts		220000	220000	11,216	20	2030/31	19	1.72	34
	Culvert upgrade - Collins Road	2013	2012/13	Three 30m long, 3600mm (W) x 3000mm (H) culverts		350000	350000	11,216	31	2030/31	19	1.72	54
	Culvert upgrade - main railway	2014	2013/14	Two 30m long, 2700mm (W) x 2100mm (H) culverts		150000	150000	11,216	13	2030/31	18	1.67	22
	Berrima Road pipeline upgrade. 500m	2013	2012/13	500m 900mm dia RCP		430000	430000	11,216	38	2030/31	19	1.72	66
	Bio retention - water quality treatment for public space and roads. Assumed integrated as part of Det Basins	2015	2012/13	1.75	Ha	1338750	1338750	11,216	119	2030/31	19	1.72	205
Total							7,898,210		213,104				1,143

Rate of return (pre 1996)	3%
Rate of return (post 1996)	7%

1. For pre-1996 assets, the effective year of commissioning for calculating Return on Investment (ROI) factors is January 1996, ie: 1995/96.
2. The capacity in the above calculation is the total capacity provided by existing and proposed service reservoirs.
3. The ROI factor for pre-1996 works is based on a rate of return (discount rate) of 3% pa real. The ROI factor assumes a uniform annual take-up of lots over the take-up period, commencing in the effective year of commissioning of the asset.
4. The ROI factor for post-1996 assets is based on a rate of return (discount rate) of 7% pa real, together with a uniform annual take-up of lots over the take-up period, commencing in the year of commissioning of the asset.

NORTHERN GATEWAY CAPITAL CHARGE CALCULATIONS

Developer Charges for Stormwater Drainage - Northern Gateway

Sensitivity
Factor

1.65

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Length (m)	Rate (\$/m)	Rate (\$/m) x Factor	Capital Cost (2010/11\$) (\$)	Capacity ₂ (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor ^{3,4}	Capital Charge per ET (2010/11\$)
<i>Pre 1996 Works</i>													
8615	Concrete Box Culvert - 0750X0300mm	1965	1995/96	13	388	640.2	8322.6	3,880	2	2019/20	25	1.39	3
8617	Concrete Box Culvert - 0750X0300mm	1965	1995/96	14	388	640.2	8962.8	3,880	2	2019/20	25	1.39	3
8593	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	13	369	608.85	7915.05	3,880	2	2019/20	25	1.39	3
8594	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	46	369	608.85	28007.1	3,880	7	2019/20	25	1.39	10
8595	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	13	369	608.85	7915.05	3,880	2	2019/20	25	1.39	3
8596	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	52	369	608.85	31660.2	3,880	8	2019/20	25	1.39	11
8877	Reinforced Concrete Pipe - 0750mm dia.	1971	1995/96	18	369	608.85	10959.3	3,880	3	2019/20	25	1.39	4
8878	Reinforced Concrete Pipe - 0750mm dia.	1971	1995/96	4	369	608.85	2435.4	3,880	1	2019/20	25	1.39	1
8879	Reinforced Concrete Pipe - 0750mm dia.	1971	1995/96	35	369	608.85	21309.75	3,880	5	2019/20	25	1.39	8

8880	Reinforced Concrete Pipe - 0750mm dia.	1971	1995/96	68	369	608.85	41401.8	3,880	11	2019/20	25	1.39	15
8881	Reinforced Concrete Pipe - 0750mm dia.	1971	1995/96	40	369	608.85	24354	3,880	6	2019/20	25	1.39	9
9154	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	7	325	536.25	3753.75	3,880	1	2019/20	25	1.39	1
9155	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	10	325	536.25	5362.5	3,880	1	2019/20	25	1.39	2
9156	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	53	325	536.25	28421.25	3,880	7	2019/20	25	1.39	10
9157	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	10	325	536.25	5362.5	3,880	1	2019/20	25	1.39	2
9158	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	8	325	536.25	4290	3,880	1	2019/20	25	1.39	2
9152	Reinforced Concrete Pipe - 0750mm dia.	1972	1995/96	80	369	608.85	48708	3,880	13	2019/20	25	1.39	17
9153	Reinforced Concrete Pipe - 0750mm dia.	1972	1995/96	80	369	608.85	48708	3,880	13	2019/20	25	1.39	17
9159	Reinforced Concrete Pipe - 0750mm dia.	1972	1995/96	44	369	608.85	26789.4	3,880	7	2019/20	25	1.39	10
9151	Reinforced Concrete Pipe - 0900mm dia.	1972	1995/96	13	517	853.05	11089.65	3,880	3	2019/20	25	1.39	4
9132	Reinforced Concrete Pipe - 0600mm dia.	1984	1995/96	12	325	536.25	6435	3,880	2	2019/20	25	1.39	2
9137	Reinforced Concrete Pipe - 0600mm dia.	1984	1995/96	12	325	536.25	6435	3,880	2	2019/20	25	1.39	2
9124	Reinforced Concrete Pipe - 0600mm dia.	1984	1995/96	100	325	536.25	53625	3,880	14	2019/20	25	1.39	19
9074	Reinforced Concrete Pipe - 0600mm dia.	1987	1995/96	12	325	536.25	6435	3,880	2	2019/20	25	1.39	2
9115	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	13	325	536.25	6971.25	3,880	2	2019/20	25	1.39	3
9116	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	55	325	536.25	29493.75	3,880	8	2019/20	25	1.39	11

9127	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	13	325	536.25	6971.25	3,880	2	2019/20	25	1.39	3
9117	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	53	325	536.25	28421.25	3,880	7	2019/20	25	1.39	10
9140	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	28	325	536.25	15015	3,880	4	2019/20	25	1.39	5
9944	Concrete Dish Drain - 1.0m Wide	1991	1995/96	150	133	219.45	32917.5	3,880	8	2019/20	25	1.39	12
9949	Concrete Dish Drain - 1.0m Wide	1991	1995/96	70	133	219.45	15361.5	3,880	4	2019/20	25	1.39	6
9943	Concrete Dish Drain - 2.0m Wide	1991	1995/96	128	236	389.4	49843.2	3,880	13	2019/20	25	1.39	18
9954	Reinforced Concrete Pipe - 0525mm dia.	1991	1995/96	40	295	486.75	19470	3,880	5	2019/20	25	1.39	7
9942	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	13	325	536.25	6971.25	3,880	2	2019/20	25	1.39	3
9953	Reinforced Concrete Pipe - 0600mm dia.	1991	1995/96	41	325	536.25	21986.25	3,880	6	2019/20	25	1.39	8
9941	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	8	369	608.85	4870.8	3,880	1	2019/20	25	1.39	2
9945	Reinforced Concrete Pipe - 0750mm dia.	1991	1995/96	8	369	608.85	4870.8	3,880	1	2019/20	25	1.39	2
9938	Unlined Trapezoidal Open Channel 4-6m Base Width	1991	1995/96	57	297	490.05	27932.85	3,880	7	2019/20	25	1.39	10
9939	Unlined Trapezoidal Open Channel 4-6m Base Width	1991	1995/96	128	297	490.05	62726.4	3,880	16	2019/20	25	1.39	23
9940	Unlined Trapezoidal Open Channel 4-6m Base Width	1991	1995/96	150	297	490.05	73507.5	3,880	19	2019/20	25	1.39	26
9948	Unlined Trapezoidal Open Channel 4-6m Base Width	1991	1995/96	70	297	490.05	34303.5	3,880	9	2019/20	25	1.39	12

9065	Reinforced Concrete Pipe - 0750mm dia.	1994	1995/96	78	369	608.85	47490.3	3,880	12	2019/20	25	1.39	17
9066	Reinforced Concrete Pipe - 0750mm dia.	1994	1995/96	13	369	608.85	7915.05	3,880	2	2019/20	25	1.39	3
9067	Reinforced Concrete Pipe - 0750mm dia.	1994	1995/96	80	369	608.85	48708	3,880	13	2019/20	25	1.39	17
9068	Reinforced Concrete Pipe - 0750mm dia.	1994	1995/96	23	369	608.85	14003.55	3,880	4	2019/20	25	1.39	5
Post 1996 Works													
N/A			1999/00	0	0	0	0	3,880	0	2019/20	21	1.81	0
Proposed upgrade Works													
Object ID	Activities	Year Commissioned	Effective year of commissioning for ROI ¹	Notes	Capital Cost (2010/11\$) (\$)		Capacity ² (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor ^{3,4}	Capital Charge per ET (2010/11\$)	
83	Braemar Avenue	2010	2010/11	Undersized culvet, 130m west of Hwy	40000	40000	3,880	10	2019/20	10	1.33	14	
86	Inkerman Road	2010	2010/11	Possible rectified with Renwick development. Location unknown	30000	30000	3,880	8	2019/20	10	1.33	10	
87	Gascoigne Street (Warrigal to Orient St)	2010	2010/11	Line table drain	25000	25000	3,880	6	2019/20	10	1.33	9	
174	Bong Bong Road (Mary St/Belmore St/Southwood Pl)	2010	2010/11	Increase inlet capacity	60000	60000	3,880	15	2019/20	10	1.33	21	
Total						1,163,409		194,000				417	

Rate of return (pre 1996)

3%

Rate of return (post 1996)

7%

1. For pre-1996 assets, the effective year of commissioning for calculating Return on Investment (ROI) factors is January 1996, ie: 1995/96.

2. The capacity in the above calculation is the total capacity provided by existing and proposed service reservoirs.

3. The ROI factor for pre-1996 works is based on a rate of return (discount rate) of 3% pa real. The ROI factor assumes a uniform annual take-up of lots over the take-up period, commencing in the effective year of

commissioning of the asset.

4. The ROI factor for post-1996 assets is based on a rate of return (discount rate) of 7% pa real, together with a uniform annual take-up of lots over the take-up period, commencing in the year of commissioning of the asset.

ROBERTSON CAPITAL CHARGE CALCULATIONS

Developer Charges for Stormwater Drainage

Sensitivity
Factor

1.65

EXAMPLE 2 - Pre 1996 and Post 1996 Existing Works

TAM Record	Component	Year Commissioned	Effective year of commissioning for ROI ¹	Length (m)	Rate (\$/m)	Rate (\$/m) x Factor	Capital Cost (2010/11\$) (\$)	Capacity ² (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor ^{3,4}	Capital Charge per ET (2010/11\$)
Pre 1996 Works													
5696	Concrete Box Culvert - 0900X0550mm	1965	1995/96	24	554	914.1	21938.4	890	25	2019/20	25	1.39	34
5683	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	60	325	536.25	32175	890	36	2019/20	25	1.39	50
5684	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	20	325	536.25	10725	890	12	2019/20	25	1.39	17
5694	Reinforced Concrete Pipe - 0600mm dia.	1965	1995/96	50	325	536.25	26812.5	890	30	2019/20	25	1.39	42
5676	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	8	369	608.85	4870.8	890	5	2019/20	25	1.39	8
5677	Reinforced Concrete Pipe - 0750mm dia.	1965	1995/96	21	369	608.85	12785.85	890	14	2019/20	25	1.39	20
5652	Reinforced Concrete Pipe - 0825mm dia.	1965	1995/96	12	428	706.2	8474.4	890	10	2019/20	25	1.39	13

5673	Reinforced Concrete Pipe - 0825mm dia.	1965	1995/96	60	428	706.2	42372	890	48	2019/20	25	1.39	66
5674	Reinforced Concrete Pipe - 0825mm dia.	1965	1995/96	45	428	706.2	31779	890	36	2019/20	25	1.39	50
5675	Reinforced Concrete Pipe - 0825mm dia.	1965	1995/96	40	428	706.2	28248	890	32	2019/20	25	1.39	44
5671	Reinforced Concrete Pipe - 1050mm dia.	1965	1995/96	10	664	1095.6	10956	890	12	2019/20	25	1.39	17
5672	Reinforced Concrete Pipe - 1050mm dia.	1965	1995/96	30	664	1095.6	32868	890	37	2019/20	25	1.39	51
5653	Unlined Trapezoidal Open Channel 2-4m Base Width	1965	1995/96	14	178	293.7	4111.8	890	5	2019/20	25	1.39	6
5646	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	35	325	536.25	18768.75	890	21	2019/20	25	1.39	29
5647	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	6	325	536.25	3217.5	890	4	2019/20	25	1.39	5
5659	Reinforced Concrete Pipe - 0600mm dia.	1972	1995/96	6	325	536.25	3217.5	890	4	2019/20	25	1.39	5
5648	Unlined Trapezoidal Open Channel 4-6m Base Width	1972	1995/96	100	297	490.05	49005	890	55	2019/20	25	1.39	77
5649	Reinforced Concrete Pipe - 0825mm dia.	1979	1995/96	27	428	706.2	19067.4	890	21	2019/20	25	1.39	30
5650	Reinforced Concrete Pipe - 0825mm dia.	1979	1995/96	45	428	706.2	31779	890	36	2019/20	25	1.39	50
5651	Unlined Trapezoidal Open Channel 2-4m Base Width	1979	1995/96	90	178	293.7	26433	890	30	2019/20	25	1.39	41
5779	Reinforced Concrete Pipe - 0525mm dia.	1990	1995/96	25	295	486.75	12168.75	890	14	2019/20	25	1.39	19
5780	Reinforced Concrete Pipe - 0525mm dia.	1990	1995/96	37	295	486.75	18009.75	890	20	2019/20	25	1.39	28

5624	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	7	325	536.25	3753.75	890	4	2019/20	25	1.39	6
5625	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	3	325	536.25	1608.75	890	2	2019/20	25	1.39	3
5626	Reinforced Concrete Pipe - 0600mm dia.	1990	1995/96	7	325	536.25	3753.75	890	4	2019/20	25	1.39	6
5836	Unlined Trapezoidal Open Channel 15-20m Base Width	1990	1995/96	197	1038	1712.7	337401.9	890	379	2019/20	25	1.39	528
5654	Reinforced Concrete Pipe - 0750mm dia.	1992	1995/96	36	369	608.85	21918.6	890	25	2019/20	25	1.39	34
5754	Concrete Box Culvert - 0900X0450mm	1978	1995/96	18	508	838.2	15087.6	890	17	2019/20	25	1.39	24
5744	Reinforced Concrete Pipe - 0525mm dia.	1978	1995/96	2	295	486.75	973.5	890	1	2019/20	25	1.39	2
5755	Reinforced Concrete Pipe - 0525mm dia.	1978	1995/96	2	295	486.75	973.5	890	1	2019/20	25	1.39	2
5748	Reinforced Concrete Pipe - 0525mm dia.	1978	1995/96	22	295	486.75	10708.5	890	12	2019/20	25	1.39	17
5749	Reinforced Concrete Pipe - 0525mm dia.	1978	1995/96	50	295	486.75	24337.5	890	27	2019/20	25	1.39	38
5746	Reinforced Concrete Pipe - 0600mm dia.	1978	1995/96	13	325	536.25	6971.25	890	8	2019/20	25	1.39	11
5747	Reinforced Concrete Pipe - 0600mm dia.	1978	1995/96	24	325	536.25	12870	890	14	2019/20	25	1.39	20
5745	Reinforced Concrete Pipe - 0675mm dia.	1978	1995/96	20	354	584.1	11682	890	13	2019/20	25	1.39	18
Post 1996 Works													
1000	Reinforced Concrete Pipe - 0525mm dia.	1997	1997/98	11	295	486.75	5354.25	890	6	2019/20	23	1.91	11
1002	Reinforced Concrete Pipe - 0525mm dia.	1997	1997/98	36	295	486.75	17523	890	20	2019/20	23	1.91	38

1002	Reinforced Concrete Pipe - 0600mm dia.	1997	1997/98	32	325	536.25	17160	890	19	2019/20	23	1.91	37
1002	Reinforced Concrete Pipe - 0675mm dia.	1997	1997/98	30	354	584.1	17523	890	20	2019/20	23	1.91	38
1002	Reinforced Concrete Pipe - 0675mm dia.	1997	1997/98	32	354	584.1	18691.2	890	21	2019/20	23	1.91	40
1001	Reinforced Concrete Pipe - 0750mm dia.	1997	1997/98	24	369	608.85	14612.4	890	16	2019/20	23	1.91	31
1001	Reinforced Concrete Pipe - 0900mm dia.	1997	1997/98	21	517	853.05	17914.05	890	20	2019/20	23	1.91	38
	525mm Dia. RCP	1999	1999/00	5	295	486.75	2433.75	890	3	2019/20	21	1.81	5

Proposed upgrade Works													
Object ID	Activities	Year Commissioned	Effective year of commissioning for ROI¹	Notes	Capital Cost (2010/11\$) (\$)		Capacity² (ETs)	Cost per ET (\$ per ET)	Year when Capacity is Taken-Up	Take-up Period (Years)	Return on Investment Factor^{3,4}	Capital Charge per ET (2010/11\$)	
54	Caalong Street	2012	2012/13	Pipe open drain adj to school	45000	45000	890	5	2019/20	8	1.25	7	
0	Hoddle St (Illawarra Hwy)	2014	2014/15	Open drain needs to be regraded	60000	60000	890	5	2019/20	6	1.18	6	
58	Hoddle Lane	2013	2013/14	when new path goes in	60000	60000	890	5	2019/20	10	1.33	7	
Total					109626.6	216211.65		8,900				1,669	

Rate of return (pre 1996) 3%

Rate of return (post 1996) 7%

1. For pre-1996 assets, the effective year of commissioning for calculating Return on Investment (ROI) factors is January 1996, ie: 1995/96.
2. The capacity in the above calculation is the total capacity provided by existing and proposed service reservoirs.
3. The ROI factor for pre-1996 works is based on a rate of return (discount rate) of 3% pa real. The ROI factor assumes a uniform annual take-up of lots over the take-up period, commencing in the effective year of commissioning of the asset.
4. The ROI factor for post-1996 assets is based on a rate of return (discount rate) of 7% pa real, together with a uniform annual take-up of lots over the take-up period, commencing in the year of commissioning of the asset.

APPENDIX G

Reduction Amount and Development Charge

BERRIMA REDUCTION AMOUNT & CALCULATION OF DEVELOPER CHARGES

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Table - Calculation of Developer Charges using the Direct NPV Method
Example 7 - Developer charges Guidelines

Base Data																																																				
Capital charge per ET (2009/10\$)	1,394																																																			
Year	2009/10	Enter Year 1 of Analysis - this is the financial year in which the DSP is expected to be implemented eg. 2000/01																																																		
Debt at end of 2008/09 (\$'000)	-	include borrowings and overdraft																																																		
Cash and investments at end of 2008/09 (\$'000)	-	include all cash and investments, including sinking fund etc.																																																		
Net debt (\$'000)	-																																																			
Discount rate for future works	7%																																																			
ETs at year end																																																				
Year No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	
ET	791	794	798	802	806	810	814	818	822	826	830	834	838	842	846	850	853	857	861	865	869	873	877	881	885	889	893	897	901	905	909	912	916	920	924	928	932	936	940	944	948	952	956	960	964	968	971	975	979	983	987	
ET per Residential assessment	1																																																			
ET per non-residential assessment																																																				
Capacity for future customers (ET)																																																				
Capital works																																																				
Base year	2009/10	Enter Base Year - this is the financial year in whose dollars the Capital Cost of Renewals and Works for Improved Standards have been calculated																																																		
Year	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47	2047/48	2048/49	2049/50	2050/51	2051/52	2052/53	2053/54	2054/55	2055/56	2056/57	2057/58	2058/59		
Renewals (2009/10\$'000)	7	7	7	7	7	8	8	8	9	9	9	9	9	10	10	10	11	11	11	11	12	12	13	13	13	14	14	14	15	15	16	16	17	17	18	18	19	19	20	20	21	22	22	23	24	24	25	26	27	28	28	
Inflation from Base year to Year 1 (%)	2.50%	Enter (R)recorded or (P)rojected in space to left																																																		
Capital Works for Improved Standards (2009/10\$'000)	0	0	0	65	80	0	0																																													
Government Grant on Works for Improved standards (2009/10\$'000)	0	0	0	0	0	0	0																																													
Inflation from 2009/10 to 2009/10 (%)	2.50%																																																			
Last year of the program	2015/16	Enter the last year in which there is an expenditure on Improved Standards																																																		
NPV of renewal works																																																				
Year No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	
Renewals (\$'000) in 2009/10\$	7	7	7	7	7	8	8	8	9	9	9	9	9	10	10	10	11	11	11	11	12	12	13	13	13	14	14	14	15	15	16	16	17	17	18	18	19	19	20	20	21	22	22	23	24	24	25	26	27	27	28	28
NPV Renewals at discount rate of 7% pa	155																																																			
Total equivalent assessments (ET)	791	794	798	802	806	810	814	818	822	826	830	834	838	842	846	850	853	857	861	865	869	873	877	881	885	889	893	897	901	905	909	912	916	920	924	928	932	936	940	944	948	952	956	960	964	968	971	975	979	983	987	
NPV of 50 years of growth (ET)	54																																																			
NPV ETs	845																																																			
NPV Renewals per ET (\$)	184																																																			
NPV of Works for Improved Standards to existing population																																																				
Year No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50		
Works for Improved Standards (\$'000) in 2009/10\$ after Government grant	0	0	0	67	82	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	
NPV of works for Improved Standards at discount rate of 7% pa	117																																																			
Growth in (ET) - cut off at 7 years	4	4	4	4	4	4	4	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		
NPV of 7 years of growth (ET)	19																																																			
NPV ETs	809																																																			
NPV Standards per ET (\$)	145																																																			
The Reduction Amount is the greater of																																																				
(1)	NPV Renewals per ET + NPV Standards per ET	328																																																		
(2)	Capital Charge - [(N/(N-F)) * (Capital Charge - NPV Renewals per ET - NPV Standards per ET - Net Debt per ET)]	328																																																		
Where:	Capital Charge =	1,394																																																		
	N - Present ETs =	794																																																		
	F - Capacity for future customers =	0																																																		
	Net debt per ET =	0																																																		
Developer Charge Calculation																																																				
Reduction Amount is therefore		\$328 say																																																		
Developer Charge for 2009/10 in 2009/10\$																																																				
	Capital Charge	1,394																																																		
	less Reduction amount	330																																																		
	Developer Charge	\$1,064																																																		
Note: The value for inflation from the 2009/10 to 2009/10 of 2.50% is based on the projected inflation of 2.5% in the year to December 2010 (1.0250=1.025).																																																				

BOWRAL REDUCTION AMOUNT & CALCULATION OF DEVELOPER CHARGES

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Table - Calculation of Developer Charges using the Direct NPV Method
Example 7 - Developer charges Guidelines

Base Data		Year																																																										
Capital charge per ET (2009/10)	4,247	Enter Year 1 of Analysis - this is the financial year in which the DSP is expected to be implemented eg. 2000/01																																																										
Year 1	2009/10																																																											
Debt at end of 2008/09 (\$'000)	-	Include borrowings and overdraft																																																										
Cash and investments at end of 2008/09 (\$'000)	-	Include all cash and investments, including sinking fund etc.																																																										
Net debt (\$'000)	-																																																											
Discount rate for future works	7%																																																											
ETs at year end																																																												
Year No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50									
ETs	11,090	11,151	11,211	11,272	11,332	11,393	11,453	11,513	11,574	11,634	11,695	11,755	11,816	11,876	11,937	11,997	12,057	12,118	12,178	12,239	12,299	12,360	12,420	12,481	12,541	12,601	12,662	12,722	12,783	12,843	12,904	12,964	13,025	13,085	13,145	13,206	13,266	13,327	13,387	13,448	13,508	13,568	13,629	13,689	13,750	13,810	13,871	13,931	13,992	14,052	14,112									
ET per Residential assessment	1																																																											
ET per non-residential assessment																																																												
Capacity for future customers (ET)																																																												
Capital works		Enter Base Year - this is the financial year in whose dollars the Capital Cost of Renewals and Works for Improved Standards have been calculated																																																										
Base year	2009/10																																																											
Year	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47	2047/48	2048/49	2049/50	2050/51	2051/52	2052/53	2053/54	2054/55	2055/56	2056/57	2057/58	2058/59										
Renewals (2009/10\$'000)	2,500	P	Enter (R)recorded or (P)rojected in space to left																																																									
Inflation from Base year to Year 1 (%)	2.50%																																																											
Capital Works for Improved Standards (2009/10\$'000)	0	452	7,394	360	845	11	25																																																					
Government Grant on Works for Improved standards (2009/10\$'000)	0	0	0	0	0	0	0																																																					
Inflation from 2009/10 to 2009/10 (%)	2.50%																																																											
Last year of the program	2013/16	Enter the last year in which there is an expenditure on Improved Standards																																																										
NPV of renewal works																																																												
Year No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50									
Renewals (\$'000) in 2009/10\$	2,183	96	99	102	105	108	111	114	118	121	125	129	133	137	141	145	149	154	158	163	168	173	178	184	189	195	201	207	213	219	226	233	240	247	254	262	270	278	286	295	304	313	322	332	342	352	363	373	385	396	408									
NPV Renewals at discount rate of 7% pa	94	95	99	102	105	108	111	114	118	121	125	129	133	137	141	145	149	154	158	163	168	173	178	184	189	195	201	207	213	219	226	233	240	247	254	262	270	278	286	295	304	313	322	332	342	352	363	373	385	396	408									
Total equivalent assessments (ET)	11,090	11,151	11,211	11,272	11,332	11,393	11,453	11,513	11,574	11,634	11,695	11,755	11,816	11,876	11,937	11,997	12,057	12,118	12,178	12,239	12,299	12,360	12,420	12,481	12,541	12,601	12,662	12,722	12,783	12,843	12,904	12,964	13,025	13,085	13,145	13,206	13,266	13,327	13,387	13,448	13,508	13,568	13,629	13,689	13,750	13,810	13,871	13,931	13,992	14,052	14,112									
Growth (ET)	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60							
NPV of 50 years of growth (ET)	832																																																											
NPV ETs	11,922																																																											
NPV Renewals per ET (\$)	183																																																											
NPV of Works for Improved Standards to existing population																																																												
Year No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50										
Works for Improved Standards (\$'000) in 2009/10\$ after Government grant	0	463	7,579	369	866	11	26	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							
NPV of works for Improved Standards at discount rate of 7% pa	8,040																																																											
Growth in (ET) - cut off at 7 years	60	60	60	60	60	60	60	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								
NPV of 7 years of growth (ET)	288																																																											
NPV ETs	11,378																																																											
NPV Standards per ET (\$)	707																																																											
The Reduction Amount is the greater of																																																												
(1)	NPV Renewals per ET + NPV Standards per ET	890																																																										
(2)	Capital Charge - [(N/N-F)] * (Capital Charge - NPV Renewals per ET - NPV Standards per ET - Net Debt per ET)	890																																																										
Where:	Capital Charge =	4,247																																																										
	N - Present ETs =	11,151																																																										
	F - Capacity for future customers =	0																																																										
	Net debt per ET =	0																																																										
Developer Charge Calculation																																																												
Reduction Amount is therefore		\$890 say																																																										
Developer Charge for 2009/10 in 2009/10\$		\$4,247																																																										
less		Reduction amount																																																										
Developer Charge		\$3,357																																																										
Note: The value for inflation from the 2009/10 to 2009/10 of 2.50% is based on the projected inflation of 2.5% in the year to December 2010 (1.0250=1.025).																																																												

BOWRAL REDUCTION AMOUNT & CALCULATION OF DEVELOPER CHARGES

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- Calculation of Developer Charges using the Direct NPV Method

Example 7 - Developer charges Guidelines

Base Data				
Capital charge per ET (2009/10\$)	2,347			
Year 1	2009/10	Enter Year 1 of Analysis - this is the financial year in which the DSP is expected to be implemented eg. 2000/01		
Debt at end of 2008/09 (\$'000)	-	include borrowings and overdraft		
Cash and investments at end of 2008/09 (\$'000)	-	include all cash and investments, including sinking fund etc.		
Net debt (\$'000)	-			
Discount rate for future works	7%			

ETs at year end																																																				
Year No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	
ETs	1,724	1,768	1,813	1,857	1,901	1,946	1,990	2,034	2,079	2,123	2,167	2,212	2,256	2,300	2,345	2,389	2,433	2,478	2,522	2,566	2,611	2,655	2,699	2,744	2,788	2,832	2,877	2,921	2,965	3,010	3,054	3,098	3,143	3,187	3,231	3,276	3,320	3,364	3,409	3,453	3,497	3,542	3,586	3,631	3,675	3,719	3,764	3,808	3,852	3,897	3,941	
ET per Residential assessment	1																																																			
ET per non-residential assessment																																																				
Capacity for future customers (ET)																																																				

Capital works																																																					
Base year	2009/10	Enter Base Year - this is the financial year in whose dollars the Capital Cost of Renewals and Works for Improved Standards have been calculated																																																			
Year	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47	2047/48	2048/49	2049/50	2050/51	2051/52	2052/53	2053/54	2054/55	2055/56	2056/57	2057/58	2058/59			
Renewals (2009/10\$'000)	15	15	16	16	17	17	18	18	19	19	20	21	21	22	22	23	24	25	25	26	27	28	28	29	30	31	32	33	34	35	36	37	38	39	41	42	43	44	46	47	48	50	51	53	54	56	58	59	61	63			
Inflation from Base year to Year 1 (%)	2.50%	Enter (R)recorded or (P)rojected in space to left																																																			
Capital Works for Improved Standards (2009/10\$'000)	0	104	-	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Inflation from 2009/10 to 2009/10 (%)	2.50%																																																				
Last year of the program	2015/16	Enter the last year in which there is an expenditure on Improved Standards																																																			

NPV of renewal works																																																			
Year No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Renewals (\$'000) in 2009/10\$	15	16	16	17	17	18	18	19	19	20	20	21	22	22	23	24	24	25	26	27	27	28	29	30	31	32	33	34	35	36	37	38	39	40	42	43	44	45	47	48	50	51	53	54	56	57	59	61	63	65	
NPV Renewals at discount rate of 7% pa	347																																																		
Total equivalent assessments (ET)	1,724	1,768	1,813	1,857	1,901	1,946	1,990	2,034	2,079	2,123	2,167	2,212	2,256	2,300	2,345	2,389	2,433	2,478	2,522	2,566	2,611	2,655	2,699	2,744	2,788	2,832	2,877	2,921	2,965	3,010	3,054	3,098	3,143	3,187	3,231	3,276	3,320	3,364	3,409	3,453	3,497	3,542	3,586	3,631	3,675	3,719	3,764	3,808	3,852	3,897	3,941
Growth (ET)	44																																																		
NPV of 50 years of growth (ET)	610																																																		
NPV ETs	2,334																																																		
NPV Renewals per ET (\$)	148																																																		

NPV of Works for Improved Standards to existing population																																																		
Year No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
NPV of Improved Standards (\$'000) in 2009/10\$ after Government grant	0	107	0	123	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	
NPV of works for Improved Standards at discount rate of 7% pa	200																																																	
Growth in (ET) - cut off at 7 years	44																																																	
NPV of 7 years of growth (ET)	211																																																	
NPV ETs	1,335																																																	
NPV Standards per ET (\$)	103																																																	

Amount is the greater of	
NPV Renewals per ET + NPV Standards per ET	252
Capital Charge - [(N/(N-F))] * (Capital Charge - NPV Renewals per ET - NPV Standards per ET - Net Debt per ET)	252
Capital Charge =	2,347
N - Present ETs =	1,768
F - Capacity for future customers =	0
Net debt per ET	0

Developer Charge Calculation		
Reduction Amount is therefore	\$252 say	\$250
Developer Charge for 2009/10 in 2009/10\$	Capital Charge	\$2,347
	less Reduction amount	\$250
Developer Charge		\$2,097

Note: The value for inflation from the 2009/10 to 2009/10 of 2.50% is based on the projected inflation of 2.5% in the year to December 2010 (1.0250=1.025).

COLO VALE REDUCTION AMOUNT & CALCULATION OF DEVELOPER CHARGES

ENTER INTO YELLOW CELLS ONLY

Table - Calculation of Developer Charges using the Direct NPV Method - Colovale
Example 7 - Developer charges Guidelines

Base Data				
Capital charge per ET (2009/10\$)	972			
Year 1	2009/10	Enter Year 1 of Analysis - this is the financial year in which the DSP is expected to be implemented eg. 2000/01		
Debt at end of 2008/09 (\$'000)	-	include borrowings and overdraft		
Cash and investments at end of 2008/09 (\$'000)	-	include all cash and investments, including sinking fund etc.		
Net debt (\$'000)	-			
Discount rate for future works	7%			

ETs at year end																																																			
Year No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Year	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47	2047/48	2048/49	2049/50	2050/51	2051/52	2052/53	2053/54	2054/55	2055/56	2056/57	2057/58	2058/59
ETs	681	690	700	710	720	730	740	750	760	770	780	790	799	809	819	829	839	849	859	869	879	888	898	908	918	928	938	948	958	968	978	987	997	1,007	1,017	1,027	1,037	1,047	1,057	1,067	1,077	1,086	1,096	1,106	1,116	1,126	1,136	1,146	1,156	1,166	1,176
ET per Residential assessment	1																																																		
ET per non-residential assessment																																																			
Capacity for future customers (ET)																																																			

Capital works																																																			
Base year	2009/10	Enter Base Year - this is the financial year in whose dollars the Capital Cost of Renewals and Works for Improved Standards have been calculated																																																	
Year	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47	2047/48	2048/49	2049/50	2050/51	2051/52	2052/53	2053/54	2054/55	2055/56	2056/57	2057/58	2058/59	
Renewals (2009/10\$'000)	6	6	6	6	7	7	7	7	8	8	8	8	8	9	9	9	9	10	10	10	10	11	11	11	11	12	12	12	13	13	14	14	14	15	15	16	16	17	17	18	18	19	19	20	21	21	22	23	23	24	25
Inflation from Base year to Year 1 (%)	2.50%																																																		
Capital Works for Improved Standards (2009/10\$'000)	0	0	0	0	0	0	0	0																																											
Government Grant on Works for Improved standards (2009/10\$'000)	0	0	0	0	0	0	0	0																																											
Inflation from 2009/10 to 2009/10 (%)	2.50%																																																		
Last year of the program	2015/16	Enter the last year in which there is an expenditure on Improved Standards																																																	

NPV of renewal works																																																			
Year No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Year	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47	2047/48	2048/49	2049/50	2050/51	2051/52	2052/53	2053/54	2054/55	2055/56	2056/57	2057/58	2058/59	
Renewals (\$'000) in 2009/10\$	6	6	6	6	7	7	7	7	8	8	8	8	8	9	9	9	9	10	10	10	10	11	11	11	11	12	12	12	13	13	14	14	14	15	15	16	16	17	17	18	18	19	19	20	21	21	22	23	24	25	
NPV Renewals at discount rate of 7% pa	135																																																		
Total equivalent assessments (ET)	681	690	700	710	720	730	740	750	760	770	780	790	799	809	819	829	839	849	859	869	879	888	898	908	918	928	938	948	958	968	978	987	997	1,007	1,017	1,027	1,037	1,047	1,057	1,067	1,077	1,086	1,096	1,106	1,116	1,126	1,136	1,146	1,156	1,166	1,176
Growth (ET)	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
NPV of 50 years of growth (ET)	136																																																		
NPV ETs	817																																																		
NPV Renewals per ET (\$)	165																																																		

NPV of Works for Improved Standards to existing population																																																		
Year No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Year	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47	2047/48	2048/49	2049/50	2050/51	2051/52	2052/53	2053/54	2054/55	2055/56	2056/57	2057/58	2058/59
Works for Improved Standards (\$'000) in 2009/10\$ after Government grant	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		
NPV of works for Improved Standards at discount rate of 7% pa	0																																																	
Growth in (ET) - cut off at 7 years	10	10	10	10	10	10	10	10	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			
NPV of 7 years of growth (ET)	47																																																	
NPV ETs	729																																																	
NPV Standards per ET (\$)	0																																																	

The Reduction Amount is the greater of

(1) NPV Renewals per ET + NPV Standards per ET	165
(2) Capital Charge - [(N/(N-F)) * (Capital Charge - NPV Renewals per ET - NPV Standards per ET - Net Debt per ET)]	165

Where:

Capital Charge =	972
N - Present ETs =	690
F - Capacity for future customers =	0
Net debt per ET =	0

Developer Charge Calculation

Reduction Amount is therefore	\$165 say	\$160
Developer Charge for 2009/10 in 2009/10\$	Capital Charge	\$972
less	Reduction amount	\$160
Developer Charge		\$812

Note: The value for inflation from the 2009/10 to 2009/10 of 2.50% is based on the projected inflation of 2.5% in the year to December 2010 (

MITTAGONG REDUCTION AMOUNT & CALCULATION OF DEVELOPER CHARGES

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Table - Calculation of Developer Charges using the Direct NPV Method - Mittagong
Example 7 - Developer charges Guidelines

Base Data																																																												
Capital charge per ET (2009/10)	3,143																																																											
Year 1	2009/10	Enter Year 1 of Analysis - this is the financial year in which the DSP is expected to be implemented eg. 2000/01																																																										
Debt at end of 2008/09 (\$'000)	-	include borrowings and overdraft																																																										
Cash and investments at end of 2008/09 (\$'000)	-	include all cash and investments, including sinking fund etc.																																																										
Net debt (\$'000)	-																																																											
Discount rate for future works	7%																																																											
ETs at year end																																																												
Year No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50									
Year	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47	2047/48	2048/49	2049/50	2050/51	2051/52	2052/53	2053/54	2054/55	2055/56	2056/57	2057/58	2058/59									
ETs	4,191	4,271	4,351	4,431	4,511	4,592	4,672	4,752	4,832	4,912	4,992	5,072	5,152	5,232	5,312	5,392	5,472	5,553	5,633	5,713	5,793	5,873	5,953	6,033	6,113	6,193	6,273	6,353	6,433	6,514	6,594	6,674	6,754	6,834	6,914	6,994	7,074	7,154	7,234	7,314	7,394	7,475	7,555	7,635	7,715	7,795	7,875	7,955	8,035	8,115	8,195									
ET per Residential assessment	1																																																											
ET per non-residential assessment																																																												
Capacity for future customers (ET)																																																												
Capital works																																																												
Base year	2009/10	Enter Base Year - this is the financial year in whose dollars the Capital Cost of Renewals and Works for Improved Standards have been calculated																																																										
Year	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47	2047/48	2048/49	2049/50	2050/51	2051/52	2052/53	2053/54	2054/55	2055/56	2056/57	2057/58	2058/59										
Renewals (2009/10\$'000)	36	37	38	39	40	42	43	44	45	47	48	50	51	53	54	56	57	59	61	63	65	67	69	71	73	75	77	80	82	84	87	90	92	95	98	101	104	107	110	113	117	120	124	128	132	135	140	144	148	152										
	2.50%	Enter (R)recorded or (P)projected in space to left																																																										
Inflation from Base year to Year 1 (%)	2.50%																																																											
Capital Works for Improved Standards (2009/10\$'000)	0	0	810	227	195	0	0																																																					
Government Grant on Works for Improved Standards (2009/10\$'000)	0	0	0	0	0	0																																																						
Inflation from 2009/10 to 2009/10 (%)	2.50%																																																											
Last year of the program	2015/16	Enter the last year in which there is an expenditure on Improved Standards																																																										
NPV of renewal works																																																												
Year No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50									
Year	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47	2047/48	2048/49	2049/50	2050/51	2051/52	2052/53	2053/54	2054/55	2055/56	2056/57	2057/58	2058/59										
Renewals (\$'000) in 2009/10\$	37	38	39	40	41	43	44	45	47	48	49	51	52	54	56	57	59	61	63	64	66	68	70	72	75	77	79	82	84	87	89	92	95	97	100	103	106	110	113	116	120	123	127	131	135	139	143	147	152	156										
NPV Renewals at discount rate of 7% pa	837																																																											
Total equivalent assessments (ET)	4,191	4,271	4,351	4,431	4,511	4,592	4,672	4,752	4,832	4,912	4,992	5,072	5,152	5,232	5,312	5,392	5,472	5,553	5,633	5,713	5,793	5,873	5,953	6,033	6,113	6,193	6,273	6,353	6,433	6,514	6,594	6,674	6,754	6,834	6,914	6,994	7,074	7,154	7,234	7,314	7,394	7,475	7,555	7,635	7,715	7,795	7,875	7,955	8,035	8,115	8,195									
Growth (ET)	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80								
NPV of 50 years of growth (ET)	1,102																																																											
NPV ETs	5,294																																																											
NPV Renewals per ET (\$)	158																																																											
NPV of Works for Improved Standards to existing population																																																												
Year No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50										
Year	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47	2047/48	2048/49	2049/50	2050/51	2051/52	2052/53	2053/54	2054/55	2055/56	2056/57	2057/58	2058/59											
Works for Improved Standards (\$'000) in 2009/10\$ after Government grant	0	0	830	233	200	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								
NPV of works for Improved Standards at discount rate of 7% pa	1,068																																																											
Growth in (ET) - cut off at 7 years	80	80	80	80	80	80	80	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								
NPV of 7 years of growth (ET)	382																																																											
NPV ETs	4,573																																																											
NPV Standards per ET (\$)	234																																																											
The Reduction Amount is the greater of																																																												
(1)	NPV Renewals per ET + NPV Standards per ET	392																																																										
(2)	Capital Charge - [(N(N-F)) * (Capital Charge - NPV Renewals per ET - NPV Standards per ET - Net Debt per ET)]	392																																																										
Where:	Capital Charge =	3,143																																																										
	N - Present ETs =	4,271																																																										
	F - Capacity for future customers =	0																																																										
	Net debt per ET	0																																																										
Developer Charge Calculation																																																												
Reduction Amount is therefore		\$392 say	\$390																																																									
Developer Charge for 2009/10 in 2009/10\$																																																												
	Capital Charge	\$3,143																																																										
	less Reduction amount	\$390																																																										
	Developer Charge	\$2,753																																																										
Note: The value for inflation from the 2009/10 to 2009/10 of 2.50% is based on the projected inflation of 2.5% in the year to December 2010 (1.0250=1.025).																																																												

MOSS VALE WINGECARRIBEE REDUCTION AMOUNT & CALCULATION OF DEVELOPER CHARGES

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Table - Calculation of Developer Charges using the Direct NPV Method - Mvale Winge
Example 7 - Developer charges Guidelines

Base Data																																																							
Capital charge per ET (2009/10)	2,388																																																						
Year 1	2009/10	Enter Year 1 of Analysis - this is the financial year in which the DSP is expected to be implemented eg. 2000/01																																																					
Debt at end of 2008/09 (\$'000)	-	include borrowings and overdraft																																																					
Cash and investments at end of 2008/09 (\$'000)	-	include all cash and investments, including sinking fund etc.																																																					
Net debt (\$'000)	-																																																						
Discount rate for future works	7%																																																						
ETs at year end																																																							
Year No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50				
Year	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47	2047/48	2048/49	2049/50	2050/51	2051/52	2052/53	2053/54	2054/55	2055/56	2056/57	2057/58	2058/59				
ETs	2,267	2,354	2,441	2,528	2,616	2,703	2,790	2,877	2,964	3,052	3,139	3,226	3,313	3,400	3,487	3,575	3,662	3,749	3,836	3,923	4,011	4,098	4,185	4,272	4,359	4,447	4,534	4,621	4,708	4,795	4,882	4,970	5,057	5,144	5,231	5,318	5,405	5,493	5,580	5,667	5,754	5,841	5,929	6,016	6,103	6,190	6,277	6,365	6,452	6,539	6,626				
ET per Residential assessment	1																																																						
ET per non-residential assessment																																																							
Capacity for future customers (ET)																																																							
Capital works																																																							
Base year	2009/10	Enter Base Year - this is the financial year in whose dollars the Capital Cost of Renewals and Works for Improved Standards have been calculated																																																					
Year	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47	2047/48	2048/49	2049/50	2050/51	2051/52	2052/53	2053/54	2054/55	2055/56	2056/57	2057/58	2058/59					
Renewals (2009/10 \$'000)	20	20	21	22	22	23	24	25	26	27	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	43	44	45	47	48	49	51	52	54	56	57	59	61	63	64	66	68	70	72	75	77	79	82	84						
	2.50%	Enter (R)recorded or (P)rojected in space to left																																																					
Inflation from Base year to Year 1 (%)	2.50%																																																						
Capital Works for Improved Standards (2009/10 \$'000)	0	0	0	0	130	0	0																																																
Government Grant on Works for Improved standards (2009/10 \$'000)	0	0	0	0	0	0																																																	
Inflation from 2009/10 to 2009/10 (%)	2.50%																																																						
Last year of the program	2015/16	Enter the last year in which there is an expenditure on Improved Standards																																																					
NPV of renewal works																																																							
Year No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50				
Renewals (\$'000) in 2009/10	20	21	21	22	23	23	24	25	26	26	27	28	29	30	31	32	32	33	34	35	37	38	39	40	41	42	44	45	46	48	49	51	52	54	55	57	59	60	62	64	66	68	70	72	74	77	79	81	84	86					
NPV Renewals at discount rate of 7% pa	460																																																						
Total equivalent assessments (ET)	2,267	2,354	2,441	2,528	2,616	2,703	2,790	2,877	2,964	3,052	3,139	3,226	3,313	3,400	3,487	3,575	3,662	3,749	3,836	3,923	4,011	4,098	4,185	4,272	4,359	4,447	4,534	4,621	4,708	4,795	4,882	4,970	5,057	5,144	5,231	5,318	5,405	5,493	5,580	5,667	5,754	5,841	5,929	6,016	6,103	6,190	6,277	6,365	6,452	6,539	6,626				
Growth (ET)	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87				
NPV of 50 years of growth (ET)	1,200																																																						
NPV ETs	3,467																																																						
NPV Renewals per ET (\$)	133																																																						
NPV of Works for Improved Standards to existing population																																																							
Year No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50					
Works for Improved Standards (\$'000) in 2009/10 after Government grant	0	0	0	0	133	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						
NPV of works for Improved Standards at discount rate of 7% pa	101																																																						
Growth in (ET) - cut off at 7 years	87	87	87	87	87	87	87	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					
NPV of 7 years of growth (ET)	416																																																						
NPV ETs	2,682																																																						
NPV Standards per ET (\$)	38																																																						
The Reduction Amount is the greater of																																																							
(1)	NPV Renewals per ET + NPV Standards per ET	170																																																					
(2)	Capital Charge - [(N(N-F)) * (Capital Charge - NPV Renewals per ET - NPV Standards per ET - Net Debt per ET)]	170																																																					
Where:	Capital Charge =	2,388																																																					
	N - Present ETs =	2,354																																																					
	F - Capacity for future customers =	0																																																					
	Net debt per ET =	0																																																					
Developer Charge Calculation																																																							
Reduction Amount is therefore		\$170 say \$170																																																					
Developer Charge for 2009/10 in 2009/10																																																							
	Capital Charge	\$2,388																																																					
	less Reduction amount	\$170																																																					
	Developer Charge	\$2,218																																																					
Note: The value for inflation from the 2009/10 to 2009/10 of 2.50% is based on the projected inflation of 2.5% in the year to December 2010 (1.0250=1.025).																																																							

MOSS VALE ENTERPRISE CORRIDOR REDUCTION AMOUNT & CALCULATION OF DEVELOPER CHARGES

ENTER INTO YELLOW CELLS ONLY

Table - Calculation of Developer Charges using the Direct NPV Method - MVEZ
Example 7 - Developer charges Guidelines

Base Data		Enter Year 1 of Analysis - this is the financial year in which the DSP is expected to be implemented eg. 2009/10																																		
Capital charge per ET (2009/10\$)	1,143																																			
Year 1	2009/10																																			
Debt at end of 2008/09 (\$'000)	-																																			
Cash and investments at end of 2008/09 (\$'000)	-																																			
Net debt (\$'000)	-																																			
Discount rate for future works	7%																																			
ETs at year end																																				
Year No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Year	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44
ETs	4,148	4,456	4,763	5,070	5,378	5,685	5,992	6,299	6,607	6,914	7,221	7,529	7,836	8,143	8,450	8,758	9,065	9,372	9,680	9,987	10,294	10,602	10,909	11,216	11,523	11,831	12,138	12,445	12,753	13,060	13,367	13,674	13,982	14,289	14,596	14,904
ET per Residential assessment	1																																			
ET per non-residential assessment	1																																			
Capacity for future customers (ET)																																				
Capital works		Enter Base Year - this is the financial year in whose dollars the Capital Cost of Renewals and Works for Improved Standards have been calculated																																		
Base year	2009/10																																			
Renewals (2009/10\$'000)	37	38	46	41	42	43	45	46	47	49	50	52	53	55	57	58	60	62	64	66	67	70	72	74	76	78	81	83	86	88	91	93	96	99	102	105
Inflation from Base year to Year 1 (%)	2.50%	Enter (R)recorded or (P)projected in space to left																																		
Capital Works for Improved Standards (2009/10\$'000)	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
Government Grant on Works for Improved Standards (2009/10\$'000)	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
Inflation from 2008/10 to 2009/10 (%)	2.50%																																			
Last year of the program	2015/16	Enter the last year in which there is an expenditure on Improved Standards																																		
NPV of renewal works																																				
Year No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Year	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	
Renewals (\$'000) in 2009/10\$	37	38	41	42	43	44	46	47	49	50	51	53	55	56	58	60	61	63	65	67	69	71	73	76	78	80	83	85	88	90	93	96	99	102	105	
NPV Renewals at discount rate of 7% pa	372																																			
Total equivalent assessments (ET)	4,148	4,456	4,763	5,070	5,378	5,685	5,992	6,299	6,607	6,914	7,221	7,529	7,836	8,143	8,450	8,758	9,065	9,372	9,680	9,987	10,294	10,602	10,909	11,216	11,523	11,831	12,138	12,445	12,753	13,060	13,367	13,674	13,982	14,289	14,596	14,904
Growth (ET)	307																																			
NPV of 50 years of growth (ET)	4,230																																			
NPV ETs	8,379																																			
NPV Renewals per ET (\$)	104																																			
NPV of Works for Improved Standards to existing population																																				
Year No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	
Year	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	
Works for Improved Standards (\$'000) in 2009/10\$ after Government grant	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
NPV of works for Improved Standards at discount rate of 7% pa	0																																			
Growth in (ET) - cut off at 7 years	307	307	307	307	307	307	307	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
NPV of 7 years of growth (ET)	1,465																																			
NPV ETs	5,813																																			
NPV Standards per ET (\$)	0																																			
The Reduction Amount is the greater of																																				
(1)	NPV Renewals per ET + NPV Standards per ET	104																																		
(2)	Capital Charge - (N/(N-F)) * (Capital Charge - NPV Renewals per ET - NPV Standards per ET - Net Debt per ET)	104																																		
Where:																																				
	Capital Charge =	1,143																																		
	N - Present ETs =	4,456																																		
	F - Capacity for future customers =	0																																		
	Net debt per ET	0																																		
Developer Charge Calculation																																				
Reduction Amount is therefore		\$104 say																																		
Developer Charge for 2009/10 in 2009/10\$																																				
	Capital Charge	\$1,143																																		
	less Reduction amount	(\$100)																																		
Developer Charge		\$1,043																																		
Note: The value for inflation from the 2009/10 to 2009/10 of 2.50% is based on the projected inflation of 2.5% in the year to December 2010 (1.0250=1.025).																																				

ROBERTSON REDUCTION AMOUNT & CALCULATION OF DEVELOPER CHARGES

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Table - Calculation of Developer Charges using the Direct NPV Method - Robertson
Example 7 - Developer charges Guidelines

Base Data		Year																																																				
Capital charge per ET (2009/10\$)	1,669	Enter Year 1 of Analysis - this is the financial year in which the DSP is expected to be implemented eg. 2000/01																																																				
Year 1	2009/10																																																					
Debt at end of 2008/09 (\$'000)	-	include borrowings and overdraft																																																				
Cash and investments at end of 2008/09 (\$'000)	-	include all cash and investments, including sinking fund etc.																																																				
Net debt (\$'000)	-																																																					
Discount rate for future works	7%																																																					
ETs at year end		Year																																																				
Year No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50			
ETs	816	822	829	835	841	847	853	859	865	872	878	884	890	896	902	909	915	921	927	933	939	946	952	958	964	970	976	982	989	995	1,001	1,007	1,013	1,019	1,026	1,032	1,038	1,044	1,050	1,056	1,062	1,069	1,075	1,081	1,087	1,093	1,099	1,106	1,112	1,118	1,124			
ET per Residential assessment	1																																																					
ET per non-residential assessment																																																						
Capacity for future customers (ET)																																																						
Capital works		Year																																																				
Base year	2009/10	Enter Base Year - this is the financial year in whose dollars the Capital Cost of Renewals and Works for Improved Standards have been calculated																																																				
Year	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47	2047/48	2048/49	2049/50	2050/51	2051/52	2052/53	2053/54	2054/55	2055/56	2056/57	2057/58	2058/59				
Renewals (2009/10\$'000)	7	7	7	8	8	8	8	8	9	9	9	10	10	10	10	11	11	11	12	12	12	13	13	13	14	14	14	15	15	16	16	17	17	18	18	19	19	20	21	21	22	22	23	24	25	25	26	27	28	28	29	30		
	2.50%	P	Enter (R) recorded or (P) projected in space to left																																																			
Inflation from Base year to Year 1 (%)	2.50%																																																					
Capital Works for Improved Standards (2009/10\$'000)	0	0	0	45	60	0	0																																															
Government Grant on Works for Improved standards (2009/10\$'000)	0	0	0	0	0	0																																																
Inflation from 2009/10 to 2009/10 (%)	2.50%																																																					
Last year of the program	2015/16	Enter the last year in which there is an expenditure on Improved Standards																																																				
NPV of renewal works		Year																																																				
Year No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50			
Renewals (\$'000) in 2009/10\$	7	7	7	8	8	8	8	9	9	9	10	10	10	10	11	11	11	12	12	12	13	13	13	14	14	14	15	15	16	16	17	17	18	18	19	19	20	21	22	22	23	24	25	26	27	28	29	30						
NPV Renewals at discount rate of 7% pa	160																																																					
Total equivalent assessments (ET)	816	822	829	835	841	847	853	859	865	872	878	884	890	896	902	909	915	921	927	933	939	946	952	958	964	970	976	982	989	995	1,001	1,007	1,013	1,019	1,026	1,032	1,038	1,044	1,050	1,056	1,062	1,069	1,075	1,081	1,087	1,093	1,099	1,106	1,112	1,118	1,124			
Growth (ET)	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6						
NPV of 50 years of growth (ET)	85																																																					
NPV ETs	901																																																					
NPV Renewals per ET (\$)	177																																																					
NPV of Works for Improved Standards to existing population		Year																																																				
Year No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50				
Works for Improved Standards (\$'000) in 2009/10\$ after Government grant	0	0	0	46	62	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						
NPV of works for Improved Standards at discount rate of 7% pa	85																																																					
Growth in (ET) - cut off at 7 years	6	6	6	6	6	6	6	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						
NPV of 7 years of growth (ET)	29																																																					
NPV ETs	846																																																					
NPV Standards per ET (\$)	101																																																					

The Reduction Amount is the greater of

(1) NPV Renewals per ET + NPV Standards per ET	278
(2) Capital Charge - [(N/(N-F)) * (Capital Charge - NPV Renewals per ET - NPV Standards per ET - Net Debt per ET)]	278

Where:

Capital Charge =	1,669
N - Present ETs =	822
F - Capacity for future customers =	0
Net debt per ET	0

Developer Charge Calculation

Reduction Amount is therefore	\$278 say	\$280
Developer Charge for 2009/10 in 2009/10\$		
Capital Charge	\$1,669	
less Reduction amount	\$280	
Developer Charge	\$1,389	

Note: The value for inflation from the 2009/10 to 2009/10 of 2.50% is based on the projected inflation of 2.5% in the year to December 2010 (1.0250=1.025).